**Patterns and scales of expressive palatalization: Typological and experimental evidence**

**Supplement**

Table A1. Surveyed languages and their genetic affiliation (SS = (diminutive) sound-symbolism, D = diminutive morphological constructions, BT = babytalk, HC = hypocoristics)

<table>
<thead>
<tr>
<th>Language</th>
<th>Type</th>
<th>Genus</th>
<th>Family (by continent)</th>
</tr>
</thead>
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<tr>
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<td>BT</td>
<td>Pama-Nyungan</td>
<td>Australian</td>
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<tr>
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<td>Chukotko-Kamchatkan</td>
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<td>Kannada, Havyaka</td>
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<td>Dravidian</td>
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<td>BT</td>
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<td>Kam-Tai</td>
<td>Tai-Kadai</td>
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<td>Finnic</td>
<td>Uralic</td>
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<td>Siouan</td>
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<td>D</td>
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<td>D</td>
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<td>Jaqaru</td>
<td>D</td>
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</tr>
<tr>
<td>Quechua, Santiago del Estero</td>
<td>D</td>
<td>Quechuan</td>
<td>Quechuan</td>
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</table>
1. Targets: Non-coronals and coronals

1.1 In *Kildin Saami*, diminutives are formed by adding the suffix [-a], accompanied by palatalization and degemination of the stem-final consonant. The process targets consonants of all places – labials, velars (a), and coronals (b), all of which acquire secondary palatal articulation. Palatalized consonants are phonemic in the language. (Source: Kert 1971: 83-87).

(1.1) a. \([\text{jab}b] \rightarrow [\text{jab}^{\text{L}}-a]\) ‘salmon’
   \([\text{su}v\text{v}] \rightarrow [\text{su}v^{\text{L}}-a]\) ‘smoke’
   \([n\text{emm}] \rightarrow [n\text{em}^{\text{L}}-a]\) ‘name’
   \([\text{ho}gg] \rightarrow [\text{ho}g^{\text{L}}-a]\) ‘ceiling’
   \([\text{jinn}] \rightarrow [\text{jin}^{\text{L}}-a]\) ‘ice’

b. \([\text{hudd}] \rightarrow [\text{hudd}^{\text{L}}-a]\) ‘bullet’
   \([\text{kuss}] \rightarrow [\text{ku}^\text{z}^{\text{L}}-a]\) ‘fur-tree’
   \([\text{mann}] \rightarrow [\text{man}^{\text{L}}-a]\) ‘month’
   \([\text{toH}] \rightarrow [\text{to}^{\text{L}}-a]\) ‘fire’
   \([\text{murr}] \rightarrow [\text{mur}^{\text{L}}-a]\) ‘tree’

1.2 *Southern Estonian* babytalk is characterized by extensive palatalization, which affects both non-coronals (a) (except /ʔ h v/) and coronals (b). On most consonants, palatalization is realized as addition of secondary articulation (while [ts] can shift to either [tsi] or [ʧ]). Depending on the dialect, palatalization can be realized “stronger” on word-final or word-initial segments. Notably, palatalized non-coronals are more limited in distribution, occurring before /i/ and word-finally; while palatalized coronals can also occur before back vowels. Many babytalk lexical items exhibit free variation between (plain or palatalized) sibilant fricatives, coronal stops, and affricates, indicative of a strong tendency to affricativization (c). This process can occasionally affect [k] (via [kʲ]). In adult South Estonian speech, palatalization is contrastive in coronals only, being limited to word-final position. (Source: Pajusalu 2001: 86-92).

(1.2) a. \([\text{ti}^\text{Bu}] \rightarrow [\text{ti}^\text{Bu}]-[\text{ts}^\text{L}p^{\text{L}}])\) ‘chick’
   \([\text{kirp}] \rightarrow [\text{kirp}^{\text{L}}]\) ‘flea’
   \([\text{kak}k^{\text{L}}]\) ‘meat’ (AS *liha*)
   \([\text{kukro}] \rightarrow [\text{kuk}k^{\text{L}}]\) ‘piggyback’
   \([\text{piim}] \rightarrow [\text{pi}^\text{L}p^{\text{L}}] \) ‘milk’

b. \([\text{lut}t] \rightarrow [\text{lut}^{\text{L}}u]\) ‘dummy’
   \([\text{kardohkas}] \rightarrow [\text{ka}^\text{d}^\text{L}o]-[\text{kat}^{\text{L}}u]\) ‘potato’
An on-line supplement to Alderete & Kochetov, CJL

1.3 In Georgian, diminutives can be formed by a shift of various consonants to alveolar or post-alveolar affricates. Target consonants include coronal stops (a), coronal sonorants (b), and velar stops (c). (Source: Neisser 1953: 41-44; cf. Nichols 1971: 831).

