

10. Human Biodiversification – Creation of Human Robots with Varied Potentials

Verse 4:1 states that it is from a single *nafs* (the *rooh* that was breathed into the clay model to create Adam) all the men and women are created.

يَا أَيُّهَا النَّاسُ اتَّقُوا رَبَّكُمُ الَّذِي خَلَقَكُمْ مِنْ نَفْسٍ وَاحِدَةٍ وَخَلَقَ مِنْهَا زَوْجَهَا وَبَثَّ مِنْهُمَا رِجَالًا كَثِيرًا وَنِسَاءً ۗ وَاتَّقُوا اللَّهَ الَّذِي تَسَاءَلُونَ بِهِ وَالْأَرْحَامَ ۗ إِنَّ اللَّهَ كَانَ عَلَيْكُمْ رَقِيبًا

4: 1 O mankind! Fear your Lord who created you from a single *nafs* and from that, He created its mate, and from them both He (created and) spread plenty of men and women. Be conscious of Allah about whom you ask each other and (be also conscious of) the family relations. Verily, Allah is watching you.

The verse reveals that the microbioprogram of *Homo sapiens* is Adam's *nafs*. In other words, the source of biological information to create biodiversity in human species is Adam's *nafs*.

At several places in the Quran, human individual is mentioned on the basis of biosoftware as *nafs* (pl. *anfus* or *nufuos*).

عَلِمَتْ نَفْسٌ مَا قَدَّمَتْ وَأَخَّرَتْ

82:5 (Then) each soul (*nafs*) will know what (deeds) it has advanced and (what deeds it has) put off.

عَلِمَتْ نَفْسٌ مَا أَحْضَرَتْ

81:14 (Then) each soul (*nafs*) will know what it has brought (i.e., good and evil).

وَجَاءَتْ كُلُّ نَفْسٍ مَعَهَا سَائِقٌ وَشَهِيدٌ

50:21 Every soul (*nafs*) will come with an escort and a witness.

الْيَوْمَ تُجْزَىٰ كُلُّ نَفْسٍ بِمَا كَسَبَتْ ۗ لَا ظُلْمَ الْيَوْمَ ۗ إِنَّ اللَّهَ سَرِيعُ الْحِسَابِ

40:17 That Day every soul (*nafs*) will be rewarded what it earned. There will be no injustice that Day. Indeed Allah is swift in taking account.

إِنَّا أَنْزَلْنَا عَلَيْكَ الْكِتَابَ بِالْحَقِّ ۖ فَمَنِ اهْتَدَىٰ فَلِنَفْسِهِ ۖ وَمَنْ ضَلَّ فَإِنَّمَا يَضِلُّ عَلَيْهَا ۖ وَمَا أَنْتَ عَلَيْهِمْ بِوَكِيلٍ

39:41 Verily We have sent down the Book (i.e., the Quran) to you (Prophet Muhammad) in truth for mankind. Then whoever attains guidance (from it) benefits his own soul (*nafs*) and whoever strays (from it) does so against it (i.e., his own soul). You are not given the responsibility over them.

Referring of an individual by *nafs* (biomemome or the biosoftware of the individual) as given in these verses is indeed the correct and accurate method. It is also the accurate expression of one's identity because the biomemome (*nafs*) of an individual remains unchanged throughout his life starting from zygote stage but his phenotype is dynamic. It changes with time as the execution of the biomemome proceeds until death. Therefore phenotype at any given instant does not describe or represent an individual for the whole period of life from the time of formation of zygote to death. Evidently, the identity of an individual can be best described by his *nafs* (biosoftware), which is static. The use of the term "*nafs*" in the Quran to mean a human individual is therefore the most appropriate expression. Allah alone knows the *nafs* of a human being. We have absolutely no knowledge of that.

Human beings are created by Allah with varying physical and mental potentials. This is expected because if human beings are identical in their characteristics and behaviour (i.e., clones with identical biosoftware) it is enough to test just one individual. But Allah's intention is to create a large number of diverse *nafs* to produce diverse human phenotypes with varying potentials. Allah is creating such large population of varying phenotypes from a single *nafs* – Adam's *nafs* – the microbioprogram of human species. The entire population of mankind originates from a single biosoftware. Therefore every human individual is Adam's offspring. At several places, the Quran reminds us of this fact by addressing mankind as children of Adam (see verse 7:27 quoted above). However there is one exception. Prophet Jesus Christ does not belong to Adam's lineage. He was created from a separate *rooh*.

