(Span) Size Matters: Pennsylvania Dutch Participles at the Syntax-Morphology Interface

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April 27, 2024

Sublexicons are shared: Pennsylvania Dutch participles at the syntax-morphology interface

Overview

- **Goal:** Question the notion of '**borrowing**' as the **transfer** of lexical items in situations of bilingualism by positing borrowing as a **process** within the shared bilingual mental lexicon.
- **Empirical focus**: Borrowing of North American English stems in Pennsylvania Dutch (PD) participles such as ge**schiwwer**t (*shivered*), and g**wor**e (*worn*).
- **Analysis:** We employ **sublexicons** (Gouskova et al., 2015) within the Distributed Morphology framework to illustrate how **inflectional parsing strategies are shared** for borrowed lexical items in the bilingual grammar.
- **Conclusion:** The regularity of the English verb influences the verb type when borrowed into PD. The inflectional strategy is 'borrowed' from English into PD along with the verbal root.

The bilingual mental lexicon

The original view (Weinreich, 1954):

- The lexicon can only be shared with compound bilinguals.
- Sequential bilinguals have two separate lexicons.

Today:

- It is acknowledged that "bilingualism (or even multilingualism) is the norm rather than the exception..." (Libben & Goral, 2015:632).
- Psycholinguistic studies show it to be a dynamic and integrated cognitive space in which there is a parallel activation of a bilingual's two languages at all times (Hartsuiker et al., 2004; Myers-Scotton & Jake, 2014; Libben & Goral, 2015; Williams, 2015).
- Shared structural rules reduce redundancy in the lexicon (Hartsuiker et al.,2004, 2007).
- Shared lexicon of the bilingual posits that words are tagged for their language by being linked to the language node (Van Heuven et al. 1998; Dijkstra & Van Heuven, 2002).

Borrowing

- It involves **transferring or incorporation** of lexical items originating from one language into the discourse of another. (Haugen, 1950; Winford, 2010; Poplack, 2018)
- Crosslinguistically, **items in open classes** are most receptive to hosting recipient language's items than items in closed classes. (Muysken, 1981; Louden, 2019)
- Language contact literature posits **a strong dispreference for the borrowing of inflectional morphology** from one language to another hence the low ranking on all well-known borrowability scales. (Matras, 2007; Gardani, 2008, 2018)

Cross-linguistic borrowing

PD-English (Louden 2019:388)

(1) Mamma, **supposing** ich deet schtarrewe, gingt ich in der Himmel?
Mama, supposing I would die, would I go to heaven?

French-English (Poplack, 2018:129)

(2) Le building est en feu, il y a une-un avion qui a **crashé** dedans
The building is on fire, there's a – a plane that crashed into it

German-English (Myers-Scotton & Jake, 2014:521)

(3) Die werden **gedraftet** von einer High School
They are drafted from a High School

Pennsylvania Dutch-English borrowing

- PD is a North American language in close contact with North American English and an increasing lexical borrowing from English (Louden, 2019).
- PD participles
  - Weak verbs: verbs that take no umlaut change, take g-t as the participle inflection.
  - Strong verbs: verbs with unpredictable vowel changes except in their non-finite and present tense forms. takes g-e as the participle inflection.

Infinitive	**PD Participle**
taxe	getaxt
schpelle	gschpellt
schmoke	gschmokt
dreiwe	**gedriwwe**
weare	**gwore**

Analogy

- Louden (2019) states that English stems always receive the weak inflectional exponency with the singular exception of *weare/gwore*, which has **strong inflectional exponency due to analogy**.
- One goal of our analysis is to **operationalize analogy**, explaining it within a formal framework.

Question

What factors determine when the English participle stem is integrated into the PD participle instead of the English nonfinite stem?

