ILLUSTRATIONS OF THE IPA

Mennonite Plautdietsch (Canadian Old Colony)

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Mennonite Plautdietsch (ISO 639–3: pdt) is a West Germanic (Indo-European) language belonging to the Low Prussian (*Niederpreußisch*) subgroup of Eastern Low German (*Ostniederdeutsch*), a continuum of closely related varieties spoken in northern Poland until the Second World War (Ziesemer 1924, Mitzka 1930, Thiessen 1963). Although its genetic affiliation with these other, now-moribund Polish varieties is uncontested, Mennonite Plautdietsch represents an exceptional member of this grouping. It was adopted as the language of in-group communication by Mennonites escaping religious persecution in northwestern and central Europe during the mid-sixteenth century, and later accompanied these pacifist Anabaptist Christians over several successive generations of emigration and exile through Poland, Ukraine, and parts of the Russian Empire. As a result of this extensive migration history, Mennonite Plautdietsch is spoken today in diasporic speech communities on four continents and in over a dozen countries by an estimated 300,000 people, primarily descendants of these so-called Russian Mennonites (Epp 1993, Lewis 2009).

Linguistic research on Mennonite Plautdietsch is extensive, spanning the past eight decades. General grammatical descriptions are provided by Quiring (1928) for a 1920sera Chortitza Colony variety; Baerg (1960) for a single Molochnaya Colony variety spoken in Kansas; Mierau (1964) for several unspecified varieties spoken in western Canada; Avdeev (1965), Kanakin & Wall (1994) and Nieuweboer (1999) for several Altai region varieties spoken in western Siberia; and Siemens (2012) for a diachronically-oriented perspective on the development of Mennonite Plautdietsch more generally. Both Goerzen (1950, 1952) and Lehn (1957) present studies on phonology and phonotactics, focusing on post-1920 Chortitza Colony varieties spoken in western Canada, while Brandt (1992) describes the phonology of several northern Mexican Plautdietsch varieties related historically to Canadian varieties. Perhaps the most detailed studies of Mennonite Plautdietsch phonology and morphology are Jedig (1966) for western Siberia and Buchheit (1978) for Nebraska, the former study tracing the development of the phonology from its Middle Low German roots, the latter concentrating on synchronic phonological and morphological processes. Naiditch (2001, 2005) follows Jedig (1966) in describing the diachronic development of the consonant and vowel systems of an unspecified variety of Mennonite Plautdietsch, while Wiebe (1983, 1993,

a.o.) presents a series of psycholinguistically oriented studies on orthographic representation and phonological knowledge with a community in Swift Current, Saskatchewan. Although substantial research from both synchronic and diachronic perspectives addresses phonological organization, the authors are not aware of any phonetic descriptions of any variety of Mennonite Plautdietsch to date.

The present illustration concentrates on one lesser-studied variety of Mennonite Plautdietsch commonly associated with the Old Colony (formerly Reinländer) Mennonites, members of one conservative Mennonite denomination who immigrated to western Canada from present-day Ukraine primarily in the 1870s (see Redekop 1969, Reger & Plett 2001). As a result of repeated rounds of mass emigration on the part of Canadian Old Colony Mennonites to Latin America during the twentieth century, significant Old Colony Mennonite Plautdietsch speech communities exist today in Mexico, Paraguay, Belize, and Bolivia. Other varieties of Mennonite Plautdietsch are attested in Canada, as well, and have received some previous linguistic attention (e.g. Goerzen 1952, Mierau 1964, Moelleken 1972). This description is based on the speech of the second author, born in 1926 in Blumenheim, Saskatchewan. The second author was raised in an Old Colony Mennonite home and acquired Canadian Old Colony Mennonite Plautdietsch as his first language (see Driedger 2011). His translation and production of 'The North Wind and the Sun' in Mennonite Plautdietsch is provided below.

