

# Language, lineage and the Bible

A review of  
*Genes, Peoples and Languages*  
 by Luigi L. Cavalli-Sforza  
 Penguin Books, London,  
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Emeritus Professor Luigi Cavalli-Sforza of Stanford University is described in this book as

‘... the world’s leading expert on human population genetics ...

There may be no contemporary scholar who has a more detailed understanding of human diversity or a more compelling vision of its unified history ... a fascinating polymath, who for the last fifty-five years has been developing ingenious methods for understanding the history of everybody ... about the way our species has evolved and spread, leading to different races, cultures and languages.’

Professor Steve Jones (Darwin’s self-styled successor) describes the book as, ‘Outstanding ... a unique, expert insight into the inherited map of the human past’.

Creationists need to know about this book, as it brings together a vast amount of research on genes, people groups and languages that, as far as I am aware, no one else has done. It is only a slim, popular version but it is well referenced to the technical literature. I read it because I noticed some years ago that languages have foiled all attempts to uncover a unified evolutionary origin, so I was interested to see how that evidence compared with the corresponding genetic and demographic data.

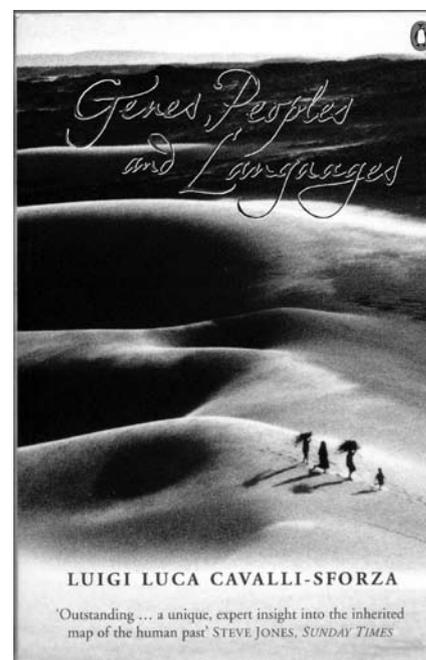
Cavalli-Sforza is a committed neo-Darwinist (of the gradualist kind,

p. 45). He makes no reference to the Bible as a source for human history, illustrating the disdain in which the Bible is held in academic circles today, but he does not hesitate to use the Hindu *Mahabharata* to illustrate people movements in India. The book needs to be read with this bias in mind. Refreshingly, he does acknowledge the great limitation of all historical and evolutionary research—that history cannot be repeated at will (p. 32), but he believes that by studying several disciplines (in this case genetics, linguistics, archaeology and demography) he can make up some of this deficit. An obvious counter to this argument is that his evolutionary assumptions in genetics will inevitably ‘confirm’ his evolutionary assumptions in linguistics, his evolutionary assumptions in archaeology and his evolutionary assumptions in demography.

He begins in the Preface by saying that all these disciplines must converge on a single history (p. vii). Why? Because ‘racism is fallacious’; the major differences amongst humans at the genetic level are between individuals, not between the so-called ‘races’. What we have previously identified as ‘racial’ differences are superficial characteristics largely acquired from culture and climate. Genetic differences are small in comparison:

‘... one encounters near total genetic continuity between all regions [on Earth] ... any small village typically contains about the same amount of genetic variation as another village located on any other continent ... the variation between two random individuals within any one population is [almost] as large as that between two individuals randomly selected from the world’s population’ (p. 29).

He also cites the mitochondrial



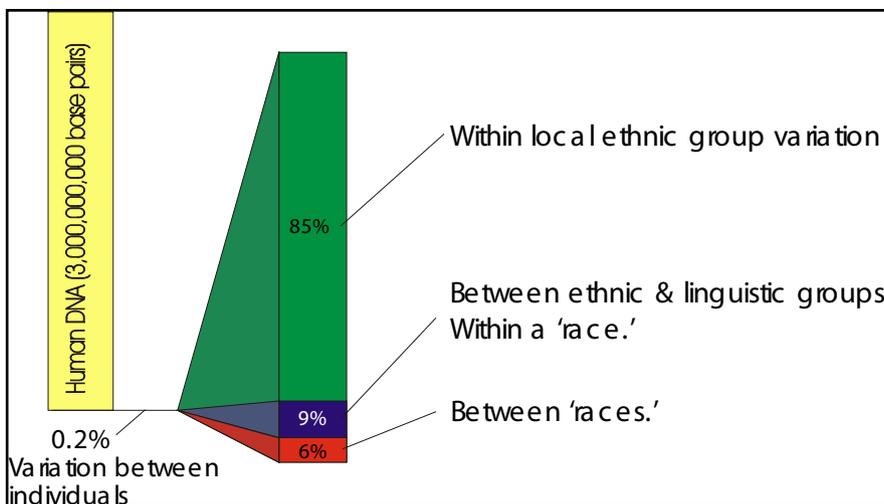
DNA and Y-chromosome studies that have traced all human ancestors back to a single female and a single male, respectively. His conclusion that ‘all humans share a common origin’ (p. 55) is in complete agreement with the Bible’s view that all humans come from a single set of parents, Adam and Eve originally, but Noah and his family post-Flood.