(1.3)  

a. [toto] ‘neugeboren Junges Tier’ → [ʧotofori] ‘Tierjunges’  
[pit’i] → [pitʧ’i] ‘Honigscheibe’  
[kotani] ‘Topf’ → [kotso] ‘kleiner Weinkrug, kleiner Topf’  
[k’vnit’i] → [k’vnits’i] ‘Bißchen’, from [k’vnets’a] ‘nagen, beissen’

b. [k’bena] ‘beißen’ → [na-k’betʧ’a] ‘bebeißen, anbeißen’  
[puri] ‘Kuh’ → [pufʧ’ina] ‘Kälbchen (immer im Munder von Kindern)’

c. [nak’uk’i] → [naʧutʧ’i] ‘Schale’  
[kunkuri] → [ʧunftʧ’uri] ‘Beschälung’  
[u-k’mak’uri] → [u-ʦ’mats’uri] ‘unschön, schlecht’

1.4 In Western varieties of Basque, diminutives are often produced by shifting an initial consonant of any place of articulation to a palato-alveolar affricate [ʧ] (a), or by inserting a [ʧ] to fill in a syllable onset (b). (Source: Hualde & Urbina 2003: 39).

(1.4)  

a. [pispildu] → [ʧispildu] ‘become happy after drinking, PRF’

b. [ʧinuri] → [ʧinuri] ‘ant’

2. Targets: Coronal sonorants and obstruents only

2.1 Warlpiri babtalk is noted for ‘heavy palatalization’, imitating speech of small children, commonly referred to as ‘jacajaca-wapkami’ ‘speech sounding like [jacajaca] (syllables with palatal consonants)’. As part of babtalk, all alveolar and retroflex stops, nasals, and laterals ([t n l ʈ ɳ ɭ]) shift to the corresponding palatais [c ɲ ʎ] (ab). The
rhotics (the alveolar flap /ɾ/, the retroflex tap /ɽ/, and the retroflex approximant /ɻ/) shift to the palatal glide [j] (c). This process effectively neutralizes a 3-way coronal contrast to a single palatal set. Non-coronals (labials and velars) remain unaffected. (Source: Laughren 1984: 74-80).

(2.1) a. \[\text{[wita]} \rightarrow \text{[wica]} \text{‘small’}\]
\[\text{[jani]} \rightarrow \text{[japi]} \text{‘go’}\]
\[\text{[jali]} \rightarrow \text{[jaɻi]} \text{‘that/there’}\]

b. \[\text{[wita cara pala jali-} \text{[a mañu-kari-ja]} \rightarrow \]
\[\text{[wica caja pa} \text{a jaɻi-} \text{[a mañu-kaji-ja]} \text{‘You two little ones, play over there!’}\]

c. \[\text{[jamara]} \rightarrow \text{[jamaja]} \text{‘ribs’}\]
\[\text{[piɾaku]} \rightarrow \text{[pijaku]} \text{‘satiated’}\]
\[\text{[iɾa-paɾu]} \rightarrow \text{[ɻija-pawu]} \text{‘mouth, diminutive’}\]

2.2 Basque
2.2.1 In Eastern varieties of Basque (e.g. Baztan dialect), diminutives are produced by shifting apical and laminal dentals/alveolars [t̪ s̺ s̻ t̪ s̺ l̪ n] to posterior coronals of the same manner of articulation [ʧʃ ɕɲ ʎ]. The shifts involving sibilants are noted to be most common, compared to palatalization of sonorants, which may be optional. The tap [r] changes to [ɻ], [j], or fails to palatalize (b). The trill [r] and non-coronals never palatalize. The same consonant shifts apply in babytalk (the “care-taker language”), as shown in (c). (Source: Hualde & Urbina 2003: 39-40; cf. Hualde 1991: 122).

