Types of sound change

András Cser
Pázmány Péter Catholic University
ccser.andras@btk.ppke.hu

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The application of crystallographic theory to experience is open to the hazards of empirical refutation only in the same sense as a marching song played by the band at the head of a marching column. If it is not found apposite it will not be popular.

(Michael Polányi: Personal Knowledge)

Goal: discussion of certain aspects of the general taxonomy of sound changes

1. Taxonomy:

   - common descriptive framework
   - common terminology
   - new insights not originally envisaged

   “The principle of crystal symmetry was discovered by assuming that crystals contained only six elementary symmetries (mirroring, inversion, twofold, threefold, fourfold and sixfold rotations). From this it was concluded that the 32 possible combinations of these six elementary symmetries represented all distinct kinds of crystal symmetry… The atomic theory of crystals defining this hidden structure, which was prophetically mooted in the nineteenth and triumphantly vindicated early in the twentieth century, has unified and greatly extended the system of order enframed in the 32 classes of symmetry. In this theory the significance of the planes and edges exhibited by a crystal is further reduced. These distinctive features are now regarded as merely indicating the presence of an underlying atomic orderliness, from which the 32 classes of symmetry can be rigorously derived.” (Polányi 1962:46–50)

2. General categories

2.1 Conditioned – unconditioned – sporadic change

   - conditioned change: \[k] > \[t]\] / \[V][–back]\] (Late Latin etc.)
   - unconditioned change: OFr \[t\] > \[t\] and \[d\] > \[s\] (cher ‘dear’, jour ‘day’)
   - PSem \[g\] > ClAr \[d\] (or \[j\]), PSem \[p\] > ClAr \[f\] (*glp > jala ‘to carve, skin’, Moscati 1980: 24 ff.) (some may have originated in specific environments)
   - sporadic change: ME \[r\] > \[z\] / \[C][+cor]\] (cuss ~ curse, bust ~ burst)
   - sporadic retention: PFU \[p\] > Hu \[f\] (*peljä > fül ‘ear’), but *porV > por ‘dust’ ¹
   - negative conditioning: Grimm’s Law \[p\] > \[f\] etc., exc. after obstruents (stand)

but what really is a conditioned change?

cf. \([k] > [tʃ] / _V[–back]\), shorthand for \([k] > [k^i] > [c] > [tʃ] / _V[–back]\)
but from \([k^i]\) onwards it is unconditioned, and
\([k] > [k^i]\) may not have been a change at all; persistent rule (see below)?
→ conditioned vs. unconditioned is not empirical but structural issue

2.2 Featural – segmental – prosodic change

- featural change: in subset of features (most examples so far)
- segmental change: entire segment (e.g. total assimilation)
- prosodic change: change in higher structure (syllable str., length, stress etc.)

classification of individual changes highly dependent on theory of representation;
e.g. PIE \([j] > La [i] / C_ (_*kapjō > capiō ‘I grab’)

→ featural change if \([+/– syllabic]\) is a feature (e.g. SPE)
→ segmental change if \([i]\) and \([j]\) are two different segments not only distinguished by a small
number of features (e.g. Hall 2007)
→ prosodic change if \([i]\) and \([j]\) are the same at the melodic level and differ only in syllabic
affiliation (e.g. Clements & Keyser 1983, for overview see Padgett 2008)

2.3 Sound change vs persistent rule

- sound changes \textit{sensu stricto} operate within a limited time span
- persistent rules ‘remain in effect over a long period of time during the history of a
language, and… exert [their] influence whenever, through the operation of other
changes, [their] structural description comes to be fulfilled’ (Chafe 1968: 131).

Late Latin \textit{scripta} > IScripta ‘written’
vs. ClAr salima ‘to be safe’ + \textit{t}-infixation → istalama ‘to obtain’

Also in loanword adaptation: It \textit{tulipano} ‘tulip’ ← Turkish \textit{tülbend}

3. Phonologization – morphologization – lexicalization

structural consequences rather than categories/types of sound change

Phonologisation:
- current use: low-level physiological variation becomes a ‘cognitively controlled
pattern of phonetic implementation’ (Bermúdez-Otero 2006: 503, cf. also Yu 2013)
- narrower structuralist interpretation: the emergence of a contrast where there was
previously only allophony, through the loss or subsequent change of the conditioning
environment (Jakobson 1990 [1931]), e.g. phonologisation of fricative voicing in ME

