terest and love for a particular subject, whether it is paleontology, ecology, etc. The research performed is thorough, and the integrity in which the author approached the work, coupled with the exercising of a critical mind, is excellent. And by such a young author no less! Very impressed; good job.

In all my time of researching creationist material on the fossil record, I always had in the back of my mind the knowledge of well articulated fossils (or any fossils for that matter) as being signposts to a rapid burial due to a global flood. It has now, because of Mr Woolley's article, become such a prominent subject in my thought stream that I can hold up a picture of any sort of fish fossil and say to whomever: 'Look, how can a fossil as delicate and well preserved as this, in a naturally aquatic environment no less, not be caused by anything other than a flood scenario?' Woolley's article brought that back to the forefront for me.

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### References

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# The tower of Babel account affirmed by linguistics

I am concerned about Duursma's article 'The tower of Babel account affirmed by linguistics'. I hope Duursma and readers can see that I am raising these concerns in a brotherly spirit. To see a young man so full of faith is a joy, and I agree with Duursma that the Babel account is historical. However, when one sees a mistaken brother it is not in the long run a service

to let mistakes pass.

An utterance like:

"... sadly, as people in a fallen world began to began to use [Proto-Indo-European], it slowly began to lose some its consistency [sic], as grammatical mistakes became fashionable" (p. 31).

is somewhat naïve. Popular opinion notwithstanding, it is scientifically clear that language change is morally neutral, and I know of no scriptural reason to discount the scientific view in this case. A reconstructed prehistoric language such as Proto-Indo-European may *appear* to have fewer grammatical irregularities than recorded languages, but any such effect is far more likely to be an artefact of the reconstruction methodology than a reality.

Duursma's abstract says 'few genetic links have been observed between [language] families. This is a problem for secular linguists'. His text says

'all words in a language should be replaced within a period of about 10,000 years. That would make any research beyond that period of time impossible. This, in turn, makes it impossible to prove that all language families are ... related' (p. 29).

In this implicit contradiction, the abstract is wrong and the text is right. Secular comparative-historical linguistics predicts that language relationships will fade into invisibility a few thousand years in the past, and modern language families will appear to be unrelated. The Babel account also predicts that modern language families will appear to be unrelated (at least on its most obvious interpretation). Duursma is right to say that there is no serious problem from comparative-historical linguistics for creationism, but wrong to claim that there is such a problem for secular uniformitarian thinkers.

It is intriguing that Ruhlen has postulated a possible relationship between a Siberian language and Amerindian languages. If the evidence for this relationship is convincing, this would indeed as Duursma argues be something of a problem for any

uniformitarian approach. However, in the next paragraph Duursma correctly details the doubts that professional historical linguists have about Ruhlen's rigour in handling evidence. If Ruhlen's evidence for a Siberian-Amerindian relationship is of the same, low standard as his evidence for a single ancestral language for all humanity, then this idea will be a false friend to creationism.

Discussing the Babel miracle, Duursma says 'It is unlikely to have been acceleration of normal language changes' (p. 30). So many processes go on in normal language change that it is quite easy to conjecture that one or more of them may have played a part in the mechanics of the Babel miracle. Personally, I find it hard to envisage a Babel mechanism that could *not* be described as 'acceleration of normal language changes'.

My own opinion, for what it is worth, is that comparative-historical linguistics is an unpromising field for creationists, and certainly much less promising than the evolutionary psychology of language.

The majority of academic linguists believe, with Chomsky, that the human language faculty is a genetically-specified, specialist, species-specific cerebral organ. Reconciling this belief with evolutionary orthodoxy has led to considerable intellectual contortions, and it is clear that evolution is functioning as a dogma rather than as a scientific theory in this field.

