

The vicissitude of the Day and Night and their regular alternation

Written by: Dr. Karem Al-Sayed Ghanem- A Professor in the Faculty of Science, Al-Azhar University.

The two words "Day and Night" have been mentioned several times in the Holy Quranic verses either together or only one of them alone, either when referring to their alternation or their mergence, either when referring to their succession (i.e. if the day is gone, the night comes, and if the night is gone, the day comes, and so on) or making the night to go in the day and the day going in the night, either when talking about one of them covering the other, or when explaining how Man is active during the day and asleep during the night. Now we will show some verses:

Some verses tackled the alternation of the day and night, Allah (Glory be to Him) says: "Verily! In the creation of the heavens and the earth, and in the alternation of night and day, and the ships which sail through the sea with that which is of use to mankind, and the water (rain) which Allâh sends down from the sky and makes the earth alive therewith after its death, and the moving (living) creatures of all kinds that He has scattered therein, and in the veering of winds and clouds which are held between the sky and the earth, are indeed *Ayât* (proofs, evidences, signs, etc.) for people of understanding. "[HQ: 2:164]

Verily! In the creation of the heavens and the earth, and in the alternation of night and day, there are indeed signs for men of understanding. [HQ: 3:190]

Verily, in the alternation of the night and the day and in all that Allâh has created in the heavens and the earth are *Ayât* (proofs, evidences, verses, lessons, signs, revelations, etc.) for those people who keep their duty to Allâh, and fear Him much. [HQ: 10:6]

And it is He Who gives life and causes death, and His is the alternation of night and day. Will you not then understand? [HQ: 23:80]

Many verses talked also about their mergence, Allah (Glory be to Him) says: You make the night to enter into the day, and You make the day to enter into the night (i.e. increase and decrease in the hours of the night and the day during winter and summer), You bring the living out of the dead, and You bring the dead out of the living. And You give wealth and sustenance to whom You will, without limit (measure or account). [HQ: 3:27]

That is because Allâh merges the night into the day, and He merges the day into the night. And verily, Allâh is All-Hearer, All-Seer. [HQ: 22:61]

. See you not (O Muhammad SAW) that Allâh merges the night into the day (i.e. the decrease in the hours of the night are added in the hours of the day), and merges the day into the night (i.e. the decrease in the hours of day are added in the hours of

night), and has subjected the sun and the moon, each running its course for a term appointed; and that Allâh is AllAware of what you do. [HQ: 31:29]

He merges the night into the day (i.e. the decrease in the hours of the night are added to the hours of the day), and He merges the day into the night (i.e. the decrease in the hours of the day are added to the hours of the night). And He has subjected the sun and the moon, each runs its course for a term appointed. Such is Allâh your Lord; His is the kingdom. And those, whom you invoke or call upon instead of Him, own not even a *Qitmîr* (the thin membrane over the datestone). [HQ: 35:13]

Some verses talked about the night covering the day, Allah (Glory be to Him) says: Indeed your Lord is Allâh, Who created the heavens and the earth in Six Days, and then He *Istawâ* (rose over) the Throne (really in a manner that suits His Majesty). He brings the night as a cover over the day, seeking it rapidly, and (He created) the sun, the moon, the stars subjected to His Command. Surely, His is the Creation and Commandment. Blessed be Allâh, the Lord of the "*Alamîn* (mankind, jinns and all that exists)! [HQ: 7:54]

And it is He Who spread out the earth, and placed therein firm mountains and rivers and of every kind of fruits He made *Zawjain Ithnâîn* (two in pairs - may mean two kinds or it may mean: of two sorts, e.g. black and white, sweet and sour, small and big, etc.) He brings the night as a cover over the day. Verily, in these things, there are *Ayât* (proofs, evidences, lessons, signs, etc.) for people who reflect. [HQ: 13:3]

Some verses talked about the successive appearance of day and night, Allah (Glory be to Him) says: And He it is Who has put the night and the day in succession, for such who desires to remember or desires to show his gratitude [HQ: 25:62]

Some verses talked about the measuring and succession of day and night, Allah (Glory be to Him) says: Allâh causes the night and the day to succeed each other (i.e. if the day is gone, the night comes, and if the night is gone, the day comes, and so on). Truly, in these things is indeed a lesson for those who have insight. [HQ: 24:44]

Verily, your Lord knows that you do stand (to pray at night) a little less than two-thirds of the night, or half the night, or a third of the night, and so do a party of those with you, And Allâh measures the night and the day. He knows that you are unable to pray the whole night, so He has turned to you (in mercy). [HQ: 73:20]

Some verses talked about vicissitude of day and night, Allah (Glory be to Him) says: It is not for the sun to overtake the moon, nor does the night outstrip the day. They all float, each in an orbit [HQ: 36:40]

Some verses talked about the withdrawn of the night there from the day, Glory be to Allah says: a sign for them is the night, We withdraw therefrom the day, and

behold, they are in darkness. [HQ: 36:37]

