

# The asymmetry of affixation

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## 1. Introduction

There is an old observation that, from a global perspective, there are more suffixes than prefixes in human languages. Probably the first to explicitly assert this was Edward Sapir: ‘Of the three types of affixing – the use of prefixes, suffixes, and infixes – suffixing is much the commonest’ (Sapir 1921: 67). Bybee *et al.* (1990: 4) provide some numbers showing this effect. In their cross-linguistic database of grammatical markers, they report to have an overall total of 1,236 suffixes and 426 prefixes (= 74.4% suffixes). There are a few attempts in the literature to explain this phenomenon (e.g. Greenberg 1957: 86-94; Cutler *et al.* 1985; Hawkins and Cutler 1988; Bybee *et al.* 1990). However, on closer inspection it turns out that the typological details of the suffixation preference are much more intricate than often assumed. In this paper, I will summarize a few observations concerning the asymmetry of affixation, based on data from recent typological surveys. There are considerable differences as to the extent to which a suffixation preference is attested, depending on which kind of marking is considered. There is even at least one phenomenon that shows a *prefixation* preference. The riddle is thus not so much the existence of an overall suffixation preference, but the extent of any asymmetries in affixation. The much more difficult, and unsolved, question is why a suffixation preference is attested for some categories, but not for others.

## 2. Differentiating the suffixation preference

The percentage of languages having suffixes (as opposed to prefixes) is summarized in Figure 1, specified for a few different morphosyntactic categories. Nominal case marking (431 suffixes vs. 35 prefixes, data from Dryer 2005a), nominal plural marking (495 suffixes vs. 118 prefixes, data from Dryer 2005b), and tense/aspect marking (629 suffixes vs. 150 prefixes, data from Dryer 2005c) all show a clear suffixation preference. The percentage of languages with suffixes for these categories even surpasses the overall figure of suffixes from Bybee *et al.* (1990: 4). In contrast, person marking does not show a clear suffixation preference. In Figure 1, three different counts for person affixation are summarized. When looking only at paradigms to mark pronominal possession, i.e. the person marking

in constructions like ‘my book’, there is only a slight tendency towards suffixation (330 suffixes vs. 238 prefixes, data from Dryer 2005d). Likewise, when summarizing over all person marking morphemes, a comparably small suffixation preference is attested (354 suffixes vs. 240 prefixes, data from Bybee *et al.* 1990: 9, 13, 15). However, in my own research of person marking I did not find any suffixation preference. In contrast, my results show even a slight tendency toward prefixation (80 suffixes vs. 89 prefixes, data from Cysouw 2003: 316)

