On Day 4 God Made the Heavenly Luminaries (the Sun, Moon, and Stars)

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And God said, "Let there be lights in the expanse of the heavens to separate the day from the night. And let them be for signs and for seasons, and for days and years, and let them be lights in the expanse of the heavens to give light upon the earth." And it was so. And God made the two great lights—the greater light to rule the day and the lesser light to rule the night—and the stars. And God set them in the expanse of the heavens to give light on the earth, to rule over the day and over the night, and to separate the light from the darkness. And God saw that it was good. And there was evening and there was morning, the fourth day.

Genesis 1:14-19

God Creates the Sun, Moon, and Stars

Theistic evolutionists claim that the stars came into existence over long periods of time through stellar evolution. Such sort of "self-creation" is denied by

the biblical account which literally states that "God made the two great lights" by calling them into existence by the word of His power. He created via fiat creation: "Let there be lights....And it was so."

The Framework Hypothesis Claim that the Heavenly Bodies only Appeared

Supporters of a Framework Hypothesis claim that God did not create the sun, moon, and stars on the fourth day. They argue that God created these heavenly bodies already on the first day. They claim that when we read about God creating light on Day 1 that He made the sun, moon, and stars. They claim that God revealed the heavenly bodies only on the fourth day. Up until this time the sky was unclear. So, God did not create the heavenly bodies on the fourth day, He only revealed what He had created on the first day. Matthews responds: "However, there is no sense that they were once hidden and only now appear." (Mathews, 1996, pp. 153-155) John Calvin correctly teaches that God used a unique created source of light to illuminate the earth for the first three days of creation and then handed over the duty of illumination to the newly created sun, moon, and stars on the fourth day.

Allen P. Ross suggests that God already created the sun, moon, and stars on the first day although they might not have become visible until Day 2: "Either these were created with apparent age, or they had been previously created and were then made visible on the earth on days one and two when God separated light from darkness and waters above from water below." (Ross, 1985, p. 29) Lee Haines mentions that some commentators

think that the sun, moon, and stars had already been created, but that they were shrouded from view by the earth's atmosphere which was yet in a state different from that of today. They point out that the Bible does not say that God created them on the fourth day, but that He **made** them or "fashioned" them and **set**, or more literally "gave" or "appointed," them in the expanse of heaven to give light to the earth. (Haines, 1967, pp. 27-28)

Haines writes that commentators, like a certain Tanner, have speculated that a "gradually thinning carbon dioxide atmosphere" on the fourth day made the sky "transparent" so that the sun, moon, and stars which had been created on the first day could now be seen. (Haines, 1967, pp. 27-28) Wilbur Glenn Williams makes similar claims: "The probable source of light on Day One was the sun, as earlier suggested. God brought it into its proper relationship to **the earth** on the fourth day." (Williams, 1999, pp. 37-38)

The Cornerstone Bible Commentary speculates that either the luminaries were created with apparent age, or they were created on the first day and only became visible on the fourth day:

Either these things were created with apparent age (like Adam) or they had been created earlier and were made visible on earth after God separated light from darkness and the waters above from the waters below. If the latter, the language would be phenomenal, in that it appeared that these were made on the fourth day because that is when they could first be seen from the earth. (Oswalt, 2008, pp. 38-39)

Exegetical Arguments for the Claim that the Celestial Bodies only Appeared

Among the commentators the idea is popular that the luminaries were not created on the fourth day, but just became visible. Brown, Fausset, and Jamieson make this claim: "The atmosphere being completely purified, the heavenly bodies were now unveiled in all their glory in the spacious sky." (Robert Jamieson, pp. 6-7) They reject the idea that the "passage describes an actual creation, implying the calling into existence, or the formation of their present form and relative order, of the whole planetary system; and clearly, if the grammatical construction alone is looked at, these writers are correct in their interpretation..." (Robert Jamieson, pp. 6-7) But then they claim: "This, however, is a view so much at variance with the general analogy of God's operations in the natural world, that it cannot be accepted without the strongest evidence of its truth." (Robert Jamieson, pp. 6-7) They claim that the word "created" or "made" is used in "a loose sense." (Robert Jamieson, pp. 6-7) The luminaries only appear "to be "made" when they became objects perceptible in the skies." (Robert Jamieson, pp. 6-7) Jamieson, Fausset, and Brown give one of the most extended exegetical arguments for the theory that the luminaries were not created on the fourth day.

Besides, it has been shown on v. 1 that the sun, moon, and stars existed previously to the fourth day, being included in the original creation of the heavens, of which they are uniformly declared, in the Scripture style, to be integral parts (cf. Deut. 4:19; 17:3, with Job 38:4-7); and, therefore, as the statement of the inspired historian cannot here mean creation, either in the

sense of bringing out of nothing, or of forming from pre-existent matter, the verb "made" must be interpreted as synonymous with 'constituted,' 'appointed,' 'ordained' these lights to their proper uses in the heavens. This word, which occurs in a variety of senses (see v. 11,12, where it is rendered "yield"), is frequently used in the sense of 'ordaining' or 'appointing' (cf. Num. 28:26; 1 Sam. 12:6; 1 Ki. 12.31-33; 2 ki. 17:32, 2 Chr. 13:9; Esth. 9:22; Job 14:5; 28:26; Ps. 8:4; 104:19; 136:7,9; Prov. 22:28; Jer. 31:35; 37:15). That it must be taken in the same acceptation in this passage is obvious from two circumstances—viz., that the subject of the announcement is not the creation of any new material objects, but the adaptation of some to be 'luminaries,' 'light-bearers;' and that the word does not stand in an isolated position (as in v. 7), but is in immediate connection with the following verb, 'made to rule.' (Robert Jamieson, pp. 6-7)

So, the luminaries already existed prior to the fourth day, but they become visible for the first time "in the clarified atmosphere." (Robert Jamieson, pp. 6-7)

Celestial Bodies Created

But Moses records that God created the heavenly bodies on the fourth day. He uses the language of fiat creation. God created light on the first day, but now He concentrates light in the heavenly bodies. Harbach writes: "The light, therefore, on the first three days of the world did not come from the sun, but from the original creature, light itself. At that time, light did not yet center in the lightholders of verses 14-18!" (Harbach, 1986, p. 29)

