How to Speak Backwards in Tagalog

David Gil
University of Delaware

Considerable attention has recently been focussed on the form and function of ludlings, also known as speech disguises, language games, and secret languages; see, for example, Conklin (1959), Berkovits (1970), Laycock (1972), Sherzer (1976), McCarthy (1985), Hombert (1986), Bagemihl (1988, 1989) and references therein. One common strategy for the formation of ludlings consists of speaking backwards. Most commonly, it is the order of the syllables that is reversed; such, for example, is the case for ludlings in Chaga, Chasu, French, Sanga, Saramaccan, Swahili, and other languages (Bagemihl 1989:484-485). However, in a smaller number of instances, it is the order of segments that is reversed; such ludlings occur in, among others, Czech, English, Finnish, French, Javanese, New Guinea Pidgin, and Saramaccan (Bagemihl 1989:484-485).

One particularly rich source of ludlings is provided by Tagalog. Conklin (1956) lists eight distinct varieties of ludlings in Tagalog, while further examples and discussion of Tagalog ludlings may be found in Garcia (1934), de Manila (1980:10-15), and French (1988:97-111). This paper is concerned with one particular ludling in Tagalog, formed by reversing the order of segments; this ludling may accordingly be referred to as Golagat. The data cited in this paper were collected from the speech of children in Iba, Zambales Province, and Pagsanjan, Laguna Province, in the Philippines. The ludling under consideration here was in fact the only one that I encountered in spontaneous use, leading to the conjecture that it is at least the most prevalent ludling among speakers of Tagalog.

Prima facie, speaking backwards would seem to be a conceptually straightforward task: simply reverse the order of segments in a word. However, the process of segment-reversal in Golagat interacts in manifold ways with the rich morphological system of Tagalog. In this paper, we shall examine some aspects of this interaction, and show how it may yield valuable insights into the grammar of Tagalog and the structure of phonological theory.

In monomorphemic words, the reversal of segments is indeed straightforward: ¹

¹Most of the examples cited in this paper are presented in the standard Tagalog orthography, which is largely phonetic. Two points should, however, be noted: (a) the glottal stop is not represented in the orthography; (b) the velar nasal stop is represented with a digraph, ng. The Tagalog forms are provided with free English glosses, and with morpheme-by-morpheme glosses making use of the following abbreviations: AT "actor-topic focus"; ASP "aspect marker"; DIR "direct (case)"; DIST "distributive"; INST "instrumental"; IPPFV "imperfective"; LIG "ligature"; OBL "oblique"; PERS "personal (article)"; PT "patient-topic focus"; REAL "realis"; SG "singular"; STAT "stative"; TOP "topic"; 2 "2nd person".
(1) a. Atoy  > Yota
    (name)  'iguana'

b. bayawak > kawayab
    iguana  'iguana'

c. puti    > itup
    white   'white'

d. kain    > niak
    eat     'eat'

In a sentence, each word is reversed separately:

(2) Upo  ka na muna dito  >  Opu ak an amot otid
    sit  TOP:2:SG ASP while here
    'Sit here for a while'

In the above example, ka, na and muna are clitics, occurring in Wackernagel's sentence-second position; as evidenced by the above example, such clitics are treated as independent words, undergoing reversal like all other words.

However, in polymorphemic words, it is generally the case that only the stem undergoes reversal; the affixes remain in their original order:

(3) a. tiglima  > tigamil
    DIST-five
    'five each'

(b) malaki  > maikal
    STAT-big
    'big'

c. pumasok  > kumosal
    AT:REAL-enter
    'entered'

d. sulatin  > talusin
    write-PT
    'be written'

(stem: lima; prefix: tig-)
(stem: laki; prefix: ma-)
(stem: pasok; infix: -um-)
(stem: sulat; suffix: -in)

Thus, in (3a) the distributive prefix tig- remains unchanged while the stem lima 'five' is reversed; in (3b) the stative prefix ma- retains its original form while the stem laki undergoes reversal; in (3c) the actor-topic infix -um- is unchanged while the stem pasok 'enter' is reversed; and in (3d) the patient-topic suffix -in preserves its original order while the stem sulat 'write' undergoes reversal.

