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Slovak (sometimes also called Slovakian) is an Indo-European language belonging to the West-Slavic branch, and is most closely related to Czech. Slovak is spoken as a native language by 4.6 million speakers in Slovakia (that is by roughly 85% of the population), and by over two million Slovaks living abroad, most of them in the USA, the Czech Republic, Hungary, Canada and Great Britain (Office for Slovaks Living Abroad 2009).

There are broadly three dialect regions: Eastern, Central and Western (see Štolc 1968 for details). Czech and Slovak are mutually intelligible although intelligibility depends on various factors, sufficient exposure to the other language being one of them (see Sloboda 2004 for further discussion). Czech speakers are often reported to experience more difficulties in comprehending Slovak than Slovak speakers in comprehending Czech (Musilová 2000). This asymmetry is partly driven by more exposure to Czech through Slovak media than vice versa (Mitter 2007).

The transcriptions of the wordlists and of the short text are based on recordings of a female Slovak native speaker (aged 28 years) from Bratislava who speaks what is considered Standard Slovak. The remaining examples are spoken by a female speaker (aged 32 years) from Košice who also speaks Standard Slovak.

## Consonants

	Bilabial	Labio-dental	Alveolar	Post-alveolar	Palatal	Velar	Glottal
Plosive	p b		t d		c ɟ	k g	
Nasal		m		n		ŋ	
Fricative		f v	s z	ʃ ʒ		x	ɦ
Affricate			ʦ ʣ	ʧ ʤ			
Trill			r				
Approximant			r:		j		
Lateral approximant			l		ɭ		
			l:				

Slovak has eight plosives, four voiceless non-aspirated ones and four fully voiced ones. It has a palatal series of two stops, a nasal, a lateral and a glide, though the stops and the nasal are more accurately described as alveolo-palatal (based on the data by Dvončová, Jenča & Král 1969). It further has a postalveolar series of two fricatives and two affricates, for which the IPA symbols /ʃ ʒ ʧ ʤ/ are usually employed (e.g. Short 1993). These sounds are often apical (Pavlík 2004: 103f.) and could therefore be described as retroflex (see the discussion in Hamann 2004).

The alveolar nasal /n/ has a velar allophone [ŋ] before a velar, e.g. *mienka* [mʲɛŋka] ‘opinion’, and a labial allophone [m] before a labial, e.g. *hanba* [ɦamba] ‘shame’. Speakers of Western Slovak dialects often pronounce [n] where Standard Slovak uses [ɲ], e.g. *neviem* [neʋiɛm] ‘I do not know’.

The labiodental /v/ is realized as a voiced fricative [v] only in onset position before voiced obstruents, as in *vzrast* [vzrast] ‘increase’. In syllable onset before a vowel or a liquid, /v/ is realized as a voiced approximant [ʋ], e.g. *krvavý* [krʋavi:] ‘bloody’. In onset before a voiceless obstruent, /v/ is devoiced, see the section on assimilation below. In coda position, /v/ can be pronounced either as an approximant [ʋ] or as a glide [ɥ] (sometimes transcribed as [w]), e.g. *krv* [krʋ] ~ [krʋ] ‘blood’ (see Sabol 1961, Isačenko 1968, Tabačeková 1981 and Král 1988 for further discussion).

Slovak has a contrast between palatal and alveolar laterals, where the alveolar lateral is slightly velarized, i.e. it shows some raising of the dorsum towards the velum (see the data in Dvončová et al. 1969: 38). The palatal /ɭ/ is often produced as an alveolar lateral with secondary palatalization (see the data in Dvončová et al. 1969: 47). The contrast between these two laterals is neutralized towards the velarized alveolar before front vowels; in Western Slovak dialects this neutralization occurs before all vowels (Rendár 2006).

