

Jörg Peters

Radboud University Nijmegen

*j.peters@let.ru.nl*

Hasselt is the capital of the Belgian province of Limburg, with a population of some 68,000. The town is situated in the northern part of Belgium, about 35 km west of the national border between Belgium and the Netherlands, and 20 km north of the Dutch-French language border, which separates Belgium into a northern part (Flanders) and a southern part (Wallonia). The dialect of Hasselt belongs to the West-Limburgian dialect group (Goossens 1965). The number of dialect speakers is steadily diminishing, and the remaining ones are all bilingual with Standard Belgian Dutch (cf. Verhoeven 2005). An early comprehensive description of this dialect is given by Grootaers & Grauls (1930). The only available dictionary is Staelens (1989).

The description is based on the speech of four middle-class, bilingual speakers in their sixties and seventies. The recording of the sample story and of the examples in the tables and in the running text are available at <<http://www.let.ru.nl/gep/jp/JIPA/Hasselt.html>>. All recordings except for those in the section ‘Tone’ are taken from a single speaker. Superscript 2 designates syllables with accent 2. All other stressed syllables have accent 1, which is equivalent to lack of accent 2 (cf. section ‘Tone’).

## Consonants

	Bilabial	Labio-dental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Uvular	Glottal
Plosive	p b			t d			k		
Nasal	m			n			ŋ		
Trill				r					
Fricative		f v		s z	ʃ		x ɣ		h
Affricate					dʒ				
Approximant	β					j			
Lateral approximant				l					

p	pɛ:l <sup>2</sup>	'arrow'	t	tɛ:t <sup>2</sup>	'time'	k	kɛ:zəʁ	'emperor'
b	bɛ:	'bee'	d	dɛ:k <sup>2</sup>	'bank'			
m	mɛ:m	'my'	n	nɛs	'nest'	ŋ	bɑŋ	'anxious'
			r	rɛ:m	'to ride'			
f	fɛ:m	'fine-ADJ-fem'	s	sɛ:m <sup>2</sup>	'signal'	x	ˈlaxə	'to laugh'
v	vɛ:l	'rasp'	z	zɛ:	'silk'	ʏ	ye:ʁ	'odour'
			ʃ	ˈʃæləkə	'scarf-DIM'	h	hɛl	'hell'
			dʒ	dʒɛ:m <sup>2</sup>	'Eugène'			
β	βɛ:l	'while (n.)'	l	lɛ:m	'to suffer'	j	ʒɛn	'joke'

Obstruents contrast for voice in the onset but not in the coda, as in Standard Belgian Dutch. Word-final plosives become voiced if the following word begins with a vowel but are voiceless elsewhere. Examples are [dɔn trɑb a:f<sup>2</sup>] /dɔn trɑp a:f<sup>2</sup>/ 'down the stairs', [də pɛd ɛn<sup>2</sup>] /də pɛt ɛn<sup>2</sup>/ 'into the pit' and [dɔn hug im] /dɔn huk im/ 'round the corner'. Word-initial /h/ is often replaced by a glottal stop. The name of the dialect, for example, is commonly pronounced [ˈʔæsəls] rather than [ˈhæsəls].

The dialect has free variation between an alveolar and a uvular trill. Intervocally, /r/ is sometimes realized as a tap. In conservative speech, /nt/ and /nd/ are realized as [ɲɔf] or [ɲʒ]. More recent varieties retain this pronunciation in a small number of words such as /lɑ:ŋ<sup>2</sup>ʒɔrix/ 'gluey', but have the palatalized alveolar nasal-plus-plosive clusters [ɲ<sup>j</sup>t<sup>j</sup>] and [ɲ<sup>j</sup>d<sup>j</sup>] elsewhere. /mɔnt<sup>2</sup>/ 'month', for example, is realized [mɔn<sup>j</sup>t<sup>j</sup>] rather than [mɔɲɔt<sup>2</sup>].

