Phonological coercion in Pawnee

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This study examines certain phonological coercion processes in Pawnee, a North Caddoan language (Parks 1976). As shown in the contrast between (1) and (2), the voiceless alveolar stop /t/ is coerced as an affricate [c] when followed by a homorganic consonant.

(1)  
a. /t/+t/ → [ct]: /ta-t+tau:t-∅/ → [tacta?u] ‘I stole it.’  
b. /t/+s/ → [ct]: /ta-t+sa-∅/ → [tacta] I’m lying.’  
c. /t/+c/ → [ct]: /ta-t+ca+k-∅/ → [tactat] ‘I shot it.’

(2)  
a. /t/+p/ → [tp]: /ta-t+paks/ → [ta-t_paks] ‘I hit the boy...’  
b. /t/+k/ → [tk]: /ta-t+kawi/ → [tatkawi] ‘I’m grinding it.’

I demonstrate that /t/ undergoes coercion in order to improve the transition between syllables. Specifically, I argue that /t/ in the coda is coerced as [c], rendering it more sonorous than the onset of the following syllable. Based on this observation, I propose a syllable contact constraint (Vennemann 1988) defined in terms of sonority (Davis & Shin 1990). Since this constraint makes reference to the relative sonority between segments, it accounts for not only the coercion of /t/ into [c] (in the coda) but also the coercion of /c/ into [t] (in the onset) as in (1c). I further propose that this constraint be conjoined with a constraint that millitates against homorganic clusters (Smolensky 1995). As support, I discuss predictions for the coercion patterns in geminates.

In summary, the phonological coercion discussed above is triggered for syllable contact, but it does not target a specific segment or a specific syllable position; while coda segments are usually coerced, onset segments are also coerced occasionally.