

Take Alpha Centauri as the centre of an adjacent ‘finite situation’ and the distance to Earth as its radius. Would not, at the very least, the stars that the two ‘finite situations’ share be pulled in both directions and thus, to some extent, cancel one’s effect on the other? (As Hawking says, every point can be considered the ‘centre’. So every star would be being pulled in all directions all the time. The Copernican Principle seems to require this.) To me, Newton’s conclusion is valid. Of course, not being a physicist, I might be completely missing the boat here.

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References

1. Hawking, S., *The Illustrated: A Brief History of Time*, the updated and expanded 10th anniversary edition, Bantam Books, pp. 8–9, 1998.
2. Weinberg, S., *The First Three Minutes: A Modern View of the Origin of the Universe*, second paper edition, Basic Books (Harper-Collins), NY, p. 32, 1993. As quoted in: Humphries, D.R., Starlight and time: a response, *Journal of Creation* 14(2):74, 2000.
3. Humphries, D.R., Starlight and time: a response, *Journal of Creation* 14(2):73–74, 2000.

John Hartnett replies:

In some regards both Humphreys and Hawking are correct, but we must be very careful to understand the inherent limitations in their models.

If we start with the Hawking situation, where the universe was infinite and perfectly smooth, then Humphreys is correct in that there is no *preferred* point towards which the matter would concentrate. The problem is that the universe would still need to contract. However, without a preferred point it would want to contract toward *every point in the universe*. In other words, the energy content of any point would become infinitely large. So Hawking is correct, you cannot have a static universe where gravity is only attractive. But the result is still an infinite

universe with infinite density.

If we however start with a distribution of matter that is not perfectly smooth, there would be an imbalance of forces. Thus, there would be a preferred point or points towards which matter would concentrate. The result would be an infinite universe with special points that have infinite density, but still no single centre.

The current big bang model uses the Friedmann–Lemaître–Robertson–Walker (FLRW) metric, which describes the first situation with the difference that spacetime curvature allows the infinite to become finite yet still without a boundary, i.e. unbounded—therefore no real centre. This is the result of allowing one of three situations: 1) a closed and finite universe that is curved back on itself in a hypersphere, 2) a flat, infinite, open and unbounded universe that follows Euclidean geometry and 3) a negatively curved, infinite, open universe. Observations now seem to indicate we are in number 3.

Humphreys’ model for the universe has a boundary but still admits space-time curvature using a metric similar to FLRW. This boundary introduces another term into the solution of Einstein’s field equations that contains a definite point in space that can truly be called a real centre for the entire distribution.

So how do we reconcile observation (number 3) with a finite universe? I believe it is simple. The expansion state of the universe (accelerating) may indicate that we are in a number 3 type but it doesn’t automatically follow that the matter distribution is infinite. In fact, the most logical conclusion from Scripture is that the universe is finite. So why not a finite ball of galaxies embedded in an expanding open universe of infinite extent? This means there would be a preferred point towards which the force of gravity would be focused as in Humphreys’ model—the centre. And the evidence suggests that centre is on our Galaxy.

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Translating Psalm 19:4

Andrew Kulikovsky asks a question in his article ‘Scripture and general revelation’¹ which I will now answer for him: ‘How then should verse 4 [of Psalm 19] be translated?’

Using Scripture to interpret Scripture, the answer to the textual portion, at least, of Mr Kulikovsky’s question is found in Romans 10:18’s quotation of this very passage, where *qôlâm* is rendered as *φθογγός* or ‘sound’.

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References

1. Kulikovsky, A.S., Scripture and general revelation, *Journal of Creation* 19(2):23–28, 2005.

Andrew Kulikovsky replies:

Daniel Buck suggests, based on the quotation in Romans 10:18, that *קולם* is rendered as *φθογγός* or ‘sound’ in line with the principle that ‘Scripture interprets Scripture’. While this ‘principle’ is often cited and used by evangelical creationists, it is nonetheless overly simplistic and somewhat circular. If we use Romans 10:18 to interpret Psalm 19:4, then what Scripture do we use to interpret Romans 10:18—Psalm 19:4? Moreover, what were the Jews and the first century Christians outside of Rome supposed to use to interpret Psalm 19:4? They did not have access to the book of Romans.

Secondly, English translations of Romans 10:18 do not render the Hebrew *קולם* (*qôlâm*, ‘their voice’) at all. Romans 10:18 is a direct quotation of the LXX. It renders the Greek *φθογγός* (*phthoggos*, ‘voice’, ‘sound’). As I pointed out in my paper, the LXX does not follow the Masoretic text which has *קוֹמָם* (*qāwām*, ‘their measuring cord’), and which I argued could be rendered as ‘extent’. In

other words, one cannot appeal to the English rendering of Romans 10:18 to determine the English rendering of Psalm 19:4 because the two words in question are from different languages and have different semantics!

