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A Full-Scale Test of The Language Farming Dispersal Hypothesis

One attempt at explaining why some language families are big (while others are small) is the hypothesis that the families that are now large became large because their ancestors had a technological advantage, most often farming[1] (Renfrew 1997).

While it has been pointed by Wichmann (2005), it is not clear that we need an explanation of this kind at all, since simple language-split models may also produce language family sizes observed. However, as we shall show, the large families are not a random selection, as one would expect from a simple language split model.

There have been many case studies of the language/farming-dispersal hypothesis for specific families, e.g., Blench (2006), Blench (2005), Holden (2002), Diamond and Bellwood (2003), and a large number of papers in Bellwood and Renfrew (2002). What is lacking is a cross-linguistic test, accounting for *all* factual data.

We have a compiled a database of *every* attested language families in the world and (bluntly but sensitively) assessed their category as either a hunter-gatherer or agricultural family. (For the data to be complete, it is hard to use a more fine-grained categorization.) We also have rough data on location and geospatial size of all families.

The following two tests will be discussed:

- Does the farming have any explanatory power in predicting which families are large (and which are not)?
- Does the geospatial distribution of the observed farming language families show an east-west spread (rather than a north-south) as predicted if the cause of their spread is farming, cf. (Diamond 1997)?

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[1] For a case invoked where the technological advantage was not farming, see Evans and Jones (1997).

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