

Chapter ٧

Man's Creation

٧/١ Genetics

The characteristics of a cell are determined by the chromosomes it carries. Chromosomes consist of protein and four types of amino acids: adenine, thymine, guanine, and cytosine, spatially arranged in the form of two interwoven spiral strands. The chromosomes carry the codes that control the cell's activity, division, and the like, according to the spatial distribution of the amino acids along the two strands in the cell. It is known that an embryo consists of the union of one male cell (sperm) and one female cell (ovum). Hence, the hereditary characteristics are determined by the chromosomes of the father and those of the mother, fifty percent from each. This takes place in the first stage of pregnancy, in which a sperm and an ovum fuse with each other to form a zygote, and accordingly the genes of a new being are formed. Semen consists of a mixture of many constituents, i.e. sperms from the testes, secretions from the seminal vesicles, prostatic fluid, and also the secretions from the Cowper's and Littri glands.

This is in accordance with the following Qur'anic verse:

(إِنَّا خَلَقْنَا الْإِنْسَانَ مِنْ نُطْفَةٍ أَمْشَاجٍ نَبْتَلِيهِ فَجَعَلْنَاهُ سَمِيعًا بَصِيرًا)

Meaning: Verily, We have created man from *Nutfah* drops of mixed semen (discharge of man and woman), in order to try him, so We made him hearer, seer. (Surah Al-Insan – Verse No. ٢)

It is narrated that a Jew passed by the Prophet Muhammad (peace be upon him) while he was conversing with his Companions. The people of the Quraysh said to him: “You a Jew! This man claims he is a prophet.” The Jew replied: “I will ask him about something which no one but a prophet knows.” Then, he said to the Prophet Muhammad (peace be upon him): “O, Muhammad! From what is man created?” The Prophet



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Muhammad (peace be upon him) replied: "O, Jew! He is created from both the gamete of a woman and that of a man." (Reported by Ahmad)

There are some hereditary characteristics that do not appear in the first generation, but only after two or three generations, and they are called recessive characteristics. Allah guided His Prophet Muhammad (peace be upon him) to know about such a thing:

Abu Hurayrah (may Allah be pleased with him) narrated:

A Bedouin came to Allah's Messenger and said, "My wife has delivered a black child." The Prophet said to him, "Have you camels?" He replied, "Yes." The Prophet said, "What color are they?" He replied, "They are red." The Prophet further asked, "Are any of them gray in color?" He replied, "Yes." The Prophet asked him, "Whence did that grayness come?" He said, "I think it descended from the camel's ancestors." Then the Prophet said (to him), "Therefore, this child of yours has most probably inherited the color from his ancestors." (Reported by Al-Bukhari and Imam Muslim)

۷/۲ Semen

The Holy Qur'an refers to the source of semen in man's body in a way that was not understandable to ancient people. Modern medicine has presented full explanation of the Qur'anic reference:

(فَلْيَنْظُرِ الْإِنْسَانُ مِمَّ خُلِقَ * خُلِقَ مِنْ مَّاءٍ دَافِقٍ * يَخْرُجُ مِنْ بَيْنِ الصُّلْبِ وَالتَّرَائِبِ)

Meaning: So let man see from what he is created! He is created from a water gushing forth. Proceeding from between the back-bone and the ribs. (Surah At-Tariq – Verses Nos. ۵ - ۷)

This is clarified by the fact that the two testes (and so too the two female ovaries) of an embryo originate in between the cartilaginous cells that form the spinal column, i.e. 'the back-bone', and the bones forming the chest, i.e. 'the ribs' (see ۷/۴: Embryo development). This takes place before the testes descend into the scrotum in the seventh month. The testes take fluid and nutrients from an artery coming from the aorta, parallel to the renal artery. The testes' activity is controlled by the tenth

thoracic nerve originating from the spinal cord, between the tenth and the eleventh ribs. The ancient Muslim scholars interpreted the part of verse 'back-bone and the ribs' to be the back-bone of a man and the ribs of a woman. If this were correct, the Qur'anic verse would read as follows, i.e. 'from the back-bone and the ribs', and not 'from between the back-bone and the ribs.'