Harbach writes that "The purpose of the celestial bodies is: 1) to divide the light from the darkness, continuing and rendering permanent the distinction established on the first day, when the light of day was divided from the darkness of

night by the earth rotating on its axis and revolving in its orbit." (Harbach, 1986, p. 26)

John MacArthur discusses the nature of the first source of light:

Where did that original light come from and what form was it in? We do not know because Scripture does not say. But from an earthly perspective it seems to have been an exact parallel to sunlight, separating day from night with a rhythm that continued after day four and was then measured from an earthly perspective by the rising and setting of the sun. (MacArthur, 2001, p. 108)

On the first day God created "a disembodied blanket of diffused supernatural light" and now supersedes this "by a universe full of light-bearing bodies." (MacArthur, 2001, p. 108) MacArthur wonders whether the light was a display of the glory of God: "The original light was most likely a disembodied and diffused light of some kind. It might have been a pure display of divine glory, much like the light that will shine in New Jerusalem, described in Revelation 21:23." (MacArthur, 2001, p. 108) God now creates "permanent heavenly luminaries." (MacArthur, 2001, p. 108)

God creates through His spoken word. This is fiat creation. The Psalmist emphasizes this in Psalm 33:

By the word of the Lord the heavens were made, and by the breath of his mouth all their host (Psalm 33:6).

For he spoke, and it came to be; he commanded, and it stood firm (Psalm 33:9).

Psalm 33:6 is remarkable because it communicates the trinitarian nature of this creative act. God the Father creates by the word (the second person of the holy

Trinity) and the "breath of his mouth" (a reference to the third person of the holy Trinity). But the Psalmist also accents the fact that God gave the command and the luminaries immediately came into existence.

John MacArthur often uses the language of God commanding "decretively." I am not sure that this is the best way to state things. MacArthur writes: "And, as always happens when God commands decretively, 'it was so." (MacArthur, 2001, p. 108) He speaks of God expressing His wish that something be created as God "decreeing". The reason why I am not comfortable with this language is that when we speak about the decree of God, we normally mean His "plan". I realize that we use the word "decree" in ordinary language in a way similar to how MacArthur wields the word. For example, we speak of a king making a decree. By this we mean that a king expresses and communicates a new law. But when we think about the divine decree, we are thinking about God's plan.

With respect to the doctrine of creation, we speak of how God has an eternal plan that contains the recipe for or His blueprint for the sun, moon, and stars. On the fourth day of creation, He calls into existence these luminaries as He has envisioned them. So, I would rather reserve the word "decree" as a reference to God's plan (or blueprint) and then talk about God calling these creatures into existence on the fourth day. He speaks a sovereign, powerful, creative Word that *instantiates* what He has planned. He produces what He had planned to make. Before He only *envisioned* and

decided upon what He would make, now He *creates* them. Before they only existed in His eternal plan. Now they exist as distinct creatures.

Light before the Sun?

God created an alternate source of light prior to the creation of the heavenly luminaries. Day and night existed prior to the fourth day. God had already caused the earth to rotate on its axis and had caused alternating periods of light and darkness which are defined as evening and morning.

How could the plants have light and heat already on the third day, if the sun was not yet created? "This is not a difficult problem. Seeing that light was there already, and where there is light there must be heat, the requisite conditions for plant-life were already in existence." (Cassuto, 1998, pp. 42-47)

"The only difference is this, that the light was before dispersed, but now proceeds from lucid bodies; which, in serving this purpose, obey the command of God." (Calvin, Commentary on the First Book of Moses Called Genesis, vol. 1, 2010, pp. 83-88)

Fictional Triads

Supporters of the Framework Hypothesis love to act like we find certain triads written in stone in Genesis 1. They produce artificial triads that they think allow them (1) to deny that God created the heavenly bodies on a fourth historical day and

(2) that the account in Genesis 1 is not historical, but literary. Here is an example of such a triad:

Day 1	Light	Day 4	Two Great Lights
Day 2	Waters Controlled by Firmament	Day 5	Water and Air Animals
Day 3	Dry Land Plants	Day 6	Land Animals Humanity (who eat plants)

The claim is made that on days one to three God creates the creature kingdoms and that on days four to six He created the creatures to inhabit these kingdoms. The supposed triads are laid out like this:

Day 1	Heavens Created	Day 4	Heavenly Bodies Created
Day 2	Firmament Created	Day 5	Birds Created to Fly in the Firmament
Day 3	Dry Land Created	Day 6	Land Animals and Man Created

But laying out the triads in this way is artificial. We could also lay out further parallels.

Day 1	Heavens Created	Day 2	Firmament Created in Sky
Day 2	Firmament (Sky) Created Day 5		Birds Fly in Sky
Day 3	Dry Land Created	Day 5	Land Based Birds Created
Day 3	Seas Created	Day 5	Fish Created in Seas

Day 3	Marine Vegetation	Day 5	Fish Created to Eat Marine Vegetation
Day 2	Firmament Created	Day 4	Sun, Moon, and Stars Created in Firmament

When you look at these further parallels, it becomes clear that the laying out of triads in the service of a Framework Hypothesis is artificial. Yes, one can draw parallels between days 1 and 4, 2 and 5, and 3 and 6. But one can also draw parallels between days 1 and 2, 3 and 5, and 2 and 4. To prioritize certain parallel triads has the same interpretative weight as the use of allegorical exegesis. Why could allegorical interpretations become so popular in the early and medieval church? It is because the explanations appear orthodox and seem to teach a deeper, spiritual reality. Yet allegorical interpretations are artificial. The saving grace of many allegorical interpretations was they at least taught truths that were found elsewhere I the Bible, even though they were not taught in the text. But allegorical interpretations open the door to heterodoxy because such loose and imaginative approaches to exegesis naturally allow one to find heresy in a text.

