Pronouncing the Zs: Epenthesis in English plural possessives

Simon Todd
Department of Linguistics, Stanford University
sjtodd@stanford.edu

The interaction between the English regular plural affix (PL) and possessive clitic (POSS) presents a theoretical puzzle (Zwicky, 1975). Both have the form /z/, and so the OCP (Yip, 1998) predicts their combination (PL+POSS) should trigger epenthesis. Yet, in cases like *the boys'* /bɔɪz/ *kite*, only PL is overtly realized. Why does the OCP fail to apply?

Two families of theories address this non-application of the OCP in PL+POSS constructions. Host-based theories (Stemberger, 1981; Zwicky, 1987) claim that POSS inspects the morphological composition of its host and is suppressed by adjacent PL /z/. By contrast, head-based theories (Bernstein & Tortora, 2005) claim that POSS-suppression is conditioned on morphosyntactic features of (the head of) the possessor phrase: POSS is suppressed only when the possessor head is plural. Thus, contra the host-based theories, epenthesis is triggered in cases like *the father of the boys's* /bɔɪzəz/ *kite*.

To address the contrasting claims of variability in PL+POSS constructions, we conducted a split-rating experiment (following Bresnan, 2007) in which participants compared the naturalness of written PL+POSS pronunciations with and without epenthesis. The results show that the inclination to realize POSS is variable across individuals and is gradient, depending on the embeddedness of the PL-host and the length of the possessor, but not on the number of the possessor (see Figure 1). Participants rated the epenthesis strategy higher with all embedded possessors: /bɔɪzəz/ was judged more natural in *[<u>one</u> of [the boys]]'s kite* and *[<u>two</u> of [the boys]]'s kite* together than in *[the <u>boys</u>]'s kite* and *[the [blue-eyed <u>boys</u>]]'s kite* together. Epenthesis was rated equally natural in both embedded cases, regardless of the number feature, but was rated more natural for long unembedded possessors (*[the [blue-eyed <u>boys</u>]]'s kite*) than for short ones (*[the <u>boys</u>]'s kite*).

The fact that epenthesis was not judged differently for singular and plural possessors is inconsistent with head-based theories. By contrast, host-based theories can successfully account for this result, and the effects of both embedding and length, if extended with a locality constraint. Under this extension, the ability of POSS to inspect the morphological composition of its host is hampered by the presence of intervening constituent boundaries. In instances like *[one of [the boys]]'s kite* and *[the [blue-eyed boys]]'s kite*, the internal structure of *boys* may be invisible, meaning that the final /z/ is not registered as PL and does not enforce POSS-suppression. POSS can thus be realized as /z/ and trigger epenthesis, following the OCP.

This analysis has implications for the interleaving of phonology with morphology and syntax. To enact POSS-suppression, phonological processing at the attachment of POSS must not be blind to existing morphological structure, as is expected from Bracketing Erasure (Pesetsky, 1979). However, existing structure cannot remain equally available at all levels of derivation, as is assumed in standard Optimality Theory (Prince & Smolensky, 2004). The present results suggest that internal structure may be available throughout the derivation, but may be weakened with each successive level.

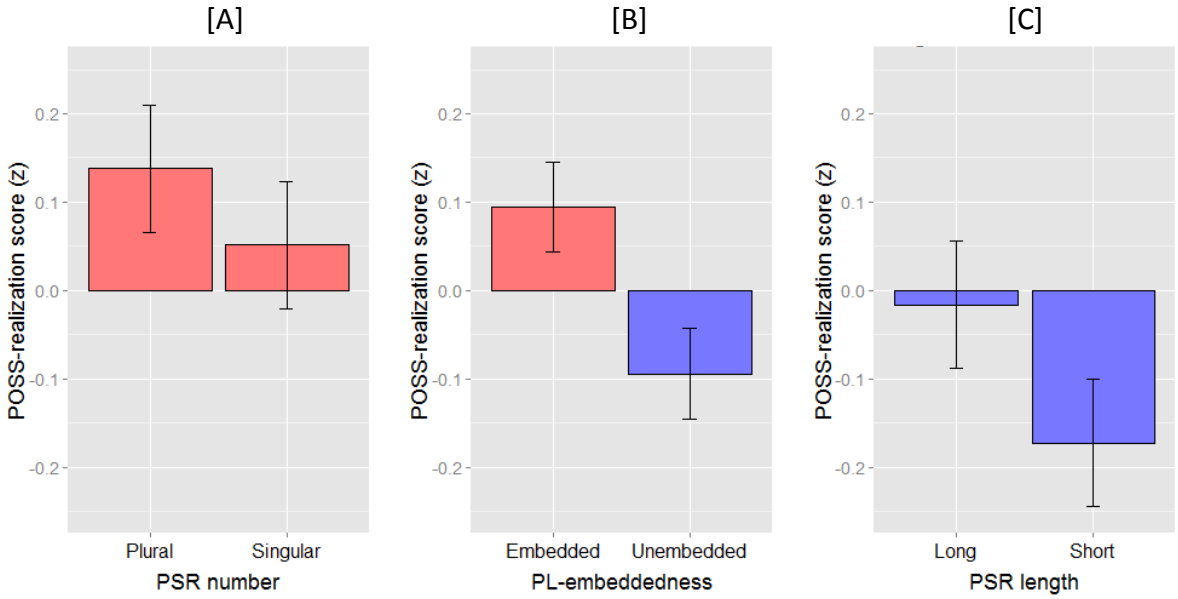

Figure 1: Differences in the naturalness of epenthesis in PL+POSS depending on: [A] number feature of the possessor phrase, when the PL-host is embedded (*two of the boys' kite* vs. *one of the boys' kite*); [B] embeddedness of the PL-host within the possessor phrase (*two of the boys' kite* and *one of the boys' kite* vs. *the blue-eyed boys' kite* and *the boys' kite*); and [C] length of the possessor phrase, when the PL-host is unembedded (*the blue-eyed boys' kite* vs. *the boys' kite*). The *y*-axis shows the mean naturalness rating of constructions in the relevant condition, *z*-scored by participant, and the error bars show 95% confidence intervals, as assessed by linear mixed effects regression.

References

Bernstein, J. B., & Tortora, C. (2005). Two types of possessive forms in English. *Lingua*, *115*(9), 1221–1242.

Bresnan, J. (2007). Is syntactic knowledge probabilistic? Experiments with the English dative alternation. In S. Featherston & W. Sternefeld (Eds.), *Roots: Linguistics in Search of Its Evidential Base* (pp. 75–96). Berlin: Mouton de Gruyter.

Pesetsky, D. (1979). *Russian morphology and lexical theory*. Ms., MIT.

Prince, A., & Smolensky, P. (2004). *Optimality Theory: Constraint Interaction in Generative Grammar*. Cambridge, MA: MIT Press.

Stemberger, J. P. (1981). Morphological Haplology. *Language*, *57*(4), 791–817.

Yip, M. (1998). Identity avoidance in phonology and morphology. In S. G. Lapointe, D. K. Brentari, & P. M. Farrell (Eds.), *Morphology and its relation to phonology and syntax* (pp. 216–246). Stanford: CSLI.

Zwicky, A. M. (1975). Settling on an underlying form: The English inflectional endings. In D. Cohen & J. R. Wirth (Eds.), *Testing linguistic hypotheses* (pp. 129–185). Washington: Hemisphere.

Zwicky, A. M. (1987). Suppressing the Zs. *Journal of Linguistics*, *23*(1), 133–148.