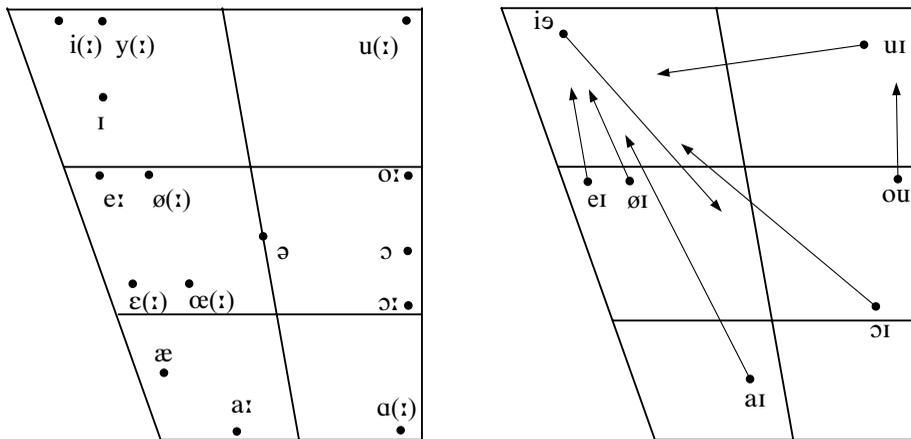
## Vowels

The Hasselt vowel system comprises 10 short vowels, 11 long vowels, and seven diphthongs, of which five are closing, one is fronting and one is centering. In addition, there is /ə/, which is restricted to unstressed syllables. For a comparable rich vowel system see Heijmans & Gussenhoven (1998) on the North Limburgian dialect of Weert.

SHORT VOWELS			LONG VOWELS		
i	mik	'bread'	i:	mi:n	'(I) mean'
ɪ	mis	'wrong'			
y	dʒys	'right'	y:	dʒy:f	'judge'
			e:	me:t <sup>2</sup>	Fr. Aimé
ø	møt	'(I) must'	ø:	mø:x <sup>2</sup>	'(I) like'
ɛ	dɛk	'often'	ɛ:	mɛ:m	'my'
œ	slœt	'(I) close'	œ:	mœ:	'sleeve'
æ	mæs <sup>2</sup>	'knife'			
u	mus	'purée'	u:	knup	'knob'
			o:	klom <sup>2</sup>	'clown'
ɔ	mɔk	'mug'	ɔ:	mɔ:m	'moon'
			a:	ma:k <sup>2</sup>	'making'
ɑ	mɑk	'tame'	ɑ:	ma:l	'time'
DIPHTHONGS			UNSTRESSED ONLY		
ɪə	briɛt <sup>2</sup>	'plank'	ə	zə	'she, they'
øɪ	føɪ	'ugh!'			
eɪ	deɪp	'thief'			
ui	dui	'cap'			
ɔɪ	bɔɪ	'constable'			
aɪ	baɪ	Fr. 'bail'			
ou	mou	'where'			

In stressed syllables, short vowels are followed by a coda consonant. Exceptions are French loans, such as /mɑːjɔ/ Fr. ‘maillot’ and /briːkɛ/ Fr. ‘briquet’, and interjections like /dæ/ ‘there!’.

/ɔ/ is higher than /ɔ̃/ but not as high as /oː/. /oː/ is marginal in the dialect, and is restricted to loans from Standard Belgian Dutch and English. Further examples are /boːt<sup>2</sup>/ ‘boat’, /pɔː<sup>2</sup>kær/ ‘poker’, /proːmoː<sup>2</sup>sə/ ‘promotion’ and /foːl<sup>2</sup>/ ‘foul’. /øi/, /œi/, /uː/ and /ou/ are realized as [øə], [œə], [uə] and [oə] before an alveolar consonant, which is realized without lip rounding. Examples are /møət/ ‘fashion’, /nœəts/ ‘news’, /nuət/ ‘distress’ and /moət/ ‘tired’. /iə/ is distinct from /iː/, which is evident from minimal pairs such as /briət<sup>2</sup>/ ‘plank’ and /briːt<sup>2</sup>/ ‘broad’. /ei/ is realized as [eə] or [ejə] before a sonorant alveolar consonant. Examples are /kəəl/ ‘cool’, /bəˈsxəən/ ‘perhaps’, /brəəɾ/ ‘brother’, /aːf<sup>2</sup>keələ/ ‘to chill’ and /veəɾə/ ‘to celebrate’. /ai/ is restricted to French loans and interjections. /øi/, /ɔi/ and /ai/ only occur in word-final position. As in Standard Belgian Dutch, a schwa may be inserted in non-homorganic consonant clusters in coda position, if the first element is /l/ or /r/. Examples are /sxeləp<sup>2</sup>/ ‘shell’, /mɛlək<sup>2</sup>/ ‘milk’, /filəm<sup>2</sup>/ ‘film’, /kaləf<sup>2</sup>/ ‘calf’, /dɛrəp<sup>2</sup>/ ‘village’, /kɛrək<sup>2</sup>/ ‘church’, /bærəx<sup>2</sup>/ ‘mountain’, /æɾəm<sup>2</sup>/ ‘arm, poor’ and /kɛrəf<sup>2</sup>/ ‘basket’.



