

Linguistics 110
Homework Exercise 1
Phonological Change

Proto-Tocharian had among other consonants the three voiceless stops /p/, /t/, and /k/. There was also /s/, **but no other voiceless fricatives or affricates!** PT had a basic five-vowel system /i/, /u/, /e/, /o/ and /a/, with contrasting short and long varieties of each. The symbol <ä> used below represents a high central vowel (like English “barred i” [ɨ]). The symbol <š> represents a voiceless palatal fricative, and <c> a voiceless palatal affricate.

Analyze the following changes first in structuralist terms and then in terms of generative rule change. Assume that the changes took place in the order given.

1. $*t \rightarrow *c / _V[\text{front}]$ e.g. $*\text{-onti} \rightarrow *\text{-onci}$ (present third plural ending)
 $*\text{temp-} \rightarrow *\text{cemp-}$ ‘be able’
2. $*e \rightarrow \text{ä}$ e.g. $*\text{cemp} \rightarrow \text{cämp-}$
3. $*i \ \& \ *u \rightarrow *ä$ e.g. $*\text{-onci} \rightarrow \text{oncä}$
 $*\text{tupro-} \rightarrow \text{täpro-}$ ‘high’
4. $*k \rightarrow \text{š} / _e:$ e.g. $*\text{ke:rwo-} \rightarrow *\text{še:rwo-}$ ‘hunter’
5. $*e: \ \& \ *o \rightarrow e$ e.g. $*\text{še:rwo-} \rightarrow \text{šerwe-}$
 $*\text{komo-} \rightarrow \text{keme-}$ ‘tooth’