

Greek and Jewish ideas about reproduction in the Qur'an and hadith

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Introduction

The hadith contain many statements about fluids from both the man and woman, which were believed to form the human embryo. The Qur'an too says that the embryo is formed from emitted fluid, and in one verse perhaps indicates a mingling of male and female fluids. In this article I shall trace the origins of each of these ideas at least as far back as the Jewish Talmud and the ancient Greek physicians.

Muhammad, who had been a well-travelled merchant, had extensive interactions with Jews in Arabia, and almost certainly with Nestorian Christians, who had large communities in Najran in the south and Hira to the north of the Arabian Peninsula.^{1 2} Guillaume says of the Nestorians, “Such men were a familiar sight on all the caravan routes of Arabia”.³ The Nestorians were based in Syria, where they already possessed and studied the works of Galen, the hugely influential 2nd century Greek physician.⁴ This is not to say that the creators of the Qur’an and hadith directly copied from these works, but it will become clear that they were at least indirectly influenced by these widespread ideas.

A few definitions

The following 3 words are used in the Qur’an and hadith in connection with semen:

Nuṭfah نطفة

The word nuṭfah is used 12 times in the Qur’an, in each case saying much the same thing in the following verses, that man is created from a nuṭfah: 16:4, 18:37, 22:5, 23:13, 23:14, 35:11, 36:77, 40:67, 53:46, 75:37, 76:2, 80:19.

A nuṭfah is a small quantity of liquid. It was also used in reference to semen that was believed to form the embryo. Lane’s Lexicon of classical Arabic defines nuṭfah as:

Sperma of a man (S, Msb, K) and of a woman. (Msb)⁵

(Sperma is a Late Latin word meaning seed, semen).

The Lisan al Arab dictionary of classical Arabic gives these definitions (translated from the Arabic):

A little water; a little water remaining in a waterskin; a little water remaining in a bucket; pure water, a little or a lot⁶

A nice example of nuṭfah usage can be found in a pre-Islamic poem where it is used to mean “the small quantity of wine that remained in a wineskin”.⁷

Maa ماء

Water. Sometimes used for semen (male or female). Used in this way in verses 32:8 and 77:20, and 86:6.

Maniyy مني

Male or female semen. It is frequently used in hadith about ritual purity, especially narrations saying that Aisha used to clean semen off Muhammad’s clothes. It is used once in the Qur’an, verse 75:37.

Evidence of influence

The purpose of this section is to demonstrate the influence of ideas from other cultures on the Qur'an and hadith regarding reproduction. It will go without saying that these ideas are inaccurate compared with scientific knowledge of reproduction and embryology. All Qur'an quotes are from Yusuf Ali's translation.

A mingled drop

Verily We created Man from a drop of mingled sperm [nutfatin amshajin], in order to try him: So We gave him (the gifts), of Hearing and Sight.

Qur'an 76:2

Ibn Kathir's commentary on this verse gives a very useful definition of *nutfah* from Muhammad's companions.

(Verily, We have created man from Nutfah Amshaj,) meaning, mixed. The words Mashaj and Mashij mean something that is mixed together. Ibn 'Abbas said concerning Allah's statement,

(من نُطْفَةٍ أَمْشَاجٍ)

(from Nutfah Amshaj,) "This means the fluid of the man and the fluid of the woman when they meet and mix." Then man changes after this from stage to stage, condition to condition and color to color. 'Ikrimah, Mujahid, Al-Hasan and Ar-Rabi` bin Anas all made statements similar to this. They said, "Amshaj is the mixing of the man's fluid with the woman's fluid."

Ibn Kathir on 76:2⁸

In each case, the word translated "fluid" is *maa*⁹ (see above for definition), so there is no case for retro-fitting the sperm or ovum into it. Similar comments from Muhammad's companions appear in al-Tabari's Tafsir on 76:2. His companions apparently believed that the mingled *nutfah* was a mixture of male and female semen.

Now we shall see that this same idea was taught by Galen, the hugely influential 2nd Century Greek physician. Galen's main treatise about embryology was called "On Semen", and his works were studied by Muhammad's nearby contemporaries in Alexandria, Egypt and in Gundeshapur, southwestern Syria.¹⁰

Galen said that the embryo is initially formed out of the male semen mixed (*μίγνυται*) with what he called the female semen, which also forms an additional membrane entwined (*ἐπιπλεκονται*) with that of the male semen. He believed that blood from the woman is subsequently drawn in via the uterus and membrane, and this combined material literally goes on to form the fetus.¹¹ This will be explained a little more later. Unlike Galen (and before him, Hippocrates) with the two-semens theory, Aristotle, believed that there was only a male semen, which does not itself provide material for the embryo, but triggers its formation from menstrual blood.¹² The quoted comments

from Muhammad's companions are good evidence for Galenic influence in 7th century Arabia.