(2.2.1) a. \[\text{[ʂa} \text{gu]} \rightarrow \text{[ʃa} \text{gu]} \text{‘mouse’}\]
\[\text{[ʂakur]} \rightarrow \text{[ʃakur} \rightarrow \text{[ʃakur]} \text{‘dog’}\]
\[\text{[ɔtʂ]} \rightarrow \text{[ɔʃ]} \text{‘cold’}\]
\[\text{[tanta]} \rightarrow \text{[canca]} \text{‘drop’}\]
\[\text{[eder]} \rightarrow \text{[eʃer]} \text{‘beautiful’}\]
\[\text{[labur]} \rightarrow \text{[ɻabur} \rightarrow \text{[ɻabur]} \text{‘short’}\]

b. \[\text{[ber} \text{o]} \rightarrow \text{[be} \text{ʃo-bejo-} \text{ber} \text{o]} \text{‘hot’}\]

c. \[\text{[otʂ i} \text{ten du]} \rightarrow \text{[ɔʃ i} \text{ɛn} \text{ju]} \text{‘it is cold’}\]

2.2.2 Basque sound symbolic vocabulary is characterized by a great incidence of consonants that are otherwise relatively infrequent in the language – lamino-alveolar and palato-alveolar sibilant fricatives and affricates, and palatal stops. Among the posterior coronals, the sibilants [ʧ] and [ʃ] are particularly common (for example, accounting for over 70% of items with word-initial posterior coronals), while sonorants [ɲ] and [ɻ] are
the least common. Many of reduplicative sound-symbolic items with posterior coronals have a clear diminutive connotation (a) and often contrast with items having anterior coronals (b) (cf. Japanese mimetic palatalization). Posterior coronals also occur frequently in babytalk-specific lexical items (c). (Source: Ibarretxe-Antuñano 2006: 9, 12, 17-18, 66-77).

(2.2.2) a. \[ʧiki-ʧikia\] ‘very small’
\[ɲono\] ‘small person’

b. \[ʧapa-ʧapa\] ‘walk taking small steps’, cf. \[tapa-tapa\] ‘tip-toeing’, \[trapa-trapa\] ‘walk’
\[caka-caka\] ‘walk taking baby steps’, cf. \[taka-taka\] ‘toddling’, \[traka-traka\] ‘walk, trot’
\[eoko-eoko\] ‘walk slowly taking small steps’, cf. \[toko-toko\] ‘walk step by step’
\[cara-cara\] ‘drag little by little’, cf. \[tara-tara\] ‘drag helter-skelter’
\[ʃabu-ʃabuka\] ‘swinging, rocking’, cf. \[šabu-šabu\] ‘teetering, tottering’

c. \[apaʧ] ‘sit down’
\[ʧiʧ\] ‘meat’

2.3 Huave verbal diminutives, which denote attenuated versions of states and actions or add some affective connotation, are produced by raising all root-internal vowels to high and shifting root-internal alveolar consonants ([tⁿd tsⁿts sⁿl]) to their posterior coronal counterparts ([cⁿʃiʧiʃiɲ]), as shown in (a). Noncoronals [pⁿmb mʷkʷɡʷ] and rhotics [ɾ r] are never palatalized (b) (the change of [ɾ] to [ɾ] occurs automatically before [i]). (Source: Kim 2008: 42, 320).

(2.3) a. \[n-aⁿdan\] → \[n-aⁿjın\] ‘blocked’
\[sonoⁿg\] → \[ʃunuⁿg\] ‘pile up’
\[lohe\] → \[ʌuhe\] ‘pierce’

b. \[-waⁿtsaŋk\] → \[-wiⁿʃiʃik\] ‘twist’
\[-sopoŋ\] → \[-ʃupuŋ\] ‘drizzle’
\[-poros\] → \[-puɾuŋ\] ‘crunching sound’

2.4 In many dialects of Quechua, alveolars [sⁿl] shift to their posterior coronal counterparts [ʃiʃiɲ] to denote smallness or affection. The example in (a) is from Tarma Quechua. Data in (b) and (c) illustrate hypocoristic formation in Wanca Quechua and Santiago del Estero Quechua, respectively. In the latter dialect, the shift among fricatives is extended to adjectival diminutives and some reduplicative sound-symbolic items (d).
Notably, the phonetically unconditioned occurrence of [ʃ] in this dialect is mainly limited to diminutive sound symbolism and hypocoristics. Also, the contrast between retroflex and palato-alveolar sibilants in Wanca Quechua is limited to expressive vocabulary, having been merged elsewhere. (Sources: Adelaar 2004: 204 on Tarma Quechua, Cerron-Palomino 1977: 108 on Wanca Quechua, and Reuse 1986: 57-61 on Santiago del Estero Quechua).