Consonants

			Lab	oio-			Pala	ato-					
	Bilabial		dental		Alveolar		alveolar		Palatal		Velar		Glottal
Plosive	р	b			t	d			k ^j	g ^j	k	g	?
Nasal		m				n				ŋ		ŋ	
Affricate					ts		t∫						
Fricative			f	V	S	Z	S	3	ç		X	γ	h
Trill						r							
Approximant										j			
Lateral						1				1j			
approximant						1				1			

/p/	/poa/	Poa	'pair'	/k ^j /	/k ^j oak ^j /	Kjoakj	'church'
/b/	/boa/	Boa	'bear'	/g ^j /	/ˈtɪ.g ^j a/	tigja	'eager'
/m/	/moats/	Moatz	'March'	/n/	/ˈε.na/	Enja	'ends'
/ f /	/foa/	foah	'Drive!'	/ç/	/ˈhε.ça/	hecha	'higher'
/v/	/voa/	woah	'true'	/j/	/joa/	Joah	'year'
/t/	/jɪ.ˈtoa/	Jitoa	ʻguitar'	/k/	/koa/	Koa	'car'
/d/	/doa/	doa	'there'	/g/	/goa/	goa	'cooked'
/n/	/ˈnoa.nɪç/	noanich	'nowhere'	/ŋ/	/ˈhʊ.ŋa/	Hunga	'hunger'
/ts/	/tsol/	Zohl	'number'	/x/	/'pra.xa/	Pracha	'beggar'
/s/	/'ma.sa/	Massa	'knife'	/y/	/dreo.ya/	Dröaga	'carrier'
/z/	/zot/	Sot	'seed'	/t∫/	/ˈkʊ.tʃa/	Kutscha	'chauffeur'
/r/	/roa/	roa	'Cry!'	/ <u>ʃ</u> /	/∫oap/	schoap	'sharp'
/1/	/lot/	lot	'late'	/3/	/ˈbʊ.ʒa/	Buzha	'tousled head of hair'
$/1^{j}/$	/baʊl ^j /	Baulj	'bellows (N)'	/?/	/?oam/	oam	'poor'
		v		/h/	/hoa/	Ноа	'ĥair'

Mennonite Plautdietsch has 29 phonemic consonants, as illustrated by the above word list. Where available, Mennonite Plautdietsch items were selected to illustrate the consonantal

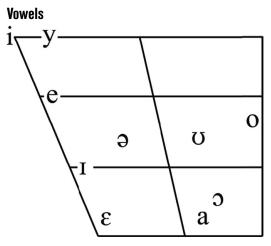
contrasts before /o/ in a stressed syllable, preferably in word-initial position. In cases when this environment was not available, a non-initial stressed syllable was sought which presented the necessary consonant before a nuclear /o/ (e.g. *Jitoa* /jɪ.'toa/ 'guitar'). If neither of these conditions could be satisfied, items were selected where the relevant consonant preceded /a/ (e.g. /s/ in *Massa* /'ma.sa/ 'knife', /x/ in *Pracha* /'pra.xa/ 'beggar'). These environments were sufficient to demonstrate all consonantal phonemes except /l^j/, which is only attested word-finally in Canadian Old Colony Mennonite Plautdietsch (e.g. *Baulj* /baul^j/ 'bellows', contrasting with *Baul* /baul/ 'baul'). While the glottal stop is treated here as an independent phoneme (see Siemens 2012: 73), this segment appears only as a syllabic onset in lexemes which would otherwise lack one (e.g. *oam* /?oam/), and could thus potentially be treated as a phonetic segment, instead.

Notably, the phonemic inventory of Canadian Old Colony Mennonite Plautdietsch contrasts palatalized and non-palatalized velar stops, as in koasch /koas/ 'healthy' vs. Kjoasch /k^joas/ 'cherry', *Hack* /hak/ 'hoe' vs. *Hakj* /hak^j/ 'hedge'. While /k^j/ occurs frequently in both syllable-initial and final positions, q^{i} is significantly more restricted, rarely occurring outside of syllabic codas and in relatively few lexical items overall. Moreover, /qⁱ/ only infrequently provides the basis for any phonemic contrast: the word list provided in Epp (1996) presents only rikj /rikj 'rich' vs. Rigj /riqj 'back (body part)', and Akj /akj 'corner' and Agj /aqj 'edge of cloth, fringe' as contrastive pairs. In other varieties of Plautdietsch, these same segments are realized as [c] and [t] (Siemens 2012: 93–98) or [ti] and [di] (Reimer, Reimer & Thiessen 1983: 24), respectively. The presence of these phonemic palatalized velar stops is rarely encountered in related Germanic languages. Siemens (2003, 2012) suggests that these stops are an areal feature indicative of historical membership in the Baltic Sprachbund, while Naiditch (2005) and others trace these phonemes' emergence through regular diachronic sound changes, while not ruling out contact influences altogether. Palatalized non-velar stops may also occur when followed by /j/, as in *Eedjen* /əɪd^jən/ 'gutters', and may be part of a larger palatalization process.