The Qur'anic verses that are most explicit in stating that the embryo is initially formed out of semen, as per Galen and Hippocrates, are verses 80:18-19.

*From what stuff [shay-in, which means "thing"] hath He created him?
From a sperm-drop [nutfatin]: He hath created him, and then mouldeth
him in due proportions;*

Qur'an 80:18-19

Just as Galen taught about the mixed semens, this nutfah is kept in the womb where it subsequently undergoes various stages of development.

*Then We placed him as (a drop of) sperm [nutfatan] in a place of rest,
firmly fixed;*

Qur'an 23:13

The Qur'an itself confirms that it is semen that is developed in the womb in an almost identical verse. Here *maa* (water), the euphemism for semen, is used instead of *nutfah*. In this instance it probably just means male semen (see the "Extract of despised fluid" section later).

*Have We not created you from a fluid (held) despicable [maq-in
maheenin]? The which We placed in a place of rest, firmly fixed, For a
period (of gestation), determined (according to need)?*

Qur'an 77:20-22

Semen stage lasts 40 days

Abu Tufail reported: I visited Abu Sariha Hudhaifa b. Usaid al-Ghifari who said: I listened with these two ears of mine Allahs Messenger (may peace be upon him) as saying: The semen [nutfata¹³] stays in the womb for forty nights, then the angel, gives it a shape. Zubair said: I think that he said: One who fashions that and decides whether he would be male or female...

Sahih Muslim Book 33, number 6395

Narrated 'Abdullah bin Mas'ud: Allah's Apostle the true and truly inspired, narrated to us, "The creation of everyone of you starts with the process of collecting the material for his body within forty days and forty nights in the womb of his mother. Then he becomes a clot of thick blood for a similar period (40 days) and then he becomes like a piece of flesh for a similar period...

Sahih Bukhari, Book 33, number 546

See also Qur'an 23:12-14 to see how the nutfah and subsequent stages fit together. Now let us compare with the Talmud:

For if she is not found pregnant she never was pregnant; and if she is found pregnant, the semen, until the fortieth day, is only a mere fluid.

Babylonian Talmud, Yebamoth 69b¹⁴

(Part b comes after each mishnah and is the Rabbinic commentary, called Gemara, on the mishnah in part a). Notice also that like in the Qur'an, the embryo is formed from semen.

Gender determined after 40 days

Hudhaifa b. Usaid reported directly from Allah's Messenger (may peace be upon him) that he said: When the drop of [nutfati¹⁵] (semen) remains in the womb for forty or fifty (days) or forty nights, the angel comes and says: My Lord, will he be good or evil? And both these things would be written. Then the angel says: My Lord, would he be male or female? And both these things are written. ...

Sahih Muslim, Book 33, number 6392

See also Sahih Muslim 33:6395 quoted above, for example. Once again, we see that this is an idea from the Talmud:

Within the first three days a man should pray that the seed should not putrefy; from the third to the fortieth day he should pray that the child should be a male;

Babylonian Talmud, Berakoth 60a¹⁶

It should, however, be noted that in the next hadith, number 6393, the angel who comes after 40 days first creates the child's flesh and bones and then gender is determined. In number 6397 (also appears in Sahih Bukhari), gender is determined once the fetus has become a "lump of flesh".

Resemblance of the child to its parents

...As for the resemblance of the child to its parents: If a man has sexual intercourse with his wife and gets discharge first, the child will resemble the father, and if the woman gets discharge first, the child will resemble her...

Sahih Bukhari, Book 55, number 546

A similar idea is found in the Talmud:

R. Isaac citing R. Ammi stated: If the woman emits her semen first she bears a male child; if the man emits his semen first she bears a female child;

Babylonian Talmud, Nidda 31a¹⁷

The same thing is reported in Berakoth 60a.¹⁸ Notice also a two-semens theory again. In most versions of this hadith the determining factor in resemblance is whose water (maa i.e. semen) preceded (sabaqa) the other person's water. In other versions it is whose water is on or upon ('ala) the other's, which is closer to various Greek theories in which resemblance or gender is caused by semens prevailing upon each other.^{19 20} In one case (Sahih Muslim, Book 3, number 614), it is gender rather than resemblance that is determined in this way and maniyy is used rather than maa.

"Not from all the sperm a fetus is created..."

