

## The 'tone' of contributions

As a relative newcomer to CEN Tech. J., I am glad to find an excellent publication, though marred for me personally, and I suspect others, by the 'tone' of responses and counter-responses to some articles. I would like to ask your correspondents to consider a little more carefully how they word what they write, and avoid getting so carried away with 'winning' their adversarial point that they lose their hallmark of Christian charity.

Whatever our sober estimates of ourselves and the importance of the message that we 'burn' to get across, the truth is that ... none of us is omniscient, and any lasting value our work has is attributable to Christ — no one else! If our communication is corrupted with self-justification or invective, it fails to glorify Jesus and is useless — 'though I have ... all knowledge ... and have not charity, it profiteth me nothing' (1 Cor. 13:2).

I can appreciate that it is galling for many hours of carefully crafted work to be ignorantly rubbished, misconstrued or misunderstood. God's word insists that all things happen for good and so, dear Author, whether your work makes an impact or not, God's purpose will be being achieved, and we should rejoice in that. None of us should try to 'prove' our worth, because God is no 'respector of persons', and, to the contrary, we have an obligation to love and esteem others better than ourselves [Phil. 2:3].

I'd like to appeal to all writers to look through back issues of this journal and determine whether or not this appraisal is a fair one and act accordingly. Perhaps, if felt appropriate, the editor could add a suitable phrase or two to the 'Instructions to Authors' printed on the inside back cover of each issue.

As Job's comforters discovered, truth does not perish with us: God delights in the good work of writing

## A note from the editors — play the ball, not the man

We are in broad agreement with the sentiments in the first letter, and (as our instructions to authors now indicate) we do wish to actively discourage this sort of thing henceforth. We have already resisted publishing some contributions for that very reason.

We were in a dilemma with this TJ issue, having already received the letters (following) on the 'Starlight and Time' controversy. In the end, we decided to publish them this once, especially since various authors were claiming to be defending themselves against similar personal attack.

However, in future, submitted items which feature similar ad hominem statements will almost certainly be either rejected or require rewriting.

Speaking of ad hominem, we

received an item for publication from Del Ratzsch, of Calvin College, the author of the book *The Battle of Beginnings*. Ratzsch is critical of the review of his book by Carl Wieland which we published in 12(1):23–28, 1995. Among other things, the item claimed that the reviewer repeatedly cast doubt on the author's integrity.

We decided not to publish the submission. First, because it had already been published elsewhere (intending contributors take note). Secondly, because (as stated) we are trying to pare down/eliminate emotive issues in this journal. Dr Wieland says, 'My comments concerned what I perceive as the author's bias (not necessarily all conscious) toward theistic evolution (the view stridently pushed by his College). While standing by my general opinion of the book, no personal offence was intended.'

He's prepared some of us to excel in it, but only if executed in grace. Let's make the Technical Journal excellent in both content and the 'tone' it is presented in!

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## Humphreys' new vistas of space

In his recently published article,<sup>1</sup> D. Russell Humphreys makes some disparaging assertions about me and my associates, and I would like the opportunity to respond.

Long before [Humphreys' book] *Starlight and Time* went to the publisher, I reviewed the work and encouraged Humphreys to change his mind about publishing. I based my appeal on well established, well understood science, including the fact that the universe is filled with

'clocks' (time-dependent phenomena in stars and galaxies) that refute Humphreys' fundamental premise about time variations in the history and 'geography' of the cosmos. Humphreys dodged the issues I raised, diverted to side issues, and eventually resorted to attacking my expertise as a scientist, as well as my character and theology.