Allophonic variation is reported between an alveolar trill [r], an alveolar tap [r], and a retroflex approximant [1] for /r/ in some varieties of Mennonite Plautdietsch, with the trill and tap occurring in free variation and the retroflex allophone only appearing in non-intervocalic coda position. This variation was first noted for speakers of Mennonite Plautdietsch in Mexico by Moelleken (1966, 1993), who argues on the basis of comparative research on contemporary non-Mennonite varieties of Plautdietsch that the retroflex approximant is not a recent innovation prompted by contact with English. Given the historical relationship between the Mennonite Plautdietsch speech communities in Mexico and their source communities in Canada, it is not surprising to find such variation attested in the Canadian Old Colony Mennonite Plautdietsch represented in the speech of the speaker described here (e.g. *Däaren* [de.əɪn] 'doors', *foahren* [fo.əɪn] 'to drive', *Korn* /kəɪn/ 'corn, maize'). The [1] allophone is reportedly a sociolinguistically-marked variant associated with this particular variety and is subject to commentary by other Mennonite Plautdietsch speakers in Saskatchewan (Jake Buhler, p.c.).

Unlike several other, related West Germanic languages, word-final obstruents do not demonstrate final devoicing, maintaining phonemic contrasts in this environment; cf. *beed* /bəɪd/ 'Bid!' (2SG IMPER) vs. *Beet* /bəɪt/ 'beet', *weed* /wəɪd/ 'Weed!' (2SG IMPER) vs. *weet* /wəɪt/ 'knows'.