(2.4)  

a. \(\text{[xanu]} \) ‘thin’ → \(\text{[xanu]} \) ‘very thin’

b.  

\(\text{Santiago} \rightarrow \text{[santi]} \)  
\(\text{Benedicto} \rightarrow \text{[binti]} \)

\(\text{Eustaquio} \rightarrow \text{[usti]} \)  
\(\text{Alejandro} \rightarrow \text{[aʃiku]} \)

\(\text{Inosente} \rightarrow \text{[ʃu]} \)  
\(\text{Apolinario} \rightarrow \text{[puʃi]} \)

c.  

\(\text{Absalón} \rightarrow \text{[abʃa]} \)  
\(\text{Cecilio} \rightarrow \text{[ʃʃi]} \)

\(\text{Gaspar} \rightarrow \text{[gaʃpa]} \)  
\(\text{Bonifacio/Bonifacia} \rightarrow \text{[buʃni]} \)

\(\text{Isabel} \rightarrow \text{[ʃa]} \)  
\(\text{Juanico} \rightarrow \text{[xwani-ku]} \)

\(\text{Zacarias} \rightarrow \text{[ʃaka]} \)  
\(\text{Manuel} \rightarrow \text{[maʃnu-ku]} \)

\(\text{Segundo} \rightarrow \text{[ʃiŋu]} \)

d.  

[ʃaʃi-ku] ‘smiling’, cf. [asi-] ‘to laugh’

[ʃati-ku] ‘meddlesome’, cf. [sati-] ‘to insert’


[kuʃi-kuʃi] ‘a small ground spider that seems to run around as if it were happy’, cf. [kuʃi] ‘happy’

[ʃiri-ʃiri] ‘a solitary kind of wasp that builds nests under roofs’, cf. [ʃeri] ‘to sew’

2.5 *Latvian* babytalk is characterized by a large number of register-specific lexical items, many of which are not directly derived from adult speech (AS) lexical items. Compared to the latter, babytalk items have considerably higher frequency of “palatalized” consonants – both sonorants [ɲ ʎ ř] (a) and (particularly) sibilant obstruents [ʧ ʤ ʃ ʒ] (b). Alveolar sibilant affricates are also common, often arising from alveolar stops and fricatives (c) (which are also the source of post-alveolar affricates (b)). All the resulting coronal palatal/palatalized consonants are phonemic in Latvian (with /ř/ being marginal). (Source: Rūķe-Draviņa 1977: 239-251).

(2.5)  

a.  

[ʃam nam]-[ʃammatt] ‘to eat’ (AS ēst)

[ʃamfunku ʃamfunku] ‘to bathe’ (AS mazgāties)

[r1uk r1uk]-[r1ukse] ‘little pig’ (AS cūka)

b.  

[ʃuʃiʃart] ‘to sleep’ (AS gulēt)
2.6 In Russian, hypocoristics are formed by truncation of original names, often accompanied by palatalization of stem-final plain consonants. Stem-final palatalized consonants tend to retain palatalization. Only coronals, however, get palatalized or retain their original palatalization (a). Non-coronals do not get palatalized or lose their original palatalization (or shift to the hypochoristic ‘default’ sibilant fricative [ʃ]). Among the coronals, the trill /r/ shows some vacillation: in masculine names it is often depalatalized or palatalized optionally. The resulting palatalized coronal consonants are phonemic. While the language contrasts plain and palatalized labials (e.g. [tʲemə] ‘theme’ vs. [pʲemə] ‘tribe’), palatalized velars are marginal and do not occur stem-finally. (Source: Soglasnova 2003: 68-70; cf. Stankiewicz 1957).