I am 'disturbed' (as he says) but not at all 'threatened' (scientifically, intellectually, or in any other way) by *Starlight and Time*. My motive is to save the Christian community, including Humphreys himself, from embarrassment and from unnecessary scorn. Since Humphreys had no respect for my views on his work, in early 1995 I asked four physicists (all of whom accept the five doctrinal statements which appear on the inside front cover of your journal) to appeal directly to Humphreys. They reviewed his material in detail and concluded that it should be withdrawn. While Sam Conner (MIT doctoral candidate in astrophysics) wrote the technical

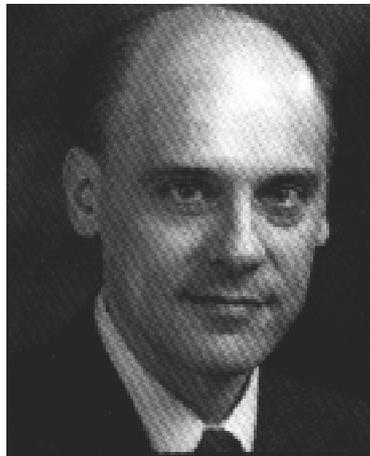
communications to Humphreys, Don Page (Ph.D., Caltech in physics on general relativity), Gerald Cleaver (Ph.D., Caltech in physics on string theory), Michael Strauss (Ph.D., UCLA in physics on fundamental particles), and I (Ph.D., Univ. of Toronto in astronomy on quasars and galaxies) reviewed the communications by Conner.

After only a few months of written exchange between Conner and Humphreys, Humphreys refused to continue any technical discussion (shortly after this point, Conner and Page began, at the invitation of young-earth ministries, including your own, to write for general Christian consumption). Humphreys' final communications to Conner were evasive and disrespectful, much as his communications with me have been. Apparently, anyone willing to question his views and able to identify his mathematical and physical errors is, in his view, incompetent. Thus, we appeal to your journal, for we hope that if creationists (and I am one, not a theistic evolutionist as Humphreys repeatedly asserts) acknowledge the implausibility of *Starlight and Time*, the damage it brings to the Christian community and to your and our evangelistic efforts can be minimized. Let's not give our mutual adversaries a boost.

Contrary to what Humphreys implies,<sup>2</sup> I have never conceded that my criticisms, published in *Facts & Faith*, were invalid or incorrect. I did acknowledge that they were too briefly stated to be widely understood. I might add that nothing I've seen in any of Humphreys' writings would cause me or my colleagues to alter or abandon our evaluation of his theory. I can only interpret Humphreys' ongoing dodges and insults as a subterfuge.

While I applaud *Creation Ex Nihilo Technical Journal* for publishing Conner and Page's critique of *Starlight and Time*<sup>3</sup> I can only wish that the editorial team had

restrained Humphreys from characterizing Conner and Page as 'blind' and their thinking as 'incomplete', a 'mistake', and 'contradictory'. (Readers and Humphreys might be helped in such cases by the intervention of some outside referees.) [There were three — ed.] Humphreys' attacks on Conner and Page, his disregard for their knowledge and expertise, and his trading of one untenable model for an even less tenable one (his appeal to imaginary time will delight opponents of the Christian faith) only enlarges people's barriers to trusting in the reliability of the Bible and to believing in the God who inspired it.



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**References**

1. Humphreys, D.R., 1998. New vistas of space-time rebut the critics. *CEN Tech. J.*, 12(2):195-212.
2. Humphreys, Ref. 1, footnote 69, p. 212.
3. Conner, S.R. and Page, D.N., 1998. *Starlight and time is the big bang*. *CEN Tech. J.*, 12(2):174-194.

**Russell Humphreys replies:**

I am disappointed that Dr Ross has chosen to respond to my cosmology model on such a personal level, rather than forthrightly addressing the scientific issues I

raised. Instead, the main purpose of his letter appears to be to portray me as dishonest. He alleges that I am 'evasive and disrespectful' and use 'dodges and insults as a subterfuge.' Therefore, he implies, my cosmology must be wrong. I hope no reader of this journal thinks that is a valid logical argument! However, Ross has been saying such things to his audiences for many years without giving me an opportunity to reply, thus leaving them with a wrong impression of me and my work. I am glad to have this chance to respond to these allegations in public. Let's consider the main ones:

1. 'Long before *Starlight and Time* went to the publisher, I reviewed the work and encouraged Humphreys to change his mind about publishing' — Wrong. Ross never reviewed my cosmology, and never advised me not to publish it. In fact, in April 1993, before I had written my paper, Ross declined the opportunity to officially peer-review it for the editors of the scientific conference to which I planned to submit it.<sup>1</sup> Then he ceased corresponding with me for over five years, until December 1998. The scarcity of specific dates in Ross's letter suggests he is relying mainly on his memory, which could explain his confused account of events. If he has misplaced his files of the correspondence, I can provide him with copies.<sup>1-3</sup>
2. 'I based my appeal on ... the fact that the universe is filled with "clocks" ... that refute Humphreys' fundamental premise about time' — Wrong. There was no appeal. Ross's April 1993 letter was his last communication to me before my book went to the publisher in October 1994. Neither that letter nor any of his previous communications to me said anything about clocks or my 'fundamental premise', gravitational time dilation. As for his claim about clocks here, it too is

- wrong (see reference 11).
3. 'Humphreys dodged the issues I raised ... and eventually resorted to attacking my expertise as a scientist, as well as my character and theology.' — Wrong. Before my book publication in October 1994, Ross never communicated with me about it. It's a bit hard to dodge a non-raised issue! As for my opinions about Ross's expertise and character, I have always striven to keep them out of the public arena. His public theological teachings are of course a proper subject for public discussion,<sup>4</sup> but the main one I have concentrated on is whether or not he is correct in elevating 'science' above Scripture.
  4. 'My motive is to save the Christian community, including Humphreys himself, ... from unnecessary scorn.' — I am rather amused, because Dr Ross and a few of his like-minded friends are about the only people I know of who are trying to heap scorn upon my cosmology. If he is worried about scorn on the Christian community, all he has to do is stop scorning! As for saving me future criticism by the atheists, Ross can hereby cease his efforts; since I do not crave the approval of that crowd, their disapproval would not bother me. But if the true cause of Ross's worries is being scorned by the atheists himself, I would think a simple disavowal by him of my work would have been sufficient. Does he regard himself as being responsible for the scientific opinions of all Christians?
  5. 'I [Ross] am disturbed' — I agree. In this letter Dr Ross's usual calmness is absent, and it may be that strong emotions are what have clouded his recollection of events.
  6. 'In early 1995 I asked four physicists ... to appeal directly to Humphreys' — Misleading. Only one of the four, Mr Conner, ever communicated personally with me. He never hinted that he was acting as an agent for Ross, or that Page, Cleaver, and Strauss might be reviewing Conner's letters, so such interactions must have been carried out in secret. During this period I corrected several of Conner's early errors, which Conner acknowledged privately.<sup>5</sup>
  7. '[All four physicists] accept the five doctrinal statements [of this journal]' — Doubtful. Being supporters of Ross, they could not in honesty accept statement two, 'The final guide to the interpretation of Scripture is Scripture itself', since Ross's final guide — not in word but in practice — is 'science'.<sup>6</sup> They might also have a problem with statement three, '... Genesis is a simple but factual presentation ...', since Ross's re-interpretations of Genesis are anything but simple.
  8. 'Humphreys refused to continue any technical discussion' — Wrong. I discontinued only private technical discussions with Conner, not public discussions with him in the journals. Furthermore, I did the discontinuing only after July 1995, when I discovered that Conner had not been straightforward with me about his intentions.<sup>7</sup> I found I was being used to privately tutor an adversary of young-earth creationism! I responded to Conner with the intent of limiting any technical discussions with him to public ones, so everyone could see who was making the mistakes. However, I left the door open for private discussion with Conner of non-technical issues.<sup>8</sup>
  9. 'anyone willing to question [Humphreys'] views ... is, in his view, incompetent' — Wrong. Not everyone, and definitely not because of opposition to my views. For example, I think Dr Page is competent, but he was probably careless in checking Conner, as I mention in my reply to Conner in this issue. The reason I had wanted Ross to be an official reviewer of my paper for the 1994 International Conference on Creationism was that I wanted competent criticism from someone of the opposite point of view. Ross not only refused,<sup>9</sup> but he also failed to recommend anyone else, such as Dr Page.
  10. 'I [Ross] am ... not a theistic evolutionist' — False. My article spells out exactly what I mean by theistic evolutionism: '... any view which combines theism with naturalistic evolutionism — including that theory's events ('big bang', molecules-to-man evolution), order of events (light before earth, death before Adam), and time-scale (billions of years).'<sup>10</sup> This very reasonable definition describes Dr Ross's views perfectly. Ross's misappropriation of the name 'creationist' obscures the fact that his teachings are completely opposed to a straightforward reading of the biblical account of creation.
  11. 'I [Ross] have never conceded that my criticisms, published in Facts & Faith [in 1995],<sup>11, 12</sup> were invalid or incorrect. I did acknowledge that they were too briefly stated to be widely understood.' — Well, then, let Dr Ross spell out his criticisms more clearly in a peer-reviewed scientific journal (such as this one) wherein I can reply, and we'll have a good clean scientific debate about it!
  12. 'me [Ross] and my colleagues' — Scientific issues should not be decided on the basis of who has the most colleagues! But for those who have no other way of judging, I point out that I, too, have colleagues in this matter. The peer reviewers who accepted my papers for the 1994 International Conference on Creationism and for last year's CEN Technical Journal were (as I now know) competent,

