Interaction of Phonology and Morphology in Kinande Loanwords

In this paper, we examine the adaptation of French and English nouns into the Bantu language Kinande (Democratic Republic of Congo). Inflectional phenomena observed in loanword adaptation suggest that morphosyntactic marking of grammatical class and phonological faithfulness must interact in the grammar. We propose an analysis where constraints on both phonological and morphosyntactic representations interact in an Optimality Theoretic grammar.

In Kinande, a noun is marked by one of 20 prefixes indicating its grammatical class (1). It is often suggested that these classes were semantically productive in proto-Bantu, but productivity is weak or non-existent in contemporary Kinande and in most other Bantu languages (see Demuth 2000 for an overview). Some nouns have no overt class marker; they are generally analyzed as belonging to class 9/10 because of agreement phenomena (2).

In loanword adaptation, if the beginning of the L2 noun matches a Kinande class marker exactly, the noun is loaned into that class (where plural formation is used as a diagnostic for class membership, as in example (3)). If the beginning of the L2 noun is not similar to a Kinande class marker, it is loaned in with no overt class marker (4) and behaves like the nouns in (2). These adaptation processes are identical to those of the Bantu language Sesotho, as described by Tonks & Demuth (2002).

In addition to these previously-observed patterns, Kinande displays a wide range of possible phonological alterations to L2 nouns in cases of 'imperfect' match between the L2 word and the L1 class marker. These include changes in vowel quality, sonorancy, continuancy, and minor place (5). These changes only occur when they will result in an L1 class marker, as in (5); that is, unfaithful mappings of this type are never found word-medially (6). Although each of the changes in (5) is individually possible, they never co-occur in a word (7).

These cases, which we refer to as imperfect matching, have as a goal the incorporation of an L2 word into an L1 noun class. This goal is enough to induce faithfulness violations that are otherwise unattested in loanword adaptation. In an OT grammar, candidates that violate faithfulness constraints can only emerge as optimal if they fail to violate some higher-ranked constraint. In the current case, that constraint must assign violations to candidates that bear no overt class marker, and fail to assign violations to candidates that do bear overt class markers. We propose that this is a morphosyntactic constraint, as formulated below:

*NP[uΦ]: *Assign one violation to every NP that has an unvalued phi-feature associated with it*.

This proposal rests on several claims. One of these claims is that the loanward grammar is sensitive to both phonological and morphosyntactic features, as embodied in the constraint above. A second claim is that nouns with unvalued phi-features are those and only those nouns that surface with no overt class marker. A third claim is that the morphosyntactic principle described above is a violable constraint: although some violations of faithfulness constraints are possible in order to satisfy *NP[uΦ], other unfaithful mappings are not possible (8), and these cases result in an optimal form that violates *NP[uΦ].

(1)

Lexical Item	Singular Class	Form	Plural Class	Form
'man'	1	mú-lúme	2	bá-lúme
'horn'	5	rí-hembe	6	má-hembe

(2)   Null morphology vs. Class 9/10

a.   [∅]-βoha | sjo-βoha | βoha   n-dito
     leopard   pl-leopard   leopard cl9-big
     'leopard'   'leopards'   'big/heavy leopard'

b.   m-boka | sjo-m-boka | m-boka   n-dito
     cl9-sauce   pl-cl9-sauce   cl9-sauce   cl9-big
     'sauce'   'sauces'   'big/heavy portion of sauce'

(3)   French loan into class 13/19

Source	Source Trans.	Loan Sg.	Loan Pl.	Gloss
carton	/kaʀtõ/	/ka-rató/	/hi-rató/	'carton'

(4)   French loan with no class morphology

chouffleur	/ʃuflœʀ/	/sufulére/	/sjo-sufulére/	'cauliflower'

(5)   Unfaithful mappings onto class markers

Source	Source Trans.	Loan Form	Gloss
mobile	/mobajl/	/mu-bájlo/	'mobile phone'
diplôme	/diplom/	/ri-polóme/	'diploma'
business	/bɪznəs/	/βi-zinési/	'buisness matters'
Vietnam	/vitnam/	/βi-tanáma/	'articles of used clothing'

(6)   Faithful (or different) mappings elsewhere

porte-monnaie	/poʀtmone/	/potomonjó/	'wallet'
radio	/ʀadio/	/rádijo/	'radio'
cabinet	/kabine/	/ka-biné/	'bathroom'
cravatte	/kʀavat/	/ka-rafánti/	'tie'

(7) Impossibility of multiple changes

bon-bon	/bõbõ/	/(m)bombó/, */βu-mbo/	'bon-bon'

(8) Impossibility of, e.g., major place changes

tricot	/tʀiko/	/tiriko/, */ki-riko/	'sweater'

References
Demuth, K. 2000. Bantu noun class systems. G. Senft (ed.), *Classification Systems*. Cambridge, UK: Cambridge University Press. 270-292.
Tonks, P. & K. Demuth. 2002. Sesotho loanwords: phonological vs. semantic incorporation. presented at the 24th Annual Meeting of the German Linguistic Society (DGfS), Mannheim, Germany.