The long lateral and the long trill are often considered to be allophones of /l/ and /r/, respectively (see e.g. Ďurovič 1975; Short 1993, 2000) because there are no minimal pairs for /l:/ and /l/ or /r:/ and /r/. However, the two pairs are not in complementary distribution: the long lateral and the long rhotic can only occur in the syllable nucleus, their short counterparts in the nucleus and elsewhere. For this reason we follow Bujalka, Baláž & Rýzková (1996: 42) in considering all four sounds phonemes. Short /r/ is in the majority of the cases realized as a tap [r̥] (Isačenko 1968: 185; Pavlík 2004), but some instances show two closure phases.

The glottal stop is not considered a phoneme of Slovak, it can occur before vowel-initial words and word-internally after a prefix (Rendár 2008).

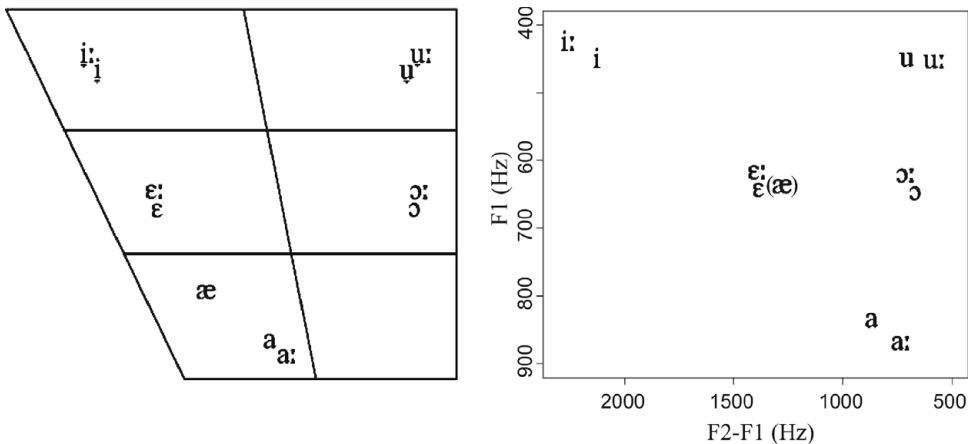
The affricate [d͡ʒ] does not occur in word-initial position (except for two low-frequency words, *dzeekat* ‘to pronounce [d͡ʒ] instead of [ɟ]’ and the interjection *dziny*). The affricate [d͡ʒ] mostly occurs in words of foreign origin, e.g. *džús* ‘juice’.

In the following word list, the consonant under consideration is in word-initial position and is followed by the vowel /a/, with the exception of /d͡z/ and the syllabic consonants.

p	pakt̪	<i>pakty</i>	‘pacts’	b	bapka	<i>babka</i>	‘grandma’
t	taʃka	<i>taška</i>	‘bag’	d	dartsa	<i>darca</i>	‘donor’
c	cava	<i>t’ava</i>	‘camel’	ʃ	ʃasnɔ	<i>d’asno</i>	‘gum’
k	kaba:t	<i>kabát</i>	‘coat’	g	gace	<i>gate</i>	‘slacks’
f	fatska	<i>facka</i>	‘slap’	v	vaki	<i>vaky</i>	‘backpacks’
s	sadra	<i>sadra</i>	‘plaster’	z	zapnɯ:c	<i>zapnúť</i>	‘to switch on’
ʃ	ʃatka	<i>šatka</i>	‘kerchief’	ʒ	ʒapka	<i>žabka</i>	‘frog’
ʃs	ʃsap	<i>cap</i>	‘billy goat’	d͡z	ʃsɯd͡z̩a	<i>čudzia</i>	‘foreign’
t͡ʃ	t͡ʃakac	<i>čakat’</i>	‘to wait’	d͡ʒ	d͡ʒavɔt	<i>džavot</i>	‘jabber’
x	xata	<i>chata</i>	‘cottage’	ɦ	ɦadi	<i>hady</i>	‘snakes’
r	raki	<i>raky</i>	‘crayfish’ (pl)	r:	mɾ:tv̩i	<i>mrtvy</i>	‘dead’
	kɾk	<i>krk</i>	‘neck’				
l	lapki	<i>labky</i>	‘paws’	l:	m̩:k̩v̩i	<i>m̩kvy</i>	‘silent’
	u̩k	<i>vlk</i>	‘wolf’	j	jab̩kɔ	<i>jablko</i>	‘apple’
ʎ	ʎavi:	<i>ľavý</i>	‘left’	n	nanɯk	<i>nanuk</i>	‘ice lolly’
m	matka	<i>matka</i>	‘mother’				
ɲ	ɲadrɔ	<i>ňadro</i>	‘breast’				

