



Multilingual Children's Speech Development



SWEDISH

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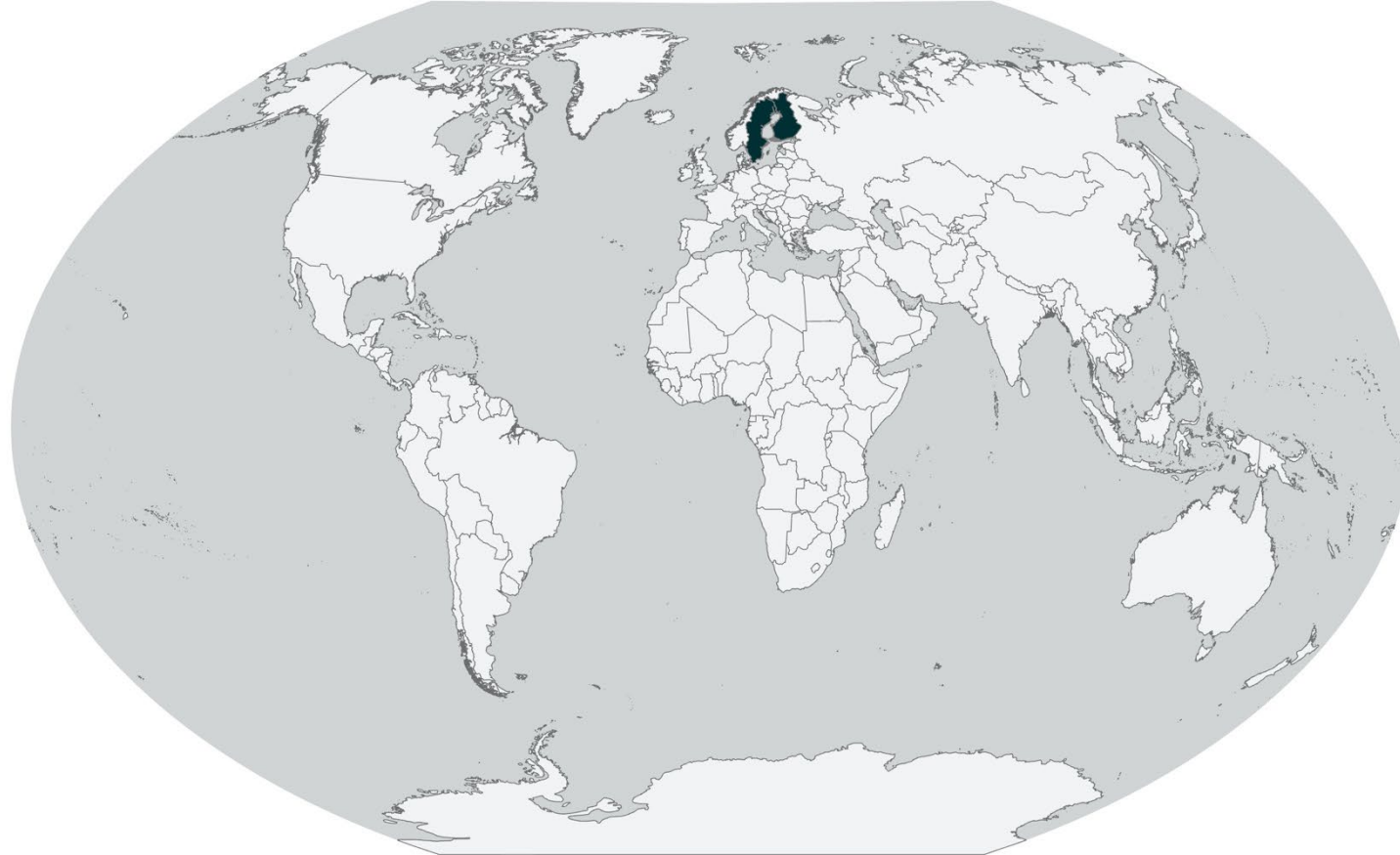


Swedish

- **Commonly spoken in**
 - Sweden
- **Dialects and variants**
 - South Swedish, Finland Swedish, Central Swedish (Riad, 2014)
- **Writing**
 - Left to right. Latin alphabet (Roman script) + å, ä, ö
 - Examples:
 - åka (*Eng.* to go)
 - äng (*Eng.* field)
 - över (*Eng.* over)