secularly-published theorists with PhDs in physics and mathematics, and graduate-level training in general relativity. In addition, I have received private advice and encouragement from over a half-dozen general relativity theorists in the academic world. Like Dr Ross's two more reticent colleagues, these haven't come forth with public pronouncements on this issue. Unlike Ross's shy colleagues, these would have a lot to lose by doing so, in view of the academic world's tendency to purge known creationist sympathizers from its ranks.

13. 'Humphreys' ongoing dodges and insults' — Wrong. It is Ross who has repeatedly dodged public debates with me.<sup>13</sup> The alleged 'insults' may consist of my assertions that Ross is a theistic evolutionist, not a creationist. Is it insulting to insist on truth in labelling?
14. 'I can only wish that the editorial team had restrained Humphreys from characterizing Conner and Page as "blind" and their thinking as "incomplete", a "mistake", and "contradictory" .' — Wrong. I have tried to keep my counterpunches clean and above the belt, and the editors made sure of it. I said that Conner and Page had an intellectual blind spot,<sup>14</sup> not that they are blind. Second, I said their metric was incomplete.<sup>15</sup> That is a technical phrase relativists often use; it is no more insulting than saying that a map of California does not completely describe all of North America. Third, I don't know of any kinder word than 'mistake' to describe a serious, relevant error. As for 'contradictory', I can't find any place where I used that word about Conner and Page's thinking.<sup>16</sup>
15. 'Humphreys' ... disregard for [Conner and Page's] knowledge and expertise' — Wrong. I don't disregard such; I challenge their

conclusions on objective scientific grounds. Ross appears to endorse the ancient opinion of Galileo's opponents, that truth should be determined by human 'authorities' — not by reason, evidence, and Scripture.<sup>17</sup>

16. '[Humphreys'] trading of one untenable model for an even less tenable one' — Wrong. I made no trade. I did not give up on the earlier possibility in my book; I merely made explicit a new and interesting one which was implicit in my mathematics all along. Either model was defensible, but rather than go tediously over old ground, I used the opportunity to get a second one onto the table.
17. '[Humphreys'] appeal to imaginary time' — Wrong. I never used that term, except to quote Hawking.<sup>18</sup> I think 'imaginary time' is a misnomer, and instead I spoke of 'stopped clocks'. As my references to well-known relativists show,<sup>19</sup> in going from normal space-time into a Euclidean zone, the time dimension changes into a space dimension, and clocks and other normal physical processes stop. But the former time dimension is a perfectly real space dimension, just as real as the other three and having the same character.
18. '[so-called] imaginary time will delight opponents of the Christian faith' — Wrong. The opponents should be dismayed. While Hawking does try to use the concept of Euclidean zones to try to eliminate the beginning of time, I use it in a very different way to support the idea of a recent beginning. I think the opponents of Christianity would be quite upset to hear of creationists not only keeping up with the latest concepts in general relativity, but also using them to support the biblical account of creation.

