Examples for discussion:

Phonetic, phonemic, phonological grammar changes

I. Japanese /s/

Can you find cases of phonetic change? Phonemic change? Phonological grammar change?

Stage 1 (represented in Portuguese missionary materials)

see <http://esopo.fc2web.com/Esopo/esopo/esopo408.html>

[s] occurs: before [a o w] ([w] is a high back unrounded vowel)

[c] occurs: before [i e] ([c] is a fricative similar to [f] but with flatter tongue)

- What is the distribution of [s] and [c]?
- Are there any synchronic phonological rules?

Stage 2 (taking Modern Standard Japanese before/without recent loanwords)

- [s] occurs: before [a e o w]
- [c] occurs: before [i]
- What is the distribution of [s] and [c]?
- Are there any synchronic phonological rules?

Stage 3 (Modern Standard Japanese, with many recent loanwords)

- [s] occurs: before [a e o i w]
- [c] occurs: before [a e o i w]
- What is the distribution of [s] and [c] now?

II. Old English /æ/

What subtype of phonemic change is this?

Stage 1: Vowel length of $/\infty$ / is predictable based on syllable structure

CæC (short vowel)
Cæ: . CV (long vowel)

Stage 2: Final schwa is deleted

CæC > unchanged CæC

Cæ: . Cə > Cæ:C ← new minimal pair!