

Accounting for stable redundancy in the inflectional morphology of Yam languages.

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The Yam languages of southern New Guinea are notable for the morphological complexity of their verbs which exhibit various types of verbose and redundant exponence. These exponence phenomena involve meanings (or clusters of meanings) which are indicated through multiple discontinuous morphological formatives. Given an adaptive model of language change, we might expect that formatives which redundantly encode a function would be less stable than their less redundant counterparts. However counter to expectations, measures for estimating rates of change by looking at paradigmatic shift suggest that redundant formatives in Yam are more stable than their less-redundant counterparts. I hypothesise that such a situation can be explained as a type of survivor-bias where the differential stability of forms is due to other external factors. This higher stability naturally insulates redundant structures from eroding over time. This is shown, in principle, by using simulations of speaker populations engaging in language games. In these agent-based models, each agent is a language user with a grammar involving redundant elements with variable rates of change. We see those simulated populations which match the observed differential in the Yam languages maintain redundant structures for over twice as long as other populations. This provides both evidence in support of the survivor bias hypothesis and provides the mechanism by which differential rates of change slow the loss of redundant elements. This research is significant as it provides a way of accounting for both redundancy within an adaptive system of language as well as making careful predictions about the conditions under which we should expect to find it.