وَمَرْيَمَ ابْنَتَ عِمْرَانَ الَّتِي أَحْصَنَتْ فَرْجَهَا فَنَفَخْنَا فِيهِ مِنْ رُوحِنَا وَصَدَّقَتْ بِكَلِمَاتِ رَبِّهَا وَكُنْتِ مِنَ الْفَائِتِينَ
66:12 And Mary the daughter of Imran, who guarded her genital organ; and We breathed into it (i.e., her genital organ) from Our *rooh*; and she testified to the truth of the Words of her Lord and of His Revelations, and was one of the devout (servants).

إِنَّ مَثَلَ عِيسَىٰ عِنْدَ اللَّهِ كَمَثَلِ آدَمَ طَخَلَفَهُ مِنْ تُرَابٍ ثُمَّ قَالَ لَهُ كُنْ فَيَكُونُ
3:59 Indeed the similitude of Jesus before Allah is that of Adam; He created him (Adam) from dust, then said to it, "Be" and he (Adam) came into being.

Therefore Prophet Jesus Christ is not a member of Adam's lineage. He was not created from Adam's *nafs*. He was created from a special *rooh*. His death is also a special phenomenon.

Although biology deals with human reproduction and multiplication, the issue of source of biological information required for bringing about the huge diversity observed in human biosystem in a highly regulated manner cannot be addressed in science. It is through Quran Allah reveals to us the source of biological information for human biodiversification.

In human beings, not only are the phenotypic attributes numerous, their variation is also much larger than in other species. For instance height in human beings varies from about three feet to over seven feet. The dynamic phenotype that develops from a biomemome is also unique. Every human individual can be identified by face. This is also the case with every other character. This specificity arising from one's *nafs* is taken advantage of for biometric identification of human individuals. Fingerprint, palm vein pattern, capillary blood vessel pattern in the eye (retina scan), etc., have already become accepted biometric signatures for identification of individuals. On the other hand, in other species intraspecific variability is limited. Take the case of an animal. If you look at a herd of sheep of the same age, they will all appear alike in their looks as well as in their behaviour.

Human species is so programmed by Allah that its members become distinct diversity groups such as ethnic, racial, cultural, linguistic, etc.

يَا أَيُّهَا النَّاسُ إِنَّا خَلَقْنَاكُمْ مِنْ ذَكَرٍ وَأُنْثَىٰ وَجَعَلْنَاكُمْ شُعُوبًا وَقَبَائِلَ لِتَعَارَفُوا ۗ إِنَّ أَكْرَمَكُمْ عِنْدَ اللَّهِ أَتْقَاكُمْ ۗ إِنَّ اللَّهَ عَلِيمٌ خَبِيرٌ
49:13 O mankind! We created you from a male and female, and made you into nations and tribes, that you may know each other. Verily the most honored of you in the sight of

Allah is the one who is most deeply conscious of Him. And Allah has full knowledge and is well acquainted (with all things).

وَمِنْ آيَاتِهِ خَلْقُ السَّمَاوَاتِ وَالْأَرْضِ وَاخْتِلَافُ أَلْسِنَتِكُمْ وَأَلْوَانِكُمْ إِنَّ فِي ذَلِكَ لَآيَاتٍ لِّلْعَالَمِينَ

30:22 And among His signs is the creation of the heavens and the earth, and the variations in your languages and your colors; verily in that are signs for those who have knowledge.

With wide-ranging characters, skills and talents, human biodiversity profile is unwieldy and overwhelming to say the least. No two individuals including the so-called ‘identical twins’ (monozygotic twins) are identical. Each human being is unique in each phenotypic attribute and is not repeated in time and space. This holds true for the past, present and future human populations. Such is the magnitude of variability existing in human race. And the source of biological information responsible for this scale of diversity is Adam’s *nafs* – the microbioprogram of human species. Another notable aspect of human biodiversification process is that it is an ongoing process. As a result we find more and more variations enhancing the physical and mental potentials emerge in time and space as specified in Adam’s *nafs*. This is reflected in the advancement of every field of human activity. It is not possible to say whether *Homo sapiens* has attained the maximum potentials physically and mentally; perhaps still more wonderful show of human potential in both physical and mental abilities is yet to come. What we observe now is the scale of human biodiversity created so far.

All the biological differences among individuals and variations among individuals and populations (e.g., cultural, linguistic, ethnic, etc.) occur in accordance with the human biodiversification software provided in Adam’s *nafs*. The mechanism of creating variations among individuals in a programmed manner can be understood scientifically from the various phenomena involved.