Chomsky's own appeal to the laws of physics, to explain the emergence of the genetically-specified cerebral organ in the foetus, is notorious, and only Chomsky's unique standing in present-day academic life prevents it from being universally dismissed as scatty.<sup>2</sup> Pinker's widely-read book attempts to explain away the 'missing link' aspects of the problem along the lines that the language faculty presents no more difficulty for evolution than the elephant's trunk.<sup>3</sup> No less difficulty would be a more honest perspective. Uriagereka attempts to explain the language faculty as a so-called spandrel: a by-product of some unspecified mutation whose survival value lies in some unspecified characteristic other than language.<sup>4</sup> This is an admission of defeat. Opponents of the majority innatist view of human language occasionally betray flatly dogmatist motives for their opposition: the innatist view cannot be right, regardless of the evidence, because it would pose problems for evolution.<sup>3</sup>

A key 'design feature' of human language is that it is 'recursive'. Any given sentence—say, the sentence It was good—can be embedded into a more complex sentence—say, God saw that it was good. It is well-recognised that this has profound implications for the design of the language organ. Premack describes recursion as an 'evolutionary embarrassment',5 because it is difficult to see its survival value. From this evolutionary point of view, a characteristic is of course explained only if a creature which has it can raise more offspring to independence than a creature without it. How is a creature which can embed one sentence within another thereby enabled to raise more babies than a creature which can merely string two sentences together? Premack is right to be embarrassed.

If Duursma or anyone else out there has the interest, the spare time and the expertise, I would seriously recommend a critical appraisal of such literature on the evolutionary psychology of language. Such a project has a real chance of resulting in academic work that is intellectually responsible as well as hard-hitting.

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- 3. Pinker, S., *The Language Instinct*, Morrow, New York, 1994.
- 4. Uriagereka, J., Rhyme and Reason: An In-

- troduction to Minimalist Syntax, MIT Press, Cambridge, Mass., 1998.
- Premack, D., Gavagai! Or the Future History of the Animal Language Controversy, MIT Press, Cambridge, Mass. pp. 132f, 1986.



# **KJ Duursma replies:**

Mr Crookston writes: 'it is scientifically clear that language change is morally neutral' and he objects to my assertion that language change has corrupted the original God-given (Babel) language. Since we have no written records of this original language some speculation is needed to reconstruct it. This makes my assertion hard to prove. However, I have sought to point out that current, measurable linguistic theories are unable to adequately explain the existence of the sophistication and consistency in the ancient Sankrit and Greek. The consistency does, however, make real sense in the light of the Genesis account. Unless we follow Chomsky blindly, there are questions to be answered here. I fail to see how I can be a 'mistaken brother' for pointing this out. Modern Greek is as far removed from the level of consistency found in the classical Greek, as is English spelling from pronunciation of its words.

Crookston seems to agree that the existence of language families is not a problem for creationists, as this is what we would expect. However, Crookston claims that 'it is wrong to claim that there is such a problem for secular uniformitarian thinkers'. I think Crookston is a bit naïve here. I suggest that he reads more comparitive-historical linguistics, because the existence of the language families *is* an issue for them. In fact, in order to explain them, some have gone as far as

to suggest that man evolved the ability to speak simultaneously at a various places around the world, which is beyond belief considering the apparent dangers involved in this process.

In the next paragraph Crookston points out an apparent inconsistency in my dealing with Ruhlen. I appreciate his concern, but he need not worry. The examples Ruhlen provides for links between the languages in Siberia and languages in the Americas are much stronger<sup>2</sup> than his examples in favour of his argument for a single ancestral language.<sup>3</sup>

Crookston suggests that what happened in Babel (and he agrees that the account is historical) was an acceleration of normal language change. This viewpoint is hard to attain, for the following reasons:

- Language change is slow. What happened at Babel happened quickly. It could have taken no more time than the amount of time it took to build a ziggurat.
- Languages split into dialects/ languages when groups living apart begin to change. At Babel, languages came into existence among people who were living together.

What the writer of the Genesis account describes is, in my opinion, very unlike anything observed today, and the evidence we see around the world confirms my belief that what happened was a direct intervention by God, who gave people new languages, with very different grammatical structures. These languages have since undergone the kind of changes which chomskyan linguistics describes.

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## References

- See Ruhlen, M., A guide to the World's Languages, Edward Arnold, London, p. 257, 1987.
- 2. He quotes about twenty words which are cognate in both language groups.
- 3. He gives only one or two examples, and the words don't even have the same meaning.

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