The vowel system contains an additional set of nasalized vowels, which are restricted to loans from French.

NASALIZED VOWELS

æ̃:	mæ̃:	Fr. ‘Romain’
œ̃:	trāteːœ̃:	Fr. ‘trente-et-un’
ɔ̃:	mɔ̃:	Fr. ‘Raymond’
ɑ̃:	nɑ̃:	Fr. ‘Fernand’

The dialect also allows for combinations of /uː/, /ɔː/ and /ɑː/ with /j/ in the coda. Examples are /nuːj/ ‘unwillingly’, /kɔːj/ ‘harm-PL’, and /lɑːj/ ‘drawer’. /ɔːj/, and /ɑːj/ are restricted to word-final position.

**Stress**

Stress location is as in Standard Belgian Dutch. In compounds consisting of two nouns, primary stress occurs sometimes on the head noun rather than on the modifying element. Examples are /kə.naɪˈdɛik/ ‘canal embankment’, /statˈhœəs/ ‘town house’, /.hasəltˈkɛrəməs/ ‘Hasselt fun fair’ and /kukəˈbuːɾ/ ‘jack of diamonds’. French loan words partly preserve their

original stress pattern, i.e. primary word stress is on the last syllable (/kɑ:'do:/ Fr. 'cadeau', /kɑnɑ'pe:/ Fr. 'canapé'), and partly adopt the stress pattern of native words of the dialect (/hɛnɔ:/Fr. 'Hennaut', /'divi,vje:/ Fr. 'Duvivier' (Grootaers & Grauls 1930: 142ff.).

## Intonation

The intonational system of the dialect is less complex than that of Standard Belgian Dutch and other Limburgian dialects such as the dialects of Maastricht, Venlo, and Roermond (Gussenhoven & Aarts 1999, Gussenhoven & van der Vliet 1999, Gussenhoven 2000). Utterances are organized into intonational phrases (IPs) containing one or more pitch accents marking accented syllables. A single pitch accent, LH\*, is used both in nuclear position (last accent of IP) and in prenuclear position. This accent may be downstepped when following another pitch accent. A single boundary tone (L<sub>i</sub>) occurs at both the initial and final IP boundary. Depending on whether the IP occurs finally or non-finally in a prosodic utterance, the final fall reaches low or upper-mid level. The final fall to low level is preferred in declaratives and interrogatives, whereas the final fall to upper-mid level is preferred in continuatives. No effect of focal condition (wide focus, narrow focus, contrastive focus) on tonal structure is attested (see Peters in press)