Desperate for some kind of reference to sperm (rather than merely semen), which was not discovered until the 17th century, some Islamic apologists point to the following hadith:

Not from all the sperm a fetus is created and if God wills to create anything, nothing can debar him.

Sahih Muslim, Book of Marriage, Chapter on al-'Azl, #1483

The first thing to point out is that the word translated "sperm" in the apologists' translation is actually maa in the Arabic,²¹ which as mentioned above, means water/fluid and is a euphemism for semen. A somewhat similar idea is found in the Talmud:

It teaches that man is not fashioned from all the drop but only from its purest part.

Babylonian Talmud, Nidda 31a²²

The possible Talmudic influence is much less clear in this example as the hadith concerns the practise of al-‘azl, or coitus interruptus. In any case, it would have been well known that even a drop of semen could initiate pregnancy, so that this method of birth control was unreliable.

Al ‘azl and al ghila

While on the subject of ‘azl, and another practice, ghila, which is a man having intercourse with his wife while she is suckling, Muhammad openly admits to his knowledge of and interest in the reproductive practices of the Byzantines (“Romans”) and Sassanids (“Persians”):

*Sa'd b. Abu Waqqas (Allah be pleased with him) reported that a person came to Allah's Messenger (may peace be upon him) and said: I do 'azi [‘azil²³] with my wife. Thereupon Allah's Messenger (may peace be upon him) said: Why do you do that? The person said: I fear harm to her child or her children. Thereupon Allah's Messenger (way peace be upon him) said: If that were harmful it would harm the **Persians and Romans**.*

Sahih Muslim, Book 8, number 3394

*Judama daughter of Wahb, sister of Ukkasha (Allah be pleased with her). reported: I went to Allah's Messenger (may peace be upon him) along with some persons and he was saying: I intended to prohibit cohabitation with the suckling women, but I considered the **Greeks [“Romans” in the Arabic] and Persians**, and saw that they suckle their children and this thing (cohabitation) does not do any harm to them (to the suckling women). Then they asked him about 'azl, whereupon he said. That is the secret (way of) burying alive, and Ubaidullah has made this addition in the hadith transmitted by al-Muqri and that is: " When the one buried alive is asked."*

Sahih Muslim, Book 8, number 3392

Of the two centres of Galenic study mentioned above, Syria was under the Sassanid empire and Egypt was under both the Sassanids and Byzantines at different times during Muhammad’s career. Muhammad did not live in a bubble. These hadith suggest that Muhammad would have had access to and had interest in the practices and ideas regarding sexual matters and reproduction transmitted by these other cultures.

“From the man nutfah and from the woman nutfah”

Asked by a Jewish man how man is created, Muhammad answered:

O, Jew , it is created from both ; from a man nutfah and from a woman nutfah

Musnad Ahmad, volume 1, page 465

Some Islamic apologists get excited by this hadith in the Musnad Ahmad hadith collection, deluding themselves that it is a reference to the sperm and ovum. However, as shown by the ibn Kathir quote above, not only were these understood to be male and female fluids, but this is once again the Galenic two-semens theory. And it's about to get much worse. What the Islamic apologists are unaware of, or hide, are the next sentences in this hadith. From another translation of the same hadith:

He is created of both, the semen [nuṭfati] of the man and the semen [nuṭfati] of the woman. The man's semen [nuṭfatu] is thick and forms the bones and the tendons. The woman's semen [nuṭfatu] is fine and forms the flesh and blood²⁴

See the references section for a link to the Arabic²⁵. Not only can we see that the male nuṭfah is none other than semen (“thick”), but the process described is completely wrong from a scientific perspective. We can even trace the origins of these ideas to the Talmud:

*Our Rabbis taught: There are three partners in 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 brain 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;*

Babylonian Talmud, Nidda 31a²⁶

It's worth pointing out that this hadith and the Talmud also have striking similarities with what Galen taught in his work, “On Semen”, Galen says:

But (the fetus) has first of all the vegetative power, which creates not from blood but from the semen itself artery and vein and nerve, bone and membrane

On Semen, p.99²⁷

Based on pp.91-93 and p.101, he seems to mean here the thicker male semen, which he says provides some of the material for the fetus as well as “power” or “motion” to the material. He says that the female's semen provides nutriment to the male semen, and also has a weaker “power”, supplimented by that of her blood, to cause any resemblance of the child to the mother.²⁸ On p.87 Galen says about the female semen "for it is thinner than the male semen",²⁹ matching the hadith.

Galen says a few pages later:

For all the parts that are fleshy [σαρκώδη] in form were generated from blood [αἷματος]; but all that were membranous were drawn out from semen.