Mennonite Plautdietsch has 10 phonemic vowels, as illustrated in the vowel chart below and in the F1-F2 vowel space plot in Figure 1. Considerable variation exists between varieties of Mennonite Plautdietsch in their realization of the phonemic vowel inventory, although these distinctions remain poorly documented. The following concentrates on the realization of vowel phonemes in Canadian Old Colony Mennonite Plautdietsch, leaving phonetic comparison with other varieties of Mennonite Plautdietsch as a topic for further research.



```
/i/ /bit/ Biet
                'a bite'
                             /a/ /bat/
                                          bat
                                                   'until'
/ı/ /bɪt/ bitt
                 'bites'
                             /ə/ /bəˈdit/ bediedt
                                                   'means'
/y/ /byt/ buut 'builds'
                                                   'bid'
                             /ɔ/ /bɔt/
                                          Bott
/e/ /bet/ Bät
                 'a bit'
                             /o/ /bot/
                                          bodt
                                                   'bathes'
/ε/ /bεt/ Bett 'a tub'
                             /u/ /butst/
                                          butzt
                                                   'bumps'
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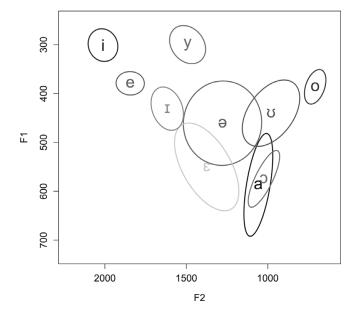


Figure 1 F1-F2 plot of vowels from a combination of words and non-words (approximately 20 tokens per vowel), produced with the phonTools package in R (Barreda 2012).

While the distinction between monophthongs is presented here as being primarily a qualitative one, quantitative differences are also observed, with the mean durations of /a/, /e/, /i/, /o/ and /y/ before /t/ and /d/ in word-initial, stressed syllables all being longer than those of /o/, /e/, /i/, /o/, and /o/ in the speech of the second author. This may suggest that vowel quantity may serve as an additional cue to phonemic identity, in addition to the qualitative differences noted below.

Monophthongs in Canadian Old Colony Mennonite Plautdietsch maintain a contrast in roundness only in the front high vowels (e.g. *Biet /*bit/ 'a bite' vs. *buut /*byt/ 'builds'), with the absence of a corresponding high back rounded vowel phoneme /u/ in this variety explained historically as the result of so-called 'spontaneous palatalization' (see Naiditch 2005: 80). Such asymmetry in the inventory is not paralleled among the diphthongs, however, where /u/ is found in items such as *wua* /vua/ 'where', and is distinct from /ya/ in items such as *Buua* /bya/ 'builder'. Monophthongs are also often centralized in unstressed position, as in the reduction of /a/ to [ə] in *romma* /'rɔ.ma/ ['rɔmə] 'around' in connected speech.

The realization of several of these vowel phonemes in Canadian Old Colony Mennonite Plautdietsch differs in some respects from what would be anticipated from the IPA symbols used to represent them here. In the speech of the second author, the front vowels /t/ and /ɛ/ have lowered to [ɛ] and [æ], respectively, and /v/ has centralized to [ə], leaving the entire high back vowel space empty of monophthongs. Notably, as seen in Figure 1, no difference in F1 or F2 values for /a/ and /ɔ/ is found in this variety, with these phonemes being realized as [ɐ] or [ɑ]. Instead, this phonological distinction is likely maintained as a difference in length and, to a lesser extent, F3 values. In a small sample of these vowels appearing in stressed, word-initial syllables before /t/ and /d/ (n = 36), instances of /a/ demonstrate almost twice the mean duration (291 ms) of instances of /ɔ/ (158 ms). To the authors' knowledge, a phonemic length cue in any of the Plautdietsch monophthongal vowels has not been reported in the previous literature, although occasional reference is made to the (non-phonemic) length characteristics of /a/ (see Jedig 1966).

Diphthonas

Mennonite Plautdietsch has eleven phonemic diphthongs:

```
/ia/
      /bia/
                  Bia
                           'pillow case'
                                           /əɪ/ /bəɪd/ beed
                                                                'Bid!'
      /bya/
                           'builder'
                                           /au/ /baud/ Bood
                                                                'shack'
/ya/
                  Вииа
      /beid/
/eɪ/
                  beid
                           'both'
                                           /au/ /baus/ Bauss 'boss'
/ea/
      /bea/
                  Bäa
                                           /oa/ /boa/
                           'berry; pear'
                                                        Boa
                                                                'bear; drill'
/eo/
      /beo.yan/ Böagen 'bow'
                                           /ua/ /vua/
                                                        wua
                                                                'where'
                                           /uɪ/ /fuj/
                                                                'Yuck!'
                                                        fuj
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Reduction of the /a/ off-glide in diphthongs is occasionally found in closed syllables and in rapid speech, as in *woamen* ['voəmən] 'warm:M.SG.ACC' and *Nuadwind* ['nuədvɪnt] 'north wind' (see Buchheit 1978: 40–41). The variety of Canadian Mennonite Plautdietsch considered here does not provide evidence of the phonemic contrast reported in Epp (1996) for other varieties between /iə/ (*Biee* /biə/ 'bees'; contrast not present in this item in Canadian Old Colony Mennonite Plautdietsch) and /ia/ (*Bia* /bia/ 'pillow case'). Similarly, differences are reported across varieties of Mennonite Plautdietsch not only in the phonemic composition of the diphthong inventory, but also in their realization, with some varieties noting reduction of /au/ to /p/ or /ɔ/ (see Kanakin & Wall 1994, Moelleken 1966).

