

## Bartholomae's law revisited and remodelled (conference abstract)

Bartholomae's Law affects the development of the clusters of  $*D^h+T$  and  $*D^h+S^1$  in old Indo-Iranian languages.<sup>2</sup> The progressive principle of the law goes contrary to the prevailing tendency of Aryan clusters to be assimilated in a regressive manner (note that the outcomes of the Law are often levelled on "regular" regressive later).

Since Bartholomae (1882), there have appeared numerous models trying to reconstruct the possible trajectories of the development (cf. for general overview Collinge 1985: 7–11; Mayrhofer 1986: 115–118; Szemerényi 1990: 106–109; Mayrhofer 2004: 46), especially remarkable are models of Anderson (1970), Sag (1974: 593), Mey (1972), Schindler (1976), D. G. Miller (1977), Ejerhed (1981), Lombardi (1991: 140) and Kobayashi (2004: 1117–125), none of them got general acceptance since all models require either atypical shifts of aspiration; either deaspiration of the left member or biphonemic nature of Aryan voiced aspirates.

Our proposed model for the development of  $D^hT/D^hS$  clusters follows the trajectory of spirantization and subsequent fortition, that reconstructed IE  $*D^h$  had in Aryan value of the voiced spirant  $\Delta$  was brought first by Walde (1887: 466), though not for the Bartholomae's clusters.

We assume the following trajectories for  $*D^hT$  clusters:

- a. the left plosive (= IE  $*D^h$ ) becomes a voiced spirant and the right voiceless plosive ( $*T$ ) also becomes a voiced spirant ( $D^h + T > \Delta\Delta$ );
- b. in the second phase, both spirants became a subject of fortition to plosives; the left spirant became a voiced plosive, the right spirant changed into a voiced aspirate ( $\Delta\Delta > DD^h$ )<sup>3</sup> in Indic,<sup>4</sup> the right plosive is non-aspirated plosive in Iranian:

- i.  $D^h + T > \Delta\Delta > DD^h$  (Indic)
- ii.  $D^h + T > \Delta\Delta > DD/\text{Ð}\text{Ð}$  (Iranian)

NB: The process and its outcomes are similar for the clusters  $*TD^h$  and  $*D^hD^h$  left aside at this moment.

*Similo modo*, the trajectories for the development of the  $*D^hS$  clusters are modelled:

- a. a voiced aspirate becomes a voiced spirant;
- b. a sibilant becomes voiced;
- c. a  $\Delta Z$  cluster is despirantized in the left part of it in Iranian;  $T_s$  replaces the expected  $\dagger DZ$  due to analogy in Indic, the Iranian state is assumed to be archaic, hence:

- i.  $D^h + S > \Delta Z (\rightarrow TS)$  (Indic)
- ii.  $D^h + S > \Delta Z > DZ$  (Iranian)

NB: The spirantization model of Bartholomae's law has one prominent advantage concerning the development of  $D^hS$  clusters: within the spirantization model, there is no need to introduce the "exotic" voiced aspirated sibilants ( $Z^h$ ) at all.

The Indic outcomes with voiced aspirated plosives are hence not inherited but innovations; the existence of voiced spirants in Iranian hence reflects, in some range, the older Indo-Iranian situation.

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<sup>1</sup> IE  $ts > OIA ts$ , Av.  $Os$ ; IE  $d^h s > OIA ts$ , Av.  $Oz$ ; IE  $ss > OIA ts$ , Av.  $Os$ ; IE  $Ks > OIA ks$ , Av.  $Oš$ ; IE  $g^h s > OIA ks$ , Av.  $Ož$ ; II  $šs > OIA ks$ , Av.  $Oš$ .

<sup>2</sup> Some authors who consider the law being operating already in IE (Kuryłowicz 1935: 50–51; Lubotsky 2018: 1879), but we support the idea that the Law is exclusively Indo-Iranian (e.g., Szemerényi 1990: 107; Hoffmann/Forsmann 1996: 95–96). Noteworthy is that the possible validity of the Bartholomae's Law for Germanic was examined in recent years, especially by Görtzen (1998: 444–448) and Hill (2003: 218–220).

<sup>3</sup> We assume, similarly to D. G. Miller (1977), that voice was a primary quality, not aspiration.

<sup>4</sup> Either directly due to the same process or later, Walde (1897) assumes aspiration as a later feature both of OIA and Gr. aspirates.

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