## Tone

Like many other Franconian dialects in Belgium, the Netherlands, and Mid-West Germany, the dialect of Hasselt has a lexical tone contrast. This contrast is traditionally known as the distinction between *STOOTTOON* ('push tone') and *SLEEPTOON* ('dragging tone') (Grootaers & Grauls 1930: 130), here referred to as accent 1 and accent 2, respectively (cf. Schmidt 1986). The contrast is used to distinguish both different lexemes and different grammatical forms of a single lexeme. Examples of lexemes differing by accent class are /(\ən) hɪn/ '(a) hen' – /(\vir) hɪn<sup>2</sup>/ '(for) them', /(\ə pɑ:ɪ<sup>2</sup>) 'kiəskəs/ '(some) cheese-PL-DIM' – /(\ə pɑ:ɪ<sup>2</sup>) 'kiəs<sup>2</sup>kəs/ '(some) stocking-PL-DIM'. Examples of grammatical forms differing by accent class are /dɑ:x/ 'day-NOM-PL' – /dɑ:x<sup>2</sup>/ 'day-NOM-SG', /bæɾɛx/ 'mountain-NOM-PL' – /bæɾɛx<sup>2</sup>/ 'mountain-NOM-SG'. In contrast to Venlo, Roermond and Maastricht, all stressed syllables – including CVC syllables with non-sonorant coda – can bear either accent 1 or accent 2. Examples for CVC syllables with accent 2 are /kat/ 'cat', /βɑs<sup>2</sup>/ 'laundry' and /βɑs<sup>2</sup>ə/ 'to wash'. Accordingly, the dialect does not distinguish between accent 1 and no-accent.

The tonal contrast occurs on syllables that bear main or secondary word stress. Examples for words with accent 2 on a secondary stressed syllable are /ɑl<sup>2</sup>tɛɪt<sup>2</sup>/ 'always', /øθə<sup>2</sup>lɛfɑnt<sup>2</sup>/ 'elephant' and /opɣiɛ<sup>2</sup>tə/ 'eat up' (p.p.). In compounds, all combinations of accent 1 and accent 2 are possible, as illustrated by the street names /ɑ:stɾɔ:t/ 'Old Street', /e<sup>2</sup>kɑ:stɾɔ:t/ 'Oak Street', /vɛs,mæɾɛk<sup>2</sup>/ 'Fish Market' and /frɛt<sup>2</sup>,mæɾɛk<sup>2</sup>/ 'Fruit Market'.

According to Grootaers & Grauls (1930), the contrast between accent 1 and accent 2 is realised by differences in intensity, duration and fundamental frequency (F0), with intensity being the primary phonetic parameter involved. More recent data (Peters in press) suggest that fundamental frequency is the primary phonetic parameter, whereas differences in duration and intensity are less important, except in IP-final position, where accent 2 syllables are consistently longer than accent 1 syllables.

On non-final nuclear syllables bearing a LH\* pitch accent, the difference between accent 1 and accent 2 shows up in a timing difference of the F0 peak (see figure 1a and b). On accent 1 syllables, the peak occurs on the second half of the accented syllable, whereas on accent 2 syllables, it occurs after the accented syllable. In most cases, it is realized on the last syllable before the next stress. If the accented syllable occurs in IP-final position, the final fall of accent 1 syllables is partly truncated. In accent 2 syllables, the final fall is replaced by upper-mid level pitch although extreme lengthening of the accented syllable provides enough space to realize

