Preface. On Loanword Phonology

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The study of loanwords is almost as old as the study of phonology itself. In 19th century diachronic linguistics borrowed words were utilized to establish the relative chronology of sound changes as well as to explain exceptions to otherwise general sound laws. Loans can also shed light on the earlier state of a language that has been obscured by subsequent sound changes. In 20th century Structuralism loanwords were seen as a challenge to the thesis of a single unified sound system (Fries and Pike 1949). Within the generative tradition, the study of rules associated with a stratified lexicon was carried forward by McCawley (1968), Lightner (1972), and others. Another motivation for the study of borrowings was that loans could demonstrate the productivity of rules and constraints as well as to resolve alternative synchronic analysis (Hyman 1970). With the rise of a Constraints and Repair view of phonology in the 1980's the study of loans in and of themselves was a natural step since the direct importation of a loan from the donor language typically violates some inventory or phonotactic constraint that must be modified (repaired) in order to conform to the native L1 system of the borrowing language (Paradis and LaCharité 1997). Loanword Phonology was given a significant boost by the development of Optimality Theory (Prince and Smolensky 1993, 2004), which provided a formal framework in which the adaptations could be studied (Yip 1993). With its key notion of faithfulness, OT can model the fact that modifications of the source word are typically minimal and only introduced to satisfy a constraint of the borrowing language. OT can also make sense of changes that go counter to native grammar repair by appeal to differential faithfulness with respect to markedness (Steriade 2001, Kenstowicz 2005). In many cases the native grammar offers no guidelines as to how a loan should be repaired. The fact that speakers seem to often converge on a particular repair raises serious learnability problems for these emergent strategies (Broselow 2009). Possible answers have included direct access to innate but low ranked UG constraints (Shinohara 2000, 2004, Kenstowicz and Sohn 2001), access to an internal P-Map that allows the speaker to compare alternative repairs and

select the one that is minimal (i.e. most similar to the source word—Steriade 2009). Another possibily relevant factor is frequency: when two alternative repairs are available, choose the one that leads to the more frequent structure in the L1 lexicon (Kim 2012). The current literature is grappling with these questions of emergence and different repairs for what appear to be equivalent inputs. Their subtlety and sophistication is a testament to how far the study of loanwords has progressed; their difficulty is a challenge to all future research.

Our contributions

Davis, Tsujimura, and Tu survey different loanword adaptation strategies for accent with a focus on Western (English) loans into various East Asian languages. They propose a useful typology based on whether or not the accent (stress) of the donor language is reflected in the loan, whether the accent assigned to the loan arises from rules/constraints found in the native grammar or calls on some novel strategy, and finally what (other) prosodic features such as syllable weight shape the adaptation. These questions are at the heart of current research on loans. Since accent is typically not marked in spelling one can isolate it better from orthographic influences. Languages (and even dialects) differ in their phonetic correlates to underlying accent. Do these differences help predict whether an accent is «parsed» and if so how it is reflected? The authors' second question addresses the emergence issue. Research by Kenstowicz & Sohn (2001), Lee (2009), and others shows that syllable weight determines the accent assigned to a loanword in Kyungsang Korean. What is the source of this connection between accent and weight? A UG default? Is it based on the statistics of the native lexicon (Kim 2012) or alternatively on the adapter's conception of English stress, where vowel length is a reliable phonetic correlate and the bimoraic foot is a principal phonological reflex (Ito 2012)? This paper suggests that it may reflect a LH phrasal accent of Korean native grammar in which the H peak is attracted to a heavy syllable and otherwise the penult. The pursuit of answers to these intriguing questions will continue to animate interest in loanwords and what they can tell us about accent in general.

Kang's contribution is a case study of the adaptation of English words with a liquid consonant ([l], [r]) into Korean. In native and Sino-Korean words there is a constraint against word-initial liquids (the so-called Tu̇im Rule); elsewhere liquids are realized as a tap in the syllable onset and as a lateral in the coda as well as when the liquid is geminated. Kang considers a variety of factors determining whether or not the English liquids are distinguished in the Korean loans and her study tracks the adaptations over a 100-year period. It is shown that the word-initial liquid constraint was often ignored and is now largely obsolete. But when it was imposed then the liquid was replaced by [n] (the other coronal sonorant in the language's sound inventory): *radio* > *nacio*. In the current language, where the initial liquid is typically preserved in the loan, it appears as either a tap or a lateral, with younger speakers apparently favoring the latter realization. On the other hand, in medial position English [l] and [r] are more readily distinguished by geminating the lateral:

Aladdin > [allatin] vs. *aerobic* > [eəropik]. However, quite a few apparent exceptions occur such as *calendar* > [kharenta]. Through a skillful use of statistics Kang finds that the major factor responsible for a flap adaptation of the medial lateral is whether the word likely entered Korean via Japanese during the colonial occupation. Japanese lacks an l-r distinction even allophonically and the Japanese medial liquid is always borrowed as the Korean tap: *sara* 'plate' > [sara]. Hence many of the exceptions to the l > ll correspondence such as *calendar* > [kharenta] can be treated as Japanese loans that have withstood the tendency to «update» the loan by aligning it with the direct English-Korean adaptation strategy employed in the current language. Kang's paper is a good illustration of the complexities involved in reaching a deeper understanding of loanword adaptation, where sociolinguistic and historical factors must be controlled in order to isolate the phenomenon of interest.