In addition, the case markers ang, ng (phonetically [nang]), sa, and their personal variants si, ni and kay are also opaque to reversal. For example, in the following sentence, ni, ang and sa remain unchanged, as does the infix -in- in Tinapen:

(4) Tinapen  ni Bating ang bato sa tubig
    PT:REAL-throw PERS.DIR Bating  TOP stone OBL water
    'Bating threw the stone into the water'

    > Ninopat ni Ngidab ang otab sa gibut
This suggests that Tagalog case markers, contra their orthographic representation as independent words, are more appropriately analyzed as prefixes.²

Of particular interest is the interface of reversal with the productive process of reduplication. In Tagalog, reduplication applies to the initial CV or CVCV sequences of the stem.³ However, in Golagat, reduplication, while still occurring initially, involves the segments at the end of the original stem, which are moved to the beginning by the process of reversal:

(5) a. babalik > kikilab (stem: balik; reduplication of initial CV)
   AT-IPFV-return
   'will return'
b. sasama > aamas (stem: sama; reduplication of initial CV)
   AT-IPFV-come
   'will come'
c. aakyat > tatayka (stem: akyat; reduplication of initial CV)
   AT-IPFV-climb
   'will climb'
d. daladalawa > awaawalad (stem: dalawa; reduplication of initial CV)
   DIST-two
   'two by two'

Thus, in (5a), stem balik 'return' becomes kikilab and reduplication applies to ki-; in (5b), stem sama 'come' becomes aamas and reduplication applies to a-; in (5c), stem akyat 'climb' becomes tatayka and reduplication applies to ta-; and in (5d), stem dalawa 'two' becomes awaawalad and reduplication applies to awa-.

The following paradigm illustrates the interaction of reduplication with affixation in Golagat:

(6) a. kain > niak (= (1d)) (stem: kain)
   eat
   'eat'
b. kumain > numiak (stem: kain; infix: -um-)
   AT:REAL-eat
   'ate'
c. kikain > niniak (stem: kain; reduplication of initial CV)
   AT-IPFV-eat
   'will eat'
d. kumakain > numiniak (stem: kain; reduplication of initial CV; infix: -um-)
   AT:REAL-IPFV-eat
   'eats'

Example (6a), identical to (1d), portrays the total reversal of a monomorphemic stem. Example (6b), similar to (3c), illustrates the opacity of the infix -um- with respect to reversal. Example (6c), similar to (5a), instantiates reduplication. Of interest here is example (6d), involving both infixation and reduplication: while in the original form, the infix -um- occurs between the two elements of the initial reduplicated ka-, in the

²Alternatively, one might propose that reversal applies only to "content words", not to "function words", as is in fact the case in a variety of other luddings (Bagemihl 1988:484-485). However, such a proposal is belied by the fact that in other cases, reversal clearly applies to function words, such as the clitics in (2) above, and the ligature in (10,11a) below.

³In the case of orthographically vowel-initial stems, reduplication appears to apply only to the vowel. In fact, however, it applies to the vowel plus a preceding glottal stop not represented in the orthography.
ludling form, the infix -um- occurs between consonant and vowel of the initial reduplicated ni-.

The data in (3) - (6) appear to point towards the following analysis for reversal in Golagat:

(7) The Reversal-Precedes-Morphology Analysis:
Reversal precedes all morphological processes.

The Reversal-Precedes-Morphology analysis allows for derivations such as the following:

(8) example:

\[
\begin{array}{cccc}
\text{stem:} & \text{(6a)} & \text{(6b)} & \text{(6c)} & \text{(6d)} \\
\text{kain} & \text{kain} & \text{kain} & \text{kain} \\
\text{niak} & \text{niak} & \text{niak} & \text{niak} \\
\text{morphological processes:} & \text{numiak} & \text{ninialiak} & \text{numiniak}
\end{array}
\]

In accordance with the Reversal-Precedes-Morphology analysis, reversal applies to lexically-specified stems, prior to the application of morphological processes. The Reversal-Precedes-Morphology analysis thus provides an intuitively appealing account of the data in (1) - (6).

If the Reversal-Precedes-Morphology analysis is valid, then from a cross-linguistic point of view, Golagat would be a ludling of exceptional nature. Mohanan (1982:88) claims that all ludlings follow morphological and lexical phonological rules, applying not to morphemes but to words; under the Reversal-Precedes-Morphology analysis, Golagat presents a clear counterexample to Mohanan's claim. More recently, however, Bagemihl (1988) has proposed that ludlings may apply at any of three distinct levels, or "modules", and indeed, he assigns Golagat to "module 1", which applies to the lexicon prior to morphological processes (p.496). Interestingly, though, Bagemihl's extensive cross-linguistic survey suggests that ludlings applying before morphological processes are relatively uncommon.

Further evidence, however, shows that the Reversal-Precedes-Morphology analysis for Golagat, proposed in (7), must be abandoned. Consider the following forms:

\footnote{A paradigm similar to (6), with inflections of kain 'eat', but involving syllable rather than segment reversal is discussed in Bagemihl (1988:419-420) — who comments that "[i]t is not clear whether this is a fossilized form". My own observations regarding the interaction of (segment) reversal and reduplication suggest that the processes involved — exemplified in (5) and (6) above — are totally productive, occurring spontaneously and frequently in Golagat speech. That several sources cite examples involving kain is probably a coincidence similar to the profusion of Johns and Bills in syntacticians' sample sentences in English.}