Method

- Selected volumes of *The Comprehensive Pennsylvania German Dictionary* (Beam, 2004-2011)
- Manually extracted verbs with an ENG designation
- Omitted
  1. verbs for which no participle was listed
  2. extensions (semantic loans)
     - PD lexical item is used with a borrowed ENG meaning
     - *ringe/gerunge*, 'to ring (a church bell)'
  3. calques (loan translations)
     - PD verb and affix is combined in novel way to express an ENG meaning
     - *ablege/abgelegt*, 'to discharge a person ('to lay off')'

Coding

1. Initial segment (C/V) of ENG root
2. Prefixed or bare verb in PD
3. Participle exponency in PD (weak/strong)
4. Corresponding participle exponency in ENG (regular/irregular)

The role of the initial segment & the prefix

Does the initial segment of the ENG root influence the PD participle exponency?

Infinitive	Participle	Gloss
ordere	geordert	'to order'
peende	gepeendt	'to paint'
peshde	gepescht	'to pester, bother'

Does the presence of a prefix on the PD participle influence the exponency of an ENG-borrowed root?

Prefix	Infinitive	Participle	Gloss
ab	abschtaerde	abgschtaert	'to start out, leave, depart'
ei	eifense	eigfenst	'to fence in'
rum	rumflappe	rumgflappt	'to flop around'

The role of regularity

Does the regularity of the ENG participle influence the exponency of the PD participle?

ENG		PD	
PTCP regularity	**PTCP**	**PTCP**	**PTCP type**
regular	spelled spared painted	gschpelt gschpaert gepeendt	weak
irregular	worn driven	gwore gedriwwe	strong

The role of regularity

	PD weak	**PD strong**
ENG regular	schpelle/gschpellt 'to spell/spelled'	
ENG irregular		weare/gwore 'to wear/worn'

Theoretical assumptions

We assume:

- a realizational late-insertion framework of morphosyntax, **Distributed Morphology** (Halle & Marantz, 1993, 1994).
- bipartite morphemes that allow for a **circumfix vocabulary item** (Rolle, 2022).

$$[\text{PTCP}] \leftrightarrow \{\ \text{gə-} \ /\ \_\_\ \text{'}\sigma\ \} \ldots \left\{ \begin{array}{r} \text{-ən} \ /\ \text{ROOT}_{\text{irr}}\ \_\_ \\ \text{-t} \ /\ \text{(elsewhere)} \end{array} \right\}$$

- the existence of **sublexicons**, lists of items that share phonotactic restrictions on realization that can be nested (Fukazawa et al, 1998; Gouskova et al, 2015).

Sublexicons & language learning

1. Learners detect inconsistencies in realization and identify the alternation as suppletive
2. The morphological inconsistency triggers the creation of lists [*sublexicons*]
3. The learner posits diacritic rules that include reference to diacritics

(Gouskova et al., 2015:6)

Sublexicons & the (proficient) bilingual mental lexicon

Pennsylvania Dutch

North American English

Regular

$\sqrt{play}$

Regular

$\sqrt{shiver}$

Regular

$\sqrt{play}$

Irregular

[o]

$\sqrt{break}$

Irregular

[o]

$\sqrt{wear}$

[ɪ]

$\sqrt{drive}$

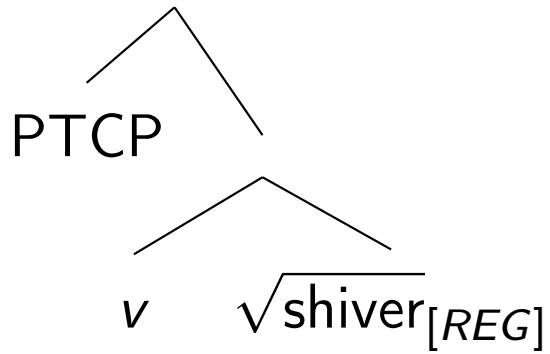
Irregular

[o]

