

**Gary Holton, Marian Klamer, František Kratochvíl**

## **Lexicostatistical and Comparative method applied to the Papuan languages of Alor-Pantar (Eastern Indonesia): A (re)assessment.**

In the study of under-described languages, the lexicostatistical method has proven to be a useful tool for initial genetic classification. However, these preliminary groupings tend to persist long after new data have become available. Ideally, the outcomes of the lexicostatistical method should be reassessed once sufficient data are available to apply the bottom-up approach of the comparative method to refine the outcomes obtained by the preliminary tool.

The present paper attempts to do this using recently available data from seventeen eastern Indonesian languages spoken in the islands of Alor and Pantar. Our comparative data consists of an expanded Swadesh list (200+ items) for each language and of dictionaries for a number of languages.

Based on an examination of possessive prefixes, Capell (1944) originally proposed that the Alor-Pantar languages were related to the West Papuan Phylum languages of North Maluku and the Bird's Head of New Guinea. This hypothesis was later countered by Wurm et al (1975), who classified these languages as members of the putative Trans-New Guinea Phylum. The first attempts to examine internal subgrouping were made by Stokhof (1975), based on lexicostatistical analysis of 117 item Swadesh lists. Stokhof also identified a number of grammatical features with potential for further subgrouping (such as number systems). Based on Stokhof's and Capell's data and their conclusions, Pawley (2001) and Ross (2005) included the Alor and Pantar languages (along with the non-Austronesian languages of Timor) in the large Trans-New Guinea family. Recently, this classification has been questioned by Donohue (2007), who proposes yet another type of affiliation for Timor-Alor-Pantar languages. All of this classification work suffers from a paucity of available data.

By applying bottom-up reconstruction techniques to larger data sets we are able to directly evaluate preliminary classifications based on lexicostatistics, as well as to make direct lexical comparisons with Trans-New Guinea languages of the New Guinea mainland. This work in turn informs our knowledge of prehistoric settlement of Alor-Pantar, complementing emerging genetic and archaeological evidence (cf. Capelli et. al. 1999; Mona et. al. 2007). Klamer (to appear) states that it is unclear "whether the Papuan languages presently spoken in the Alor-Pantar are the result of east-west migrations from the New Guinea highlands between 6,000 and 4,000 BP, or whether they are remnants of an earlier population that had migrated west-east some 20,000 years ago through the Lesser Sunda islands, with a subsequent trek into the highlands of New Guinea." The general consensus is that although the individual languages might be results of later migrations, Papuan populations in Alor and Pantar predate the arrival of the Austronesians. There is archaeological evidence that Austronesians reached neighbouring Timor island by 4,500 BP (cf. Higham 1996:298). The genetic studies suggest a gene flow from Austronesian speaking populations predominantly via maternal line (cf. Handoko 2001), while the paternal line is characterized by Papuan haplogroup (Keyser et.al 2001).

In our paper, we will re-assess the preliminary classifications by Stokhof, Pawley, and Ross and the subgrouping by Donohue in the light of the new data available to us. We will also attempt to resolve the migration route question. Finally, we will elaborate on the benefits of the lexicostatistical and comparative method in language description.

References:

- Capell, A. 1944. Peoples and languages of Timor. *Oceania* 14.191-219.
- Capelli, Cristian, James F. Wilson, Martin Richards, Michael P. H. Stumpf, Fiona Gratrix, Stephen Oppenheimer, Peter Underhill, Vincenzo L. Pascali, Tsang-Ming Ko and David B. Goldstein. 2001. A predominantly indigenous paternal heritage for the Austronesian-speaking peoples of insular Southeast Asia and Oceania. *American Journal of Human Genetics* 68:432-443.
- Donohue, M. 2007. The phonological history of the non-Austronesian languages of southern Indonesia. Paper presented at ENUS 5, August 2007. Kupang, Indonesia.
- Higham, Charles. 1996. *The Bronze Age of Southeast Asia*. Cambridge: Cambridge University Press.
- Klamer, M. To appear. *A grammar of Teiwa*: Under review.
- Kayser Manfred, Silke Brauer, Gunter Weiss, Wulf Schiefenhövel, Peter A. Underhill and Mark Stoneking. 2001. Independent histories of human Y chromosomes from Melanesia and Australia. *American Journal of Human Genetics* 68:173–190.
- Mona, Stefano, Mila Tommaseo-Ponzetta, Silke Brauer, Herawati Sudoyo, Sangkot Marzuki and Manfred Kayser. 2007. Patterns of Y-Chromosome Diversity Intersect with the Trans-New Guinea Hypothesis. *Molecular Biology and Evolution* 24(11):2546–2555.
- Pawley, A. 2001. The Proto Trans New Guinea obstruents: arguments from top-down reconstruction. In *The boy from Bundaberg : studies in Melanesian linguistics in honour of Tom Dutton*. T. E. Dutton, A. Pawley, M. Ross and D. T. Tryon (ed). 261-300. Canberra: Pacific Linguistics Research School of Pacific and Asian Studies Australian National University.
- Ross, M. 2005. Pronouns as a preliminary diagnostics for grouping Papuan languages. In *Papuan pasts: Investigations into the cultural, linguistic and biological history of the Papuan speaking peoples*. A. Pawley and R. Attenborough (ed). 30. Canberra: Pacific Linguistics.
- Stokhof, W. A. L. 1975. *Preliminary notes on the Alor and Pantar languages (East Indonesia)*. Canberra: Dept. of Linguistics, Research School of Pacific Studies, Australian National University.