Some verses talked about each going into the other, Allah (Glory be to Him) says: He has created the heavens and the earth with truth. He makes the night to go in the day and makes the day to go in the night. And He has subjected the sun and the moon. Each running (on a fixed course) for an appointed term. Verily, He is the All-Mighty, the Oft-Forgiving. [HQ: 39:5]

Some verses talked about the night's darkness and people being active in the day and asleep in the night, Allah (Glory be to Him) says: Its night He covers with darkness, and its forenoon He brings out (with light). [HQ: 79:29]

He it is Who has appointed for you the night that you may rest therein, and the day to make things visible (to you). Verily, in this are *Ayât* (proofs, evidences, verses, lessons, signs, revelations, etc.) for a people who listen (i.e. those who think deeply). [HQ: 10:67]

See they not that We have made the night for them to rest therein, and the day sight-giving? Verily, in this are *Ayât* (proofs, evidences, verses, lessons, signs, revelations, etc.) for the people who believe. [HQ: 27:86]

Allâh, it is He Who has made the night for you that you may rest therein and the day for you to see. Truly, Allâh is full of Bounty to mankind, yet most of mankind give no thanks. [HQ: 40:61]

Some verses also explain the blessing of the alternation of the day and night, Allah (Glory be to Him) says:

Say (O Muhammad SAW): "Tell me! If Allâh made night continuous for you till the Day of Resurrection, who is an *ilâh* (a god) besides Allâh who could bring you light? Will you not then hear?" [HQ: 28:71]

Say (O Muhammad SAW): "Tell me! If Allâh made day continuous for you till the Day of Resurrection, who is an *ilâh* (a god) besides Allâh who could bring you night wherein you rest? Will you not then see?" [HQ: 28:72]

And now after displaying all of these cosmic Quranic verses, we would like also to talk about the scientists' researches and what they have discovered concerning these Quranic verses.

In 1851, Focolt discovered that the earth rotates daily around its axis, and consequently the day appears in the places of earth facing the sun, thus the other places live in the darkness of the night.

The day and night occur successively by the earth's rotation around the sun, and although there is an apparent movement of the sun, to the extent that Man can

observe this apparent movement by sight, so he thinks that it is the sun which rotates around the earth . Whereas the scientific facts confirm that it is the earth which rotates around the sun, in addition to its rotation around its axis in front of the sun.

The first rotation results in the occurrence of the four seasons (summer, autumn, winter, spring). The second rotation results in the occurrence of the day and night

The astronomical researches also explain how the places of sunset and sunrise differ from day to day during the year, and consequently the length of the day and that of the night differ according to the deviation of the angle of sun setting and sun rising

So I swear by the Lord of all [the three hundred and sixty (360)] points of sunrise and sunset in the east and the west that surely We are Able [HQ: 70:40]

And if we are to observe both places (of sunset and sun rise) with the beginning of the spring, we would have discovered that the length of the day equals the length of the night. This is because the sun rises exactly from the east and sets exactly from the west, but afterwards it deviates towards the north when rising and setting, and over time the deviation of the sunrise increases from the east towards the north and also the deviation of sunset increases from the west towards the north. Consequently the length of the day increases while the length of the night decreases in some places located between the equator and the northern pole.

The opposite occurs in the places located between the equator and the southern pole, and the deviation of the sun continues until it reaches its utmost (23.5 degrees deviating from the equator) in the summer on the 22nd of June and the sun reaches its highest levels at the afternoon.

And the sun reaches its utmost length, where the night reaches its shortest length in the countries located on the northern part of the earth. And the opposite occurs in the southern part of the earth

And over time after the tropic of cancer, the deviation of the sun decreases, so in time of afternoon the height of the sun decreases and it moves towards the east during sunrise and moves towards the west during sunset

In the countries located in the half northern places of earth, the time that sun takes for rising decreases, so they are always in the morning and they have no night. But the opposite occurs in the half southern part of the earth.

In the time of autumnal equinox (almost on the 21st of September) the sun becomes perpendicular to the equator and the length of day and night are equal in all places.

After the autumnal equinox, the deviation of the sun decreases, so its height decreases in the afternoon, and then the sun moves during sunrise from east

towards the south and moves during sunset from the west to the south, and this happens in the countries located in the northern half of the earth and gradually the length of night increases and that of day decreases.

The tropic of Capricorn begins almost on the 23rd of December and hence the deviation of sun reaches its lowest levels at 23.5 degree. And the day becomes very short and the night very long, this occurs in the northern part of the earth.

And hence we find that the northern pole is always at night and the southern pole is always at day.

After the tropic of Capricorn, the deviation of the sun increases and the day increases whereas the night decreases in the northern part of the earth.

But in the southern part of the earth the day becomes shorter and the night becomes longer till the time of the spring equinox on 21st of March, at that time both lengths of the day and night are again equal in all parts of the earth, and thus by the rotation of the earth around its axis once daily and by its rotation around the sun once a year (on a fixed course deviating from the equator) the same process is repeated, therefore the lengths of both day and night differ during the year.

Scientists discovered these facts only during the 19th century.