Deterrorizing Sanskrit
Sound laws

Harald Wiese

University of Leipzig

s-z laws

Intermediate steps:

ie. *s* before vowel or voiced stop   →   oi. *z*

ie. *ǵ* before voiced stop   →   oi. *j* → *z*

ie. *ǵ* before voiceless stop   →   oi. *j* → *s*

ie. **y(e)ǵ-to* (zero grade and *to*-marker of past participle)

→   *iǵ-ta* (*i* as we need a vowel here)

→   *is-ta* (*s-z* law before voiceless cons.)

and after that on to

→   *iṣ-ta* (ruki)

→   *iṣ-ṭa* (forward assimilation)

s between dentals

We find two odd rules for *s* between dentals. On the one hand, *s* spontaneously emerges between voiced dentals (symbolized by *D*):

$$DD \rightarrow DsD$$

Example: Parasmâipada imperative 2. pers. sg. of *dā* ("to give")

        ie. **da-dH$_3$-dhi*

$\rightarrow$ *da-dzdhi* (Indo-Iranian emergence of *z*)

$\rightarrow$ *da-zdhi* (loss of cluster-initial *d*)

$\rightarrow$ *dê-dhi* (compensatory lengthening before consonant + i)

s between dentals

$$TsT \rightarrow TT$$

Example: gerund *ut-thāya* from *ud-sthā*

Sandhi rule for inserting sibilant

$$
\begin{aligned}
\textit{abharan} + \textit{ca} \quad &\rightarrow \quad \text{oi. } \textit{abharaṃ-ś-ca} \\
\textit{hasan} + \textit{ṭīkatê} \quad &\rightarrow \quad \text{oi. } \textit{hasaṃ-ṣ-ṭīkatê} \\
\textit{dêvān} + \textit{tatra} \quad &\rightarrow \quad \text{oi. } \textit{dêvāṃ-s-tatra}
\end{aligned}
$$

Explanation:

acc. pl. is $*$-*ō-ns* and hence

- *ān* in word-final position
- with original *s* before *c, ṭ, t* as seen above

Compensatory lengthening for suppression of voiced s

perhaps:

oi. *as* bef. voiced stops (voiced plosives)

$$\rightarrow \begin{cases} \hat{o}, & \text{at the end of words (1.)} \\ \hat{o}, & \text{not word final, not before consonants} + i \text{ (2.)} \\ \hat{e}, & \text{not word final, before consonants} + i \text{ (3.)} \end{cases}$$

1. The first line is known to many of you as a very frequent sandhi rule. For example, "the man runs" is

   naras dhava (without sandhi)

   → *naraz dhavati* (*s-z* law before voiced stops)

   → *narô dhavati* (*z* drops with comp. lengthening)

Compensatory lengthening for suppression of voiced s, 2.

- *manasbhyām* →*manôbhyām*
- *trayodaśa* ("13") ← *trayas*, nom. pl. ("3") and *daśa* ("10")
- *ṣôḍaśa* ("16") ← *ṣaṣ* ("6") and *daśa* ("10"):

$$
\begin{aligned}
& \text{ṣaṣ-daśa} \\
\rightarrow\quad & \text{ṣaẓ-daśa (backward assimilation)} \\
\rightarrow\quad & \text{ṣaẓ-ḍaśa (forward cerebral assimilation)} \\
\rightarrow\quad & \text{ṣô-ḍaśa (ẓ drops with comp. lengthening)}
\end{aligned}
$$

Compensatory lengthening for suppression of voiced s, 3.

- 2. sg. imperative of "to be": *as-dhi* → *azdhi* → *êdhi*.

ie. *veǵh-tum* (full grade and *tum* to mark the infinitive)

→ *vaǵh-tum*

→ *vaǵ-dhum* (aspiration shift)

→ *vaz-dhum* (*s-z* law before voiced cons.)

→ *vô-dhum* (*z* drops with comp. lengthening)

Cerebralization is taken from the PPP *ūḍhá*.