٧/٣ The Sex of the Embryo

Seminal fluid has tens of millions of sperms, which are cells having twenty-four pairs of identical chromosomes, except one. The twenty fourth pair acts as the sex chromosome pair. Each one of the pair can either be a female chromosome, X, or a male Y. The female ovum is a single cell, with twenty-three chromosomes, beside the sex chromosome which is always female X. When a female and a male have sexual intercourse, millions of sperms rush toward the ovum. The male sperms (i.e. the ones containing a Y chromosome) are quicker and more active than the female ones (i.e. the sperms containing an X chromosome). If a male sperm arrives first (and penetrates the ovum), the resultant embryo would be male, otherwise the female characteristics from the female sperms would match the female ones of the X chromosome (from the ovum), and accordingly the embryo would be female. Henceforth, modern genetics has verified that it is the sperm that initially determines the embryo's sex.

This is in accordance with the following Qur'anic verse that relates the embryo's sex to the semen:

(وَأَنَّهُ خَلَقَ الذَّكَرَ وَالْأُنثَىٰ * مِنْ نُطْفَةٍ إِذَا تُمْنَىٰ)

Meaning: And that He created the two pairs, the male and the female, From *nutfah* (a sperm drop) when it is ejaculated. (Surah An-Najm – Verses Nos. ٤٥ - ٤٦)

(أَلَمْ يَكُنْ نُطْفَةً مِنْ مَنِيٍّ يُمْنَىٰ * ثُمَّ كَانَ عِلقَةً فَخَلَقَ فِئسَوَىٰ * فَجَعَلَ مِنْهُ الذَّكَرَ وَالْأُنثَىٰ)

Meaning: Was he not *nutfah* (a sperm drop) ejaculated? Thereafter he was a `Alaqah (a clinging mass, a clot). So He created, then He molded, So He made him of two spouses, the male and the female. (Surah Al-Qiyamah – Verses Nos. ٣٧ - ٣٩)

As explained above, life begins with the fusion of an ovum and a sperm. Every month, a female releases a new ovum ready to be fertilized by the seminal fluid, which contains tens of millions (maybe up to three hundred and fifty million) sperms. From among these millions of sperms, only one succeeds in fertilizing the ovum. Here, comes the inimitability of the Holy Qur'an in choosing the word '*nutfah*'. Nutfah, in Arabic, means a drop or trace of water. This means that a very small amount of semen, and not all or most of it, fertilizes the ovum, as stated in the above-mentioned Qur'anic verses.

This is also affirmed by the Prophet Muhammad (peace be upon him) whom Allah, the Exalted and the Glorified, informed of such a thing:

“It is not from all the semen that an embryo is created. If Allah wants to create something, nothing can prevent Him.” (Reported by Muslim)

On the other hand, the connection between the embryo's sex and a particular sperm from amongst millions, confirms the impossibility of predicting an embryo's sex and controlling the zygote in a female's womb. Moreover, it has been verified that the embryo's sex cannot be determined until between six to seven weeks. This shows the limited ability of science, compared to the inimitability of the Omnipotence and Knowledge of Allah:

(اللَّهُ يَعْلَمُ مَا تَحْمِلُ كُلُّ أُنْثَىٰ وَمَا تَغِيصُ الْأَرْحَامُ وَمَا تَزِدَادُ وَكُلُّ شَيْءٍ عِنْدَهُ بِمِقْدَارٍ)

Meaning: Allah knows what every female bears, and by how much the wombs fall short (of their time or number) or exceed. Everything with Him is in (due) proportion. (Surah Ar-Ra'd – Verse No. ٨)

(وَنُقِرُّ فِي الْأَرْحَامِ مَا نَشَاءُ إِلَىٰ أَجَلٍ مُّسَمًّى)

Meaning: And We make to reside in the wombs whatever We decide till a stated term. (Surah Al-Hajj – Verse No. ٥)

(إِنَّ اللَّهَ عِنْدَهُ عِلْمُ السَّاعَةِ وَيُنزِلُ الْغَيْثَ وَيَعْلَمُ مَا فِي الْأَرْحَامِ وَمَا تَدْرِي نَفْسٌ مَّاذَا تَكْسِبُ غَدًا
وَمَا تَدْرِي نَفْسٌ بِأَيِّ أَرْضٍ تَمُوتُ إِنَّ اللَّهَ عَلِيمٌ خَبِيرٌ)