The Word "Light"

The word "light" is different from that used on Day 1 when we are told that God created light. On Day 4 God states: "Let there be *lights* in the expanse of the heavens to separate the day from the night" (Genesis 1:14a). The word for "lights" that God uses on the fourth day refers to a light-bearing body. Moses records: "And

God made the two great lights" (Genesis 1:16a). A basic meaning of this word for "light" is "lamp". The same word is used to describe an oil lamp—like those that provided light in the tabernacle. So, the word for "lights" could be translated as "things that make light" or "objects that transmit light." Since this word for "light" is later used to refer to the oil lamps in the tabernacle, the idea is that God crates heavenly bodies that are light bearers. The word given to describe the heavenly bodies emphasizes their function; they provide light. Herbert Ryle writes: "The word rendered "lights" denotes a thing, or body, carrying light." (Ryle, 1921, pp. 12-14)

In contrast to pagan myths about the origin of the heavenly bodies, the Biblical account is chaste and simple. "In the most matter-of-fact way this passage describes God's making of the two great lights and their created purposes." (Kissling, 2004, pp. 112-115)

Calling the Sun and Moon the Greater and Lesser Lights

When God mentions His wish that the luminaries be created, He does not name the greater and lesser lights. The Holy Spirit did not inspire Moses to use the popular names for the sun and moon that were used in the ancient near east. Moses relates: "And God made the two great lights—the greater light to rule the day and the lesser light to rule the night" (Genesis 1:16).

A popular name for the sun in the ancient near east was *Shemesh*. The moon was known as *Yarih*. The problem was that when the pagans called the greater and

lesser light by these names, they thought of them as personal deities. Moses is communicating that the heavenly bodies are not idol gods who deserve worship.

Why is the sun called the "greater light"? John Calvin explains: "He calls it a "lesser light" by comparison; because the portion of light which it emits to us is small compared with the infinite splendour of the sun." (Calvin, Commentary on the First Book of Moses Called Genesis, vol. 1, 2010, pp. 83-88) This is an indirect way of referring to the brightest heavenly body from our perspective. The sun is the brightest source of illumination for us on earth. From our point of view, the sun is the brightest heavenly body. We know that there are stars like Alpha Centauri A that are much larger than the sun. Alpha Centauri A is 1.1 times larger than the sun and 1.519 times brighter. But it is not brighter from the earth's perspective. No other heavenly body, even stars that are a thousand times bigger than the sun, can compare with the brightness of the sun from the perspective of our eyes. So even though the sun is a medium-sized star, it is for us the "greater light." In contrast to the stars, the moon is bright. And the pale radiance of the moon is eclipsed by the blazing brightness of the greater light. The biblical text does not mention that the light from the moon is reflected light. It only points out that the moon is the brightest luminary in the sky at night. Matthew Henry explains why the moon is "reckoned one of the greater "lights": "in regard to its magnitude and borrowed light, it is inferior to many of the stars, yet, by virtue of its office, as ruler of the night, and in respect of its

usefulness to the earth, it is more excellent than they. Those are most valuable that are most serviceable." (Henry, 1994, p. 5)

Cassuto explains why God did not need to call the greater and lesser lights "sun" and "moon":

The purpose of naming the light, the darkness, the heavens, the earth and the seas was to inform us that what God created was precisely what we know today by the same names; otherwise the identification would not have been obvious. But in the present instance, we know perfectly well, without any need for further explanation, what is meant by the greater light and the lesser light. (Cassuto, 1998, pp. 42-47)

After the third day, God leaves the name of creatures to man. From now on Adam will show dominion over the creation by naming his wife and the animals.

An Earthly Perspective

Genesis provides us with a geocentric perspective on the earth and the luminaries. "The description of the celestial bodies is phenomenological (see on 1:6-7), presupposing a human view of the planets from the earth." (Mathews, 1996, pp. 153-155) From our viewpoint the sun appears to be in the firmament. One writer states: "The perspective is unashamedly geocentric." (Eveson, 2001, pp. 35-36) "From the perspective of a human observer on the earth they appear to be in the sky's atmosphere. In the same way the Bible speaks, as do all of us today (including scientists!), of the sun rising and setting." (Eveson, 2001, pp. 35-36) "The description bears plainly a phenomenal, not a scientific form: it is given from the

position of an observer on the face of the earth, who records his observations according to the appearance of things." (Robert Jamieson, pp. 6-7)

John Calvin states that "Moses does not speak with philosophical acuteness on occult mysteries, but relates those things which are everywhere observed, even by the uncultivated, and which are in common use." (Calvin, Commentary on the First Book of Moses Called Genesis, vol. 1, 2010, pp. 83-88) Calvin knew that Saturn was bigger than our moon and explains why God called the moon the "lesser light":

Moses makes two great luminaries; but astronomers prove, by conclusive reasons, that the star of Saturn, which, on account of its great distance, appears the least of all, is greater than the moon. Here lies the difference; Moses wrote in a popular style things which, without instruction, all ordinary persons, endued with common sense, are able to understand; but astronomers investigate with great labour whatever the sagacity of the human mind can comprehend. (Calvin, Commentary on the First Book of Moses Called Genesis, vol. 1, 2010, pp. 83-88)

Martin Luther argues that people should not look down on how Genesis describes the creation of the luminaries. The Holy Spirit does not use technical scientific language. This is an important point. Luther writes:

One must accustom oneself to the Holy Spirit's way of expression. With the other sciences, too, no one is successful unless he has first duly learned their technical language. Thus lawyers have their terminology, which is unfamiliar to physicians and philosophers. On the other hand, these also have their own sort of language, which is unfamiliar to the other professions. Now no science should stand in the way of another science, but each should continue to have its own mode of procedure and its own terms. Thus we see that the Holy Spirit also has His own language and way of expression, namely, that God, by speaking, created all things and worked through the Word, and that all His

works are some words of God, created by the uncreated Word. Therefore just as a philosopher employs his own terms, so the Holy Spirit, too, employs His. An astronomer, therefore, does right when he uses the terms "spheres," "apsides," and "epicycles"; they belong to his profession and enable him to teach others with greater ease. By way of contrast, the Holy Spirit and Holy Scripture know nothing about those designations and call the entire area above us "heaven"....Every science should make use of its own terminology, and one should not for this reason condemn the other or ridicule it; but one should rather be of use to the other, and they should put their achievements at one another's disposal. (Luther, 2012, pp. 31-35)

Matthew Henry writes that Moses uses ordinary language to communicate the creation of the luminaries because his interest is "not to gratify our curiosity and make us astronomers, but to lead us to God, and make us saints." (Henry, 1994, p. 5)

God provides us with a geocentric perspective in Genesis 1. It is true that He inspires Moses to write about the creation in a geocentric way. But God Himself emphasizes that the cosmos is created for the good of man. MacArthur writes: "Yet God's creative purpose has always had the human race at its center. We alone of all His creatures are made in His image. The entire creation account in Genesis 1 is told from an earthly perspective, underscoring the centrality of this tiny planet in the creative purpose of God." (MacArthur, 2001, p. 106) God made the earth for man. He created the luminaries to provide light for mankind on earth.

