Loan Adaptation in Teotitlán del Valle Zapotec
Nick Kalivoda

A longstanding debate in the theory of loanword adaptation pits a purely phonetic account (c.f. Peperkamp 2005) against phonological models (c.f. LaCharité & Paradis 2005). Without denying the impact of perception and articulation on adaptation, I present novel data from Teotitlán del Valle Zapotec (henceforth TVZ), a language which borrows productively from Spanish, that at least some loan adaptation phenomena are truly grammatical. I argue on the basis of (i) large-scale bilingualism in the TVZ speech community, (ii) phonotactic similarities between TVZ and Spanish, and (iii) an opacity effect which defies a purely surface-oriented account.

The native TVZ phonemic inventory is almost a proper superset of that of Spanish, lacking only /f/ and /e/ (TVZ has /ɛ/), and morphologically complex TVZ words exhibit the same range of metrical structures as words in Spanish. It therefore comes as a surprise under a purely phonetic account of loan adaptation that non-high vowels in loans with penultimate stress in Spanish delete categorically, as shown in (1).

(1) Non-High Vowel Deletion
a. l´ıбро → lıbr ‘book’
   b. to´rtug ‘turtle’

Meanwhile, final vowels outside of this specific environment do not delete, as shown in (2).

(2) No Deletion
a. ka.fé → ka.fé: ‘coffee’
   b. re.pú.blí.ká → re.pú.blí.ká ‘republic’

I provide an account of these and other patterns in a phonologically natural way, invoking markedness constraints on footing advanced by de Lacy (2002, 2006), comparing the process to a nearly identical one observed in Sino-Japanese loans (Ito & Mester to appear).

An opaque process in the speech of older TVZ speakers further elucidates the need for a phonological account. In the grammars of these speakers, the Spanish morpheme -dáðo goes to -dá: while d’s rendered final by vowel deletion remain, as shown in (3).

(3) An Opacity Effect
a. re.a.li.dáðo → re.a.li.dá: ‘reality’
   b. a.ban.do.náðo → a.ban.do.náðo ‘abandoned’

I discuss ways of capturing the effect in (3), concluding that a stratal account is possible (as is an account with extrinsically ordered rules), but that both parallel and serial Optimality Theory (Prince & Smolensky 1993) encounter severe difficulty without additional machinery (e.g., strata). Regardless of the proper way to analyze the pattern, the phenomenon’s existence itself points to the need for abstract phonological computation in the loan adaptation process.
Works Cited