On Semen, p.103³⁰

Here, blood refers to the mother's blood, some fine and some thick, which Galen believed is drawn via the uterus and membrane into the combined male and female

semens after they have mixed in her womb.³¹ That Galen and the Talmud say the fleshy parts are formed from the woman's blood rather than her semen barely detracts from the other striking similarities with the hadith.

Another reason that apologists should best avoid this hadith is that modern Islamic scholars classify it as having weak authenticity. Sahih Muslim, Book 3, number 614 is a similar hadith, which instead of mentioning nutfah and saying what is formed from each semen, gives the resemblance theory mentioned above after saying that the man's water (maa) is white and the woman's water (maa) is yellow. Sahih Muslim, Book 3, number 608 is a version of the hadith we look at next, but adds that the man's water is thick and white and the woman's water is thin and yellow.

"Then why does a child resemble (its mother)?"

Narrated Abu Salama: Um Salama said, "Um Salaim said, 'O Allah's Apostle! Allah does not refrain from saying the truth! Is it obligatory for a woman to take a bath after she gets nocturnal discharge [ahtalam - have wet-dream]?' He said, 'Yes, if she notices the water [maa] (i.e. discharge).' Um Salama smiled and said, 'Does a woman get discharge [ahtalam]?' Allah's Apostle said. 'Then why does a child resemble (its mother)?"

Sahih Bukhari, Book 55, number 545

This, again, is Galen's idea about "female semen". Even Muhammad's reasoning in the hadith is clearly the same as Galen's, whose main thesis in the 2nd part of *On Semen* is that a generative female semen exists and causes resemblance to the mother. Like Muhammad in this hadith, Galen explicitly uses fluid emitted during nocturnal orgasm as evidence for the existence of a female semen that causes resemblance:

Indeed it would have been much better to trust the visible evidence that the semen of females exists and to inquire by reasoning what its power is. The visible evidence has been given before and will be given again. Spermatic ducts, full of semen, secrete this semen apart from the union of female with male, females experiencing effusions in sleep as males do

On Semen, p.153³²

On the same page, Galen goes on to criticise other physicians who say that the female spermatic ducts just "discharge the semen on the outside down below the uterus" (a possible reference to "female ejaculation" from the paraurethral glands), and argues that the female semen is also discharged into the uterus. It is clear also from other pages that he believes this occurs at a particular moment, namely orgasm, and when it occurs during sleep the semen is subsequently voided externally.³³

As the hadith is talking about a fluid that a woman can see, it has nothing to do with oviductal secretions or the jelly-like coating of the ovum produced by the ovarian follicle during her monthly ovulation (in any case it is the ovum that is the source of the female genetic contribution, not this coating). Furthermore, the hadith is saying

that resemblance is caused by a semen released during the female orgasm. Orgasm has nothing to do with the genetic contribution of the woman to the embryo. There are many narrations of this hadith in which the imagined female semen is released during orgasm, as Hippocrates and Galen believed.³⁴

Other apologetic claims

Some Islamic apologists have resorted to desperate arguments to find a reference to sperm (not just semen) or the female ovum in the Qur'an. They are debunked below. Qur'an translations are Pickthall's.

Single entity that is part of a bigger group of its kind

In his typical combination of desperation, incompetence, and stupidity, Islamic apologist, Osama Abdallah, makes the following claim about the word *nutfah* in an attempt to make it sound like a single sperm:

نطفة (nutfah) is a single entity that is part of a bigger group of its kind:

*Nutaf are the karats, and a single one is a nutfah.*³⁵ *النفط (al-nutaf): هي القرطة والواحدة من كل ذلك نطفة*

The first line is Abdallah's own absurd generalization based on the second line, which is his attempted translation of a definition in the *Lisan al-Arab* dictionary of classical Arabic.³⁶

Not only has Abdallah truncated and mistranslated this sentence, but it is of the definition for the wrong word (*naṭaf* – pearls or earrings), which has the same n-t-f root as *nutfah*.

Abdallah's claim has been copied by other Islamic websites, and recently another well-known apologist was foiled in an attempt to evolve the claim further by suggesting that *Lisan al-Arab* directly defines *nutfah* as a "singular entity which is a part of a bigger group of its kind". *Lisan al-Arab*'s actual definition of *nutfah* is a little amount of water (see beginning of this article). Note that a sperm is a discrete object from among many of the same discrete objects, unlike a drop of water, which is an amount of something from a larger amount.

Sperm from semen emitted

Was he not a drop of fluid which gushed forth? [nutfatan min manayyin yumna]?

