

*devolved their claims of punctuation from an "alternative" to being "complementary" [to gradualism].*¹

Wise wants to divorce PE from biological mechanisms for speciation. However, more than half of Eldredge and Gould's original 1972 paper is devoted to allopatric speciation and re-interpreting some of the published fossil data in the light of this **biological** theory. Indeed they tried to claim that the concepts of abrupt appearance and stasis were palaeontological predictions derived from their understanding of allopatric speciation. In 1977 they wrote, '*Our model of punctuated equilibria is a hypothesis about mode.*'² (Emphasis mine.) That is, they saw it primarily as a biological mechanism of evolution. Later, they wrote of allopatric speciation models as being '*. . . the very heart and soul of punctuated equilibria.*'³ This does not sound like an optional component of PE, as claimed by Wise. However, I agree with Wise that PE is basically a palaeontological theory, or rather observation, but Eldredge and Gould have tried to cast it as a prediction of the biological theory of allopatric speciation.

Wise also wants to completely divorce PE from macroevolution, but this is not possible either. Again the original Eldredge and Gould paper devoted a section to '*some extrapolations to macroevolution*'. In their 1977 paper they wrote at length on '*Punctuated equilibria as the basis for a theory of macroevolution: the speciation theory.*'⁴ Furthermore, in the summary to their 1993 review they stated two significant implications of PE as:

*'the recognition of stasis . . . and . . . the recasting of macroevolution as the differential success of certain species.'*⁵

Wise wants to recognise the first but ignore the second. It is well to remember that macroevolution still entails speciation.

Wise says that, to his knowledge, Gould '*has never . . . claimed there are no stratomorphic intermediates between higher groups . . .*' In my paper

I cited Gould as saying,

*'The absence of fossil evidence for intermediary stages between major transitions in organic design . . . has been a persistent and nagging problem for gradualistic accounts of evolution.'*⁶ (Emphasis mine.)

I stand by my review. I believe I have accurately reviewed PE, **as perceived by Gould and Eldredge**, although I concede that this may encompass more than the PE of Wise.

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REFERENCES

1. Levinton, J., 1994. Scientific Correspondence. **Nature**, **368**:407
2. Gould, S. J. and Eldredge, N., 1977. Punctuated equilibria: the tempo and mode of evolution reconsidered. **Paleobiology**, **3**:116.
3. Eldredge, N. and Gould, S. J., 1988. Punctuated equilibrium prevails. **Nature**, **332**:211.
4. Gould and Eldredge, Ref. 2, pp. 139-145.
5. Gould, S. J. and Eldredge, N., 1993. Punctuated equilibrium comes of age. **Nature**, **366**:223.
6. Gould, S. J., 1980. Is a new and general theory of evolution emerging? **Paleobiology**, **6**:127.

SPEED OF LIGHT DECAY

Dear Editor,

Lots of statistical treatments, based mainly on regression analysis, have been submitted to this journal claiming that the hypothesis of Barry Setterfield that *c*, the speed of light, has decreased in the recent past is without proper statistical and scientific foundation. I cannot recall that any author has submitted the historic measurements of *c* to an analysis of variance. This test has been used to establish the significance or otherwise of regression equations but has not been applied directly to the *c* data itself. I have therefore performed an analysis of variance on this historic data. This analysis compares the variance **within** each individual determination of *c* with

the variance **between** each individual determination. The result of this test indicates that there is a far greater statistical variation within the estimates of *c* than there is between the estimates. The result is highly significant ($p = <0.01$). This result is not surprising when one considers that the early measurements using very crude methods carry very large standard errors compared with the measurements made post-1947 using electronic methods and whose standard errors are very small. This result supports the claim of Aardsma, Brown, Evered and others that *c* is a real constant, and means that the claim of Setterfield, Norman and Montgomery that *c* has undergone a statistically significant reduction in the last 300 years cannot be substantiated when the true nature of the scatter of the data is taken into consideration.

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NAMES FOR GOD IN GENESIS

Dear Editor,

May I be permitted to add something to Dr Taylor's paper on Genesis, which appeared in **CEN Tech. J.**, **8**(2):204-211? Dr Taylor has done us all a great service in helping to restore our faith in the truth and integrity of the book of Genesis. We are, however, left with one big question. How did the covenant name for God find its way into Genesis? For we are plainly told, when God appeared to Moses, that the name Jehovah (YHWH) was a new revelation, not before revealed to the people of God. In Exodus 6:3 we read, '*I am the Lord (Jehovah or YHWH). I appeared to Abraham, to Isaac and to Jacob as God Almighty, but by my name Jehovah I did not make myself known to them.*' This seems plain enough, and on the basis of this statement we should not

expect to find the name Jehovah in the book of Genesis. But in fact the Name occurs not less than 162 times in the first book of the Bible.

