

SYNCRETISM DISTRIBUTION MODELING: ACCIDENTAL HOMOPHONY AS A RANDOM EVENT*

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1. Introduction

The morphological analysis of paradigms generally proposes a distinction between accidental and systematic homophony. No specific assumptions are usually made about the distribution of accidental homophony, though. Therefore current assumptions cannot prove satisfactorily what should be regarded as systematic in morphology. We propose that accidental homophony should be assumed to be a random event in the statistical sense with a constant probability across languages and across paradigms. This approach allows us to assign a likelihood to any actual typological distribution of syncretism given a morphological analysis. And by computing such likelihoods for a range of analyses, we can then apply maximum likelihood analysis to determine the best analyses. Hence, the statistical foundation allows us to empirically test morphological analyses that include accidental syncretism. In this paper, we primarily introduce the conceptual and mathematical foundations of a statistical modeling technique, Syncretism Distribution Modeling, and show how it overcomes the problem of accidental homophony. In addition, we apply the technique to show that person paradigms must involve both accidental homophony and systematic syncretism.

1.1. The Problem of Accidental Homophony

To draw the distinction between accidental homophony and systematic syncretism poses a general problem to linguists of all stripes. There are some clear cases of both types. For example, the English words *bank* ‘financial institution’ and *bank* ‘side of a river’ are a textbook example of *homophony*: two distinct words (or morphemes) that, due to the vagaries of history, happen to share the same sound. The different meanings are readily seen in translation, where other languages have two different words for these concepts, e.g., in German *Bank* (‘financial inst.’) and *Ufer* (‘shore’). Consider now the English second person pronoun *you*. This single word in English also corresponds to multiple words in other languages, for example, German uses *du* for a singular addressee, and *ihr* for plural addressees. One possible analysis of English would

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