Bastin, Yvonne, André Coupez, and Michael Mann: Continuity and Divergence in the Bantu Languages: Perspectives from a Lexicostatistic Study. (Annales, 162.) Tervuren: Musée royal de l'Afrique Centrale. 1999. 225 pp. EUR 21.07

The persisting problems of an internal subclassification of Bantu have already been sketched by Meinhof (1933). Greenberg's (1949) classification of African languages made linguists and historians aware of the lowly position which Bantu occupies in the genetic tree of Niger-Congo. If Bantu's closest relatives are all located in the region of central Cameroon and south-eastern Nigeria, then this must be the homeland from where Bantu spread east and south. A

genetic tree of Bantu, so it was hoped, would enable us to trace the Bantu expansion, and then link it to the introduction of iron and new crops, with the help of tangible archaeological evidence.

Guthrie's four-volume work on *Comparative Bantu* (1967–1971) did not shed much light on the historical spread of Bantu. Others tried their hand; a good overview is given by Nurse (1994/95; cf. also Nurse and Philippson 2003, and Schadeberg 2003). The results show many broad similarities, but also disconcerting divergences. Three reasons are often adduced to explain why a convincing, well-argued subclassification of Bantu is so slow in forthcoming.

- (i) The available documentation is too incomplete.
- (ii) The amount of data to be processed is too large.
- (iii) Bantu languages do not fit into any genetic tree.

The book here reviewed tries to cope with the first two problems, and – almost accidentally -appears to end up supporting the third point of view. It reports the results of the largest lexicostatistic study ever undertaken in the context of African languages. The data consist of 452 Bantu vocabularies of 92 words, a modified version of the well-known Swadesh list. A. Coupez and Y. Bastin undertook the collection of wordlists and cognation judgements at Tervuren over several decades, and M. Mann (SOAS) achieved the statistical analysis and wrote the report.

Most of the 225 pages are trees and maps, only 40-odd pages are tables, lists, and text, and most of the text consists of succinct instructions how to read the trees and maps. The data are presented in three chapters, framed by an Introduction and Conclusions.

Chapter 2 identifies the 452 vocabularies and then provides for each gloss a schematic map where each language is represented by a symbol, with different symbols for each cognate set. The maps are surprisingly readable and forcefully demonstrate that lexical isoglosses cannot easily be accumulated to show genetic branches or any consistent groupings – at least not in Bantu.

Chapter 3 presents Michael Mann's main message: continuity and discontinuity among the Bantu languages. The author has developed a technique for drawing maps which show boundaries (discontinuities, accumulated lexical dissimilarities between pairs of languages). It takes some time to get used to reading these maps; the idea is to go from one map to the next, each time the threshold is put a bit higher (or lower, if you start at the other end), and perceive the gradual growth of linguistic areas (or the gradual birth of more and more units). Of course, there is no hierarchical structure since areas are deliberately not enclosed but typically leak at one or more sides. As the author says, an animated computer display would be a more suitable medium for this data – who is accepting the challenge?

Chapter 4 presents a whole series of lexicostatistic hierarchical cluster analyses. Here, too, the author has refined the standard techniques and created

five steps between the extreme "Nearest Neighbour" and "Furthest Neighbour" methods, in addition to the better-known "Group Average" and "Branch Average" methods. All the trees are presented in full, each node is further described by three figures representing the length of the stem (the distance between two successive branchings in percent), its connectivity and exclusivity (both are  $100\,\%$  if all internal links within a group are closer than any external link). In addition, chapter 4 presents some 70 close-up looks at local language groups and their affiliations.

It is hard to find any conclusions. The last chapter of  $2\frac{1}{2}$  pages, which bears this name, mainly reviews lexicostatistic methods in two publications (Schoenbrun 1994 and Piron 1998). What has happened?