Regarding language, he acknowledges that this is the major characteristic distinguishing us from the apes (p. 59). ‘Children are born with the propensity and ability to learn a language ... it requires a precise anatomical and neurological foundation’ (p. 174) and he believes it was present in our earliest ancestors. He acknowledges that there are no ‘primitive’ languages—all contemporary humans use very complex languages; the grammar and syntax of some ‘primitive’ peoples are in fact richer and more precise than the more ‘evolved’ languages like English and Spanish. ‘All modern languages share a similar level of structural complexity—ethnic groups that live at a primitive economic level do not speak a more primitive language than wealthier groups’ (p. 150). There are more than 5,000 languages spoken today, which can be grouped into about 17 language families. ‘But linguists

have had trouble reconstructing relationships above the family level' (p. 134), 'most modern classifications stop at the level of families' (p. 139), and some linguists have completely ruled out the possibility of an hierarchical classification above the family level (p. 138). Why? 'If we want to stay on absolutely firm ground [and why wouldn't we?], the situation is worse than simply lacking a reliable tree to link all modern languages: it is not even certain that all languages share a common origin. Most linguists consider both problems insoluble' (p. 142).

Because of his evolutionary bias Cavalli-Sforza cannot accommodate these 'insoluble problems' so he simply brushes them aside and moves on. Creationists will clearly see that once again the evidence fits with the Bible's view of history. The uniqueness of human language ability points to what Scripture describes as man being made 'in the image of God'. At the Tower of Babel God dispersed the population by confusing their languages. We don't know how many languages he thereby created, but given his concern for families staying together it would seem reasonable to compare the 'about 17' language families here with the 16 grandsons of Noah recorded in Genesis 10. Cavalli-Sforza believes that language was a 'major factor' in human demography: 'The late Paleolithic expansion out of Africa [i.e. his originating event for modern demography] was greatly served by the development of language' (p. 93). Creationists could certainly agree.

His time scale is also very interesting. He says, 'Most language families appear to have developed during a brief period between 6,000 and 25,000 years ago' (p. 145). In evolutionary terms this is astonishing. Language is the major factor separating man from the apes and this separation is supposed to have happened genetically several million years ago. He says that 'languages change more quickly than genes' (p. 150), citing centuries to millennia for the former, while the latter can remain



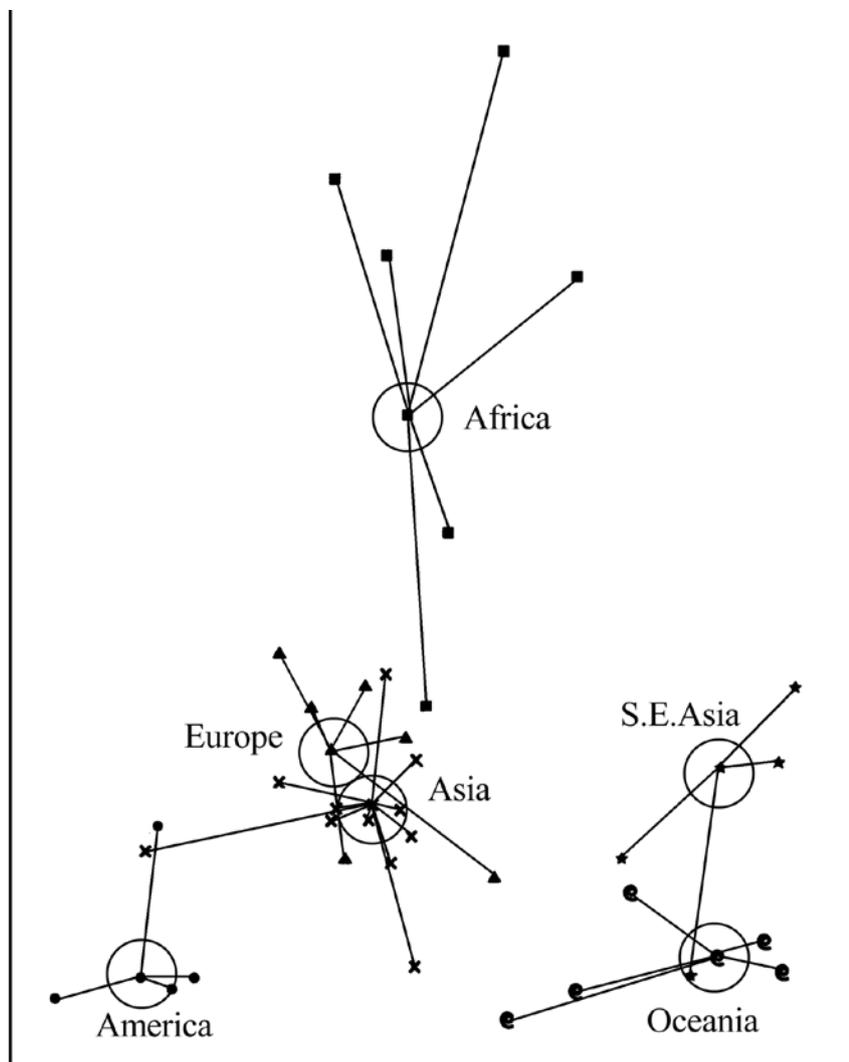
*Racism has no genetic basis; racial differences are largely superficial responses to climate and culture.*