Hebert Ryle takes this "geocentric" perspective a little too far:

It conceives the sun, moon and stars to be much smaller bodies of varied lightgiving capacity, formed for purposes of use to the dwellers upon earth, and attached to the roof of heaven at no very great altitude above the flat earth. (Ryle, 1921, pp. 12-14)

Ryle claims that this geocentric perspective was a "primitive and childlike" "Hebrew view." (Ryle, 1921, pp. 12-14)

Pagan Polemics: Ruling out Idolatrous, Pagan Views of the Heavenly Bodies

Why did God wait until the fourth day to create the heavenly luminaries? I think that one reason is that He knew that pagans would worship the creature rather than the Creator. They would worship sun gods. Gowan states: "It is generally agreed that the sun and moon do not make their appearance until the fourth day for polemic reasons. The heavenly bodies were worshipped in every religion but that of Israel, and the sun, moon, and Venus were often major deities in the pantheon." (Gowan, 1988, pp. 24-25) Eveson mentions how widespread the worship of the heavenly luminaries was in Moses time: "In the ancient world the heavenly bodies held a very important place in people's lives. The sun and moon were among their chief gods, and stars were thought to control human affairs." (Eveson, 2001, pp. 35-36)

The pagans engaged in theogony. They made creatures into gods. They personified the heavenly bodies. John Currid explains: "So, in Egyptian texts, when the sun and moon are created at genesis, Re and Thoth come to personify them. In the Mesopotamian *Enuma elish*, Marduk, the creator-god" made constellations that picture gods. (Currid, pp. 74-78) Hamilton writes that in the *Enuma elish* the

luminaries are not created, but simply placed in the heavens: "In fact, *Enuma elish* does not record the creation of these lights, for they are "great gods." They are simply placed in their cosmic positions as constellations (stars) or instructed by Marduk (moon and sun)." (Hamilton, 1990, p. 128)

Cassuto writes about how the Chaldeans identified the luminaries with idol gods: "The Babylonian poem presents the luminaries and stars to us as the "likeness" (*tamsilsunu*, line 2) of the gods, and to a certain extent identifies them with the gods, endowing them with personality and mind and will." (Cassuto, 1998, pp. 42-47)

The heavenly bodies are inanimate creatures. They are not persons that can speak or determine the lives of humans. God did not make lesser gods. He only made inanimate creatures that provide light.

The Egyptians worshiped the sun god Re. "Mesopotamian religion magnified the role of the stars." (Mathews, 1996, pp. 153-155) "Also West Semites paid homage to the moon; at Ugarit (1400-1200 B.C.) the moon deity was Yarik. The sun deity was of great importance to the Babylonians, who worshiped Shamash, and to the Egyptians, who paid homage to Re and Aton." (Mathews, 1996, pp. 153-155) The ancestors of Israel had worshiped the Mesopotamian deities back in Ur of the Chaldees. Joshua tells Israel: "Long ago, your fathers lived beyond the Euphrates, Terah, the father of Abraham and of Nahor; and they served other gods" (Joshua 24:2). God felt the need to warn the Israelites about worshiping the heavenly bodies.

He warned Israel that if anyone among them worshiped "the sun or the moon or any of the host of heaven" he was to be stoned to death (Deuteronomy 17:3). God had warned Israel against worshipping the sun, moon or stars: "And beware lest you raise your eyes to heaven, and when you see the sun and the moon and the stars, all the host of heaven, you be drawn away and bow down to them and serve them, things that the LORD your God has allotted to all the people under the whole heaven" (Deuteronomy 4:19).

I do not know if God is engaging in polemics against future pagan ideas when he avoids giving names for the sun and moon. By referring to the sun and moon as greater and lesser lights, God emphasizes their character as light-bearers. They are not persons or deities. They are like lamps. They are created sources of light. The sun, moon, and stars "are created entities, not deities." (Biblical_Studies, 2006) The heavenly bodies are not "mini-gods". (Williams, 1999, p. 38)

Herbert Ryle distinguishes between how Babylonian myths of the creation of the heavenly bodies differ from the Biblical presentation:

But we shall do well to recollect, that the statement in these verses respecting the origin, nature, and function of the heavenly bodies, stands on an immensely higher level of reasonable and dignified intelligence, than the notions of other peoples in the ancient world, who identified the heavenly bodies with gods, or semi-divine beings, exercising a benevolent or malevolent potency over the affairs of men and women, countries, and nations. (Ryle, 1921, pp. 12-14)

God created the luminaries "not to be served, but to serve." (Hamilton, 1990, p. 127)

The Stars an Afterthought?

God made the stars on the fourth day. He called into existence a billion galaxies. Moses only records: "and the stars" (Genesis 1:16b). Various translations add a verb to this brief statement: "And He *made* the stars." The ESV translation reflects the Hebrew: "And God made the two great lights—the greater light to rule the day and the lesser light to rule the night—and the stars" (Genesis 1:16). But the Hebrew lacks a verb in this additional statement. The verb "made" is implied since it is found earlier in the verse when we read: "And God *made* the two greater lights." (Genesis 1:16a).

One might think that the creation of vast galaxies of stars was almost an afterthought. Such is God's power that the creation of a billion galaxies was a small thing. Hardly worth mentioning? "In the Babylonian cosmogony *Enuma Elish* the stars have a prominent role, but in the Genesis account the creation of the stars is treated almost as an aside, downplaying their role in God's sight. The Hebrew text simply adds afterward, as if a mere afterthought—"and the stars" (1:16)." (Mathews, 1996, pp. 153-155) It certainly is the case that the stars are not emphasized as much as the sun and moon because the latter play a more dominant role in illuminating earth.