Morphologisation:
- alternation introduced by a sound change becomes restricted to some morphological
category and begins to function as its exponent; ~ Umlaut in German
Lexicalisation:
- erratic residue, ossified lexical idiosyncracies without any systematic (phonological or grammatical) aspect; ~ Umlaut in English;
- La eo ‘I go’ ūs ‘you go’ < *ej-o vs. ej-s

4. Major types of sound change

general problems: misleading symmetries, variety of terms, not equally circumscribed types

4.1. Assimilation

- progressive vs. regressive
- contact vs. distant
- total vs. partial

La adligare > alligare ‘to tie’, adferre > afferre ‘to carry’ – total, regressive, contact
La [-cont] > [+nas] / _ [+nas], e.g. *sweepnos > somnus ‘dream’, *deknos > di[ŋ]nus ‘worthy’,
*supmos > summus ‘topmost’ – partial, regressive, contact
NWGmc Umlaut – partial, regressive, distant
WHu [j] > [c] / [p k f]_, e.g. apja > ap[c]a ‘his father’ – partial, progressive, contact

4.2 Dissimilation

- progressive vs. regressive
- contact vs. distant
- (total vs. partial? – cf. Paul 1995[1880]: 65, where OHG cuning > G König is dissim.)

ClGr hepta ‘7’, oktō ‘8’ > MoGr ehta, oxto – contact, regressive
PIE *bʰejdʰā > ClGr peitʰā ‘I suggest, convince’ (Grassmann’s Law) – distant, regressive
Go weitwo[ð]-iþa ‘witness’ vs. wairþ-i[ð]a ‘worth’ (Thurneysen’s Law) – distant, progressive
Sp [mn] > [mr], La homine(m) > *omne > *omre > hombre ‘man’ – contact, progressive

4.3. Deletion

- many terms depending on segment and position (aphaeresis, syncope, apocope etc.) – infelicitous because of intersecting environments, e.g.

GaRom/OFr nearly all coda consonants (internally as well as finally) deleted, e.g. La rupta > Fr route ‘way’, ultra > outre ‘beyond’, costa ‘rib’ > côte ‘coast, rib’, est > [e] ‘is’
OHu short vowels finally and in medial open syllables hodu > had ‘clan’, uruszág > ország ‘land, country’, also in loanwords, e.g. Sl malina → Hu málna ‘raspberry’
4.4. Insertion (Epenthesis)

- many terms here too (prothesis, excrescence, anaptyxis, svarabhakti, paragoge)

BohCz #[o] > #[vo], on > von ‘he’, okno > vokno ‘window’
OE tunor|tunres, tunrian etc. > MoE thunder
PSl *berg- > Ru béreg ‘bank’, *melko > molokó ‘milk’
ME soun > MoE sound, ageines > against; German jemand ‘somebody’, niemand ‘nobody’,
from man ‘one, man’

4.5 Lenition (Weakening)

- more complex and controversial than other categories; change of consonants towards
a “more vowel-like” articulation
- crucially dependent on a concept of consonant strength or some scalar quality (like
sonority or complexity) with a similar function

PBrit and PGael [b d ɡ m] > [v ð ɣ ɻ] / V_V, e.g. PCelt *sodjo- > OIr [suðe] ‘seat’, *tegesos
similar’
ME misse[z], wi[ð], i[z]

4.6 Fortition (Strengthening)

- change of consonants towards a “less vowel-like” articulation

Pre-CIGr [j] > [c] > [t] / [p ʰ]_ *tupjō > tuptō ‘hit’
HG [w j] > [b g] / [r l]_, e.g. MHG swalwe > MoG Schwalbe ‘swallow’, verje > Ferge
‘ferryman’

4.7 Metathesis

- linear order of segments rearranged

ClGr C[son][j] > [j][C[son] *kʰarjō > kʰairō ‘I am happy’, *pʰanjō > pʰainō ‘I show’
OE ascian ~ acsian
OE hors ~ hros, rinnan ~ irnan
PrSl *berg- > Cz břeh ‘riverbank’, *melko > mléko ‘milk’
ClGr gambrós ‘son-in-law’ > SlGr grambó, kʰondrós ‘thick, rough’ > xrondó and pikrós
‘bitter’ > prikó

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2 Short (2002: 529)
4 Russell (1995:30, 236 ff.)
6 For the data with a different interpretation see Sihler (1995: 195).
References