Meaning: Verily, Allah! With Him (Alone) is the knowledge of the Hour, He sends down the rain, and knows that which is in the wombs. No person knows what he will earn tomorrow, and no person knows in what land he will die. Verily, Allah is All-Knower, All-Aware (of things). (Surah Luqman – Verse No. ٣٤)

(وَاللَّهُ خَلَقَكُمْ مِنْ تُرَابٍ ثُمَّ مِنْ نُطْفَةٍ ثُمَّ جَعَلَكُمْ أَزْوَاجًا وَمَا تَحْمِلُ مِنْ أُنْثَىٰ وَلَا تَضَعُ إِلَّا بِعِلْمِهِ
وَمَا يُعَمَّرُ مِنْ مُعَمَّرٍ وَلَا يُنْقَصُ مِنْ عُمُرِهِ إِلَّا فِي كِتَابٍ إِنَّ ذَلِكَ عَلَى اللَّهِ يَسِيرٌ)

Meaning: And Allah created you from dust, thereafter from a sperm-drop; thereafter He made you pairs; and in no way can a female conceive or give birth except with His Knowledge; and in no way can anyone be given a long age, nor is anyone diminished in his age, except that it is in a Book. Surely that is easy for Allah. (Surah Fatir – Verse No. ١١)

(إِلَيْهِ يُرَدُّ عِلْمُ السَّاعَةِ وَمَا تَخْرُجُ مِنْ ثَمَرَاتٍ مِنْ أَكْمَامِهَا وَمَا تَحْمِلُ مِنْ أُنْثَىٰ وَلَا تَضَعُ إِلَّا بِعِلْمِهِ
وَيَوْمَ يُنَادِيهِمْ أَيْنَ شُرَكَائِي قَالُوا ءَاذَنَّاكَ مَا مِنَّا مِنْ شَهِيدٍ)

Meaning: (The learned men) refer to Him (Alone) the knowledge of the Hour. No fruit comes out of its sheath, nor does a female conceive (within her womb), nor brings forth (young), except by His Knowledge. And on the Day when He will call unto them (polytheists) (saying): "Where are My (so-called) partners (whom you did invent)?" They will say: "We inform You that none of us bears witness to it (that they are Your partners)!" (Surah Fussilat – Verse No. ٤٧)

٧/٤ Development of the Embryo

One of Allah's perfect and amazing signs mentioned in the Noble Qur'an is the precise anatomical description of the stages of the formation of an embryo, i.e. from a zygote implanted (clinging to) the

uterus, then becoming a little lump of flesh (some formed and some unformed), to bones, and finally into bones covered with flesh. It also refers to what keeps the embryo in a 'safe lodging' and it mentions the three membranes that enclose the embryo, i.e. the amnion, placental, and chorion. It was impossible for the ancient generations, who were not skilled in anatomy or microscopic examination of the minute beings for many centuries, to realize the significance of what Allah, the All-Wise and the All-Knowing, was informing them about.

In the middle of the menstrual cycle, the female ovary releases one mature ovum and pushes it into the fallopian tube, where the conditions are suitable for the ovum to be fertilized by a sperm. A unicellular sperm, penetrates the wall of the ovum. At this stage, the fertilized ovum (zygote) moves toward the uterine wall and implants itself in it in a leech-like form full of blood. This is in accordance with the first Qur'anic verses that were revealed:

(خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ)

Meaning: Has created man from a `Alaq (a clinging mass, clot). (Surah Al-'Alaq – Verse No. ٢)

The Arabic word `alaq, means any thing that clings and is caught up. Yet, the ancient interpreters of the Holy Qur'an did not realize that the word `alaq referred to a sperm that 'clings' to the wall of the ovum from which an embryo forms and which in turn also 'clings' to the uterine wall. These interpreters thought that the word `alaq was a metaphor for coagulated blood. (This might have been due to spontaneous abortions that they had seen.) The Qur'anic verse then states that `alaq is only a specific stage in the formation of a fetus:

(يَا أَيُّهَا النَّاسُ إِن كُنْتُمْ فِي رَيْبٍ مِّنَ الْبَعْثِ فَإِنَّا خَلَقْنَاكُمْ مِّن نُّرَابٍ ثُمَّ مِّن نُّطْفَةٍ ثُمَّ مِّن عَلَقَةٍ ثُمَّ مِّن مُّضْغَةٍ مُّخَلَّقَةٍ وَغَيْرِ مُخَلَّقَةٍ لِّنُبَيِّنَ لَكُمْ وَنُقِرُّ فِي الْأَرْحَامِ مَا نَشَاءُ إِلَىٰ أَجَلٍ مُّسَمًّى ثُمَّ نُخْرِجُكُمْ طِفْلًا ثُمَّ لِيَبْلُغُوا أَشُدَّكُمْ)

Meaning: O you mankind, in case you are suspicious as to the Rising again, then surely We created you from dust, thereafter from *nutfah* (a

sperm-drop), thereafter from *`alaqah* (a clinging mass, clot), thereafter from *mudghah* (a chewed up morsel) in shapely created form and other than shapely created (from) that We make (it) evident for you. And We make to reside in the wombs whatever We decide till a stated term, thereafter We bring you out as young children, thereafter that you may reach full age. (Surah Al-Hajj – Verse No. ٥)

(ثُمَّ جَعَلْنَاهُ نُطْفَةً فِي قَرَارٍ مَكِينٍ * ثُمَّ خَلَقْنَا النُّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعَلَقَةَ مُضْغَةً فَخَلَقْنَا الْمُضْغَةَ عِظَامًا فَكَسَوْنَا الْعِظَامَ لَحْمًا ثُمَّ أَنْشَأْنَاهُ خَلْقًا آخَرَ فَتَبَارَكَ اللَّهُ أَحْسَنُ الْخَالِقِينَ)

Meaning: Thereafter We made him (the offspring of Adam) as a *nutfah* (a sperm-drop), in an established residence. Thereafter We created the *nutfah* (sperm-drop) into a *`Alaqah* (a clinging mass, a clot), then We created the *`Alaqah* into a *nutfah* (chewed up morsel), then We created the *nutfah* (chewed up morsel) into bones, then We dressed the bones (in) flesh; thereafter We brought him into being as another creation. So Supremely Blessed be Allah, The Fairest of creators. (Surah Al-Mu'minun – Verses Nos. ١٣ - ١٤)

Immediately after fertilization, the cell (zygote) begins to grow through a continuous series of divisions. The growth, which cannot be seen by the naked eye during its first stages, continues until the embryo turns into the shape of a little lump of flesh that looks as if it has been masticated. It should be noted that the Arabic word *mudghah* means a masticated or chewed piece of flesh. The *mudghah* then gradually develops, according to a sophisticated and amazing system in which every cell has a definite function. Gradually, during this stage, the various parts of the body develop clear shapes. This can be an interpretation of the difference between the 'formed' and 'unformed' *mudghah*. There is another interpretation at the level of cells. There are two types of cells, the first type are involved in the formation of the body's internal and external organs, that is to say, they are 'formed' for a particular function. As regards the other type, they remain undistinguished from the beginning of man's formation and throughout his life (i.e. the stem cells). They continuously regenerate to meet the needs of man, i.e. in case of wounds or breaks, whereupon they turn into blood cells, muscles, and the like.



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The growth of an embryo has three pivots, the external cells that turn into the skin and nervous system, the intermediate cells into bones that begin as a cartilaginous substance around which the substance of bones deposits and finally they assume flesh, and the internal cells that turn into muscles, blood vessels, and intestines.

The final features of the embryo are determined at the end of the sixth month, when the structure of the different parts of the brain and of the nervous system becomes complete, as is the case with facial features such as the eyes, nose, and ears, as well as the limbs, hands, feet, and fingers. The sex of the embryo is also determined.

These are the stages of an embryo as detailed in the previous Qur'anic verses and epitomized in the following true verse:

(وَقَدْ خَلَقْنَاكُمْ أَطْوَارًا)

Meaning: While He has created you by stages. (Surah Nuh – Verse No. ١٤)

٧/٥ The Established Residence

The truthfulness of Allah, the All-Knowing, is verified in the following Qur'anic expression 'in an established residence' (English meaning of Surah Al-Mu'minun – Verse No. ١٣).