Thirdly, Romans 10:18 does not elaborate or 'expound' the meaning of Psalm 19:4. The author, the Apostle Paul, merely quotes it in order to make a point. The point that Paul is making is that 'faith comes from hearing the message, and the message is heard through the word of Christ' which all Israel has heard and therefore has no excuse for rejecting Him (Romans 10:16–17). Note that the antecedent of 'their' in verse 18 is 'the word of Christ' in verse 17. However, the antecedent of 'their' in Psalm 19:4 is 'the heavens' and 'the skies' in Psalm 19:1. Therefore, the citation of the LXX's rendering of Psalm 19:4 in Romans 10:18 adds nothing at all to the actual interpretation of Psalm 19:4. It appears that Paul, under the inspiration of the Holy Spirit, deliberately chose to cite the divergent LXX rendering to function as a literary device in order to reinforce what he had just stated in the previous two verses: that all Israel had heard the word of Christ.

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The age of the universe

Frank DeRemer's review of my book, *The Age of the Universe*,¹ has 'problems' chiefly on three stated items.

1. The 'cloud of thick darkness' (Job 38:9) remaining megayears over the ocean, leaves the first day with no evening, therefore, only a half day.
2. Rendering *tohu* as deserted, uninhabited or desolate instead of 'formless' twists Genesis 1:2.
3. 'Heavens' (v. 1) refers to space, not stars, and 'earth' refers to water,

not to our planet. God crafted everything from water.

Briefly:

1) The half-day 'problem' is nonexistent

Simply allow God to clear the cloud of darkness to translucence at 6.00 pm observer's time for evening on Day 1. But this point applies more sensibly to Frank's view. He has no evening possible; indeed he *cannot* have an evening, for nothing but amorphous water exists when light is created.

God Himself says a 'cloud of thick darkness' ('waters above') surrounded the earth like a garment and diaper when Earth emerged from the 'womb' at its 'foundation', thus explaining many things. Tell me how long darkness prevailed (v. 2) and Earth's age becomes calculable. As long as oceanic darkness endures, a 'first day' is impossible. Genesis 1:1 is dateless. Mr DeRemer charges 'misuse' of Job 38:9.

2) The 'subtraction method' best determines the meaning of *tohu*

At Day 6 we agree everything was perfect. Subtracting each day's activities, determines Earth conditions after the loss of each day. Days 6, 5 and 4 leave the planet intact and complete. Subtracting Day 3 leaves it complete with land submerged. Subtracting Day 2, we lose the expanse 'where birds fly' (v. 20), but the planet remains firm. Subtract Day 1 and the completed planet, fully formed as on Day 6, becomes totally dark. So I insist the translations 'without form', 'formless', 'unformed' misrepresent the contextual meaning. *Tohu* should elicit translations as 'deserted', 'desolate', or 'uninhabited'. Planet Earth was complete, ocean-covered, although without a biosphere.

DeRemer assigns planet Earth creation to Day 3, rejecting this subtraction path. *But on Day 3 God defined the dry ground as earth.* Continents are in view, therefore, the path to a fully formed planet Earth



When God said '... and let birds fly above the earth across the expanse of the sky' (Genesis 1:20), was He referring to the sky itself or only the inner atmosphere or 'surface' of the sky?

on Day 1 remains. The subtraction method appears unanswerable unless mental acrobatics are invented, far from Bible text.

3) An 'amorphous' ball of water, comprising the entire universe is proposed as 'Earth'

Is molten brass a statue? Even worse, is a bathtub of water a statue? No, it must be transmuted, then melted in refractory vessels, cast into statue shape, cooled and stripped. Then name it 'statue'. Does 'earth' in verse one mean water? Not by a country light-year. No personal offense intended but this is gross eisegesis, reading conjecture into the text. David defines heavens as 'sun, moon and stars' which God created 'in the beginning' before Day 1. But during the six day work, God Himself defines heaven as air, and earth as dry land. Every language attaches multiple meanings to words. Verse one could not use the 'air / land' definitions because those items were not yet created. But the heavens, earth and sea of Exodus 20:11 are defined unmistakably by God Himself during those identified six days *after* the verse one creation of the galaxies and planet Earth. Because He defines these phenomena in the simplest terms, Day, Night, Dry Land, and Sea, it is monstrous to suddenly define the expanse as 'space' or the stretched out universe. The 'expanse' is where birds fly (v. 20), exclusively air; another child-understandable term. The expanse is air, and because these definitions emerge *in the midst of*