Allah informs us that following the creation of Adam and Eve as discussed above, further multiplication of human beings is effected through “water” (Q. 32:7-8; 25:54; 35:11).

الَّذِي أَحْسَنَ كُلَّ شَيْءٍ خَلَقَهُ وَبَدَأَ خَلْقَ الْإِنْسَانِ مِن طِينٍ ثُمَّ جَعَلَ نَسْلَهُ مِن سُلَالَةٍ مِّن مَّاءٍ مَّهِينٍ

32:7-8 He who made all His creations the best and He originated the creation of man from clay, then made his progeny from a quintessence of an insignificant water.

وَهُوَ الَّذِي خَلَقَ مِنَ الْمَاءِ بَشَرًا فَجَعَلَهُ نَسَبًا وَصِهْرًا ۗ وَكَانَ رَبُّكَ قَدِيرًا

25:54 It is He who created man from water; then He established family and marital relationships. And your Lord has power (over all things).

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

35:11 And Allah created you from dust; then from a sperm-drop; then He made you mates. And no female conceives or delivers without His knowledge. No man is granted extension of life nor is his lifespan shortened except in accordance with (what is given) in a Record. All that is easy for Allah.

إِنَّا خَلَقْنَا الْإِنْسَانَ مِنْ نُّطْفَةٍ أَمْشَاجٍ نَّبْتَلِيهِ فَجَعَلْنَاهُ سَمِيعًا بَصِيرًا

76:2 Verily We created man from a mixed drop in order to test him. So We gave him faculties of hearing and sight.

The “water” mentioned in the above verses refers to the semen containing sperms (Q. 25:54; 32:8) or a mixture of both male and female gametes (Q. 76:2). The verses are suggestive of the sexual reproduction involved in the multiplication process.

Allah further informs us of the love and affection He created between spouses and for children.

وَمِنْ آيَاتِهِ أَنْ خَلَقَ لَكُمْ مِنْ أَنْفُسِكُمْ أَزْوَاجًا لِتَسْكُنُوا إِلَيْهَا وَجَعَلَ بَيْنَكُمْ مَوَدَّةً وَرَحْمَةً إِنَّ فِي ذَلِكَ لَآيَاتٍ لِقَوْمٍ يَتَفَكَّرُونَ
30:21 And among His signs is the creation of your spouses from among yourselves so that you find solace with her. And He gave between you love and mercy. Verily in that are signs for those who think.

الْمَالُ وَالْبَنُونَ زِينَةُ الْحَيَاةِ الدُّنْيَا وَالْبَاقِيَاتُ الصَّالِحَاتُ خَيْرٌ عِنْدَ رَبِّكَ ثَوَابًا وَخَيْرٌ أَمَلًا
18:46 Wealth and children are adornment of the life of this world. But the good (deeds) that last are better for reward with your Lord and better to hope for.

From these messages, it can be deduced that desire and love for the opposite sex, pleasure in sex, desire and love for children, care of children by the parents, care of parents by the children, etc., are attributes prescribed for human beings to encourage them to reproduce. Without these pleasures, human attitude towards procreation will be rather negative since man is endowed with discretionary freedom. Equally important is man’s insatiable desire to live and live longer. These features of human biosystem must be seen as part of Allah’s strategy for creating huge population of human beings for testing.

Human beings inherit their physical and mental characteristics and abilities, develop language and culture, and exist as distinct races as stipulated in Adam’s *nafs*. Human biodiversification process can be understood as biomemetically programmed phenomenon to create diverse phenotypes, biomemetic lineages representing races, nations, tribes, etc. The phenomenon is natural demonstration of how varied phenotypes (human individuals) are produced from diverse biosoftware created from a single original source of biological information (Adam’s *nafs*) through natural biosoftware engineering mechanisms. Appropriate natural biosoftware engineering mechanisms play a major role in shuffling, redistributing and reorganizing the biomemetic package during meiosis to produce biomemetically varying gametes. During fertilization, male and female gametes unite to produce the biosoftware of the offspring (next generation). Transmission of bioinformation in this way to the offspring preserves the Adam-Eve lineage and its continuity over generations. It is these lineages that, in turn, represent diverse ethnic groups, races, cultures, etc. along the timeline prescribed in Adam’s *nafs* (Fig. 1).