In concluding, I exhort Dr Ross to put personal feelings behind

him and ascend to the cleaner, clearer realm of scientific discourse. I call upon him to quit depending on the opinions of other scientists, and instead submit scientific critiques of his own to peer-reviewed scientific journals such as this one. That kind of openness would improve all young-earth creation models and greatly glorify Jesus Christ our Creator.

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### References

- Ross, H.N., 1993. Letter to Humphreys, April 15.
- Humphreys, D.R., 1992. Letters to Ross: January 13, August 13, November 12; Humphreys, D.R., 1993. Letter to Ross, March 19.
- Ross, H.N., 1998. Letter to Humphreys, December 1.
- Van Bebber, M. and Taylor, P.S., 1994. Creation and Time: A Report on the Progressive Creationist Book by Hugh Ross, 1st Ed., Eden Publications, Mesa, Arizona. This is an excellent and well-documented refutation of Ross's theology and teachings.
- Conner, S.R., 1995. Letter to Humphreys, April 23.
- Van Bebber and Taylor, Ref. 4, pp. 25–40. Ross claims nature is the 'sixty-seventh book of the Bible' and says that we should treat it as equal to the written revelation. However, in practice, he elevates human interpretations of nature above the straightforward, face-value, meaning of the written revelation, using the current fads of science to 're-interpret' Scripture until it 'agrees' with the fads.
- Ross, H.N., 1995. Fund-raising letter to supporters, July. This letter mentioned that Conner had been, for some time, a highly-committed financial supporter of Ross and was also supporting Ross with various 'research' and writing projects. This was contrary to the way Conner had presented himself to me in his correspondence.
- Humphreys, D.R., 1995. Letter to Conner, July 9.
- Ross, Ref. 1.
- Humphreys, D.R., 1998. New vistas of space-time rebut the critics. CEN Tech. J. 12(2):195–212. See p. 211, Ref. 2 of that

article.

11. Ross, H.N., 1995. Progress towards resolution of the creation-date controversy. *Facts and Faith* 9(1):12–13. *Facts and Faith* is a quarterly non-peer-reviewed layman's newsletter issued by Ross's organization; it normally does not publish rebuttals. I first saw this issue (first quarter) in March, 1995.
12. Humphreys, D.R., 1995. An open letter to Hugh Ross. *Bible-Science News* 33(4):21–22. This open letter in the May issue was a copy of a technical reply to Ross's criticisms in Ref. 11; I faxed it to him on March 7, 1995 and mailed him a copy on March 26, 1995. When Ross did not respond, I sent the open letter to BSN. Ross finally replied publicly in the August issue of *Bible-Science News* 33(6):6, but he did not try to defend his technical points or refute mine, deferring instead to then-future publications he expected from Conner, et al. None of those later publications appeared to use or defend the specific points Ross had made in Ref. 11.
13. Humphreys, D.R., 1995. There you go again, Dr Ross! *Bible-Science News* 33(6):6–7. On page 7 is a reprint of an August 13, 1994 letter I sent Ross, politely asking him why he had backed out of a radio debate scheduled for the week before — only after he found out I was to be his opponent. He never answered that letter.
14. Humphreys, Ref. 10, p. 210.
15. Humphreys, Ref. 10, p. 201.
16. Humphreys, Ref. 10, p. 212. See that article's Ref. 36, where I did say of Prof. Stephen Weinberg: 'This shows that even Nobel Laureates are not immune from self-contradiction.' Since this appraisal includes the whole human race, nobody needs to feel singled out and particularly offended.
17. Galilei, G., 1632. *Dialogo ... Massimi Sistemi del Mondo*, G.B. Landini, Florence. English translation in: Drake, S., 1967. *Dialogue Concerning the Two Chief World Systems*, 2nd Revised Ed., University of California Press, Berkeley. Simplicio, the spokesman for Galileo's academic opponents, often falls back on appeals to Aristotle's authority. Salviati, the spokesman for Galileo's point of view, just as often argues against human authority, calling instead for careful reasoning and evidence to settle scientific issues. Unfortunately, Simplicio's intellectual descendants are still far too numerous today, and Salviati's are far too few.
18. Humphreys, Ref. 10, p. 211. See Ref. 33 of that article.
19. Ellis, G.F.R., Sumeruk, A., Coule, D. and Hellaby, C., 1992. Change of signature in classical relativity. *Classical and Quantum Gravity* 9:1535–1554.