The phonemic status of several of these diphthongs deserves closer attention. The distribution of /eɔ/ is predictable in this variety of Canadian Mennonite Plautdietsch, appearing before non-palatalized velar consonants, e.g. Böagen /'beɔyən/ 'bow', möaken /'meɔkən/ 'to make', but stoakjste /'ʃtoakjstə/ 'strongest'. It could thus be seen as an allophone of /oa/, which is consistent with the distribution of [oa] across both prevelar and non-prevelar contexts in other varieties of Plautdietsch where /eɔ/ (or, in varieties with a rounded variant of this phoneme, /œa/) is not attested (see Loewen 1998). Exceptions to this generalization exist, however, as in Joakob 'Jacob' (although the /eɔ/ variant of this form is also attested, i.e., Jöakob), motivating treatment as a separate phoneme. As well, the phoneme /uɪ/ is apparently restricted in this variety to a single lexical item, the interjection fuj 'Yuck!'.

Triphthongs

Little consensus exists between previous analyses of triphthongs, which are often discussed with diphthongs. With one exception noted below, all triphthongs in this variety involve a final off-glide /i/, which some have analyzed as coda /j/.

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/əɪa/ /bəɪa/ Beea 'beer' /iəɪ/ /viəɪ/ Weaj 'cradle' /əʊɪ/ /jəˈrəʊɪ/ Jerooj 'movement' /aʊɪ/ /paʊɪ/ Pauj 'paw' /eəɪ/ /veəɪ/ Wäaj 'roads' /oəɪ/ /boəɪ/ Boaj 'mountains'
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Monosyllabic contrasts between diphthongs and purported triphthongs are rare but identifiable, as in wäa /vea/ 'who' vs. Wäaj /veəi/ 'roads', wea /via/ 'was' vs. Weaj /viəi/ 'cradle', and Boa /boa/ 'bear' vs. Boaj /boəi/ 'mountains', as seen in the above wordlist. It is typical for orthographies and phonological analyses of Canadian Mennonite Plautdietsch to recognize at least the triphthong /əɪa/ as distinguishing sets of minimal pairs such as Beea /bəɪa/ 'beer', Bia /bia/ 'pillow case', and Bäa /bea/ 'berry'; vea /fəɪa/ 'four', Fia /fia/ 'fire', and väa /fea/ 'before'; and Heea /həɪa/ 'honey (term of endearment)', hia /hia/ 'here', and häa /hea/ 'hither'. For the second author, however, this triphthong is typically perceived as two syllables (e.g. /bəɪ.a/ Beea 'beer'), as is the case with /oəɪ/, leaving the monosyllabic status of these two vowel sequences in question.

Whereas other Canadian and American varieties have maintained a distinction between /ata/ and /ia/ consistently, the variety of Old Colony Canadian Mennonite Plautdietsch considered here preserves the contrast only in a limited number of lexical items, following an earlier merger of *eea and *ia to /ia/. This merger appears characteristic not only of the present variety, but also of most varieties spoken by descendants of the earliest Mennonite emigrants to the Americas from the Chortitza and Bergthal colonies, as is apparent in the absence of this contrast from the phonemic inventory of Mexican Old Colony Mennonite Plautdietsch found in Moelleken (1966). Phonemic descriptions of contrasting non-merged Canadian and American varieties are found in Goerzen (1950), Baerg (1960), Reimer et al. (1983), Epp (1996), Loewen (1998), and Neufeld (2000). Unlike several of these non-merged Canadian varieties, the variety considered here lacks the triphthong /əua/ altogether (see Loewen 1998: 136–137).

Stress and intonation

Primary stress is generally predictable based on the morphological structure of the item, falling on the first non-prefix syllable. Verbs ending in *-earen* represent an exception, with the penultimate syllable receiving primary stress, e.g. *passearen* /pə.ˈsia.ɾən/ 'to happen', *opperearen* /ɔ.pə.ˈria.ɾən/ 'to operate'. Similarly, some borrowed lexemes show non-morphologically determined stress patterns, such as *Perischkie* /pə.rɪʃ.ˈki/ 'pirozhki, fruit-filled pastries' (< Rus. пирожки, Ukr. пиріжки) and *Warenikje* /və.ˈrɛ.nɪ.kʲə/ 'perogies' (< Ukr./Rus. вареники); as do occasional items in the native Plautdietsch lexicon, such as (*han*) *kefoojen* /kə.ˈfəʊ.jən/ 'to throw down forcefully' and *unjarenaunda* /u.na.rəˈnaun.da/ 'amongst, amidst, mixed'. Stress may be contrastive, as in the following examples:

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unjastohnen /o.na. ∫to.nən/ 'to determine, check out'
unjastohnen /o.na. ∫to.nən/ 'to stand under'
wadaholen /o.na. ∫to.nən/ 'to repeat'
wadaholen /o.na. ∫to.nən/ 'to fetch again'
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While stress is comparatively well documented in existing Mennonite Plautdietsch dictionaries and grammatical sketches, intonation remains without any detailed analytical treatment to date. Baerg (1960: 68–87) offers an impressionistic description of the intonation

system of Mennonite Plautdietsch, providing hand-illustrated intonation contours for several sentence types (e.g. information and polar questions) and focus conditions. Mierau (1964: 26–28) likewise briefly notes distinctive intonation contours correlating with declarative, interrogative, and imperative modes, though acknowledging that this characterization is 'admittedly an oversimplification' (p. 28) and that intonation in Mennonite Plautdietsch represents an area for further dedicated research. The sentences listed below, all variations of *Jehaun haud 'en oolet Peat* 'John had an old horse' and *Haud Jehaun 'en oolet Peat*? 'Did John have an old horse?', illustrate the prosodic contours commonly associated with neutral declarative statements (falling intonation), contrastive focus (pitch peak on contrasts), and clarification and polar questions (falling intonation with rise on last syllable).

Jehaun haud 'en oolet Peat. (neutral declarative) (contrastive focus: 'JOHN, not George') Jehaun haud 'en oolet Peat. Jehaun haud 'en oolet Peat. (contrastive focus: 'HAD, not has') (contrastive focus: 'ONE, not two') Jehaun haud een oolet Peat. (contrastive focus: 'OLD, not young') Jehaun haud 'en oolet Peat. Jehaun haud 'en oolet Peat. (contrastive focus: 'HORSE, not cow') Jehaun haud 'en oolet Peat? (clarification: 'What did you say?') Haud Jehaun (e'mol) 'en oolet Peat? (polar question)

Transcription of recorded passage

There is no single, standardized orthography for Mennonite Plautdietsch at present with general acceptance across all diasporic speech communities. Several distinct standard orthographies have been proposed, and appear to have converged in many respects upon similar conventions for representing phonemic contrasts common to most varieties (Reimer 1982, Reimer et al. 1983, Epp 1996, Loewen 1998, a.o.; see Nieuweboer (1999: Chapter 6) for an overview of Plautdietsch orthographies). In the absence of an accepted orthographic standard for this variety, however, and in light of the sometimes controversial nature of orthographic choices in Mennonite Plautdietsch speech communities (see Cox 2011), the passage from the 'North Wind and the Sun' is presented below in both the orthography originally chosen by the second author, as well as in the Plautdietsch adaptation of the Sass orthography outlined in Epp (1996).

/de 'nuədvint en de zən 'ʃtrəidṇ ziki | veə daut 'ʃtoəkistə via | aus əin 'fəutjena met ən 'voəmən 'mauntl | 'enjəˌvekəlt 'ʔaunkiem | zei bəˈzənən zikh | daut dei | veə dem 'fəutjena daut 'iəʃtə vud 'kienən zin 'mauntl ʔytra·kiən 'meakən | daut 'ʃtoakistə vud 'zenən | dan pyst de 'nuədvint zə 'zeia aus hei kun | obə jə 'dəla hei pyst | jə 'dəla 'vekeld de 'fəutjena zin 'mauntl 'rəma ziki | 'entliç jəif de 'nuədvint nor | dan ʃəin de zən voəm | en fuəts trək de 'fəutjena ziki den 'mauntl yt | ən zəu must dei 'nuədvint 'təuʃtornən daut de zən dət 'ʃtoəkistə 'via/

Original orthography (Driedger 2011)