The mention of the creation of the stars and galaxies might appear as an "afterthought". It is striking how Moses records the creation of the hosts of heaven. The Hebrew text "adds "and the stars" at the end of the sentence, almost as an afterthought. The stars are not given a place of importance in the creation as are given the sun and the moon." (Reyburn, 1998, pp. 41-45)

R. Kent Hughes speaks of the brief mention of God make the galaxies as a "throwaway line": "With just a "mere word—the expression of God's will—the solar system was set like a jeweled watch in the midst of the universe. The focus is geocentric indeed! The universe gets only a throwaway line—"Uh, he also made the stars." (Hughes, 2004, p. 32)

Is the mention of the creation of the stars, as it were, side-lined to a footnote? MacArthur writes that "vast galaxies of stars appear as lesser luminaries, being mentioned almost as a footnote in verse 16: "the stars also." (MacArthur, 2001, p. 106) MacArthur remarks: "The economy of words is staggering." (MacArthur, 2001, p. 117)

God does not explicitly provide a function for the stars. Nahum Sarna believes that God's silence on the function of the stars is "a tacit repudiation of astrology." (Sarna, 1996, p. 10)

Although the Bible forbids astrology, astronomy is a legitimate science. John Calvin felt the need to defend the science of astronomy:

This study is not to be reprobated, nor this science to be condemned, because some frantic persons are wont boldly to reject whatever is unknown to them. For astronomy is not only pleasant, but also very useful to be known: it cannot be denied that this art unfolds the admirable wisdom of God. Wherefore, as ingenious men are to be honoured who have expended useful labour on this subject, so they who have leisure and capacity ought not to neglect this kind of exercise. (Calvin, Commentary on the First Book of Moses Called Genesis, vol. 1, 2010, pp. 83-88)

Andrew Willet (1562-16210, an English clergyman from the post-Reformation era, argues that there is a lawful reference to the constellations in the Bible. (Willet, 2012, pp. 31-35) Job states that God "made the Bear and Orion, the Pleidades and the chambers of the south" (Job 9:9).

The Bible emphasizes the height of the stars: "Is not God high in the heavens? See the highest stars, how lofty they are!" (Job 22:12) Scripture also accents the large number of stars: "As the host of heaven cannot be numbered and the sands of the sea cannot be measured, so I will multiply the offspring of David my servant, and the Levitical priests who minister to me" (Jeremiah 33:22).

The connotation of the Hebrew root that is used for the word "star," כוכב, (kokab) means "to burn" or "to blaze." The word is used 37 times in the Old Testament and is translated "star." One time the word is translated as "stargazers" because in Isaiah 47:13 it refers to a person who studies the stars. The Septuagint translated the Hebrew word for star with αστηρ (aster) which is the source of the English word "astronomy." The Hebrews and the Greeks used the word "star" in a broad enough sense to refer not only to stars, but also to planets and comets. The

ancients used the word to refer to "any bright, point-like object in the sky." (Faulkner, 2016, p. 65)

A First Purpose: To Separate Day from Night

God tells us His purposes in creating the luminaries. During the previous three days of creation, God either did not explain why He created something ,or the reason is briefly mentioned. On the fourth day God becomes explicit about why He created the luminaries. Victor Hamilton explains how God emphasizes this three-fold purpose:

Unlike the previous three days, where a statement about the raison d'être of the created item is either omitted or only briefly noted, here a threefold function is assigned to these celestial light bearers: to separate between day and night, to serve as signs of the passage of time, and to illuminate the earth. So important is the delineation of these functions that they are repeated in vv. 17-18, in reverse order, perhaps as an attention-getting device. (Hamilton, 1990, p. 127)

God's first purpose in creating the luminaries was to separate day from night. First, God states this purpose in verse 14a: "And God said, "Let there be lights in the expanse of the heavens to separate the day from the night." Secondly, God mentions this goal in verse 18: "and to separate the light from the darkness."

This was not the first time that God separated light from darkness and day from night. He already did that on the first day: "And God separated the light from the darkness" (Genesis 1:4). God then named the period of light, day and the period of darkness, night. John MacArthur writes: "The introduction of the sun and stars on

day four doesn't alter the definition, nor is there any suggestion that it changes the rhythm or the duration of the days. Rather, sun and moon are set in place as permanent markers "to divide the day from the night" (v. 14)." (MacArthur, 2001, p. 108) So the alternating periods of light and darkness continue. The big difference is that now a single source of light is replaced by luminaries that light both the day and night.

The language of separation implies that day and night, light and darkness already existed prior to God's creation of the heavenly bodies on the fourth day.

Cassuto writes:

The first function: to separate the day from the night. This expression enables us to comprehend the existence of the first three days, when there was as yet no sun in the world. To separate one thing from another means to mark the distinction between the two things already in existence. It is manifest that the night exists even without the presence of moon and stars. Similarly, according to the view reflected here, the sun is not the cause of daytime, for the latter is to be found without the former. This is an empirical concept based on the observation that light pervades the atmosphere even before sunrise and also after sundown. Although we know that this light emanates from the sun only, nevertheless it is a fact that there is daylight even when the sun is not visible in the sky. This then is the meaning of the verse: that just as at the beginning and at the end of every day there is light without sun, so throughout those first three days God caused light to shine upon the earth from some other source without recourse to the sun; but when He created the luminaries He handed over to them the task of separation, that is, He commanded that the one should serve by day and the others should serve at night, and thus they would all become signs for distinguishing the two periods of time. (Cassuto, 1998, pp. 42-47)

A Second Purpose: To Be for Signs and for Seasons

The second purpose that God mentions for creating the luminaries is to use them for signs and for seasons: "And let them be for signs and for seasons, and for days and years" (Genesis 1:14b). Unfortunately, people have misinterpreted this language of the luminaries functioning as signs. Let us deal with two errors. First, one of the most unfortunately interpretations of this language was made by medieval Christians and even the Lutheran Reformer, Philip Melanchthon. They thought that these words implied that astrology was a legitimate science. Astrologers attempt to determine a person's future and destiny based on the location of the zodiac when a person was born. The second error, promoted by E. W. Bullinger in the 19th century and D. James Kennedy in the 20th century, was that the signs of the zodiac reveal the gospel of Jesus. Let us look at these errors.