## Vowels

Slovak has the vowels /i̇ ε a ɔ ɯ/ and /i̇: ε: a: ɔ: ɯ:/ (see Figure 1). Standard Slovak lists an additional vowel /æ/, orthographically represented as ⟨ä⟩, which does not have a long counterpart. Its use is becoming rare, and its pronunciation is nowadays often merged with /ε/, as is the case with the speaker in our recordings. The phoneme /ɔ:/ occurs only in loanwords (e.g. *telefón* ‘telephone’). The phoneme /i̇:/ corresponds to the orthographically distinct graphemes ⟨i, y⟩ and the phoneme /i̇:/ to ⟨í, ý⟩. The acute accent indicates that the vowel is long. Eastern dialects lack phonemic quantity.



**Figure 1** Vowel diagram (left) and plot of  $F_1$  versus  $F_2 - F_1$  for average values of ten tokens for each vowel spoken by one female speaker (right).

## SHORT VOWELS

ɨ	ɲiːfɨː	<i>nižší</i>	‘lower’
ɛ	ʋɛɲiɛʃ̂s	<i>veniec</i>	‘wreath’
a	ʋakɨ	<i>vaky</i>	‘backpacks’
ɔ	ʋɔzɨ	<i>vozy</i>	‘wagons’
ʋ	kʋɾa	<i>kura</i>	‘chicken’
æ	ʋæzɨ	<i>vāzy</i>	‘ligaments’

## LONG VOWELS

ɨː	ʋiːzʋa	<i>výzva</i>	‘appeal’
ɛː	tɛːza	<i>téza</i>	‘thesis’
aː	ʋaːzɨ	<i>vázy</i>	‘vases’
ɔː	tɔːɲi	<i>tóny</i>	‘tones’
ʋː	fʋːzɨ	<i>fúzy</i>	‘mustache’

Slovak has four diphthongs, all of them are rising /ɨa ɨɛ ɨʋ ʋɔ/ (e.g. Isačenko 1968: 152f.; Rubach 1995; Pauliny 1979). Most of these diphthongs are bigraphemes, except the last one, which is represented orthographically with a circumflex (ô).

## DIPHTHONGS

ɨa	ɲiatɔk	<i>piatok</i>	‘Friday’
ɨɛ	kʋɨɛtɔk	<i>kvietok</i>	‘little flower’
ɨʋ	mɛɲʃɨʋ	<i>menšiu</i>	‘smaller’ (fem acc)
ʋɔ	ʋôňa	<i>vôňa</i>	‘odor’

**Final devoicing and regressive voice assimilation**

Voiced obstruents of Slovak undergo final devoicing, which can lead to neutralization, e.g. both *stred* ‘middle’ and *stret* ‘conflict’ are realized as [stret]. An exception represents /v/ which has the allophones [ʋ̥] and [ʋ] in coda position (see above).