During meiosis biomemetic changes occur through a process called ‘crossing over’ in which segments of non-sister chromatids of a homologous pair of homologous dyads are exchanged. This swapping of chromosome portions leads to alteration of bioinformation content in the resulting chromosomes. The ‘crossing over’, as any other bioprocess, is a programmed phenomenon. It is responsible for the production of the next generation biosoftware in human species. It is this process that leads to biodiversification in human populations in time and space in a programmed manner. Since scientists do not view this natural process as mechanism designed and programmed to accomplish the divine objective of creating biodiversity, they consider this and other similar process as random phenomena or errors and mistakes.

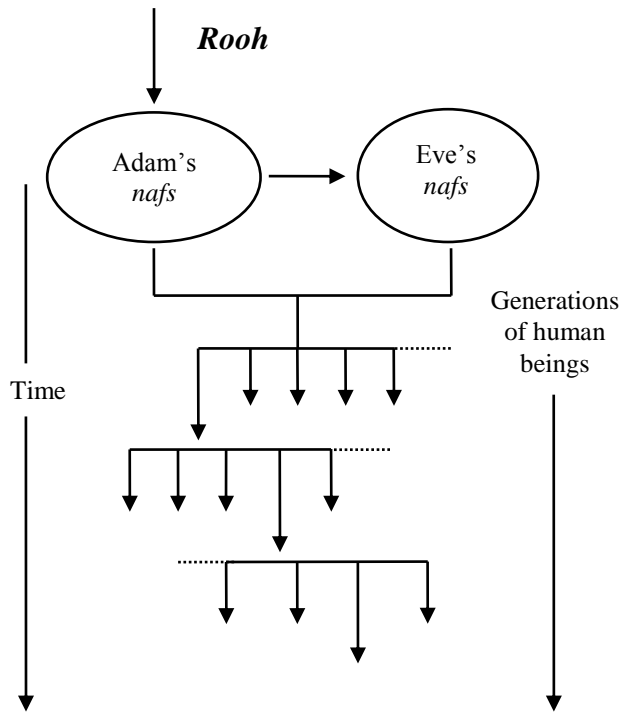


Fig. 1. Illustration of human biodiversification process as memetically programmed phenomenon originating from Adam's *nafs*

Note: Biomemetic changes occur in each generation through biosoftware engineering processes particularly via cross over during gametogenesis.

Mere production of gametes slated for the next generation is not enough. The male gametes (sperms) and female gametes (eggs) so produced must also meet their right partners and fuse to form the zygotes to produce the intended biomemomes and from them the human individuals via ontogenetic development (Fig. 2). To that end Allah informs us:

اللَّهُ يَعْلَمُ مَا تَحْمِلُ كُلُّ أُنْثَىٰ وَمَا تَغِيضُ الْأَرْحَامَ وَمَا تَزْدَادُ وَكُلُّ شَيْءٍ عِنْدَهُ بِمِقْدَارٍ

13:8 Allah knows what every female (womb) bears, by how much the wombs fall short (of their time or number) or do exceed. Every single thing is before His sight, in (due) proportion.

The verse quoted above indicates that fertilization taking place in human biosystem is as programmed by Allah and therefore He knows what every female conceives. Spermatozoa normally encounter the egg at the fertilization site (in the Fallopian tube) within 24 hours after ovulation. A considerable fraction of the spermatozoa in the semen ejaculated into the female reproductive tract remains motionless in storage sites until ovulation, when the spermatozoa resume maximal motility and reach the fertilization site within minutes. "Sperms have the opportunity to interact with many other kinds of cells in the female," says Jerry Hedrick, a biochemist in the Division of Biological Sciences, UC Davis. "How egg and sperm recognize one

another is a fundamental question in reproductive biology.” [1]. Although the nature of the signal for sperm movement is not known, there are indications to suggest that attraction of spermatozoa to a factor(s) released from the egg may be a key event in the fertilization process and may give insight into the mechanism underlying early egg-sperm communication [2]. This is indicative of some kind of chemical signaling for drawing the sperms towards the egg for fertilization. However, the exact mechanism involved in the fertilization process particularly the question of how only a single sperm is enabled to fertilize the ovum is not known.