Interpreting "Signs" as Supporting Astrology

Philip Melanchthon, Martin Luther's sidekick thought that the stars dictated the destinies of humans. He was afraid to travel across the English Channel because an astrologer told his father that he would die if he ever sailed to England. Astrology teaches that humans can divine the future from the location of the constellations at one's birth. Martin Luther said that he would never be convinced of the folly of astrology:

I shall never be convinced the astrology should be numbered among the sciences....Even if there were something sure about these predictions, what

stupidity it is to be much concerned about the future! For granted that the future can be known through the astrological predictions—if they are bad, ignorance of them is certainly better in many respects than knowledge of them, as Cicero also declares. An abiding fear of God and prayer are preferable to the fear of future events. (Luther, 2012, pp. 31-35)

In his great wisdom, Herbert Ryle claims that the reference to "signs" "probably have special reference to the constellations, and especially to what are called "the constellations of the Zodiac"—a knowledge of which was from a very early time possessed by the Babylonians. Comets, eclipses, shooting-stars, & c. would also be included among the "signs" of the sky." (Ryle, 1921, pp. 12-14)

God gave an absolute prohibition against astrology: "You shall be blameless before the LORD your God, for these nations, which you are about to dispossess, listen to fortune-tellers and to diviners. But as for you, the LORD your God has not allowed you to do this" (Deuteronomy 18:13-14). While the pagans could be frightened by astrological signs, God told His people: "Learn not the way of the nations, nor be dismayed at the signs of the heavens because the nations are dismayed at them" (Jeremiah 10:2). God states through Isaiah that He dissipate the signs of the diviners: "who frustrates the signs of liars and makes fools of diviners, who turns wise men back and makes their knowledge foolish" (Isaiah 44:25).

The sun, moon, and stars do not decide human destinies. They are merely creatures of God to provide light and mark the change of seasons. Johannes Oecolampadius writes that "whether those born under Mercy or Mars will be

fortunate or not—clearly, this is the greatest vanity and leas away from true faith in God." (Oecolampadius, 2012, pp. 31-35) He adds: "Neither are all things arranged by the number and course of the planets, as Rabbi Moses [Maimonides] teaches." (Oecolampadius, 2012, pp. 31-35)

Warren Wiersbe condemns astrology: "People who depend on their astrological charts for guidance are following ancient pagan customs that are useless. There's no evidence that the position of the heavenly bodies has any influence on human life on earth. The Bible condemns all human attempts to foresee or control the future." (Wiersbe, 1998, pp. 27-28) Astrology is a superstitious and occult practice. Christians may not go to fortune tellers.

Related to the superstition of fortune-telling is the superstition surrounding omens in the heavens. For example, the ancients and even people in medieval times thought that comets were omens of doom.

Interpreting "Signs" to Teach that the Constellations Communicate the Gospel

Several Reformed ministers in the 20th century taught not only questionable, but wrong-headed ideas about how the luminaries are signs. They claimed that the luminaries were signs that communicated truths about the trinity or the gospel. Robert Harbach followed some speculations by Abraham Kuyper and Herman Hoeksema and claimed that every creature contains a revelation of God and points

to a heavenly or spiritual reality. D. James Kennedy claimed that the gospel was revealed through the signs of the zodiac.

Robert Harbach claimed that groups of stars somehow communicate the trinity:

They are for symbols. There is the single star (Mercury or Venus), the stars in groups of three (Triangula), the four (Libra), and seven (Ursa Minor). They symbolize, respectively, the Triune God, one in Being, Three in persons; the world, and God's covenant. (Harbach, 1986, p. 27)

But Harbach takes this reference to "signs" far beyond the heavenly luminaries. He makes the strong claim that every creature is a sign. This strong claim is not found in the text of Genesis. Harbach claimed that every creature somehow communicates a *divine thought* about heavenly and spiritual things. Abraham Kuyper and Herman Hoeksema had speculated about how Adam could name things according to their essence that was somehow a communication of a divine thought. Harbach explains his position:

Each one of these creatures is the embodiment of a divine thought. A flower is a word of God. The moon is another word of God. Every creature in the universe is the incorporation of a word of God. Every creature in the universe as to its being and essence is a symbol of something heavenly and spiritual. The creature is a signature of God. For the word "signs" (othoth) means an engraving, a mark, an instruction. God could not create or make a creature without it expressing a divine thought. For God cannot make a mute word; He cannot make a "brute fact"; He cannot make a mere abstraction. A vacuous, meaningless creature is unthinkable and impossible. (Harbach, 1986, p. 28)

D. James Kennedy claimed that the constellations communicated the gospel of Jesus. Supposedly the gospel of Christ is communicated to all men in pictures

through the various constellations. MacArthur explains that, according to this view, "Virgo supposedly speaks of the virgin mother, the serpent is ostensibly Satan, and some of the other constellations are said to picture Christ in various stages of humility and triumph." (MacArthur, 2001, p. 113) A 19th century theologian, E.W. Bullinger, unfortunately wasted good paper when he wrote *The Witness of the Stars* in which he makes a sustained argument for the idea that the gospel is revealed in the signs of the zodiac. Unfortunately, Christian publishers have continued to make the book available. (Bullinger, 2003) MacArthur's judgment of this strange understanding of how the luminaries are signs: "The problem with this view is that it is based on nothing but sheer imagination. One thing is certain: The zodiac has never communicated the gospel in any sensible way to those who are most obsessed with it." (MacArthur, 2001, p. 113)

A Correct Understanding of Signs

The word "signs" comes from a Hebrew root that means "to mark"," to sign", or "to describe." Later the rainbow will be called a sign. The rainbow as a sign would communicate that God would never again send a worldwide flood.

The luminaries are signs for humans. They are signposts. They can signal that spring has arrived. The setting of the sun signals that night has arrived.

The words "signs" and "seasons" are a hendiadys. They are two words that express a single thought. It is best to understand the word "signs" with the word

"seasons". The heavenly bodies are "signs for the determination of the seasons" and "for the division of time". (Cassuto, 1998, pp. 42-47) The rise and fall of the sun determines the length of our days. The waxing and waning of the moon determine our months. The tilt of the earth on her axis means that the distance of the sun to different latitudes on earth changes resulting in seasons and the measurement of a year.

Incomplete Interpretations of "Seasons"

The TEV (Today's English Version) translates "seasons" as "religious festivals." The MFT (Moffatt translation) translates the word as "sacred seasons." Both translations imply that God made the heavenly bodies to help with organizing the dates on the calendar for covenant feasts. It is true that much later in Israelite history that the location of the sun, moon, and stars would play a role in helping the Israelites to identify the dates for religious holidays—but I do not think that this is what God originally meant when He spoke of the heavenly bodies existing for signs and seasons.

The higher critics deny that God inspired Moses to pen the book of Genesis. They claim that different persons or traditions wrote different sections in Genesis. They use the letter "P" to signify a fictional priestly editor. Donald E. Gowan who buys into this higher critical approach to interpreting Genesis connects the language of "seasons" to a priestly editor: "The calendar was very important to the priesthood,

since it was the priest' responsibility to mark off the holy times and keep them sacred, and that interest appears here." (Gowan, 1988, pp. 24-25) Gowan is wrong. There is no priestly concern here. Rather there is a record of what God Himself said about His purposes in creating the heavenly bodies.