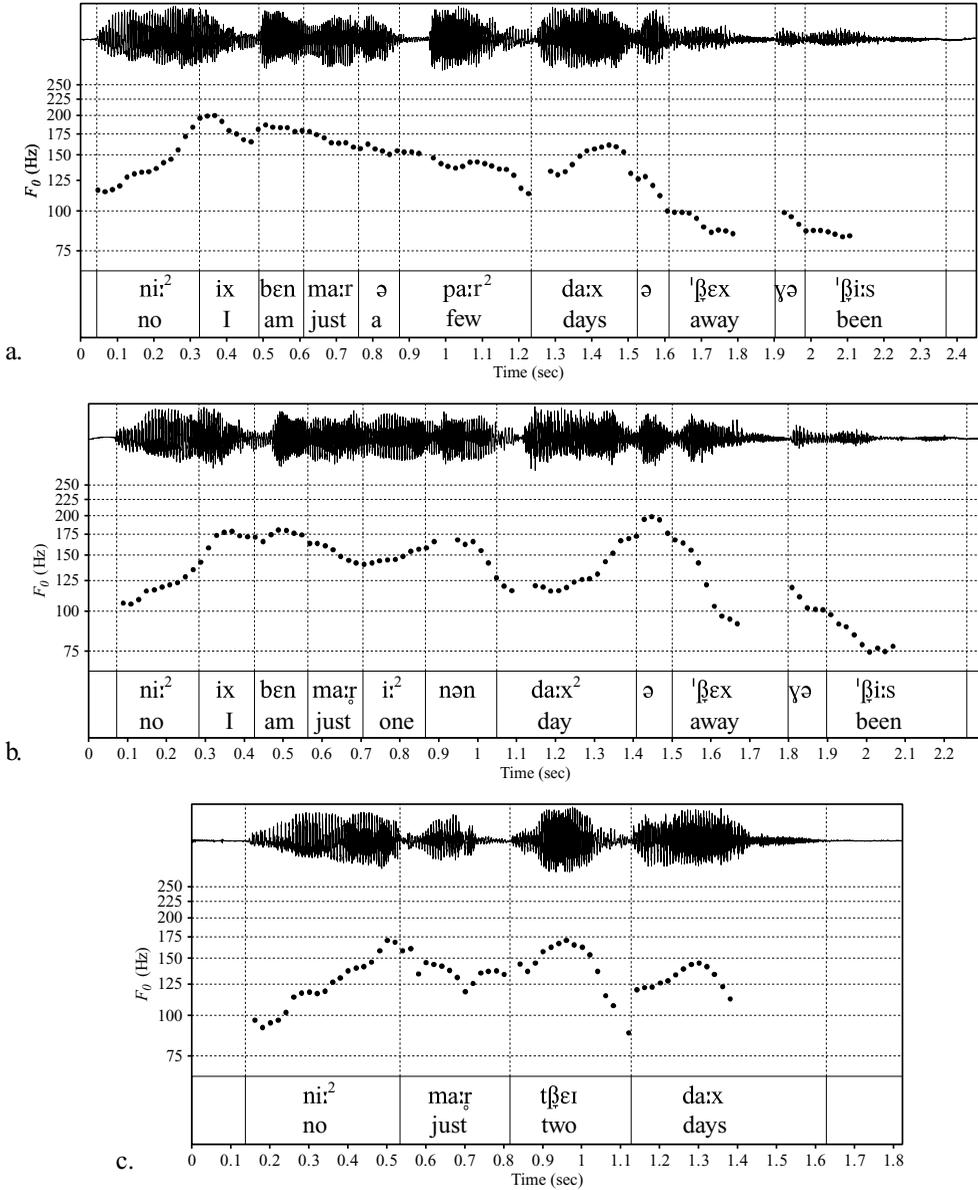
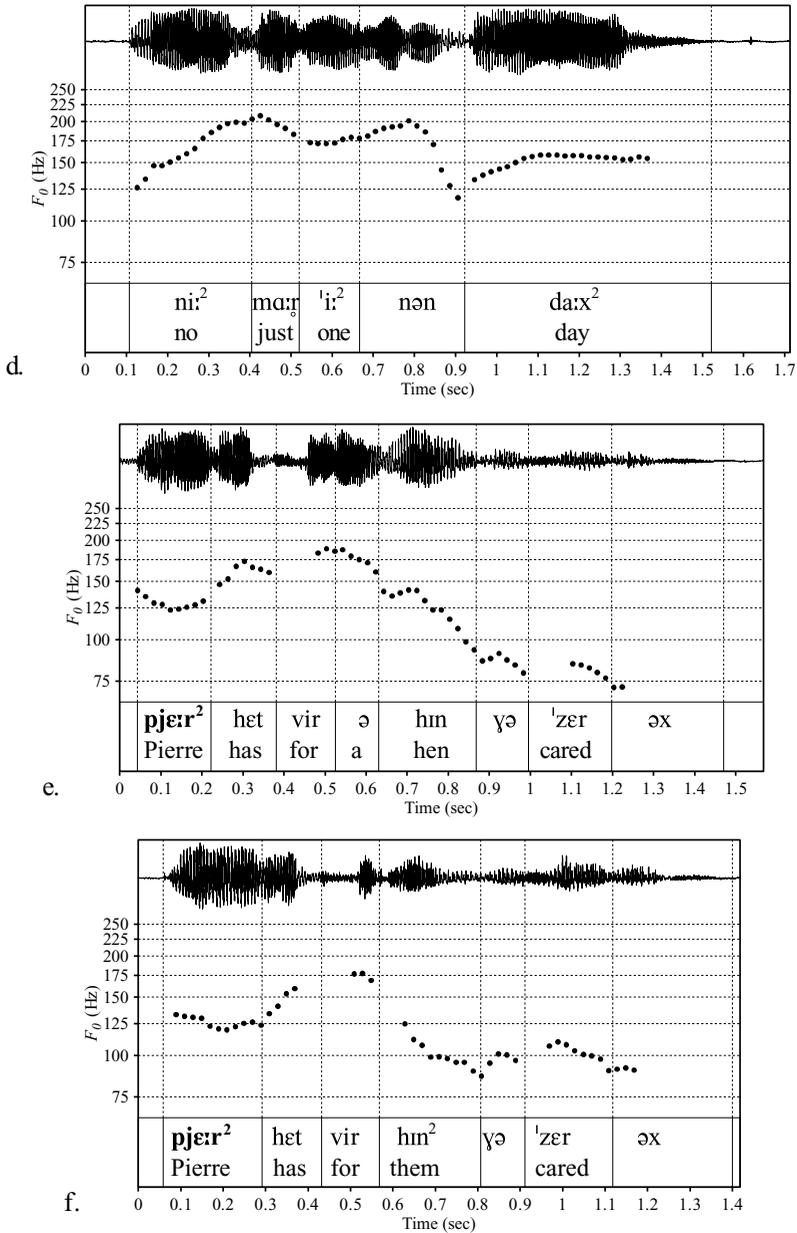