The early interpreters of the Holy Qur'an did not grasp the meaning of 'established residence the safe lodging'. With the progress of science, it has been clarified that this safe lodging is a masterpiece of design and wise creation. The womb is located inside the pelvis and it is fastened to the walls of the pelvis by muscles (which allow for the increasing growth of the fetus). It is also supported by the muscles of the pelvis and the perineum (the connective tissue from the cervix with the bladder on one side, and the rectum on the other) in addition to the three membranous sacs mentioned above. The amniotic fluid in which the fetus swims also ensures that it is not affected by the movement of the mother and it prevents the membranous sacs from adhering to the embryo during birth. Being a pocket of water, the amniotic fluid can widen the cervix in order for the birth to take place safely.

٧/٦ The Three 'Veils of Darkness'

The growth of the fetus continues in a safe place (the womb), for a known period (determined by gestation). All this time it is swimming in an aqueous fluid that has the sugars, proteins, and inorganic minerals necessary for the fetus. A strong membranous sac, the amnion, protects this fluid. The enclosed amniotic fluid takes its nourishment from the mother through a second layer, namely, the placental membranous sac (this initially was the wall of the fertilized ovum that adhered to the uterine lining and grew along with the embryo). The placental membranous sac selectively takes nutrients and oxygen from the uterine lining to the amniotic fluid and it excretes the secretions of the embryo, such as the urine and carbon dioxide. As for the third layer, it lines the internal uterine lining, and is called the chorion. This gets bigger and turns into a spongy membrane full of blood in order to carry out vital functions for the fetus. The settling of a fetus in the womb of a woman that moves, toils, and faces the different incidents of life throughout the nine months, is one of the inimitable acts of Allah's creation.

Allah, the Exalted and the Glorified, has spoken the truth in the following verse:

(يَخْلُقُكُمْ فِي بُطُونِ أُمَّهَاتِكُمْ خَلْقًا مِّنْ بَعْدِ خَلْقٍ فِي ظِلْمَاتٍ ثَلَاثٍ)

Meaning: He creates you in the wombs of your mothers, creation after creation in three veils of darkness. (Surah Az-Zumar – Verse No. ٦)

Scholars and Qur'anic interpreters differed concerning the meaning of these three veils of darkness. Some interpreters believed the three veils of darkness to be:

١. The ovary that stores the female ova.
٢. The fallopian tube in which fertilization takes place, by Allah's leave, and accordingly allows pregnancy to occur.
٣. The womb in which the embryo grows until the moment of birth.



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Other scholars thought that the three veils were the wall of the abdomen, the womb, and the placenta; but those suggested above are more related to the fetus and its development creation after creation till the moment of birth.

√/√ The Spirit

The spirit is an entity that distinguishes the living from the dead. No one disputes its existence. Yet, what is this spirit that causes the heart to pulsate spontaneously while it is still a little lump of flesh in the darkness of the womb? What is it about the spirit that makes the brain work, receive messages, and give orders to every cell in the body in a wonderfully interwoven system? It is the spirit in whose absence, with or without a clear reason, life ends. Allah challenges people to understand something about its power:

(وَيَسْأَلُونَكَ عَنِ الرُّوحِ قُلِ الرُّوحُ مِنْ أَمْرِ رَبِّي وَمَا أُوتِيتُمْ مِنَ الْعِلْمِ إِلَّا قَلِيلًا)

Meaning: And they ask you (O Muhammad SAWS) concerning the Ruh (the Spirit); Say: "The Ruh (the Spirit): it is one of the things, the knowledge of which is only with my Lord. And of knowledge, you (mankind) have been given only a little." (Surah Al-Isra' - Verse No. ٨٥)

For centuries, some people thought that they had encompassed the knowledge of everything. Yet, none of them had the least knowledge of the reality of the spirit, which only Allah only understands. This is an inimitable challenge held by Allah for our time and all time.