I do not think that God has covenant festivals in mind when He originally creates the sun, moon, and stars for "seasons". The religious festivals still lay centuries in the future. But the change of seasons began immediately.

"Seasons" Refer to Spring, Summer, Fall, and Winter

The word "seasons" is a translation of a Hebrew root that means "to fix" or "to appoint". Later this word would be used to refer to fixed ties set apart for religious worship. But the original idea is that of fixed seasons that governed the agricultural cycle. It is true that older Creationists who believed that a vapor canopy existed before the Flood denied that seasons of hot or cold weather existed prior to the Flood. But we have exposed problems with this position. Therefore, we can assume that from the very beginning the earth was tilted on its axis so that the position of the sun could reveal the season.

God caused the earth to tilt at 23 ½ degrees so that we would experience a change in seasons. This was necessary for the welfare of the earth's climate. Otherwise, the polar regions would experience constant cold, and ice would never stop growing. Already on the first day God caused the earth to spin at just the right

speed. If the earth spun at a slower speed our nights would be longer and much colder and our days would be longer and much hotter. God fine-tuned planet earth. R. Kent Hughes writes about the fine tuning of the earth's tilt and our proximity to the moon:

The slant of the earth, tilted at an angle of 23 degrees, gives us our seasons. If it was not tilted exactly at 23 degrees we would not only lose our seasons but life itself—as the vapors from the ocean would move north and south, piling up continents of ice. If our moon were closer, our tides would daily inundate whole continents.

Mark Vander Hart explains how the luminaries are signs for marking seasons: "They are celestial clocks or calendars, one might say, to guide the daily and liturgical lives of God's people. The ancient Hebrews observed a lunar month (new moon festivals), and with the passing of the various months, they would know when particular festivals should be celebrated." (VanderHart, 2007, p. 28)

Robert Harbach explains that God created the luminaries "for calculating time, for marking out the four seasons, the time of animal breeding, the migration of bird (Jer. 8:7), the time of worship services and religious observances (Zech. 8:19)." (Harbach, 1986, p. 27)

John MacArthur writes about how the luminaries are for signs and seasons:

They set our calendars. They determine the length of a year. They divide the year into seasons. And they mark the passage of our days and nights.

In that sense, the whole pulse of human life is governed and regulated by the heavenly bodies. The sun determines our days. The moon determines the months. And the stars, sun, and moon all determine our seasons and years. Our whole calendar is thus determined by the stars, and even seasonal weather patterns are determined by the sun and moon. Because the earth is tilted on its axis, the sun's rays strike different parts of the earth at different angles throughout the year. That produces the seasons that are so critical for the rejuvenation of life, the growing of crops, and the flourishing of the earth. It is all in perfect balance and works to bless humanity with a variety of climates and weather patterns. (MacArthur, 2001, p. 114)

He concludes: "The stellar bodies thus determine when we eat, when we work, and when we sleep. And all of this was set in motion perfectly on day four of creation." (MacArthur, 2001, p. 115)

God made it possible for man to follow the changing of the seasons in the changing position of the heavenly bodies. The luminaries are for signs and seasons. They communicate whether it is spring (time to plant), summer, fall (time to harvest), or winter.

Andrew Willet identifies four "lawful uses" of the luminaries:

But these celestial bodies do serve both for *political observations*, as the computation of months and years, and the celebration of festivals among the Jews; and also for *signs of natural things*, as for setting, sowing, planting, and discerning the weather and seasons of the year—as Orion brings rain, the Pleiades the spring (Job 38:31). We acknowledge then four lawful uses of these celestial bodies: to distinguish the day and night, light and darkness; to be for signs of weather; to serve for times and seasons, as weeks, days and years; and to give influence by their heat, light and motion to these inferior parts. (Willet, 2012, pp. 31-35)

R. Kent Hughes waxes poetical about the result of God's creative act on the fourth day and Christ's role in this act:

God thought it and willed it, and it was! The stars were flung in their fleeing courses. The sun was set in its galaxy. The earth began to revolve around the sun—and the moon around the spinning earth—like a jeweled watch. As we saw before, this was Christ's handiwork. The constellations

speed away because Christ tells them to. The earth and moon waltz because Christ commands them to. The natural laws work because Christ ordains it. The earth was filled with rotating light: "And there was evening and there was morning, the fourth day." (Hughes, 2004, p. 33)

A Third Purpose: To Provide Light for Earth

The third purpose that God gives for creating the luminaries is that they are meant to provide light for the earth: "and let them be lights in the expanse of the heavens to give light upon the earth" (Genesis 1:15). We find the same purpose repeated in verse 17: "And God set them in the expanse of the heavens to give light on the earth."

It is striking that God created the vastness of a billion galaxies to provide soft light for creatures that live on planet earth! Notice God's geocentric motivations for creating a vast universe. God made the stars to provide nightlight for fish, birds, animals, and man. He made the luminaries to "give light upon the *earth*." Sunlight becomes the chief source of light on earth. God does not mention the role that the sun plays in warming the earth. God uses the light of the sun to heat our planet.

The words "give light" translate a verb that is in a causal form, so it means that the heavenly body cause illumination. From an earthbound perspective, the lights exist in the firmament or expanse above. They appear in the dome of the sky. I do not think that this means that the word "firmament" necessarily refers to space. The idea is that when humans look up and see the heavenly bodies—they will see them in the round, blue dome that appears above. We also speak of the sun being in

the sky. When we say this, we do not deny that the heavenly bodies exist in space. But from our perspective, the sun is in the sky, which is a synonym with the word "firmament".

How Do the Sun and Moon Rule?

God created the sun to rule over the day and the moon over the night. We read in Genesis 1:18a that God made these luminaries "to rule over the day and over the night."