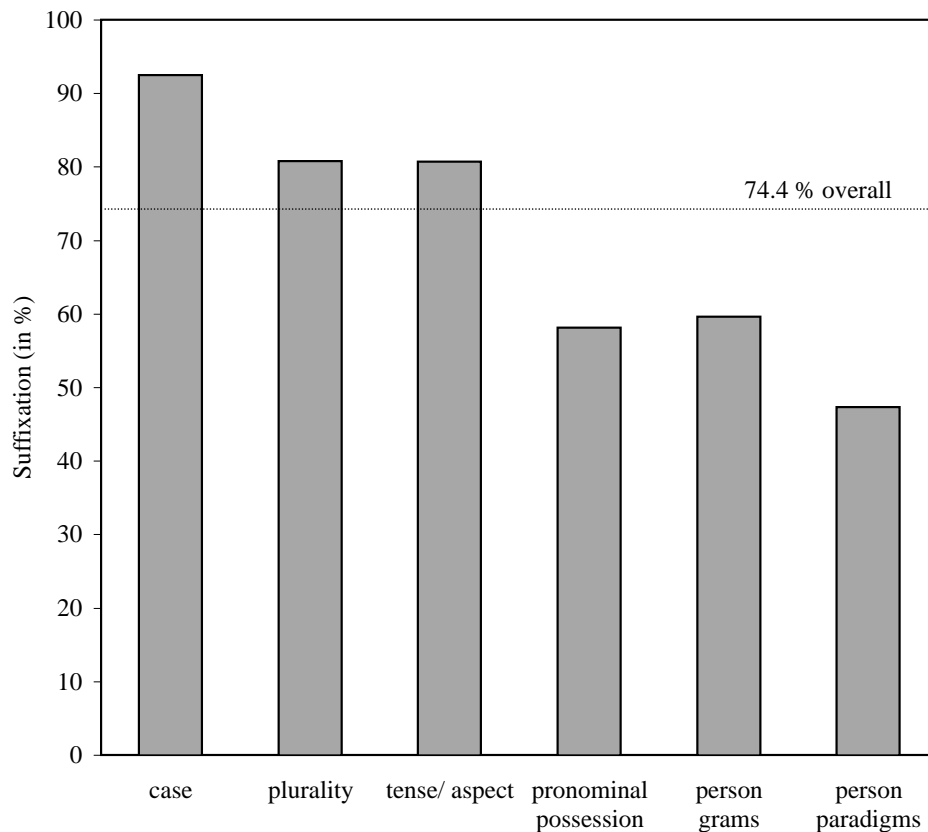


Figure 1. Differences in the suffixation preference.

### 3. Asymmetry in person paradigms

The obvious explanation for the unexpectedly high number of person prefixes is that they arose from preverbal subject pronouns (cf. Givón 1976). However, there is more going on that does not fit in with this explanation. Looking somewhat more closely at the marking of person, a subsidiary effect is discernible. There is a relation between the size of the person marking paradigm and the suffixation preference. In Figure 2, different sizes of the person paradigms are distinguished, and for each size the fraction of languages that have suffixal paradigms is presented (data from Cysouw 2003: 316). Note that for these counts, I have only investigated per-

son marking in intransitive constructions, and I ignored gender distinctions (these restrictions in the collection of data were purely of pragmatical nature). Further, I will ignore the marking of higher numbers (like dual, trial or paucal—this restriction is only added here to ease the presentation). There is a maximum of 8 different person markers because various forms of clusivity are possible (see Cysouw 2003: Ch. 3 for details). As can be seen in Figure 2, the larger paradigms show a clear suffixation preference, roughly to the same extent as the overall suffixation preference from Bybee *et al.* (1990: 4). In contrast, the smaller paradigms show a clear *prefixation* preference, with only around 30 % of the cases being suffixes. This effect shows that while there is clearly an overall suffixation preference among the world’s languages, there are also specific situations in which prefixation is preferred. Note that explaining person prefixes as arisen from erstwhile preverbal pronouns does not at all help to understand why it is exactly small paradigms that have a prefixation preference.