(2.6) a. [stʲepan] → [stʲop-a]  [jerʲemʲej] → [jerʲom-a]  
   [tʲikɔn] → [tʲik-a]  [anʲikʲij] → [anʲik-a]  
   [vʲitalʲij] → [vʲitʲ-a]  [vadʲim] → [vadʲ-a]  
   [ivan] → [vanʲ-a]  [vʲenʲiamʲin] → [vʲenʲ-a]  
   [jurʲij] → [jur-a]  
   [igorʲ] → [gor-a]–[gorʲ-a]  

2.7 Cahuilla words with diminutive meaning are noted to have high incidence of palatal consonants (/ʃ ɲ ʎ/), although diminutive sound symbolism is not fully productive. (Source: Hinton 1991: 147).

(2.7) [ʔiɲiʃ] ‘little’  
   [-maʃ] ‘a diminutive affix’, cf. Luiseño [-mal]  

2.8 In Cupeño, diminutiveness is characterized by palatal consonants, similarly to the closely related Cahuilla. (Source: Hinton 1991: 147, citing Hill & Nolasquez 1973: 118).
(2.8) [puʎn-ij-ʔap] ‘I was a baby’, from [pulín] ‘to bear a child’ + diminutive [-ij]

2.9 In Koryak, the production of diminutives involves a shift of alveolars [t n l] to the corresponding palatals [cɲʎ]. (Source: Comrie 19xx: 243).

(2.9) [ləwət] ‘head’ → [ʎawt-əpiʎ] ‘little head’

3. Targets: Coronal obstruents (non-sibilants and sibilants) only

3.1 The production of Island Lake Ojibwa diminutives is characterized by a shift of stem-internal alveolar obstruents [t s] to palato-alveolar sibilants [ʧʃ], which is often (but not always) accompanied by an addition of the diminutive suffix [-enihs] (a). The (derived or underlying) palato-alveolar fricative [ʃ] is optionally shifted to the affricate [ʧ] (b). The process applies right-to-left, as evident in its optional application to consonants that are further away from the right edge of the word. The degree of right-to-left application of the process seems to be related to the “degree of diminution”, with, for example the second output form in (b) referring a smaller duck than the first form. (Source: Shrofel 1981: 98-102).

(3.1) a. [kihtikan] → [kihʧikan] ‘little garden’
    [ke:hte-te:hsapo-enihs] → [kehʧe-te:hsapo-enihʧ] ‘little ancient chair’
    [ʧi:wiʧi:hs(-enihs)] → [ʧi:wiʧi:hs(enihʧ)] ‘little candy’

b. [ʧi:ʧi:p-enihs] → [ʧi:ʧi:p-enihʃ] ~ [ʧi:ʧi:p-enihʧ] ‘little duck’

3.2 Cree

3.2.1 Diminutives in Moose Cree and Eastern Swampy Cree are derived using the suffix [-iʃ]. The addition of the suffix triggers a shift of stem-internal alveolar obstruents [t s] to palato-alveolar sibilants [ʧʃ]. (Source: Melnychuk 2003: 22-25).

(3.2.1) [wihtikow-ʃiʃ] → [wihtikow-ʃiʃ] ‘little windigo’
    [ʃi:p-ʃiʃ-ihk] → [ʃi:p-ʃiʃ-ihk] ‘in the creek’
    [tapa-ʧiʃ] → [ʧapa-ʃiʃ] ‘down below’
    [iskwe:w-ʧiʃ] → [iʃkwe:w-ʧiʃ] ‘girl’

3.2.2 Babytalk in Cree involves a shift of alveolars, mainly obstruents [t s], to palato-alveolar affricate and fricative [ʧʃ] and [ʃ] respectively, or just to the affricate. The shift is
often accompanied by obstruent voicing, resulting in a non-phonemic [ʤ]. (Source: Jones 1988: 141-148).

(3.2.2) \[æ⁶tum\] → \[æʤum-ʃ\] ‘doggie’
\[nu:ʃænhi\] → \[ʃʃænhi]-\([ʃʧu]-[ʤʤu]\] ‘breastfeed’
\[suzæn\] → \[ʤʤæn\] ‘Suzan’
\[æʃtum\] → \[æʤum\] ‘come’

3.3 Wiyot diminutives are produced by adding the affix /-oːʦ/, which triggers a number of stem-internal consonant changes, among them the shift of alveolar fricative [s] to post-alveolar [ʃ] and of alveolar stop [t] to affricate [ʦ]. (Source: Teeter 1959: 41-42; cf. Nichols 1971: 842).