The pagans thought that the heavenly bodies were gods that actually ruled. Here "the meaning is simply this: since the luminaries are situated *above the earth*, they appear to be ruling over it, as well as over its days and nights." (Cassuto, 1998, pp. 42-47)

Eugene Roop mentions the challenges of interpreting the language of the sun and moon as *ruling* over the day and night: "One word, however, proves troublesome....problems arise if that same word is interpreted as a concrete description of the power possessed by the sun and moon. The sun and moon might then be understood as royal beings who control life on earth. The thrust of this unit goes in exactly the opposite direction." (Roop, 1987, pp. 28-29)

John Currid explains the ruling of the sun and moon in terms of their brightness during the day and night:

The reason why the sun is called 'the greater' is obvious: it is larger than the moon, and it is more imposing in power and action. However, they

both are said to 'rule', one over the day and the other over the night. But in what sense do they rule (Hebrew *masal*)? That verb bears the general idea of 'to dominate'. Thus God has invested power in the sun and moon, as secondary agents, to shine forth light upon the earth and to be the largest objects in the sky to the eye, and in that sense they dominate the sky. (Currid, pp. 74-78)

Wilbur Williams explains what the sun ruling does not mean: "Govern here does not imply the authority to rule, such as a god might have." (Williams, 1999, pp. 37-38) Positively the governance of the lights "means simply when their lights would and would not shine. Their governance was limited to and based on the rotation of the earth, which God set in motion." (Williams, 1999, pp. 37-38)

John Calvin explains the sense in which the luminaries rule:

He does not ascribe such dominion to the sun and moon as shall, in the least degree, diminish the power of God; but because the sun, in half the circuit of heaven, governs the day, and the moon the night, by turns; he therefore assigns to them a kind of government. Yet let us remember, that it is such a government as implies that the sun is still a servant, and the moon a handmaid. In the meantime, we dismiss the reverie of Plato, who ascribes reason and intelligence to the stars. Let us be content with this simple exposition, that God governs the days and nights by the ministry of the sun and moon, because he has them as his charioteers to convey light suited to the season. (Calvin, Commentary on the First Book of Moses Called Genesis, vol. 1, 2010, pp. 83-88)

The Bible later includes the stars with the moon as rulers of the night sky. The Psalmist states that God made "the moon and stars to rule over the night" (Psalm 136:8a). Matthew Henry believes that the rule of the moon and stars at night simply means that they give light, as we read in Jeremiah 31:35: "Thus says the LORD, who

gives the sun for light by day and the fixed order of the moon and the stars for light by night."

That the sun and moon rule the day and night means that they "govern the passing of day and night." (MacArthur, 2001, p. 109) The luminaries are not deities that rule or direct the lives of humans like pagan gods did. The sun is not personified as the Greek sun god, Apollos. Instead the language of ruling merely "speaks of how the heavenly bodies govern our days, nights, months, and years—and thus they control our life patterns....They "rule" only in a figurative sense. In other words, their light oversees the earth and governs its passage from day to night." (MacArthur, 2001, p. 109)

How Could Light from Distant Galaxies Already Reach Earth

Today we have light reaching us from galaxies that are farther away than 10,000 light years. The question is: how could light from these distant stars traverse such vast distances to reach the earth when the luminaries are not older than 10,000 years? John MacArthur begins answering this question by pointing out that nothing is impossible with God.

He is certainly capable of getting the light across the vast reaches of space in accordance with His purpose. Don't imagine that the light from the stars is merely an illusion or a deception. Scripture indicates those are real stars out there, and what we are seeing is actually light from the stars, not an illusion. So it appears that at the moment of the stars' creation, God accelerated the light so that it would reach the earth in an instant. (MacArthur, 2001, p. 118)

MacArthur explains why this proposal is not unreasonable:

Remember that according to Einstein's theory of general relativity, time is not a constant. Some creations who are trained in physics believe it is theoretically possible for a dilation in time to enable light to travel those vast distances instantly. After all, as we noted in the previous chapter, even many scientists who subscribe to big bang cosmology now believe that the universe itself exploded out of nothing to its immense proportions in an instantaneous "miracle." (MacArthur, 2001, p. 118)

God Pronounces the Heavenly Bodies Good

After creating the luminaries, God pronounces them good: "And God saw that it was good" (Genesis 1:18b). Technically, God does not speak a word. He pronounces nothing. Instead Moses describes how God perceives the luminaries. He sees them as good. The luminaries are good in the sense that they contain no defects. They function properly. They work precisely as He planned they would. They are good because they are dividing the day from the night, providing appropriate light for the day and night, and are beginning to function for signs and seasons.

The light bearers are good because they function to display the glory of God. The Psalmist states: "The heavens declare the glory of God, and the sky above proclaims his handiwork" (Psalm 19:1).

The stars are good because they function to keep man humble. The Psalmist sings: "When I look at your heavens, the work of your fingers, the moon and the stars, which you have set in place, what is man that you are mindful of him, and the son of man that you care for him?" (Psalm 8:3-4)

The Psalmist is moved to praise God when he reflects on the stars:

Give thanks to the LORD, for he is good, for his steadfast love endures forever....to him who made the great lights, for his steadfast love endures forever; the sun to rule over the day, for his steadfast love endures forever; the moon and stars to rule over the night, for his steadfast love endures forever (Psalm 136:1, 7-9).

Apostle John heard an angel expressing how God as creator is worthy of worship: "Fear God and give him glory, because the hour of his judgment has come, and worship him who made heaven and earth, the sea and the springs of water" (Revelation 14:7).

John MacArthur writes about the luminaries: "Their vastness, their complexity, their beauty, and their sheer number all reveal the glory and the wisdom of an all-powerful Creator." (MacArthur, 2001, p. 105)

The Psalmist glimpsed the vastness and size of the cosmos, and yet knew that His God was far greater than the creation. Such is the exalted power of God that He only needed to move a little finger to make the stars: "When I look at your heavens, the work of your fingers, the moon and the stars, which you have set in place" (Psalm 8:3).

Matthew Henry teaches that the daily rising and setting of the sun is reason to praise God: "The revolutions of the day and night oblige us to offer the solemn sacrifice of prayer and praise every morning and evening." (Henry, 1994, p. 5)

The Fourth Historical Day Concluded

A day is counted from the setting of the sun on the previous day to sunset: "And there was evening and there was morning, the fourth day" (Genesis 1:19). The fourth day is described in similar terms to the previous three days. It is true that we can call the fourth day the first "solar" day since the word "solar" refers to the sun. But the fourth day is described in the same way as the previous three days. The fourth day also involved the setting of the light source (now the sun) from a geocentric perspective. The alternating of periods of light and darkness continues. For the first time in earth's history, the plant life on earth is illuminated at night by the moon and stars.