Figure 1 For caption see next page.

a falling movement (see figure 1c and d). In postnuclear position, accent 2 words are realized with low F0, whereas accent 1 words follow the course of the overall F0 contour (figure 1e and f).

The timing difference between accent 1 and accent 2 can be accounted for by assuming that accent 2 words have a lexical L tone, while accent 1 words are lexically toneless. In nuclear position, the lexical L tone, which is pre-linked to the accented syllable, does not allow H\* to associate. As a consequence, H\* is realized later on accent 2 words than on



**Figure 1** Speech wave forms and  $F_0$  tracings illustrating the realisation of accent 1 and accent 2 of the tonal minimal pair /da:x/ 'day-NOM-PL' – /da:x²/ 'day-NOM-SG' in nuclear non-final position (a, b) and nuclear final position (c, d) and of the tonal minimal pair /hn/ 'hen' – /hn²/ 'them' in postnuclear non-final position (e, f) for declaratives. Translations: (a) No, I was away just for a few days. (b) No, I was away just for one day. (c) No, just for two days. (d) No, just for one day. (e) Pierre looked after a hen. (f) Pierre looked after them. Pitch analysis and graphics produced with the help of the acoustic analysis program PRAAT (Boersma & Weenink 2005).

accent 1 words. The lexical L tone further accounts for the low target on accent 2 words in postnuclear position (for a more detailed description see Peters in press).

### Transcription

[|] marks the end of an utterance and ['] the end of an intonational phrase within an utterance. The stress mark [ˈ] indicates an accented syllable.

