

to Abraham until the Exodus was 430 years. Galatians 3:16 is not specific about which promise it is talking about although Galatians 3:6 does reference Genesis 15:6. Many promises were made. Which promise applied to Jesus? How was it confirmed? Genesis 12:3 says, ‘And I will bless them that bless thee, and curse him that curseth thee: and in thee shall all families of the earth be blessed.’ When Egypt was spared from the seven years of famine, certainly this promise was confirmed. Galatians is not clear on the details that apply to start of the 430 years. It cannot be determined from this passage what the starting point is. To apply a specific duration to an unspecified starting point is not a legitimate method of chronology.

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David Down replies:

I recognize that the verses in Exodus 12:40 and Galatians 3:16 are open to alternative interpretations, both as to the wording and the meaning. The Hebrew of Exodus 12:40 is very terse. It literally says, ‘and dwelling sons Israel which dwelt in Egypt 430 years’. To me it seems the emphasis is on the Israelites all coming out of Egypt on the very same day at the end of the 430 years, verse 41. It was a mass movement of two million people and it all happened on one day. Amazing.

There is also the problem of the four generations in Genesis 15:16. That would be hard to stretch into 215 plus 430 years.

I do not consider the LXX to be a superior translation to the Massoretic text, but it is of interest to note that the LXX translation of Exodus 12:40 reads, ‘And the sojourning of the children of Israel, while they sojourned in the land of Egypt, and the land of Chanaan, was 430 years.’

However I admit there can be the meaning that Israel was 430 years in

Egypt, but I feel that as we have to interpret some facts in the light of others, I prefer to conclude that the 430 years stretched from one of the promises made with Abraham to the night of the Exodus. It does seem to me that Galatians 3:16, 17 is saying that the 430 years began with this covenant with Abraham.

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Schizophrenia can be cured!

I read with interest Eric Wright’s article about schizophrenia. What struck me forcibly was his claim that the real cause had not been found nor an effective treatment. This is the standard view, but there is well documented evidence of a treatment found separately by two psychiatrists and a psychologist working in three different mental institutions some years ago. They achieved a very high measure of success, but their results have been completely ignored by the psychiatric/psychological professions today. I am very deeply concerned that as many people as possible should be made aware of its existence, particularly those dealing with its treatment. If anyone wishes to find out more, they are free to email me on mb@mbowden.info.

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Some spacetime clarifications

Some clarifications of Don DeYoung’s recent article in this journal, ‘Creation and curved space-time’,¹ are offered, plus a tangential comment. The term ‘curved space’ should rather be ‘curved space-time’. It is at least theoretically possible that our universe is *spatially* flat yet is curved space-time. It is not Minkowski spacetime (Special Relativity) by any means; for one thing, Minkowski spacetime cannot theoretically start from or end in a singularity.

Many readers would naturally think of a ‘flat space’ universe as analogized by an infinite Euclidean plane. However, General Relativity does not determine the topology of the universe. We usually assume ‘maximal topology’, so that the zero and negative cases discussed in the article are perforce ‘open’, but that is not necessarily so. For all we know the universe could be like a tire tube yet be spatially flat or negatively curved at every point. ‘Flat, yet closed’, Tom Sawyer says flatly (sorry, couldn’t resist such inflated wit). Moreover, it seems possible to argue that not even the maximal topology of Minkowski spacetime is the maximal topology of ordinary Euclidean four-space. The latter space does not possess null geodesics.

The article appears to be based on the idea that the universe can be modelled by a Friedman–Lemaître–Robertson–Walker (popularly a.k.a. big bang) cosmos. See D. Russell Humphreys’ reply to S. O. Campbell’s letter^{2,3} and John Hartnett’s excellent articles^{4,5} in the same issue of *TJ*; these works scold that idea.

The author writes, ‘If space curvature indeed occurs, we cannot observe it because we are embedded in space.’ That shows another reason we should be careful to speak of space-time curvature not just space curvature. We can observe/measure the curvature of space-time—at any rate its effects. Think of the moon and earth as test particles and measure the

separation between them, as in lunar laser ranging. (Remember the corner reflectors placed on the moon?) Even the tides on Earth betray the curvature in Earth's corner of the solar system. (We need to be mindful that time is a dimension, just as the spatial ones are.) We would not observe these effects in Minkowski space-time, which has zero curvature.