Kenstowicz addresses the emergence question with a corpus of 350 English loans into Cantonese. The core native vocabulary has various gaps in the permissible combinations of vowel plus coda consonant. Loanwords can furnish evidence on whether the gaps are accidental or reflect a native grammar phonotactic constraint. He finds that three of the four restrictions responsible for the gaps are imposed on loans. Since the language lacks alternations that might tell how to modify an illegal combination, the adapter cannot readily consult the native grammar to decide how to bring the loan into line with the phonotactic. Should the vowel be changed or the coda consonant? While there is some variation and the number of data points is limited, certain generalizations emerge in this study. Vowel height features rather than backness are modified, an independent finding of Lin (2009) for English loans into Mandarin. Kenstowicz sees this preference as a strategy to preserve the F2 formant transitions that are important cues to the place of articulation of the surrounding consonants, in particular to coda stops, which are unreleased in Cantonese and hence lack bursts to identify their point of articulation. When the adaptation change targets the coda consonant, switch to a velar is the favored option: *prom* > [pɔ:ŋ], *cassette* > [ka:sek], *cone* > [khoŋ]. This outcome seems to recapitulate the labial > coronal > dorsal hierarchy of mergers across the Chinese dialects discussed by Chen (1973) and may reflect a UG faithfulness bias for dorsal codas (Jun 2004, de Lacy 2004).

Paradis and LaCharité take up a classic puzzle in the loanword literature. The English interdentals [θ] and [ð] are sometimes adapted as stops and sometimes as fricatives. Even more puzzling is that dialects of the same language can differ: Canadian French adapts the interdentals with a stop while Continental French joins with German and Japanese in adapting them with a fricative. Drawing on their extensive corpus of loan adaptations from numerous languages, Paradis and LaCharité find the stop adaptation to be the normal (default) phonological substitution. Adaptation with [s] and [z] is interpreted as an (only partially successful) attempt to produce the articulatorily challenging interdental fricative (in their terms a «flawed production based importation»). The authors see this difference in adaptation strategy as reflecting the relative prestige of the donor language in the culture of the recipient language. Like Kang, Paradis and LaCharité argue that the

grammar-external properties of the language contact situation can determine the adaptation strategy employed in a particular situation.

Pons-Moll's paper addresses the choice of adaptation strategy when the native grammar offers more than one option. In Majorcan Catalan unstressed [e] is reduced to schwa in the basic inherited vocabulary: *m[ə]sura* 'measure', *mes* 'month', *m[ə]set* diminutive. But in learned words (*p[e]nultim* 'penultimate', *m[e]tologia* 'methodology') as well as some native derivatives (*p[e]dra* 'stone', p[e]d[é]ta) the process is blocked in the initial syllable. A loan with an initial syllable [e] systematically follows the latter path: *p[e]kin* 'Peking', *p[e]tanca* 'pétanque'. Instead of interpreting this choice as faithfulness to the donor language, Pons-Moll suggests that the native grammar has two coexisting systems: one that favors unstressed schwa over [e] in initial unstressed syllables and the other that makes the opposite choice. Loans follow the second option because it is the productive (more frequent) one. Also the unstressed [e] can be paired with unstressed [o] to give a more balanced system of phonological contrasts.

Repetti investigates the choice of epenthetic vowel in foreign words borrowed into Italian. She finds that in initial and medial position the minimal vowel [i] or a copy vowel are the most common adaptation strategies: *at[i]mosfera* 'atmosphere', [kokkotɛlla] 'cocktail'. But in word-final position a greater variety of outcomes is attested. For the contemporary language, most loans with a final consonant are adapted as such and inflect as indeclinables with no plural marking: *tram*, *i tram*. However, Repetti reports a phonetic study in which some contemporary speakers insert a reduced vowel that is most similar (but not identical) to [e]: *stop* > [stɔppe], [stɔppə], [stɔppᵊ]. Repetti interprets this epenthesis as the speaker's attempt to express the release of the final consonant from the English source word. Her other major finding is that in earlier stages of the language as well as in some current non-standard dialects word-final consonants are impermissible and loans with a final consonant are repaired with a paragogic vowel. The inserted vowels are then given a morphological interpretation as one of the gender/number suffixes: *-o, -e, -i, -a*. She finds that the vowel *-o* is most common; it is also the paragogic vowel found in many contexts in the native vocabulary: Latin *sum* > **son* > *son-o* 'I am', gerundial *parland-o* 'speaking', adverbial *molt-o* 'a lot'. Repetti's study encourages loanword phonologists to investigate the morphological structure assigned to loans: when the loan has the shape in which an affix can be parsed, is this what normally happens? Do the loans form a special morphological class with its own inflection?

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