Swedish Map

■ Official / major language



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Swedish Speech Components

- **Consonants (18+5):** /p, b, t, d, k, g, m, n, ŋ, f, v, s, ʃ, ʁ, h, j, r, l/ and /t̪, d̪, ŋ, ʂ, l̪/
 - Dialectal differences in 'borta' (Eng. *gone*): /bòʈa/ vs. /bórta/
- **Consonant clusters:** e.g., /spr-, str-, fj-, kv-/ , /-skt, -ld, -ŋk/
- **Vowels (9+8):** /i:, y:, e:, ɛ:, ø:, ɥ:, u:, o:, a:/ and /ɪ, ʏ, ɛ, ø, ɵ, ʊ, ɔ, a/
- **Tones (2):** two tonal accents, e.g., /ándaŋ/ (Eng. *the duck*) vs. /àndaŋ/ (Eng. *the spirit*)
- **Phonotactic restrictions:** C₍₀₋₃₎V₍₁₋₂₎C₍₀₋₄₎
- **Prosody:** stress-timed

Swedish

Age of Acquisition

- **Consonants** (Lundeborg Hammarström, 2019)
 - 3 years of age: /p, b, t, d, k, m, n, f, s, ʃ, h, j/
 - 5 years of age: all except /s, r/
- **Consonant clusters**
 - Most acquired by age 6
- **Vowels**
 - Typically acquired by age 4
- **Tones**
 - Typically mastered by age 4

Swedish Speech Development

■ Percentage correct

- ~85% consonants correct by age 3, 95% by 4, 97% by 6, 98-100% by 7 (Lohmander et al. 2017; Rex et al., 2021)

■ Intelligibility

- ICS* scores of 4.63 by age 4; 4.7-4.8 during ages 5-8 *usually-always* intelligible (Lagerberg et al., 2021)

■ Common phonological patterns

- Weak syllable deletion, cluster reduction, fronting, stopping, /r/-weakening (Strömbergsson et al., 2021)

*ICS, Intelligibility in Context Scale (McLeod et al., 2012)

Swedish Children with Speech Sound Disorders

■ Also called

- Utvecklingsrelaterad talstörning →speech sound disorder
- Fonologisk språkstörning →phonological disorder
- Taldyspraxi →childhood apraxia of speech
- Dysartri →dysarthria

■ Research has focused on

- Prevalence, assessment, intervention, development
- Cleft lip and palate (CLP), childhood apraxia of speech (CAS), babbling, protracted phonological development

■ Studies (examples)

- Meta-analysis of speech-language therapy in CLP (Sand et al., 2022)
- Babbling, speech and language in children with neurological disabilities (Nyman, 2022)

Swedish Speech Assessments

- **LiNköpingsUnderSökningen (LINUS)**
[Linus – Swedish test of phonology] (Lundeborg Hammarström, 2019)
- **SVenskt Artikulations- och NasalitetsTest (SVANTE)**
[Swedish Articulation and Nasality Test] (Lohmander et al., 2015)
- **Nya Fonemtestet** [New Phoneme Test] (Hellqvist & Hellqvist, 2013)
- **DYnamisk Motorisk TAlbedömning (DYMTA)**
[Dynamic Motor Speech Evaluation] (Rex et al., 2021)
- **Skattning av förståelighet i kontext: Svenska**
[Intelligibility in Context Scale - Swedish] (ICS-SE)
(McLeod et al., 2012; T. Lagerberg transl.)

Swedish Speech Interventions

- **Praxis** [The Swedish translation and adaption of the Nuffield Dyspraxia Programme] (Hellqvist, 2016)
- **Metafon** [The Swedish adaption of the Metalinguistic approach to the treatment of phonological disorder in children] (Hellqvist, 2016)

Reference

Book chapter

- Strömbergsson, S., & Lundeberg Hammarström, I. (forthcoming). Swedish speech development. In S. McLeod (Ed.). *The Oxford handbook of speech development in languages of the world*. Oxford University Press.

Presentation

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