The term 'curvature' does not refer to the extrinsic curvature of say a Euclidean sphere embedded in four-space; rather it refers to the intrinsic curvature of spacetime. It is similar in a few ways, yet is a different animal, so to speak, in non-Euclidean geometry.

Incidentally, whether the cosmos is open or closed is an important issue for General Relativity. If the cosmos is open, then General Relativity is incomplete at least as regards the origin of inertia; it would require supplementary principles or general hypotheses to yield determinate results. To be sure, if the cosmos is indeed closed, General Relativity would still be incomplete, but it would require much less supplementary principles.

For more details, see a textbook such as Misner, Thorne and Wheeler, *Gravitation*, W.H. Freeman, San Francisco, 1973. Nevertheless, I enjoy DeYoung's article.

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References

1. DeYoung, D., Creation and curved space-time, *TJ 17(2)*:5-7, 2003.
2. Campbell, S.O., Einstein says that cosmological expansion is not locally detectable, *TJ 17(2)*: 67, 2003.
3. Humphreys D.R., Humphreys reply: only the big bang says that, *TJ 17(2)*:67-68, 2003.
4. Hartnett, J. G., The heavens declare a different story! *TJ 17(2)*:94-97, 2003.
5. Hartnett, J. G., A new cosmology: solution to the starlight travel time problem, *TJ 17(2)*: 98-102, 2003.

Human rights verses biblical responsibility

I am writing in response to the very interesting paper in *TJ 17(3)* by Rodney Hordern on 'Human rights and biblical responsibilities'. I found the paper stimulating, although it ranged across a wide range of themes; it challenged me to think through my understanding of the issues of human rights and the development of them in their current quasi legal/ quasi political format. While I agree with the moral thrust of Hordern's argument, I feel that he failed to give sufficient weight to the effective use that codified human rights already play in the political and legal systems of nation states within the world today. I also would not have commenced my examination of human rights with the 'United Nations Declaration on Human Rights', as the concept of Human Rights being defined and codified does, I would argue, date back far earlier than that, and within the common law countries probably starts with Magna Carta. Magna Carta was created as a doctrine of rights by the barons of England in dispute with King John (the wicked King John of the Robin Hood legend). Although many of the rights are now only of historic interest, it is from Magna Carta that we get the concept of the jury trial, as the barons demanded that a man must face trial before a group of his peers rather than just before the king.

Hordern did not appear to mention the 'Constitution of the United States of America'. This document created after the USA broke away from UK rule was intended to preserve the human rights of Americans from oppression. It provides for amongst other things freedom of religion, which was important to people fleeing to America from religious persecution in Europe. The constitution of the USA was drawn up by men who included, I am given to understand, 'Bible believing' Christians. In the USA, the role of the supreme court has been to interpret the written constitution, and if necessary strike out any proposed

legislation that in their opinion is in breach of the constitution. In this way, even the President can be overruled. It seems to me, that the Christians who took a part in devising the constitution saw no conflict between the creation of universal human rights of man transcending governments, and governments being subservient to those fundamental human rights.

The backdrop to the UN declaration on human rights and the UN charter was the second world war, which had caused the deaths of millions without due process of law in concentration camps, and had led to many millions more becoming refugees, as the boundaries of nation states were redrawn by the victorious allies, and the descent of the 'iron curtain'. If one accepts that the responsibility for WWII rests with Nazi Germany, then it should be pointed out, that initially at least Hitler was democratically elected. It perhaps should also be pointed out, that long before WWII; the sovereign state of Nazi Germany was persecuting sections of its own society on religious grounds. But in a system of parliamentary sovereignty that persecution became legal under the law, as handed down from the Reichstag to the courts. The much vaunted parliamentary sovereignty argument is just that, parliament cannot bind its successors, and therefore a new parliament is free to make whatever laws it wishes, just or unjust. The impetus for the UN (and this is stated in the charter) was that never again would mankind be blighted by such evil as had been experienced in that war. The declaration was a blue print for how 'peace on earth' might be achieved and the dignity and rights of man are respected. Many countries have incorporated the UN declaration as law in their constitutions, including the 'European Charter on Human Rights' which it is submitted borrows heavily from the UN document. The problems in the Balkans, the Middle East and Africa, however, have shown the UN and the world how far away from the vision contained in the UN declaration the world today really is.