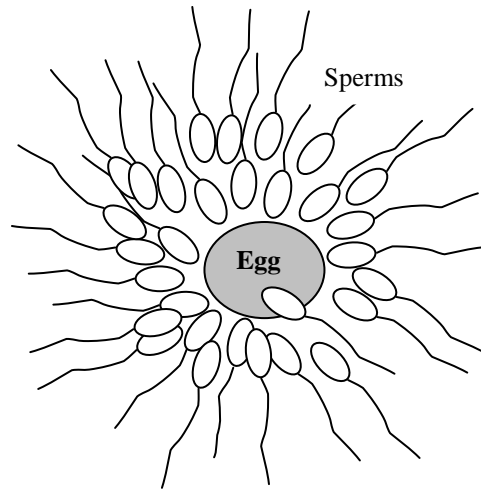


Fig. 2 A swarm of sperms surrounding the female egg about to be fertilized

Allah says:

هُوَ الَّذِي يُصَوِّرُكُمْ فِي الْأَرْحَامِ كَيْفَ يَشَاءُ ۚ لَا إِلَهَ إِلَّا هُوَ الْعَزِيزُ الْحَكِيمُ

3:6 It is He Who shapes you in the womb as He likes.

This message implies that which sperm must fuse with which ovum has also been programmed so that the individual developed from the fusion becomes Allah’s choice. We do not have sufficient information on human fertilization to understand the mechanism involved in bringing together ‘biomemetically labelled’ pair (male and female) of gametes for their eventual union. Studies conducted with human beings in this area are scanty. Fertilization of female egg with male sperm is a highly controlled phenomenon as only one sperm out of millions in the ejaculated semen is capable of fertilizing the egg. Further once fertilized by a sperm, the zygote (fertilized egg) is inaccessible to another sperm. It is closed for ever. Evidently there is mechanism to guide sperm to the egg it has to fertilize. In other words, a sperm is programmed to fuse with certain egg and not at random.

The Quranic revelation is clear indication of the programmed biodiversification process taking place in human beings by which Allah creates diversity in human population as He likes. Each human being represents a new biosoftware and a link in the biodiversification chain or the Adam-Eve lineage. The biosoftware of the individual also

carries specific set of instructions for transmission to the next generation. In this way biodiversification process preserves the continuity and timeline of a common descent.

The essence of human biodiversification from a single (Adam's) *nafs* (Q. 4:1) is that the entire human attributes are biomemetically controlled by Allah. If you inherit the biomeme that creates the talent to sing, you become a singer; if you don't have that biomeme, you are not a singer. You cannot make yourself a singer. We (our phenotypes) are what Allah decides us to be. We are not what we wish to be. We also cannot choose our parents, place of birth, time of birth, year of birth, our children, our career, etc. No individual is responsible for his abilities and disabilities, his pluses and minuses. These are what Allah has given to him through the biosoftware he inherits. In spite of that, a person with some special ability boasts about it as if he is responsible for that. This is foolishness. We should not attribute development of any ability or otherwise to the individual. It is Allah Who creates those abilities and potentials in human beings and not the individuals. One should not feel superior or inferior to others in this regard. By creating large phenotypic (hardware) variability, Allah is testing individuals with wide-ranging physical and mental abilities. It is also demonstration of the potentials of human species. Further we should look at the phenotypic potentials of human beings as signs (*ayaat*) of Allah's power and wisdom. Allah says:

وَفِي الْأَرْضِ آيَاتٌ لِلْمُوقِنِينَ ۖ وَفِي أَنْفُسِكُمْ ۚ أَفَلَا تُبْصِرُونَ

51:20-21 On the earth are signs for the firm believers, and also in your own selves. Will you not then see?

وَفِي خَلْقِكُمْ وَمَا يَبُتُّ مِنْ دَابَّةٍ آيَاتٌ لِقَوْمٍ يُوقِنُونَ

45:4 And there are signs for the firm believers in the creation of yourself and the organisms He disperses.

وَمِنْ آيَاتِهِ أَنْ خَلَقَ لَكُمْ مِنْ أَنْفُسِكُمْ أَزْوَاجًا لِتَسْكُنُوا إِلَيْهَا وَجَعَلَ بَيْنَكُمْ بَيْنَكُمْ مَوَدَّةً وَرَحْمَةً ۗ إِنَّ فِي ذَلِكَ لَآيَاتٍ لِقَوْمٍ يَتَفَكَّرُونَ

30:21 And among His signs is the creation of your spouses from among yourselves so that you find solace with her. And He gave between you love and mercy. Verily in that are signs for those who reflect.

وَمِنْ آيَاتِهِ خَلْقُ السَّمَاوَاتِ وَالْأَرْضِ وَالاختلافُ اَلْسِنَتِكُمْ وَالْوَالِدَاتُ ۗ إِنَّ فِي ذَلِكَ لَآيَاتٍ لِّلْعَالَمِينَ

30:22 And among His signs is the creation of the skies and the earth, and the variations in your languages and your colours. Verily in that are signs for those with knowledge.

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