$\sqrt{break}$

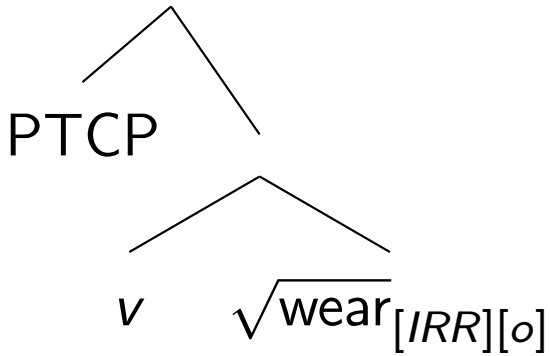
Morphosyntactic structure & realization

(4) **regular ENG - weak PD:** *gschiwwert* 'shivered'



- $\sqrt{\text{shiver}} \leftrightarrow$ /ʃɪvɹ/
- $v \leftrightarrow \emptyset$
- PTCP $\leftrightarrow$ /gə/ . . . /t/ / _[*REG*]

(5) **irregular ENG - strong PD:** *gwore* 'worn'



- $\sqrt{\text{wear}} \leftrightarrow$ /woɹ/ / PTCP] *v*] _[*IRR*][*o*]
- $v \leftrightarrow \emptyset$
- PTCP $\leftrightarrow$ /gə/ . . . /ə/ / _[*IRR*]

Question, revisited

What factors determine when the English participle stem is integrated into the PD participle instead of the English nonfinite stem?

- The regularity of the English participle stem influences the exponency of the PD participle.
  - When the English participle is **regular**, it receives **weak** exponency when inflected as a PD participle
  - When the English participle is **irregular**, it receives **strong** exponency when inflected as a PD participle

Implications of the current analysis

- **Evidence for a shared and integrated cognitive space** for lexical items in the bilingual lexicon.
- **Analogy** can be formalized utilizing sublexicons
  - *encounter a new form* $\rightarrow$ *notice similarities in perceived phonotactic restrictions* $\rightarrow$ *add the item to the corresponding sublexicon(s)*

Conclusion

1. The regularity of the English participle influences the exponency of the shared verb as a Pennsylvania Dutch participle.
2. Sublexicons can be shared in the case of proficient bilinguals.
3. Verb classes and inflectional strategies are shared for 'borrowed' items, in the case of proficient bilinguals.

Future directions

- Expansion of analysis with more data and outliers
  - Bare participles such as *avoid* and *decide*
- Integration of PD group and dialect variation data
- Integration of (chronological) time-of-borrowing of a stem into the language system
  - What was the English of the time and area when and where a lexical item was borrowed?
    - *tietsche/getietscht* (teach/taught | teach/teached)
    - *tredde/gedredde* (tread/trodden | tread/treaded)

Thank you!

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The role of the initial segment

Does the initial segment of the ENG root influence the PD participle exponency?

Root Origin	Infinitive	Participle	Gloss
PD	odere orde	geodert geordt	'too ooze (from a wound)' 'to behave'
ENG	ordere	geordert	'to order'
PD	peffere	gepeffert	'to pepper'
ENG	peende peshde	gepeendt gepescht	'to paint' 'to pester, bother'

The role of the prefix

Does the presence of a prefix on the PD participle influence the exponency of an ENG-borrowed root?

Prefix	Infinitive	Participle	Gloss
aa	aafidde	aagfitt	'to try on, as a garment'
ab	abschtaerde	abgschtaert	'to start out, leave, depart'
aus	austanne	ausgetannt	'to turn out'
ei	eifense	eigfenst	'to fence in'
raus	rausbeele	rausgebeelt	'to bail out'
rum	rumflappe	rumgflappt	'to flop around'

Sublexicons

- rules refer to the diacritics that accompany items based on the phonotactic restrictions
- both the shape of the base and the shape of the affixed word inform sublexical phonotactic generalizations (Gouskova et al., 2015:2)
- can be nested (Fukazawa et al., 1998)

Example: English plurals (p.5) or English indefinite article (throughout)