A. Coupez, author of the Foreword, states his position vis-a-vis lexicostatistics as follows (p. v):

La méthode lexicostatistique [...] visait au départ une classification des langues doublée d'une chronologie absolue. Très rapidement [...], l'objectif de chronologie absolue a été abandonné face aux critiques et l'on s'est limité à envisager la chronologie relative. Même réduite à cet aspect, la méthode offre la seule perspective de classification globale du bantou qui soit accessible dans un avenir prévisible.

Notre attitude est pragmatique ...

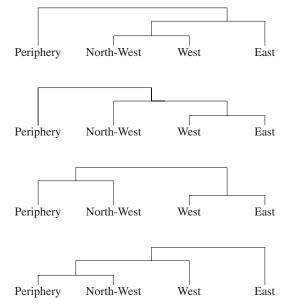
This selective trust in lexicostatistics is based on selective adoption of the various assumptions ascribed to lexicostatistics (see, for example, Campbell 1999: 177–179 – not a believer in lexicostatistics). In my view, lexicostatistics is based on a single assumption: *There is a part of the lexicon for which the rate of change is constant.* If it is not constant, no genetic tree can be deduced from it; if it is constant, the tree must correspond to some absolute time scale.

M. Mann, author of the body of the text, does not share Coupez' "pragmatic" adoption of lexicostatistics. For him, all trees are "true", and all trees somehow result from "history", each one representing no more and no less than its underlying specific data and statistical manipulations. He is extremely careful in avoiding a composite picture. A quote (p. 109):

It might be thought unnecessary to present a series of trees. Should not the analyst exercise his skills to determine which tree is the 'best' and present that? (By 'best' is probably meant the tree that corresponds most plausibly to an evolutionary account of Bantu history.) Again, these are similarity trees, and I choose to wear a linguist's hat and not essay the interweaving of evidence from different disciplines that is the task of the historian. Each tree gives us a different perspective on linguistic relationships which are all part of the total picture.

I spotted two places in the report where M. Mann tries to be bold. One is found in Table 4.2.2.1 (p. 125), where he posits four main groupings: Periphery, East, North-West and West. By noting how these groupings differ in membership according to the various hierarchical cluster analyses, he implicitly gives

precedence to groupings which are his own, as similar as possible to all cluster analyses but identical with none. M. Mann expresses no preference for any of the four different branching diagrams as they emerge from eight clustering methods.



"Periphery" stands for a sample of non-Bantu Bantoid languages, plus "Lebonya" (= Lengola, Nyali, Bodo), "Boan" (= Bwa, Bira, Kumu), and "Buneya" (= Bubi, Tunen, Yambasa). "North-West" stands for the remainder of zone A languages, plus the languages of the Myene (B.10) and Tsogo (B.30) groups. "West" stands for the remainder of zone B, plus zones C, H, K (except Kwangali), and R, as well as a few languages of group L.20 (Kete, Mbagani, Lwalwa). All remaining languages are subsumed under "East". Some language groups show rather unstable allegiance to these groups; for some discussion of such "floating groups", see Bastin and Piron 1999.

The other generalization appears in the final chapter and concerns possible inferences for the historical spread of Bantu (p. 223):

Putting together these observations, we can largely envisage as Vansina (1995) has suggested a differentiation among the Bantu languages that has developed in situ without extensive population movement. But the Bantu language family is exceedingly large and exceedingly close, suggesting a period of rapid diffusion.

Vansina, eminent historian but also a linguist, has indeed presented his conclusions from this project four years before the report here reviewed was published. Combining some branchings suggested by lexicostatistics with his own

vast knowledge and insight, and superimposing the wave model over the tree model, he paints a picture of "Bantu differentiation" rather than "Bantu expansion"

Continuity and divergence in the Bantu languages is an extraordinarily well-constructed documentation of a rich and complex set of data. It does not produce the tree-structured historical classification which some have expected. It can, and should, however, stimulate Bantuists to put renewed and creative efforts into the task of reconstructing the history of this unique language family.

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