## **Affixes and Clitics**

Together, Arthur Samuel and I have run a total of thirteen experiments on four languages, relating to perception and production of affixes and clitics. The languages are Georgian, English, Udi, and European Portuguese. We have reported on the results in two papers; both have been submitted but not yet published (as of January 2023). Below are the two abstracts as submitted.

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## Affix paper

The hypothesis that suffixes are easier to process than prefixes has not been tested in a straightforward manner in any language, as far as we know. Cutler et al. (1985) and Hawkins and Cutler (1988) adduce some evidence that supports this hypothesis indirectly, but they do not conduct experiments to test it directly. They use this hypothesis to explain in part the suffixing preference. Some others, such as Asao (2015), continue to assume the correctness of the hypothesis;. We do not aim to explain the suffixing preference at all but to test the hypothesis that prefixes disrupt the comprehension of a word more than suffixes do. In this paper we test this hypothesis (henceforth the "Cutler-Hawkins hypothesis") on Georgian, because it has a wide variety of prefixes and suffixes, and in a single experiment on English. In Georgian we test a prefix and a suffix that mark the person of the subject in a verb, a circumfix and a suffix that mark derivation in nouns, and a prefix and a suffix that form intransitive verbs (usually called "passives" in Georgian). In a variety of experiments, we find little support for the Cutler-Hawkins hypothesis.

## Clitic paper

In our paper testing the Cutler-Hawkins hypothesis that suffixes are easier to process than prefixes (Harris and Samuel, submitted), we reported little experimental support for the hypothesis. Several sources treat clitics in a way similar to affixes (e.g. Himmelmann 2014, Asao 2015), and some argue that there is a parallel preference for enclitics over proclitics (Cysouw 2005, Dryer 2017). On this basis, we decided to test the extension of the Cutler-Hawkins hypothesis to clitics, because if true, that, too, could explain the suffixing preference (as well as the putative enclitic preference). Cutler et al. (1985) also state a hypothesis about the processing of infixes. Udi provides an excellent language for testing both hypotheses, since each person clitic in this language can occur before the verb, after the verb, between morphemes of the verb, or inside the verbal root, under certain circumstances (Harris 2002). While European Portuguese does not place clitics inside roots, it utilizes the other three placements under certain circumstances. We

have conducted three experiments on each language. The results of our experiments demonstrate that an explanation for either the suffixing preference or the putative enclitic preference is unlikely to be grounded in the processing factors suggested by Cutler and Hawkins.

One preliminary paper from this project has already been published.

Alice C. Harris and Arthur G. Samuel. The Suffixing Preference: A Preliminary Report on Processing Affixes in Georgian. *All Things Morphology: Its Independence and Its Interfaces*, ed. by Sedigheh Moradi, Marcia Haag, Janie Rees-Miller, and Andrija Petrovic, 147-168. Amsterdam: John Benjamins. 2021.

"The Suffixing Preference": A Preliminary Report on Processing Affixes in Georgian

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"The suffixing preference" refers to the observation that there are more languages that use only suffixes than ones that use only prefixes, and that among languages that use both, suffixes are more abundant (Greenberg 1963). Hawkins and Cutler (1988) explain this preference in part by noting that spoken word recognition relies most heavily on the beginnings of words, making it advantageous to have no prefix. While the Hawkins-Cutler explanation has been widely discussed., it is essential to consider the processing of affixes in languages other than western European ones.

To test the Hawkins-Cutler hypothesis in Georgian, we carried out lexical decision experiments, a standard kind of experiment in which the participant is presented with real words and nonce words and must identify which is which. We used auditory stimuli, allowing comparisons to all natural languages. We compared the verbal prefix v- 'first person subject' with the suffix -s 'third person singular subject'. There being no productive prefixes in Georgian nouns, we compared derivational circumfixes (such as me---e, which forms agentive nouns) with derivational suffixes (such as -oba, which derives abstract nouns). We also compared the verbal prefix i-, which forms middles or passives, and the suffix -d, which forms inchoatives.

In general, responses to Georgian words with prefixes were more accurate and/or faster than to comparable words with suffixes. These responses suggest that prefixes may be easier to process than suffixes, contrary to the universalist claims of Hawkins and Cutler (1988).