

Information about Turkish speech

1. A comparison between Turkish and English phonology

Aspect	Language	Number	Details	Source
Consonants	Turkish	21 consonants	/p, b, t, d, c, ʃ, k, g, m, n, ɾ, f, v, s, z, ʒ, h, j, l, ɫ, ʈ, ɖ/	Topbaş (2007)
	English	24 consonants	/p, b, t, d, k, g, m, n, ŋ, θ, ð, f, v, s, z, ʃ, ʒ, h, ʈ, ɖ, j, w, ɹ, l/	Smit (2004)
Consonant clusters	Turkish	Syllable-final consonant clusters only	Two types: C1 = sonorant + C2 = obstruent C1 = fricative + C2 = stop	Topbaş (2007)
	English	Approx. 29 syllable-initial and many syllable-final consonant clusters	Many 2 and 3 element consonant clusters in initial position including /pl, bl, kl, gl, fl, sl, pɹ, bɹ, tɹ, dɹ, kɹ, gɹ, θɹ, fɹ, ʃɹ, pj, tj, fj, mj, nj, sm, sn, sp, st, sk, spl, spɹ, stɹ, skw/ and many 2 to 4 element consonant clusters in final position	McLeod (2007) Smit (2004)
Vowels and diphthongs	Turkish	8 vowels	Vowels: /i, y, ε, ø (or œ), ʊ, o, u, a (or ʌ)/	Topbaş (2007)
	English (US-General American)	14 vowels + 3 diphthongs	Vowels: /i, ɪ, e, ε, æ, ə, ɜ, ɝ, u, ʊ, o, ʌ, ɔ, ɑ/ Diphthongs: /aɪ, aʊ, ɔɪ/ (Smit also lists 5 'r'-colored diphthongs)	Smit (2007)
	English (Canadian)	14 vowels + 3 diphthongs	Vowels: /i, ɪ, e, ε, æ, ə, ɜ, ɝ, ʌ, ʊ, o, ʌ, ɔ, ɑ/ Diphthongs: /ʌɪ, ʌʊ, ɔɪ/	Bernhardt, & Deby (2007)
	English (UK-Received Pronunciation)	12 vowels + 8 diphthongs	Vowels: /i, ɪ, e, æ, a, ə, ɜ, u, ʊ, ʌ, ɔ, ɒ/ Diphthongs: /aɪ, aʊ, ɔɪ, eɪ, oʊ, ɪə, eə, ʊə/	Howard (2007)
	English (Australian)	12 vowels + 8 diphthongs	Vowels: /i:, ɪ, e, æ, ɐ:, ɐ, ɔ:, ʊ, ʌ:, ɜ:, ə/ ⁱ OR /i, ɪ, e, æ, a, ʌ, ɒ, ɔ, ʊ, u, ɜ, ə/ ⁱⁱ Diphthongs: /æɪ, ae, əɐ, æɔ, ɔɪ, ɪə, eɪ, ʊə/ ⁱ OR /eɪ, aɪ, oʊ, aʊ, ɔɪ, ɪə, eə, ʊə/ ⁱⁱ	ⁱ Harrington, Cox, & Evans, (1997) ⁱⁱ Mitchell (1946)
	English (New Zealand)	12 vowels + 8 diphthongs	Vowels: /i, ɪ, e, æ, ə, ɜ, u, ʊ, ʌ, ɔ, ɒ, ɑ/ ⁱ OR /i, ɪ, e, æ, a, ə, ɜ, ʊ, ʌ, ɔ, ɒ/ ⁱⁱ Diphthongs: /aɪ, aʊ, ɔɪ, eɪ, oʊ, ɪə, eə, ʊə/ ⁱ OR /aɪ, aʊ, ɔɪ, eɪ, oʊ, ɪə, eə, ʊə/ ⁱⁱ	ⁱ Bauer & Warren (2004) ⁱⁱ MacLagan (2009)
Tones	Turkish	0 tones	-	
	English	0 tones	-	
Syllable shape	Turkish	C ₍₀₋₁₎ VC ₍₀₋₂₎		Topbaş (2007)
	English	C ₍₀₋₃₎ VC ₍₀₋₄₎	The smallest syllable is V and the largest is CCCVCCCC <i>strengths</i> .	Smit (2004) McLeod (2007)

