

Iterative Infixation and Vowel Copying in Löfflisch

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Introduction: Löfflisch, an iterative infixing ludling used by speakers of German, exhibits long-distance vowel copying across a fixed vowel in the infix. In the sections that follow, I outline an analysis of such language games that suggests that agreement by correspondence is a viable way to account for this long-distance vowel copying. My analysis may also provide some insight into the use of licensing constraints to account for long-distance harmony/copying phenomena. The analyses outlined here improve on previous correspondence-based accounts of similar language games (e.g., Yu 2008) in that they are based on naturalistic recordings, whereas those analyses were based on unverifiable written records.

Data: As discussed above, Löfflisch is a language game used by speakers of German. The general principle of the game is that each source (German) syllable is augmented with the affix [-ləv-] and a copy of the source nucleus to yield an output string of the form ONSET-NUCLEUS-[ləv]-NUCLEUS-CODA. For example, *Rat*, realized as [ʁat] in German, would be realized as [ʁələvat] in Löfflisch. Per Yu (2008), Löfflisch is an *iterative infixation ludling* - iterative in the sense that affixation and vowel copying apply to every source syllable, infixing in the sense that the affixal material surfaces between the correlates of the source onset and the source coda.

Data collection from naturalistic sources - YouTube videos recorded in Löfflisch¹ - suggests two additional properties of the game besides the general structure discussed above. First, realizations of vowels associated with the same source nucleus agree in height, backness, and rounding, but not necessarily in tenseness. Second, the correlates of single German source syllables always surface as anapests (contra Vogt 2013, although there may be between-speaker variation in the output rhythmic structure; the particular structure is not important to the ultimate analysis). The third syllable carries primary stress with respect to the full output word if the corresponding syllable carried primary stress in German, and non-primary stress otherwise. The table below shows some German source words and their attested Löfflisch correlates (bold and italic text indicates pairs of segments that are analyzed as standing in correspondence relations):

German Word	Stress Pattern	German Output	Löfflisch Output
<i>gut</i>	σ	[gut]	[gʊ.lə.'vʊt]
<i>machen</i>	óσ	['ma.xɛn]	[ma.lə.'va.xɛ.lə.'vɛn]
<i>Besuch</i>	σσ	[bɛ.'zʊx]	[bɛ.lə.'vɛ.zʊ.lə.'vʊx]
<i>Barbara</i>	óσσ	['bæ̃.ba.ʁa]	[ba.lə.'væ̃.ba.lə.'va.ʁa.lə.'va]
<i>verstehen</i>	σσσ	[fɛ̃.'ʃtɛ.ɛn]	[fɛ̃.lə.'vɛ̃.'ʃtɛ.lə.'ve.ɛ.lə.'vɛn]
<i>Amerika</i>	σσσσ	[a.'mɛ.ʁi.ka]	[a.lə.'va.mɛ.lə.'vɛ̃.ʁi.lə.'vi.ka.lə.'va]

Analysis: Following Yu (2008), I suggest an analysis of iterative infixation ludlings under which iterative affix application and vowel copying follow from the output rhythmic alternation and morpheme and syllable edge alignment constraints stipulated by particular games. Vocalic epenthesis occurs because the number of nuclei provided by the affix and the base syllable is

¹<http://www.youtube.com/watch?v=Vq7P8dgNQTo> ; <http://www.youtube.com/watch?v=LcOIIqwIWqc>

smaller than the number of syllables required by the stipulated output rhythm. The key constraint ranking motivating vowel copying is DEP_{IO}>>INTEGRITY. Under this ranking, the mismatch between the number of input syllables and the number of rhythmically mandated syllables is resolved through the epenthesis of a vowel in a correspondence relation with another vowel in the output. This does not violate DEP_{IO} because the segment indirectly depends on the input correspondent of the target vowel.

In Löfflich, an output anapest rhythm is mandated by the game. Because the affix and the source syllable provide only two nuclei, an additional segment is epenthesized. That the epenthetic segment must be in a correspondence relationship with a vowel rather than a consonant follows from the fact that the copying of a consonant would not result in the trisyllabic correlate of a single source syllable as stipulated by the game. The epenthesized segment copies nearly its full quality specification - height, backness, and rounding - from the target vowel (Kitto & de Lacy 1999, Hansson 2007, Rose & Walker 2004).

In contrast to the games analyzed by Yu, Löfflich is an example of a game in which vowel copying operates across a fixed affixal vowel, [ə]. This presents a locality problem, since local correspondence relations are generally preferred to long-distance ones (Hansson 2007, Yu 2008). There are a number of potential solutions to the problem posed by long-distance vowel copying; licensing-inspired explanations of long-distance copying are particularly attractive alternatives. For instance, it is possible to suggest that copies must stand in correspondence with material from the source-language base rather than the affix, or to modify the notion of prosodic/stress-based licensing (Walker 2005) to mandate that the copy stand in correspondence with a stressed vowel.

Conclusion: The data and analyses discussed above represent valuable contributions to our understanding of both language games and theories of agreement by correspondence. The collection of naturalistic data is an improvement upon the methods of previous studies (e.g., Yu 2008), which relied on data obtained indirectly through unverifiable written accounts. Further, although language games with long-distance vowel copying have been noted in studies like Yu's, an explanation of the fixed quality of certain affixal vowels has not been put forward.

In terms of agreement by correspondence, my analysis lends support to the notion that correspondence relations are a viable way of accounting for copying/harmony in general and long-distance vowel copying in particular. It may also contribute to our understanding of the utility of different licensing constraints in motivating long-distance correspondence relations.

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