(3.3) \[loliw-iɬ\] ‘he sings’ \[roriʃw-oːʦ-il\] ‘he hums’
\[tawi:pəʔiɬ\] ‘he sings’ → \[ʦawi:pəʔoːʦ\] ‘twine’
\[lapoʔw\] ‘cloud’ → \[laptsoʔjaw-oːʦ\] ‘little cloud’

3.4 Greek
3.4.1 In Greek babytalk, consonants are noted to be “strongly palatalized”. This appears to refer exclusively to coronal obstruents acquiring secondary palatal articulation before front and back vowels (a). In some lexical items, dental or alveolar fricatives [ðz] shift to palato-alveolar [ʒ] (b). Neither palatalized coronals, nor [ʒ] are phonemic in Greek (although the former may occur allophonically before front vowels in some dialects). (Source: Pareskevas-Shepard 1985: 25-27).

(3.4.1) a. \[psomi\] → \[ʃjomɪ\] ‘bread’
\[okto\] → \[oʔo\] ‘eight’
\[ʣdziki\] → \[ʒiz’iɬiκi\]
\[θelis\] → \[ʃelis\] ‘you want’
\[kimiθume\] → \[kimis’ume\] ‘we’ll sleep’

b. \[luluʤi\] → \[luluʒi]-\[luluʒ\] ‘flower’
\[akuзи\] → \[akuʒ\] ‘bear’

3.4.2 In Greek, alveolar affricates [ʦ] and [ʣ], which are marginal phonemes of the language, occur at a great frequency in expressive vocabulary, including sound symbolic items denoting ‘smallness’ (a), diminutive affixes (b), hypocoristics (c), and babytalk-specific lexical items (d). Diachronically, affricates have developed through a number of
“sporadic and irregular” changes: for example [ts] arose from coronals [s] and [t], and from non-coronal [k] and (the sequence) [ps]. (Source: Joseph 1994: 224-231).

(3.4.2) a. [tsita-tsita] ‘just barely’ (said of a tight fit)
[tsima-tsima] ‘right up to the edge, close’
[tsiros] ‘thin person’ (“dried mackerel”)
[drdzes] ‘dwarf’
[dringu-dringu] ‘drop-by-drop’ (West Crete dialect)
b. [-itsa], [-itsi], [-utsikos], [-dzikos] ‘affective diminutive for adjectives’, e.g.
[ylik-os] ‘sweet’, [ylik-utsikos] ‘cute’
*Dimitrios* → [mitsos]
*Konstandinos* → [kotsos]
c. [tsatsa] ‘auntie’
[tsitsi] ‘meat’
[tsis(i)]→[dzis(i)]a ‘peepee’
[pitsipitsi] ‘(act of) washing’
[dra]–[tsa] ‘peek-a-boo!’

4. Targets: Coronal non-sibilant obstruents only

4.1 In *Western Swampy Cree* and *Plains Cree*, an addition of the diminutive suffix [-isis] triggers a change of alveolar stop [t] to affricate [ts]. Unlike Eastern Swampy Cree and Moose Cree (which exhibit a shift of [t s] to [ʧʃ]), these dialects do not have phonemic palato-alveolars. (Source: Melnychuk 2003: 22, 35; cf. Hockett 1956: 203 on Plains Cree).

(4.1) [niteːm-isis] → [niteːmis] ‘my little horse’
[atSIMosis] ‘puppy’, cf. [atim] ‘dog’


(4.2) [pontet] ‘ashes’ → [pontʧʧ] ‘dust’


4.5 *Chukchi* employs a shift [l] to [ʧ] in verbs to denote “special terms” and “single momentary actions” (as opposed to “generalized terms” and “continued actions”). The shift may also add diminutive connotation. (Source: Bogoras 1922: 834-835; cf. Nichols 1971: 831).

5. Targets: Sibilant obstruents only

5.1 *Ventureño Chumash* diminutives are produced by a shift of both alveolars [ʦ ʃ] and palato-alveolar [ʃ] to palato-alveolar affricate [ʧ] (or sometimes to alveolar affricate [ʦ]). This process (and other non-palatalizing diminutive changes) sometimes applies in conjunction with the depreciative affix [-ʔiwaʃ] (which becomes [-ʔiwatʃ]). (Source: Harrington 1974: 8-9).