√/∧ The Skin

It is known that skin is the center for sensing the pain of stings or heat, and the like. Scientifically, the nerve endings in the skin transfer signals to the nerve centers of the brain. It has been recently discovered that man loses the sensation for pain when the nerves in the skin have been damaged due to burning or leprosy, for example. Allah warns the non-believers, the hypocrites, and the disobedient, who insist on rejecting His way, of an eternity in Hell where the torment will not be lightened for

them, and their sensation of pain will be renewed due to the continual regeneration of their skin:

(إِنَّ الَّذِينَ كَفَرُوا بِآيَاتِنَا سَوْفَ نُصَلِّيهِمْ نَارًا كَلَّمًا نَضِجَتْ جُلُودُهُمْ بَدَلْنَاهُمْ جُلُودًا غَيْرَهَا لِيَذُوقُوا الْعَذَابَ إِنَّ اللَّهَ كَانَ عَزِيزًا حَكِيمًا)

Meaning: Surely! Those who disbelieved in Our *Ayat* (proofs, evidences, signs, etc.) We shall burn them in Fire. As often as their skins are roasted through, We shall change them for other skins that they may taste the punishment. Truly, Allah is Ever Most Powerful, All-Wise. (Surah An-Nisa' - Verse No. ٥٦)

٧/٩ Fingerprints

That the lines distinguishing fingerprints differ from one person to another everywhere and for all time is a scientific fact that forensic medicine only discovered in the nineteenth century. Henceforth, criminology has depended upon fingerprints in dealing with crimes. The inimitability of the Holy Qur'an is clarified when Allah refers, in the context of debating with those who deny resurrection, to His ability to replicate in perfect order the fingertips that distinguish every person. Fingerprints, that seem to those who know nothing, to be too trivial to be mentioned in the Holy Qur'an are a proof of Allah's precise creation. Mentioning fingerprints, in particular, in the Holy Qur'an refers to the knowledge of Allah, the source of the Great Qur'an:

(أَيَحْسَبُ الْإِنْسَانُ أَنْ نَجْمَعَ عِظَامَهُ * بَلَى قَادِرِينَ عَلَى أَنْ نَسُوِيَ بَنَاتِهِ)

Meaning: Does man (a disbeliever) think that We shall not assemble his bones? Yes, We are Able to put together in perfect order the tips of his fingers. (Surah Al-Qiyamah – Verses Nos. ٣ - ٤)

٧/١٠ The human scent

Modern forensic medicine verified that every person has a characteristic scent that distinguishes him from others, just as his fingerprints do. This is why police dogs are used to track criminals based on their strong sense of smell. This is in accordance with what is mentioned in Surah Yusuf when Allah selected to give His prophet Jacob such a strong sense:

(وَلَمَّا فَصَلَتِ الْعِيرُ قَالَ أَبُوهُمْ إِنِّي لَأَجِدُ رِيحَ يُوسُفَ لَوْلَا أَنْ تُفَنِّدُون)

Meaning: And when the caravan departed, their father said: "I do indeed feel the smell of Yusuf (Joseph), if only you think me not a dotard (a person who has weakness of mind because of old age)." (Surah Yusuf – Verse No. ٩٤)

٧/١١ Immunity

Modern medicine clarified the wonderfully sophisticated role played by both natural and acquired immunity. Natural immunity is represented by the anti-bacterial secretions that resist bacteria in the skin and mucous membranes, anti-bacterial substances in the tissues and body fluids, and the killer T cells (such as some white blood cells and some types of bacteria in the body) that resist hostile bacteria. Acquired immunity is represented by the antibodies and lymphocytes.

In this context, the Qur'an says:

(إِنَّ كُلَّ نَفْسٍ لَمَّا عَلَيْهَا حَافِظٌ)

Meaning: Decidedly over every self there is assuredly a preserver. (Surah At-Tariq – Verse No. ٤)

In his famous interpretation of the Holy Qur'an that was produced in the eighth century of the Muslim calendar, the Muslim scholar, Ibn Khathir, interpreted the previous verse in this way, i.e. that every human being has a protector from Allah to protect him from diseases. A scholar such as him did not know the modern particulars experimentally detailed by microbiological studies. This is another example of the inimitability of the Holy Qur'an.