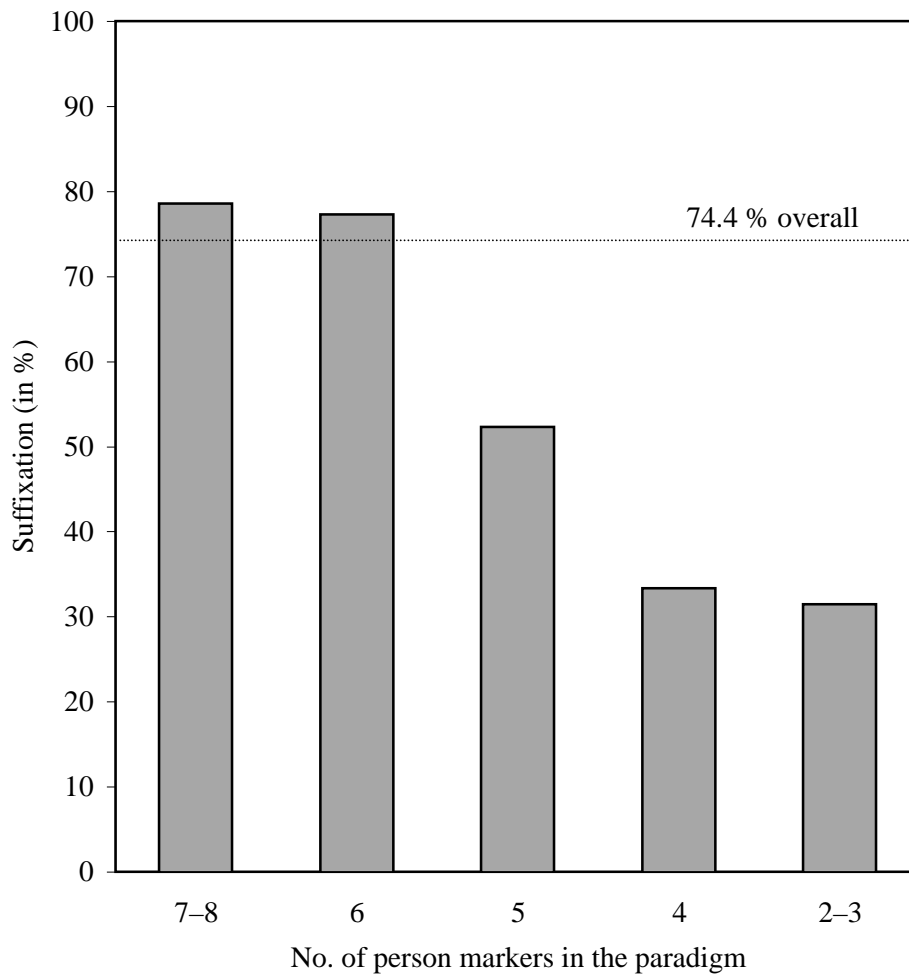


Figure 2. Relation between paradigm size and suffixation.

Investigating somewhat more closely why small paradigms are much more often prefixal, two observations can be made that might help explain these curious statistics (cf. Cysouw 2001). First, languages with small prefixal person paradigms very often have separatistic person/number marking with optional number marking, and, second, they appear to be areally overrepresented in the Americas. Let me explain these two observations in some more detail. Among small person paradigms, two different kinds of paradigms can be distinguished. Some paradigms do not have any obvious internal structure. The small size of these paradigms is mostly the result of random historical mergers. For example, in the German regular present verb inflection only four person markers are found, (*-e, -st, -t, -en*), which have synchronically a rather incoherent range of functions. Paradigms of this kind show a ‘normal’ suffixation preference. In contrast, a second group of small person paradigms consist of prefixes that are indifferent to number. Number can in some of these languages be marked as suffixes, but is mostly optional. When only such ‘separatistic’ person/number paradigms are considered, the percentage of suffixes falls below 20% (Cysouw 2001). The real riddle is thus why languages that separately mark person and number almost always mark person by prefixes.

One possible answer is that this is all just a historical coincidence. And indeed, when looking at the world-wide distribution of person prefixes, there is an inclination for them to occur in the Americas (cf. Cysouw 2001; Dryer 2005d). Currently, it is unclear how such a phenomenon has to be interpreted, though one possible interpretation is that the areal skewing is a founder-effect: the first humans to colonize the New World accidentally had a small prefixal person paradigm, and this phenomenon subsequently spread throughout the Americas. If this speculation contains any truth, then the prefixation preference for (small) paradigms could be a historical coincidence, messing up the statistics of a ‘real’ suffixation preference.

Finally, I would like to add one somewhat preliminary observation. As mentioned above, the counts in Figure 2 did not include the marking of gender, higher numbers, nor transitive constructions (with which I mean here cumulative morphemes combining subject and object reference). My impression is that the inclusion of these categories would not change the generalization that small paradigms have a prefixation preference. However, when these categories are also considered, there are a few languages that have exceptionally large paradigms of person. In particular, extremely large paradigms combining person, number, gender and case

are found in the Bantu family (Africa), the Gunwinguan family (Northern Australia) and the Iroquoian family (North America). In the present context, the noteworthy characteristic shared by all these extremely large person paradigms is that they are *prefixal*. This observation is in need of more rigorous typological testing, but it suggests that there might also be a prefixation preference for very large person paradigms.

#### **4. Riddles to be explained**

The suffixation preference has long been considered to be a riddle in need of an explanation. However, when considering the typological observations as presented in this squib, it does not seem to be a fruitful approach to consider the suffixation preference as a monolithic observation to be explained by one overarching theory of linguistic affixation. There are clear differences in the suffixation preference depending on the kind of morphosyntactic category considered. Some categories indeed have a strong preference for suffixation (e.g. case, plurality, tense/aspect), but others do not (e.g. person). Even within categories there are large differences as to the presence of any suffixation preference (e.g. depending on the size of the person paradigm). There are even linguistic phenomena that have a *prefixation* preference (e.g. person marking in separativistic person/number paradigms). The big riddle of the suffixation preference thus actually consists of various smaller-scale riddles concerning different kinds of affixation asymmetry. The real riddle is not to explain the suffixation preference itself, but it is to explain why only a specific set of linguistic phenomena show a suffixation preference, while others do not.

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