## More on vistas

I congratulate you on publication of the paper 'Starlight and time is the big bang' by Samuel R. Conner and Don N. Page.<sup>1</sup> I am not a cosmologist, but I am a professional theoretical physicist (now in retirement) so I am able to follow the algebra and test the reasoning presented. I applaud the authors for providing such a careful, thorough, perceptive, and exhaustive assessment of the book *Starlight and Time* by D. Russell Humphreys, and for listing the evidence which excludes the whole class of relativistic young – universe cosmologies. The reply 'New vistas of space-time rebut the critics' by D. Russell Humphreys<sup>2</sup> introduces a completely new argument, but contains a number of incorrect statements. I shall here comment on the central issue.

By his insistence on the use of the Klein metric, Humphreys appears to be expressing a belief in just one true metric for the universe. No! The metric is not a property of the universe, but is a property of the system of co-ordinates used to describe the universe. Since one can readily transform from one set of co-ordinates to another, the metric may change along with the transformation. Conner and Page have explicitly stated the connection between the Schwarzschild coordinate system (which implies the Klein metric) and co-moving coordinates (which implies the Robertson–Walker metric). Since the transformation between the two co-ordinate systems exists, the two metrics are exactly equivalent to each other — they stand or fall together. Indeed, Conner and Page have explicitly demonstrated that the two metrics predict exactly the same proper time elements for comoving observers.

Humphreys' apparent belief in just one true metric leads him to a misinterpretation of his own Figure 3 by switching clocks in mid-

argument. He first uses clocks reading Schwarzschild time to construct the figure with its 'timeless zone'. Then, instead of regarding such a zone as a pathology induced by the use of Schwarzschild clocks which have been travelling faster than light (clocks which may have some convenience for descriptive purposes, but certainly no physical reality), he mistakenly believes he has uncovered an intrinsic property of the universe thus enabling him to switch to 'expansion fraction' clocks — that is, clocks reading cosmic time — for his exposition of the figure. No! The figure does not indicate some constraint on the behaviour of ordinary physical clocks. If any clocks have been prevented from 'ticking' in the 'timeless zone', they would only be those associated with the Klein metric, i.e. (unphysical) Schwarzschild clocks and not any clocks which, at all stages of the universe expansion, have in their travels obeyed the cosmic speed limit (the speed of light). Actually, even Schwarzschild clocks do something in that zone, they are not completely non-functional, they are not completely stopped as is clearly shown in Conner and Page's Figure 4.

But, does it matter? Suppose a friend telephones you from a very great distance and tells you that sometime in the next two weeks he is going to visit you. Towards the end of that period you locate in your home a favourite watch that you had mislaid some months before. Of course it has stopped, so, joyful at finding it again, you wind it and set it to the correct time. Shortly thereafter your friend arrives and simultaneously you check your watch to see if it is still going — it is, and you note that just ten minutes have elapsed since you wound it. Do you then deduce that your friend's travel time was only ten minutes? No! Why not? Because the very great distance and the maximum possible speed of travel