٧/١٢ Hearing

The Holy Qur'an recurrently mentions hearing before sight (in ١٥ verses). This has a deep medical significance, for this is in accordance

with the sequence of man's acquisition of senses after birth. The following is an example:

(وَاللَّهُ أَخْرَجَكُمْ مِنْ بُطُونِ أُمَّهَاتِكُمْ لَا تَعْلَمُونَ شَيْئًا وَجَعَلَ لَكُمُ السَّمْعَ وَالْأَبْصَارَ وَالْأَفْئِدَةَ لَعَلَّكُمْ تَشْكُرُونَ)

Meaning: And Allah has brought you out from the wombs of your mothers while you know nothing. And He gave you hearing, sight, and hearts that you might give thanks (to Allah). (Surah An-Nahl – Verse No. ٧٨)

Mentioning hearing before sight is also consistent with the following facts:

- ١- The continuity of the sense of hearing by day and night, and even during sleep
- ٢- The importance of hearing in relation to sight for learning, understanding, memorizing, and social interaction.

The same order (i.e. hearing before seeing) is implied by an authentic Hadith regarding the initiation of the formation of the organs of hearing, which is expressed with a very precise word 'burst'.

“My face prostrates itself to Him Who created and shaped it and caused its hearing and seeing to burst.” (Reported by Muslim)

It is known that the external auditory canal forms in the embryo, and closes after that until the seventh month when it bursts open, so that the sense of hearing can begin working. Also, the lens of the covered eye 'bursts' open paving the way for the emergence of the vascular Tunica Vasculosa Lentis which is penetrated by blood vessels that atrophy in the seventh month causing an opening to 'burst' in its middle, the iris. Then, the adhering lids 'burst' open.

٧/١٣ Sound Intensity

Allah has created the man's senses and put inescapable limits for them. Human beings can see things that reflect light and whose wavelength range is only between the red rays, (the longest visible ones) and the violet rays (the shortest visible ones), but they cannot see any of the longer rays (e.g. infrared rays) or the shorter rays (e.g. ultraviolet, X, and cosmic rays). This is also the case with the sense of hearing; it has limits. The ears do not hear sounds, except those whose frequencies belong to the range of audible sound waves. The ear of a human being cannot hear wireless waves or ultrasonic waves. The sensitivity of the ears is very limited regarding the intensity of sounds. They cannot hear the sounds whose intensity is less than 10^{-12} watts/m² (the lowest audible decibel scale) and they cannot endure sounds whose intensities exceed 200 decibels. If the intensity of sound exceeds this range, man would be shocked to death immediately. This is a true explanation of the following Qur'anic verse that is mentioned in the context of giving descriptions of the Day of Resurrection:

(وَنُفِخَ فِي الصُّورِ فَصَعِقَ مَنْ فِي السَّمَوَاتِ وَمَنْ فِي الْأَرْضِ إِلَّا مَنْ شَاءَ اللَّهُ ثُمَّ نُفِخَ فِيهِ أُخْرَىٰ فَإِذَا هُمْ قِيَامٌ يَنْظُرُونَ)

Meaning: And the Trumpet will be blown, and all who are in the heavens and all who are on the earth will swoon away, except him whom Allah will. Then it will be blown a second time and behold, they will be standing, looking on (waiting). (Surah Az-Zumar – Verse No. ٦٨)

After the first blow (of the trumpet) on the Day of Resurrection, all living people will be stunned due to the high intensity of the sound. As for the second blow, it will be for the resurrection and recreation of everything, just as man was first created from nothing by Allah's leave and ability. There are many Qur'anic verses mentioned in respect of the horrors of the Day of Resurrection.

The following are two examples:

(إِنْ كَانَتْ إِلَّا صَيْحَةً وَاحِدَةً فَإِذَا هُمْ خَامِدُونَ)

Meaning: It was but one *Sayhah* (shout, etc.) and lo! They (all) were silent (dead-destroyed). (Surah Yasin – Verse No. ٢٩)

(وَمَا يَنْظُرُ هَوَلاءِ إِلاَّ صَيْحَةً وَاحِدَةً مَّا لَهَا مِنْ فِوَأقِ)

Meaning: And in no way are these looking for anything except one Shout; in no way is there any recovery from it. (Surah Sad – Verse No. ١٥)

Also, stunning with sound of high intensity is mentioned in the context of the story of Thamud, the people of Salih (peace be upon him). Some examples are: Surah Hud – Verses Nos. ٦٧ and ٩٤, Surah Al-Hijr – Verses Nos. ٧٣ and ٨٣, Surah Al-Mu'minun – Verse No. ٤١, and Surah Al-Qamar – Verse No. ٣١.

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