Compensatory lengthening for suppression of voiced s

Secondary as before voiced stops

$\qquad$ ie. **ad-d(h)*

$\rightarrow$ *adzd(h)* (Indo-Iranian emergence of *z*)

$\rightarrow$ *azd(h)* (loss of cluster-initial *d*)

$\rightarrow$
$\begin{cases} \hat{o}d(h), & \text{at the end of words} \\ \hat{o}d(h), & \text{not word final, not before consonants} + \text{i} \\ \hat{e}d(h), & \text{not word final, before consonants} + \text{i} \end{cases}$

Example: Parasmâipada imperative 2. pers. sg. of *dā* ("to give")

$\qquad$ ie. **da-dH$_3$-dhi*

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Compensatory lengthening for suppression of voiced s

is and us before voiced stops

$$\text{oi. } \textit{is} \text{ bef. voiced cons.} \quad \rightarrow \quad \bar{\imath}$$

$$\text{oi. } \textit{us} \text{ bef. voiced cons.} \quad \rightarrow \quad \bar{u}$$

si-sd-ati (reduplication with *i* and zero grade)

→ *si-zd-ati* (*s-z* law before voiced cons.)

→ *si-ẓd-ati* (ruki)

→ *si-ẓḍ-ati* (forward assimilation)

→ *sīḍ-ati* (*z* drops with comp. lengthening)

together with levelling:

sīḍ-ati

Compensatory lengthening for suppression of voiced s

v(e)ǵh-to (zero grade and *to*-marker of past participle)

→ *uǵh-ta* (*u* as we need a vowel here)

→ *uǵ-dha* (aspiration shift)

→ *uz-dha* (*s-z* law before voiced cons.)

→ *uẓ-dha* (ruki)

→ *uẓ-ḍha* (forward cerebral assimilation)

→ *ū-ḍha* (*z* drops with comp. lengthening)

Compensatory lengthening for suppression of voiced s

l(e)ǵh-to (zero grade and *to*-marker of past participle)

→ *liǵh-ta* (*i* as we need a vowel here)

→ *liǵ-dha* (aspiration shift)

→ *liz-dha* (*s-z* law before voiced cons.)

→ *liẓ-dha* (ruki)

→ *liẓ-ḍha* (assimilation)

→ *lī-ḍha* (*z* drops with comp. lengthening)

Compensatory lengthening for suppression of voiced s

ās before voiced stops

narās gacchanti (without sandhi)

→ *narāz gacchanti* (*s-z* law before voiced cons.)

→ *narā gacchanti* (*z* drops with "comp. lengthening")

narās īkṣantê (without sandhi)

→ *narāz īkṣantê* (*s-z* law before voiced cons.)

→ *narā īkṣantê* (*z* drops with "comp. lengthening")

2. pl. present tense of *ās* ("to sit"):

ās-dhvê (without sandhi)

→ *āz-dhvê* (*s-z* law before voiced cons.)

Compensatory lengthening for suppression of voiced s

Summary

$$\text{oi. } VsP_{\text{voiced}} \; \rightarrow \; VzP_{\text{voiced}} \; \rightarrow \; \bar{V}P_{\text{voiced}}$$

but not $\bar{a}C_{\text{voiced}}$ but to $\hat{o}C_{\text{voiced}}$ or $\hat{e}C_{\text{voiced}}$ instead

Compensatory lengthening for suppression of voiced s

as before a/other vowels

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oi. *as* + *a* → *ô* + avagraha

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rāmas atra (without sandhi)

→   *rāmaz atra* (*s*-*z* law before vowel)

→   *rāmô atra* (*z* drops with comp. lengthening)

→   *rāmô 'tra* (*a* of second word drops)

But: before other vowels:

<div align="center">

rāmas īkṣatê (without sandhi)

→   *rāmaz īkṣatê* (*s*-*z* law before vowel)

→   *rāma īkṣatê* (*z* drops)

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Compensatory lengthening for suppression of voiced s

Summary

oi. *as* bef. vowels $\longrightarrow$ $\begin{cases} \hat{o}, & \text{before } a \text{ that is then dropped} \\ a, & \text{before any other vowel} \end{cases}$

oi. *ās* bef. vowels $\longrightarrow$ $\bar{a}$