

Paradigm effects and the affix-shape/position generalization

A well known observation, generally attributed to Anderson (1972), is that there exists a strong correlation between affix shape and affix position in languages that allow infixation. Infixes tend to be of a VC shape and thus may resyllabify after infixation to produce optimal CV syllables while prefixes are generally C-initial and therefore have no need to do so. This observation was later formalized by Prince and Smolensky (1993) in accounting for cases of Tagalog infixation via a constraint ranking which favored prosodic well-formedness over morphological alignment (abbreviated P»M). Such a ranking favors optimal CV syllables at the cost of allowing affixes to migrate into the stem. This analysis makes a strong prediction for languages that utilize infixation to improve syllable structure: infixes must always be of VC shape and VC affixes should always infix.

However, a variety of putative counter-examples to this generalization have been brought forth in the literature. Yu (2002) argues that affixation patterns from Ilokano and Pangasinan militate against the possibility of a generalized ranking P»M. Specifically, Ilokano possesses one actor voice morpheme *um* which regularly infixes while at the same time possessing another actor voice morpheme *ag* which regularly prefixes despite its identical VC shape. A similar phenomenon occurs in Pangasinan with two homophonous affixes, the patient voice *-in-* which infixes and the instrumental voice *in-* which prefixes. This appears to weaken both the affix-shape/position generalization and Prince and Smolensky's P»M/M»P typology since one would have to stipulate that even in P»M languages like Ilokano and Pangasinan which allow infixation for prosodic purposes, there still exist affixes that behave in an M»P manner, i.e. strictly aligning to stem edges.

I propose an analysis based on a more in-depth examination of these and other Austronesian cases that can preserve the P»M/M»P typology which is overwhelmingly supported by Austronesian data. Building on a recent paper by McCarthy (2002), my analysis is based on the inclusion of paradigmatic factors in determining affix position. A crucial factor which has gone unnoticed in previous analyses is the presence of a CV prefix in the aspectual paradigm of all the "aberrant" VC prefixes. McCarthy's Optimal Paradigms model allows us to capture the observation that in a number of Austronesian languages, a C-initial prefix in one member of an aspectual paradigm may "anchor" a VC affix in another member of the same paradigm to the left edge of the stem. McCarthy introduces a family of faithfulness constraints that compare candidates consisting of entire paradigms. These constraints are violated when paradigm members violate the specified constraint asymmetrically. In order for Optimal Paradigm (OP) constraints to be satisfied, all members within a paradigm must either uniformly satisfy a specified faithfulness constraint or uniformly violate it. This allows us to derive cases of overapplication and analogical leveling within an OT framework. The constraint which is central to my analysis is OP-ALIGN-L (Stem, PrWd) which is violated when, in one member of a paradigm, the stem is aligned to the left edge of the prosodic word while in another it is not. Informally, this ensures that within a given aspectual paradigm "everything prefixes or nothing prefixes." We do not find simultaneous infixing of VC and CVC forms within one paradigm in order to satisfy the OP ALIGN-L constraint because infixation of a CVC affix violates higher-ranked markedness constraints. This exemplifies McCarthy's principle of *attraction to the unmarked*.

The relevant data can be seen in Tables 1 and 2 which contain representative paradigms from Ilokano and Pangasinan, respectively. In (1a) and (2a) the presence of a VC affix in both members of the aspectual paradigm allows "parallel" infixation, crucially satisfying OP ALIGN-L without violating higher ranked markedness constraints. In (1b) and (2b) however we find that a "mixed" paradigm containing both VC and CVC shaped affixes must uniformly prefix, thereby violating the markedness constraint ONSET in order to satisfy the higher ranked OP ALIGN-L.

This analysis has the advantage of preserving the strong P»M generalization in the phonology of Austronesian languages with the added advantage of eliminating the dependence on parochial (morpheme specific) constraints (*contra* Zoll's [1998] analysis of the Ilokano data).

Table 1. Ilokano verbal paradigm

Root	Voice	Realis aspect	Irrealis aspect
1a. <i>kagat</i> 'bite'	Actor ₁	<i>kimmagat</i>	<i>kumagat</i>
1b. <i>kagat</i> 'bite'	Actor ₂	<i>nagkagat</i>	<i>agkagat</i>

Table 2. Pangasinan verbal paradigm

Root	Voice	Realis aspect	Irrealis aspect
2a. <i>paltog</i> 'shoot'	Patient	<i>pinaltog</i>	<i>paltogen</i>
2b. <i>paltog</i> 'shoot'	Instrument	<i>inpaltog</i>	<i>?ipaltog</i>

References

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