Dee nuad Wint onn dee Sonn streeden sikj, wäa daut stoakste wia, auss een Footjänga met een woamen Mauntel enjewelkjet aun kjeem. Sie besonnen sikj, daut dee, wäa däm Footjänja daut ieschta wud kjennen sien Mauntel üttrakjen mäaken, daut stoakste wud sennen. Donn püst dee nuad Wint soo seea auss hee kun, oba je dolla hee püst, je dolla wekjeld dee Footjänga sien Mauntel romma sikj. Entlijch jeef dee nuad Wint no. Donn scheen dee Sonn woam, onn

fuats trock dee Footjänga sikj dän Mauntel üt, onn so musst dee nuad Wint too stonen, daut dee Sonn daut stoakste wia.

Sass orthography (Epp 1996)

De Nuadwind un de Sonn streeden sikj, wäa daut stoakjste wea, aus een Footjänja met een woamen Mauntel enjewekjelt aunkjeem. Se besonnen sikj, daut dee, wäa däm Footjänja daut easchte wudd kjennen sien Mauntel uttraikjen möaken, daut stoakjste wudd sennen. Donn puust de Nuadwind soo sea aus he kunn, oba je dolla he puust, je dolla wekjeld de Footjänja sien Mauntel 'romma sikj. Endlich jeef de Nuadwind noh. Donn scheen de Sonn woam, un fuats trock de Footjänja sikj dän Mauntel ut, un soo musst de Nuadwind toostohnen, daut de Sonn daut stoakjste wea.

References

- Avdeev, Ivan E. 1965. Fonetičeskij stroj nižnenemeckogo dialekta Altajskogo kraja v ego istoričeskom razvitii. Ph.D. dissertation, Novosibirsk.
- Baerg, Marjorie. 1960. *Gnadenau Low German: A dialect of Marion County, Kansas*. Ph.D. dissertation, University of Chicago.
- Barreda, Santiago. 2012. phonTools: A collection of functions useful for phonetics work. R package version 0.1-2. http://CRAN.R-project.org/package=phonTools (accessed 3 October 2012).
- Brandt, Carsten. 1992. Sprache und Sprachgebrauch der Mennoniten in Mexiko (Schriftenreihe der Kommission für ostdeutsche Volkskunde in der Deutschen Gesellschaft für Volkskunde e.V. 61). Marburg: N. G. Elwert Verlag.
- Buchheit, Robert H. 1978. Mennonite 'Plautdietsch': A phonological and morphological description of a settlement dialect in York and Hamilton counties, Nebraska. Ph.D. dissertation, University of Nebraska.
- Cox, Christopher. 2011. Corpus linguistics and language documentation: Challenges for collaboration. In John Newman, R. Harald Baayen & Sally Rice (eds.), *Corpus-based studies in language use, language learning, and language documentation*, 239–264. Amsterdam: Rodopi.
- Driedger, Jacob M. 2011. Enn Bloomenheim Oppjewossen. Regina, Saskatchewan: Nickel's Worth Publishing.
- Epp, Reuben. 1993. The story of Low German & Plautdietsch: Tracing a language across the globe. Hillsboro, KS: Reader's Press.
- Epp, Reuben. 1996. The spelling of Low German & Plautdietsch: Toward an official Plautdietsch orthography. Hillsboro, KS: Reader's Press.
- Goerzen, Jacob Warkentin. 1950. The phonology of Plautdietsch. MA thesis, University of Alberta.
- Goerzen, Jacob Warkentin. 1952. Low German in Canada: A study of "Plautditsch" as spoken by Mennonite immigrants from Russia. Ph.D. dissertation, University of Toronto.
- Jedig, Hugo H. 1966. Laut- und Formenbestand der niederdeutschen Mundart des Altai-Gebietes (Sitzungsberichte der sächsischen Akademie der Wissenschaften zu Leipzig, Phil.-histor. Klasse 112 (5)). Berlin: Akademie-Verlag.
- Kanakin, Igor & Margarita Wall. 1994. Das Plautdietsch in Westsibirien. Ms., Rijksuniversiteit Groningen. Lehn, Walter Isaak. 1957. Rosenthal Low German: Synchronic and diachronic phonology. Ph.D. dissertation, Cornell University.
- Lewis, M. Paul (ed.). 2009. Plautdietsch. Ethnologue: Languages of the world, 16th edn. Dallas, TX: SIL International.
- Loewen, Jacob A. 1998. Toward a phonemic alphabet of Plautdietsch. *Journal of Mennonite Studies* 16, 128–146.
- Mierau, Eric. 1964. A descriptive grammar of Ukrainian Low German. Ph.D. dissertation, Indiana University.
- Mitzka, Walther. 1930. Die Sprache der deutschen Mennoniten. Heimatblätter des deutschen Heimatbundes Danzig 8(1). Danzig: A. W. Kafemann.
- Moelleken, Wolfgang W. 1966. Low German in Mexico. *Publications of the American Dialect Society* 46, 31–39.