5.2 In *Nuuchahnulth (Nootka)*, alveolar and palato-alveolar coronal affricates [ʦ ʧ ʦ’ ʧ’] and fricatives [s ʃ] shift to non-phonemic alveolopalatals [ʨ ʨ’] and [ɕ] when “speaking

(5.2) [hin-tʃɪ̞-weʔin] ‘he comes, they say’ → [hin-tʃɪ̞ʔiʔ-weʔin] ‘he, little man, comes, they say’ (with the diminutive suffix [ʔi̞s] → [-ʔic])

5.3 In Northern Paiute diminutives, alveolar fricatives [s z] shift to affricates of the same place, [ʦ ʣ]. (Source: Nichols 1971: 842, citing M. J. P. Nichols, ms.).

(5.3) [sizɨʔa] ‘big girls, teenagers’ → [ʦidzɨʔa] ‘little girls’
[isɨ] ‘wolf’ → [idzɨ] ‘coyote’

5.4 In Havyaka Kannada, many lexical items specific to babytalk, exhibit a shift of coronal fricatives to palato-alveolar affricate [ʧ]. (Source: S. Bhat 1967: 36).

(5.4) [hæse] → [hæʃe] ‘mat’
[paːjasa] → [paːʧa] ‘pudding’
[ɡlɑːsu] → [ɡɑːʧu] ‘glass’
[piːɡaːkat:i] → [piːʧi] ‘knife’

5.5 Persian babytalk is characterized by a number of consonantal shifts, including a change of alveolar fricatives to post-alveolars (or palatals). (Source: Paribakht 1978: 46-47).

(5.5) [sælɑːm] → [ʃælɑːm]–[ʒælɑːm] ‘hello’
[baːzi] → [baːʧi] ‘play’
[xoʃmaezaes] → [xoʃmaeʃæs] ‘is it delicious?’


(5.6) [s z] → [ʃ ʒ]

5.7 Southern Sierra Miwok diminutives exhibit a shift of alveolar fricative [s] to palato-alveolar [ʧ], although the process is no longer productive. (Source: Nichols 1971: 843, citing Broadbent 1964: 20-21).
(5.7)  
[ʔeselːi] ‘child’ → [ʔefelːi] ‘baby’  
[pusɪː] ‘cat’ → [puʃɪ] ‘kitty’  
[musːa] → [muʃa] ‘be ashamed’

5.8 In *Wanca Quechua* babytalk, retroflex sibilants [ʃ s] shift to their palato-alveolar counterparts [ʧʃ]. (Source: Cerron-Palomino 1977: 108).

(5.8)  
[ʃ s] → [ʧʃ] in babytalk

5.9 *Spanish* babytalk is characterized by a “widespread” shift of alveolar fricative [s] to palato-alveolar affricate [ʧ] – the change that serves as “an identifying feature of baby talk”. (Source: Ferguson 1964: 105-106, 108, 109).

(5.8)  
[beso] → [beʃo] ‘kiss’  
[vamos] (calle) → [mamoʃ] ‘going out’  
[susjo] → [ʧuʃo] ‘dirty’

5.10 *Korean* babytalk is characterized by a shift of alveolar fricatives [s s*] to affricates [c c*] (which are laminal alveolars or post-alveolars), among other changes. (Source: Yoonjung Kang, p.c. 12/13/2007).

(6.8)  
[kiræs*ʌ] → [kidæc*ʌ] ‘did so, said so’

5.11 In *Thai* babytalk, the alveolar fricative [s] shifts to the affricate [ʧ]. (Source: Nattaya Piriyawiboon, p.c. 01/20/2008).

(6.9)  
[sūaj] → [ʧūaj] ‘pretty’  
[sōŋsâan] → [ʧōŋʃâan] ‘pity’  
[sūa] → [ʧūa] ‘shirt’  
[sipsâam] → [ʧipʃâam] ‘thirteen’

5.12 *Nez Perce* diminutives involve a shift of alveolar fricative [s] to affricate [ʦ] (among other non-palatalizing changes), with or without diminutive reduplication. (Source: Nichols 1971: 843, citing Haruo Aoki, p.c.).

(5.11)  
[ketis] ‘spear’ → [katiskatits] ‘toy spear’  
[waswasno] ‘chicken’ → [watswatsno] ‘saddle horn’
References (Appendix only)


Kim, Yuni. 2008 Topics in the phonology and morphology of San Francisco del Mar Huave. Doctoral dissertation, University of California, Berkeley.