Stress-timed or syllable-timed?	Turkish	Syllable-timed	Syllable-timed language. Stress usually falls on the last syllable.	Topbaş (2007)
	English	Stress-timed	Syllables can be strong or weak. Stress also is used for emphasis.	
Varieties	Turkish	Several dialects	Modern Standard Turkish is the official language of Turkey. There are several dialects.	Topbaş (2007)
	English	Many dialects	Many dialects including General American English, Received Pronunciation (England), Scottish English, Irish English, Australian English, New Zealand English, South African English etc.	
Writing system	Turkish	Latin alphabet	Latin alphabet with one-to-one correspondence between sounds and letters.	Topbaş (2007)
	English	Latin alphabet	Latin script loosely related to phonetic realizations of the consonants and vowels.	

References

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Topbaş, S. (2007). Turkish speech acquisition. In S. McLeod (Ed.), *The international guide to speech acquisition* (pp. 566-579). Clifton Park, NY: Thomson Delmar Learning.

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Comparative summaries

Thompson, I. (2001). Turkish speakers. In M. Swan & B. Smith (Eds.), *Learner English: A teacher's guide to interference and other problems* (pp. 214-226). Cambridge: Cambridge University Press.

2. Turkish speech assessments

For a list of speech assessments in Turkish see: www.csu.edu.au/research/multilingual-speech/speech-assessments

Intelligibility in Context Scale: Turkish www.csu.edu.au/research/multilingual-speech/ics

3. Monolingual speech acquisition (summaries and studies written in English)

- Topbaş, S. (2007). Turkish speech acquisition. In S. McLeod (Ed.), *The international guide to speech acquisition* (pp. 566-579). Clifton Park, NY: Thomson Delmar Learning.
- Topbaş, S., & Yavaş, M. (2006). Phonological acquisition and disorders in Turkish. In Zhu Hua & B. Dodd (Eds.), *Phonological development and disorders in children: A multilingual perspective* (pp. 233-264). Cleavdon, UK: Multilingual Matters.
- Topbaş, S., & Yavaş, M. (2010). *Communication disorders in Turkish*. Bristol, UK: Multilingual Matters.

4. Multilingual speech acquisition (summaries and studies written in English)

General summaries

- Goldstein, B. A., & McLeod, S. (2012). Typical and atypical multilingual speech acquisition. In S. McLeod & B. A. Goldstein (Eds.), *Multilingual aspects of speech sound disorders in children* (pp. 84-100). Bristol, UK: Multilingual Matters.
- Grech, H., & McLeod, S. (2012). Multilingual speech and language development and disorders. In D. Battle (Ed.), *Communication disorders in multicultural and international populations* (4th ed., pp. 120-147). St Louis, MO: Elsevier.
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- Yavaş, M. (2007). Multilingual speech acquisition. In S. McLeod (Ed.), *The international guide to speech acquisition* (pp. 96-100). Clifton Park, NY: Thomson Delmar Learning.

Summaries of multilingual Turkish speech acquisition

- Topbaş, S. (2012). Translation to practice: Assessment of the speech of multilingual children in Turkey. In S. McLeod & B. A. Goldstein (Eds.), *Multilingual aspects of speech sound disorders in children* (pp. 154-160). Bristol, UK: Multilingual Matters.

Studies of multilingual Turkish speech acquisition

Languages	Country	Study	Age of children	Total number of children (no. of multilingual children)**	Typically/ atypically developing children	Speech /language	Production/ perception
Turkish-German; Turkish-Norwegian	Germany, Austria, Norway, Turkey	Yazıcı, Z., İler, B. G., & Glover, P. (2010). How bilingual is bilingual? Mother-tongue proficiency and learning through a second language. <i>International Journal of Early Years Education</i> , 18(3), 259-268.	5- to 6-years	120 (90)	typical	language	perception

Note. * Studies of typically and atypically developing multilingual children published in English were included; however, studies that only included monolingual children were excluded.

**The total number of children may have included both multilingual and monolingual children, so the number in brackets provides the total number of multilingual children.