- Moelleken, Wolfgang W. 1972. Niederdeutsch der Molotschna- und Chortitzamennoniten in British Columbia/Kanada (Phonai 10. Lautbibliothek der europäischen Sprachen und Mundarten. Deutsche Reihe. Monographien 4). Tübingen: Max Niemeyer Verlag.
- Moelleken, Wolfgang W. 1993. Retroflexes r im Niederdeutsch der mexikanischen Altkolonier Mennoniten. Zeitschrift für Dialektologie und Linguistik 60(1), 21–38.
- Naiditch, Larissa. 2001. Die Entwicklung des Vokalismus im Mennonitenplatt. In Angelika Braun (ed.), Beiträge zu Linguistik und Phonetik. Festschrift für Joachim Göschel zum 70. Geburtstag, 242–256. Stuttgart: Franz Steiner Verlag.
- Naiditch, Larissa. 2005. On the development of the consonant system in Mennonite Low German (Plautdietsch). In Markku Filppula, Juhani Klemola, Marjatta Palander & Esa Penttilä (eds), *Dialects across borders: Selected papers from the 11th International Conference on Methods in Dialectology (Methods XI), Joensuu, August 2002* (Current Issues in Linguistic Theore 273), 73–86. Amsterdam & Philadephia, PA: John Benjamins.
- Neufeld, Eldo. 2000. Plautdietsch grammar: An aid to speaking, reading, and writing Netherlandic-Mennonite Plautdietsch. Munich: Lincom Europa.
- Nieuweboer, Rogier. 1999. The Altai dialect of Plautdiitsch: West-Siberian Mennonite Low German. Munich: Lincom Europa.
- Quiring, Jacob. 1928. *Die Mundart von Chortitza in Süd-Rußland*. Munich: Druckerei Studentenhaus München.
- Redekop, Calvin. 1969. The Old Colony Mennonites: Dilemmas of ethnic minority life. Baltimore, MD: Johns Hopkins Press.
- Reger, Adina & Delbert Plett. 2001. Diese Steine: Die Russlandmennoniten. Steinbach, Manitoba: Derksen Printers.
- Reimer, Al. 1982. There's now an 'official' way to write Low German. Mennonite Mirror 11 (June), 7–8.
 Reimer, Al, Anne Reimer & Jack Thiessen (eds.). 1983. A sackful of Plautdietsch: A collection of Mennonite Low German stories and poems. Winnipeg, Manitoba: Hyperion Press.
- Siemens, Heinrich. 2003. Der baltische Sprachbund. Korrespondenzblatt des Vereins für niederdeutsche Sprache 110(1), 33–34.
- Siemens, Heinrich. 2012. Plautdietsch: Grammatik, Geschichte, Perspektiven. Bonn: Tweeback Verlag.
- Thiessen, John. 1963. Studien zum Wortschatz der kanadischen Mennoniten. Marburg: N. G. Elwert Verlag. Wiebe, Grace E. 1983. The segmental phonemes of Swift Current Mennonite Low German. MA thesis,
- Wiebe, Grace E. 1993. The psychological reality of phonological units for speakers of an unwritten language. Ph.D. dissertation, University of Alberta.
- Ziesemer, Walther. 1924. Die ostpreußischen Mundarten: Proben und Darstellungen. Breslau: Ferdinand Hirt.

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