I think we can dismiss the suggestion, made by some scholars, that the name was known, but that the significance of the name was not known to the patriarchs. A solution was proposed in the nineteenth century by the Higher Critics, which became known as the Graf/Wellhausen hypothesis. They suggested that the different names for God represented different documents, which were compiled at different times, much later than the events they were alleged to record. The documentary hypothesis has been long discredited, but is still being taught in some quarters. But that does not solve the problem of the names for God in Genesis.

What is the real position? How did the name Jehovah get into Genesis? The name does not occur in Genesis 1:1 to 2:4, and only once in the story of Joseph in Egypt. P. J. Wiseman suggests that the insertion of the name is due to Moses, when he transcribed the ancient documents for the benefit of the children of Israel. The old titles for God had become debased by heathen usage, and Moses preferred not to use them. But he retained enough of the old usage to maintain continuity with the past. We find a connection between Exodus 6:3 and Genesis 17:1. In the latter verse God says to Abram, *'I am Almighty God, walk before me and be thou perfect.'* In the Exodus reference God says to Moses, *'I appeared to Abraham (etc.) as God Almighty.'* This is the name by which God made Himself known to Abraham and the other patriarchs, for the name appears five more times in Genesis, as God revealed Himself to Isaac and Jacob. The name Almighty appears infrequently in the Bible outside of Genesis and Job, and in the few places of its occurrence it tends to be in a Gentile context, being used by Balaam and in the book of Ruth, which might suggest it was common

usage among the Moabites, from whom Ruth came.

Another name for God is Most High. It is used four times, all in connection with the priest of the Most High God in Genesis 14. Apart from Daniel and some of the Psalms it is used infrequently in the Old Testament. Again, where it is employed, it tends to be in a Gentile context. In Israel, the name for God was Jehovah, and from the time of Moses on it was used with increasing frequency by members of the Israelite community.

Of the 162 usages of Jehovah in Genesis, nearly 40 instances of its use are in the mouths of the speakers in Genesis. Here is the test. Does the name Jehovah have any significance, or could the name have been put into the mouth of the speaker by the editor of Genesis, whom we assume to be Moses? We find that of all the uses of Lord on the lips of the speakers in Genesis, none of them carry any covenant or revelatory significance. In Genesis 48:3 Jacob says, *'God Almighty appeared to me at Luz'*, which appears to be the true interpretation of Genesis 28:13-17.

It would seem that the revelation of God to the patriarchs was contained in the name God Almighty, as we see in Genesis 17:1. When the new covenant name, the only name for God, was revealed to Moses, the other names or titles were dropped, and the new name of Jehovah became the name by which God was known henceforth in Israel. It has been suggested that the names 'Most High' and 'God Almighty' were debased by Egyptian usage, and that those names were dropped in Israel when the covenant name was given. There was a new departure in the life of the Israelite people when God sent Moses as their deliverer. In the same way the name of Jesus was revealed when God sent His Son as the deliverer of His people from their sins.

I believe that this explanation, along with that of Dr Taylor's, completely vindicates the Book of Genesis and

shows it to be a true and accurate record of the times and of the manner of its compilation.

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DECREASED LIFESPANS

Dear Editor,

To let the Word of God set a limit to the life of man is to accept popular, even worldly, exegesis of Psalm 90:10. He does not will the end of man (II Peter 3:9). Also Psalm 90 is the song of Moses, the man of God, not David as paragraphs 4 and 5 indicate.¹ Also see Beasley.²

I have never been happy that these verses are defining man's lifespan. Many live well past 80 years. (Surely they are not wrong or aberrant to do so!)

But the nicest exegesis of this Psalm is that Moses is addressing, and describing and relating to, the wilderness generation. (He was pre-eminently the man of the wilderness. This Psalm begins the fourth or wilderness [Numbers] book of the Psalms. In the Hebrew the ascription *'A prayer of Moses the man of God'* is part of verse one.) In it he described the situation of those who refused to enter the promised land at Kadesh Barnea. All over 20 years of age were to die within the next 40 years, that is, prematurely. They'd die by 60 years if 20; the 30 year olds (the median age for that perishing generation) would make 70 years **at most**. (Youth lasted till one was 40 years in the ancient world. Likely this was the mean age for that perishing generation.) 40 year olds 'by reason of strength' might make 4 score — no more. They were indeed 'cut off' (verse 10). This describes the premature death of sinners. Saints commonly live happy and robustly past this age today (Moses, 120 himself died **after** surviving those 38 years. His 'rebellion' [Numbers 27:14] was done in front of the next generation and after