Qur'an 75:37

Some apologists claim that this verse shows that *nutfah* does not refer to the same substance as *maniy*, translating the above words not in the usual way as "drop

[nutfatan] of [min] semen [maniyyin]”, but instead as “sperm-drop from semen”. They also claim that if nutfah referred to semen, that word would have been used instead of maniyy in the many hadith about semen and ritual purity.

However, as demonstrated above, nutfah meant a small quantity of liquid, in this context in reference to semen that forms the embryo, whereas maniyy is simply semen. Whenever the Qur’an mentions nutfah, which indicates the small quantity of liquid, it is emphasising the humble beginnings of man. In the hadiths that use maniyy, it is a different context where the quantity is irrelevant. In addition, verse 53:46 has virtually the same phrase with the same verb as 75:37, but this time just mentions nutfah, without maniyy.

From a drop (of seed) [nutfatin] when it is poured forth [tumna];

Qur’an 53:46

Tumna in 53:46 and yumna in 75:37 is the same verb meaning "to emit", and from the same root as maniyy. The same verb is understandably used if it is talking about the emission of the same thing, semen, but without explicitly stating the type of liquid in 53:46. In any case, the evidence is unanimous that nutfah is always used for a liquid.

Extract of despised fluid

Who made all things good which He created, and He began the creation of man from clay; Then He made his seed from a draught of despised fluid;

Qur’an 32:7-8

The word translated “seed” in Pickthall’s translation is nasl, which means progeny (i.e. descendants)³⁷. It is a reasonable assumption that ma-in maheenin (fluid despised) means male semen here (see 86:6-7, which too uses maa).

Some apologists like to read sulalatin³⁸ (“extract”) as a reference to sperm. There are a couple of problems with this. First, it ignores the role of the female ovum (this is a problem with pretty much any interpretation of the verse). Secondly, we can compare 32:8 with 77:20, which has the exact same last 3 words, and without the word extract.

Did We not create you from a base fluid [min ma-in maheenin]

Qur’an 77:20

This suggests that the extract is or is of the same substance as the disdained water. As we saw above, the next two verses, 77:21-22, indicate that this fluid is gestated in the womb. There are various possible meanings for 32:8, but even if it is interpreted as saying that only a special part of semen forms the embryo, that belief would have been common among the Jews with whom Muhammad was acquainted, as we saw from the Talmud quoted earlier:

It teaches that man is not fashioned from all the drop but only from its purest part.

Babylonian Talmud, Nidda 31a³⁹

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- ¹⁴ http://halakhah.com/yebamoth/yebamoth_69.html#PARTb
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- ¹⁹ Iain M. Lonie, "The Hippocratic Treatises 'On generation', 'On the nature of the child', 'Diseases IV'", pp.125-126, Berlin; New York: de Gruyter, 1981
- ²⁰ See Galen's description of Strato's theory of sex determination in "On Semen", p.183, and De Lacy's notes on p.242. Galen postulates a semen prevalence theory of resemblance on p.179 & 181.

²¹ For the Arabic see #1438: <http://hadith.al-islam.com/Page.aspx?pageid=192&TOCID=635&BookID=25&PID=2677>

²² http://halakhah.com/niddah/niddah_31.html

²³ For the Arabic see #1443: <http://hadith.al-islam.com/Page.aspx?pageid=192&TOCID=657&BookID=25&PID=2686>

²⁴ Translation by Basim Musallam, "Sex and Society in Islam", p.52, Cambridge: Cambridge University Press, 1983, cited in Timothy Winter, "*Pulchra ut luna: some Reflections on the Marian Theme in Muslim-Catholic Dialogue.*" Journal of Ecumenical Studies 36/3 (1999): 439-469
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²⁶ http://halakhah.com/niddah/niddah_31.html

²⁷ Philip De Lacy, "Galen: On Semen", op. cit. p.99

²⁸ Ibid. pp.165-167

²⁹ Ibid. p.87

³⁰ Ibid. p.103

³¹ Ibid. pp.87-91

³² Ibid. p.153

³³ On p.151 he says that the female semen "in effusions in sleep first descends into the uterus, and after that is voided to the outside" and describes the case of a widow who "convulsed, and at these tensions the semen was discharged, and she said the pleasure it gave her was like that of sexual intercourse". On p.87 he says, "When, therefore, the female produces semen at the same time as the male, the semen discharged through each of the two horns and carried to the middle of the hollow of the uterus coats the passages and at the same time reaches the male semen."

³⁴ Jean Claude Guillebaud, "The Tyranny of Pleasure", p.171, New York: Algora Publishing, 1999

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³⁷ Lane's Lexicon Vol. 8 p.3032
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