Slovak has regressive voice assimilation, whereby obstruents are assimilated to the voicing of a following consonant, even when a word boundary intervenes. Thus clusters of voiced–voiceless consonants are realized as fully voiceless, e.g. *hádk*a [ɦaːtk̥a] ‘quarrel’, *z tela* [scɛla] ‘from the body’ and *včela* [ft̥ɛla] ‘bee’. Clusters of voiceless–voiced consonants are fully voiced, e.g. *platba* [plad̥ba] ‘payment’, *k domu* [gd̥ɔmʋ] ‘to the house’ and *vrana* [ʋrana] ‘crow’. No assimilation occurs before /v/ if the previous consonant belongs to the onset of the same word, see *sval* [sʋal] ‘muscle’ (Isačenko 1968). If a word boundary intervenes, assimilation occurs, e.g. *s vakom* [zvakoɲ] ‘with the bag’. Voicing assimilation of velar /x/ is usually reported to result in a voiced allophone [ɣ], e.g. *vzduch bol* [vzdʋɨɣbɔl] ‘air was’, though none of our speakers assimilates in this context. In final devoicing and the processes of voicing assimilation, voiced glottal /ɦ/ is realized as voiceless velar [x], e.g. *kruh* [krʋx] ‘circle’. In addition to consonants, vowels too can cause voicing assimilation across word boundaries, e.g. *vlak ide* [ʋlaɣiːɛ] ‘the train goes’. For more details on assimilation processes, see Král’ (1988).

**Stress and accentuation**

Primary stress is always on the first syllable of the phonological word. Prepositions are integrated into the phonological word, and therefore attract stress if they contain a vowel (e.g. *na stole* [ˈnastɔlɛ] ‘on the table’). Eastern dialects have penultimate stress due to Polish influence.

According to the so-called ‘rhythmical law’ or ‘law of rhythmical shortening’, a long vowel, a long liquid, or a diphthong should not be followed by a long segment or diphthong in the next syllable if the two are within the same word (for exceptions, see Short 1993: 538; Rubach 1995: 174f.). In such cases, the second nucleus is shortened. Hence *biely* [bɨɛlɨ] ‘white’ ends with a short [ɨ], although adjectival endings are usually long (e.g. *malý* [malɨː] ‘little’). Western dialects often violate the rhythmical law by lengthening short vowels.

### Transcription of recorded passage

'ras sa 'severa:k a 'slŋkɔ 'fi:adali | 'ktɔ z ni:ɣ je 'si:lnejʃi: || 'f tɔm 'zbadali  
 'pɔtʃestne:ɦɔ | 'ktɔri: 'kra:tʃal 'zakri:tʃi: 'pla:ʃcɔm || 'dɔɦɔdli sa | ʒɛ 'si:lnejʃi:  
 je 'ten | ktɔ 'ako 'prvi: 'dɔka:ʒɛ | 'abi si 'pɔtʃestni: 'vi:zli:ekɔl 'pla:ʃc || 'a tag  
 'zatʃal 'severa:k 'fu:ika:ʒ zɔ 'fʃetki:x 'si:l | 'ale tʃi:m vi:ats 'fu:kal | tʃi:m vi:ats  
 sa 'pɔtʃestni: 'zakri:val 'pla:ʃcɔm || 'nakɔŋi:ets sa 'severa:g 'vzdal 'zbi:tɔtʃnej  
 'namafi: || 'pɔtɔm 'slŋkɔ 'zatʃalo 'svi:ecʃic a 'ɦri:ac || 'za malʊ: 'xvi:ʎku 'bɔɔ  
 'pɔtʃestne:mʊ 'ceplɔ | a 'vi:zli:ekɔl si 'pla:ʃc || 'severa:k 'mu:sel 'nakɔŋi:ets 'u:znac  
 | ʒɛ 'slŋkɔ je 'si:lnejʃi: 'ako ɔn ||

### Orthographic version

Raz sa severák a slnko hádali, kto z nich je silnejší. V tom zbadali pocestného, ktorý kráčal zakrytý plášťom. Dohodli sa, že silnejší je ten, kto ako prvý dokáže, aby si pocestný vyzliekol plášť. A tak začal severák fúkať zo všetkých síl, ale čím viac fúkal, tým viac sa pocestný zakrýval plášťom. Nakoniec sa severák vzdal zbytočnej námahy. Potom slnko začalo svietiť a hriať. Za malú chvíľku bolo pocestnému teplo a vyzliekol si plášť. Severák musel nakoniec uznať, že slnko je silnejšie ako on.

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