stable over millions or even billions of years. Now 'there is no reason to think that genes influence language' but every reason to believe that 'languages ... influence genes' (p. 150). So he is greatly surprised to find that when he lines up his genetic groups with his language groups 'the correlation between genes and languages remains positive and statistically significant' (p. 167). Indeed, in a study of 38 world populations he found that those which were closely related genetically tended to speak related languages, and those that were genetically isolated tended to speak unique languages. The few exceptions to this rule could easily be explained on geographical and/or historical grounds (pp. 143ff.). 'It is remarkable that, despite the opportunities for genetic and linguistic replacement we can still find sufficient coherence in the modern linguistic and genetic jumble to reconstruct a common tree for the two evolutionary tracks' (p. 155).

To explain this paradox he quotes Darwin: 'If we possessed a perfect pedigree of mankind [it] would afford the best classification of the various languages now spoken throughout the world' (p. 167). Ironically for Darwin and Cavalli-Sforza the very strong correlation between genes and languages implies that the whole history of mankind (its 'pedigree' in Darwin's words) can be encompassed

to a good approximation by language data that has arisen 'during a brief period' in the last few thousand years! This fits well with the Biblical scenario but is hardly credible for evolution where it implies that about 99.8% of the language record for human history is missing! Language change can be rapid or slow—'total substitution of one language for another occurs more easily under ... strong political pressure ... otherwise the separate languages spoken in nearby countries can remain relatively unaffected for thousands of years' (p. 153). Surely at least some language groups, especially in Africa, would have survived the millions of years during which they supposedly developed there. But there is no sign of them!

Cavalli-Sforza then goes on to construct a 'hypothetical model of linguistic evolutionary history based mostly on genetic and archaeological knowledge' (p. 168). He identifies three major groups—African, Eurasian/American & Southeast Asia/Pacific. The Eurasian group is the largest, and he notes that 'the multiplicity of migrations and expansions between Europe and Asia, in both directions, is well substantiated' (p. 172). This has an interesting bearing on the major area of conflict between this book and the Bible. The Bible says all modern language/people groups are post-Flood and have dispersed



Ordination of 42 world populations based on 110 genes. Distance between points on this graph is proportional to genetic difference. Populations are grouped by continent. Modified from Cavalli-Sforza p. 89. There is a very close correlation between language groups and genetic groups and this implies that human genetic history can be explained by human language history—i.e. human genetic history also arose in a brief period just a few thousand years ago.

from the region of Babylon, whereas Cavalli-Sforza claims they have come ‘out of Africa’. His main evidence for this (apart from his evolutionary speculations about apes and hominid fossils) is an ordination of 42 world population groups (defined from a study of ‘about 2,000 populations’) scored for 110 genes, which is re-drawn here in Figure 1. Because the African group shows the most genetic diversity (distance between points on this graph is a measure of diversity) he claims this is evidence for its longer evolutionary history (i.e. the original humans lived for a long time in Africa before moving out to the rest of the world). Is this

a necessary conclusion? I think not. He acknowledges that isolation can increase both genetic and linguistic diversity, while migration and interbreeding can reduce diversity. If most of the mixing occurred in the non-African groups, as he claims, this would account for their lower diversity, and if the African populations experienced the most isolation that could explain their greater diversity.

In summary, the world’s leading expert on human genetics is telling us that:

- All mankind has a common origin.
- Racism has no genetic basis; racial

differences are largely superficial responses to climate and culture.

- Language is the key difference between man and apes; human children are born with the precise anatomical and neurological equipment needed for language acquisition (apes are not); this ability was probably present in our earliest ancestors, so it is a discrete difference, not a continuous one as Cavalli-Sforza claims.
- The 5,000 or so extant languages can be grouped into about 17 language families, none of which appears to be either the ancestor or descendant of any other.
- All language families arose in a brief period just a few thousand years ago (not the millions of years evolutionists believe in).
- There is a very close correlation between language groups and genetic groups and this implies that human genetic history can be explained by human language history—i.e. human genetic history also arose in a brief period just a few thousand years ago.
- The ‘Out of Africa’ theory is not a necessary conclusion of the genetic results—isolation in Africa and mixing in Eurasia could also explain the data.

It appears to me that this book gives a resounding ‘Yes!’ to the Biblical account of human history. It also illustrates how people believe in evolution in spite of the evidence, not because of it. The evidence is there for those who want to see it.