də 'no:rdərβɛnt<sup>2</sup> ən də 'zɔn | βø:rən an tɪskə'tɛ:rə | e:r<sup>2</sup>vər βiə vɔn in 'tβæ:ət  
'stærək<sup>2</sup>stə βø:r || 'tu:n 'kum tər 'dʒys e:r<sup>2</sup>mant vɪ'be:r<sup>2</sup> | 'di: nən 'dikə βærmə  
'jas 'am<sup>2</sup>ha: || zə 'sproukən 'a:f<sup>2</sup> | βiə da də vɪ'be:r<sup>2</sup>ɣəŋər 'zu: var zø: 'krɛ:r<sup>2</sup>ɣə |  
dan zənə 'jas œ:r<sup>2</sup> tɛ: | ət 'stærək<sup>2</sup>stə zø zɛn<sup>2</sup> || də 'no:rdərβɛnt<sup>2</sup> bə'ɣɔs də 'vɔl  
'fɔ:rs tə 'blɔ:r<sup>2</sup>zə | ma βɛ: 'fɛldər əm 'blɔ:r<sup>2</sup>də | βɛ: 'vastər da drə 'man<sup>2</sup> zənə  
'jas 'tœ: truk || ɔp 'lɛstə ɣu:f də 'no:rdərβɛnt<sup>2</sup> ət mar 'ɔp || tər'no: bə'ɣɔs də  
'zɔn 'zu fɛl<sup>2</sup> tə 'sxɛmə | da də vɪ'be:r<sup>2</sup>ɣəŋər zənə 'jas 'œ:r<sup>2</sup> tɛ: || de 'no:rdərβɛnt<sup>2</sup>  
'mɔs tu:n βɛl 'tœ:rɣə<sup>2</sup>və | da də 'zɔn ət 'stærək<sup>2</sup>stə βø:r |

### Standard Dutch orthographic version

De noordenwind en de zon hadden een discussie over de vraag wie van hun tweeën de sterkste was, toen er juist iemand voorbij kwam die een dikke, warme jas aanhad. Ze spraken af dat wie de voorbijganger ertoe zou krijgen zijn jas uit te trekken de sterkste zou zijn. De noordenwind begon uit alle macht te blazen, maar hoe harder hij blies, des te dichter de voorbijganger zijn jas om zich heen trok. Uiteindelijk gaf de noordenwind het maar op. Daarna begon de zon krachtig te stralen, en meteen daarop trok de voorbijganger zijn jas uit. De noordenwind moest toen wel toegeven dat de zon de sterkste was.

### Acknowledgements

This work was carried out as part of the project ‘Tonale Dialecten van het Nederlands’, which was funded by the Vlaams-Nederlands Comité, a joint research foundation of the Fonds voor Wetenschappelijk Onderzoek Vlaanderen (FWO) and the Netherlands Organisation for Scientific Research (NWO). I thank my speakers for giving me their time and best efforts and Xavier Staelens (Hasselt) for indispensable practical help and fruitful discussions. I am also grateful for many helpful comments to Carlos Gussenhoven (Nijmegen), Jo Verhoeven (Antwerp) and an anonymous reviewer.

### References

- BOERSMA, P. & WEENINK, D. (2005). Praat: doing phonetics by computer (version 4.4) [computer program]. Retrieved from <<http://www.praat.org/>>.
- GOOSSENS, J. (1965). Die Gliederung des Südniederfränkischen. *Rheinische Vierteljahresblätter* 30, 79–94.
- GROOTAERS, L. & GRAULS, J. (1930). *Klankleer van het Hasseltsch dialect*. Leuven: de Vlaamsche Drukkerij.
- GUSSENHOVEN, C. (2000). The lexical tone contrast of Roermond Dutch in Optimality Theory. In Horne M. (ed.), *Prosody: Theory and Experiment*, 129–167. Dordrecht: Kluwer.
- GUSSENHOVEN, C. & AARTS, F. (1999). The dialect of Maastricht. *Journal of the International Phonetic Association* 29, 155–166.
- GUSSENHOVEN, C. & VAN DER VLIET, P. (1999). The phonology of tone and intonation in the Dutch dialect of Venlo. *Journal of Linguistics* 35, 99–135.

- HEIJMANS, L. & GUSSENHOVEN, C. (1998). The Dutch dialect of Weert. *Journal of the International Phonetic Association* **28**, 107–112.
- PETERS, J. (in press). Tone and intonation in the dialect of Hasselt. To appear in *Linguistics*.
- SCHMIDT, J. E. (1986). *Die Mittelfränkischen Tonakzente (Rheinische Akzentuierung)*. Stuttgart: Franz Steiner Verlag Wiesbaden.
- STAELENS, X. (1989). *Dieksjenèèr van 't (H)essels. Nederlands–Hasselts Woordenboek* (3rd rev. edn.). Hasselt: de Langeman.
- VERHOEVEN, J. (2005). Belgian Standard Dutch. *Journal of the International Phonetic Association* **35**, 243–247.