DEGEMINATION IN JAPANESE LOANWORDS FROM ITALIAN

In Japanese native phonology, geminates or long consonants are contrastive (as in [kata] ‘shoulder’ vs. [katta] ‘win-PAST’) but quite rare, and typically limited to derived environments (Kawagoe, forthcoming). In loanwords, lexical geminates are abundant. This talk provides a positional faithfulness account of the pattern of geminate preservation and neutralization in Italian loanwords, as well as discussing the variation in adaptation strategies.

1. THE PUZZLE

In loanwords from Italian, contrastive geminates in the source words are often preserved as in (1).

(1) a. bitto → bitto (a type of cheese)
   b. farfalle → farufarre (a type of pasta)

However, not all geminates are preserved. Some geminates degeminate in the process of adaptation. Tanaka (2007) points out that geminates tend to be preserved within the last three-syllable window of the borrowed form, as illustrated in (2) (capital letters indicate moraic consonants).

(2) a. zuK.kóT.to → zu.kóT.to zuccotto (a type of cake)
   b. aL.le.gréT.to → a.re.gu.réT.to allegretto (musical term)

2. THE PROPOSAL

This positional effect on degemination can be understood as stress-based positional neutralization. Namely, a geminate is protected from degemination if the mora associated with the consonant belongs to the stressed syllable in Italian. While it is also possible that geminate-preservation is dependent on the accented status in the Japanese output, data points contradict with this generalization:

(3) a. suP.plí → sú.pu.ri suppli (a type of rice croquette)
   b. faL.séT.to → fá.ru.seT.to falsetto (musical term)

Within the framework of Optimality Theory (Prince and Smolensky 1993), assuming an output-output correspondence relationship (McCarthy and Prince 1995) between the source forms and their loans allows us to posit the prosodically fully specified Italian output as the input to Japanese loanword adaptation process. Then, appealing to Beckman (1998)'s general schema for positional faithfulness, the following constraints and rankings account for positionally-conditioned degemination and geminate-preservation.

(4) IDENT-’σ[µ] » NOGem » IDENT[µ]

IDENT[µ] requires that an output segment have an identical moraic specification as its input correspondent, and IDENT-’σ[µ] further requires that the mora associated with the input segment belong to the stressed syllable in the input. The markedness constraint NOGem is violated for each geminate in the output.

3. FURTHER COMPLICATION

While the configuration in (4) successfully derives the basic cases of positional degemination such as in (2a), it is problematic when degemination is coupled with other repair strategies observed in loanwords from Italian, including palatal vocalization and vowel lengthening. (5a) illustrates the vocalization of [j], which incurs a violation of the faithfulness constraints proposed above. (5b) illustrates compensatory vowel lengthening, which also incurs violations of IDENT-’σ[µ].

(5) a. o.reK.kjéT.te → o.re.ki.čT.te orecchiette (a type of pasta)
   b. ta.raL.li → ta.ra:ri taralli (a type of snack)

(5a) can be accounted for by ranking *COMPONS, prohibiting complex onsets, above the constraints in (4). (5b) calls for another positional faithfulness constraint, MAX-’σ[µ], which penalizes candidates losing weight in stressed syllables.