EFL learners and vocabulary: the relationship between derivational knowledge and overall skills

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Background - Topling

- TOPLING: Paths in Second Language Acquisition
- Department of Languages and Centre for Applied Language Studies at the University of Jyväskylä
- 2010-2013
- Makes use of the data and results of an earlier project called CEFLING

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Background - Topling

- The main objective: to compare the development of writing in Finnish. English and Swedish as second languages in the Finnish educational system (incl. adults).

- The cross-sectional data. 1,194 samples for L2 Finnish. 3,154 for L2 English. on a variety of tasks. already exists. rated for level and coded for analyses. with similar data available for Swedish. The longitudinal data will be collected during this project.
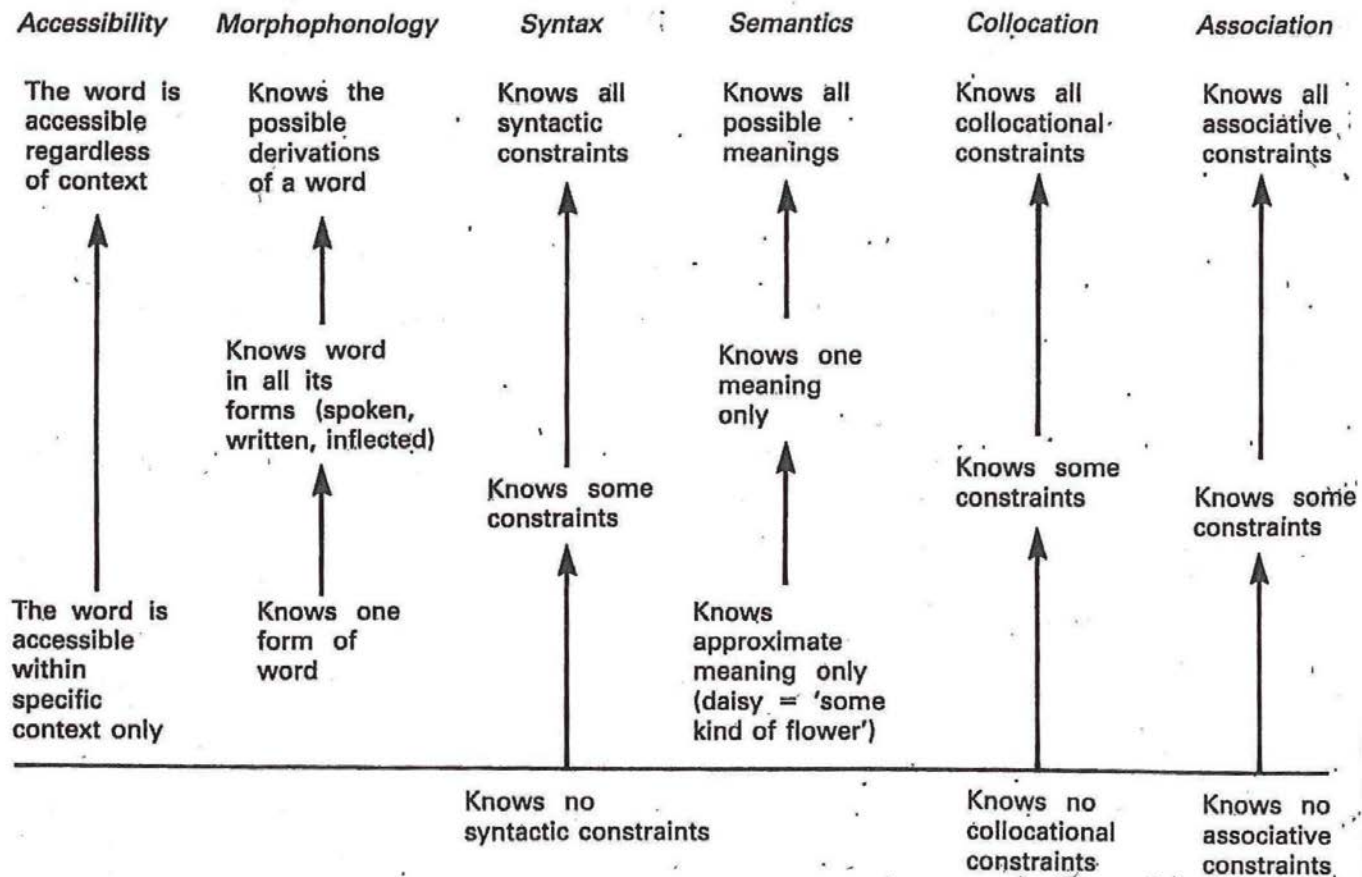
Word derivation in Topling

- Developing further the word-formation test created in Cefling
  - How to assess derivational knowledge
  - How to teach derivational knowledge
- Adding to the results from Cefling
  - The relationship between derivational knowledge and overall vocabulary skills (Vocabulary Levels Test and Word Associates Test)
  - Learners' background (explicit teaching. L2 experience)
  - Further evidence of the relationship between derivational skills and general writing skills

Earlier studies on word-formation

■ Word-formation and SLA in general
   Mochizuki & Aizawa (2000)
   Nyyssönen (2008)
   Schmitt & Meara (1997)
   Schmitt & Zimmermann (2002)

■ Derivation chosen because
   • Productivity of the method → usefulness to a language learner/user

Different areas and levels of derivational knowledge? (cf.Ringbom 1987)

Accessibility	Morphophonology	Syntax	Semantics	Collocation	Association
The word is accessible regardless of context	Knows the possible derivations of a word	Knows all syntactic constraints	Knows all possible meanings	Knows all collocational constraints	Knows all associative constraints
	Knows word in all its forms (spoken, written, inflected)		Knows one meaning only		
		Knows some constraints		Knows some constraints	Knows some constraints
The word is accessible within specific context only	Knows one form of word		Knows approximate meaning only (daisy = 'some kind of flower')		
		Knows no syntactic constraints		Knows no collocational constraints	Knows no associative constraints

Nation's teaching order of affixes

Level 1	A different form is a different word.
Level 2	Regularly inflected words are part of the same family. The inflectional categories are - plural; third person singular present tense; past tense; past participle; -ing; comparative; superlative; possessive.
Level 3	-able. -er. -ish. -less. -ly. -ness. -th. -y. non-. un-
Level 4	Frequent and regular affixes. e.g.. -al. -ation. -ess. -ful. -ism. -ist. -ity. -ize. -ment. -ous. in-. all with restricted uses.
Level 5	Infrequent but regular affixes .e.g.. -age (leakage). -al (arrival). -ally (idiotically). -ance (clearance). -ant (consultant). -ary (revolutionary). -ship (studentship). en- (encage; enslave). inter- (inter-African. interweave). mis- (misfit). un- (untie; unburden) .etc.
Level 6	Frequent but irregular affixes. e.g.. -ee. -ic. -ify. -ion. -pre-. re-. etc.
Level 7	Classical roots and affixes.

(Bauer and Nation. 1993; Nation 2001)

Participants

Participants

- N=114
- L1: Finnish (52), Estonian (38) Russian (16)
- studied either at senior secondary school or university
- had studied English for 7-12 years

Data

Data

- nine different derivation tasks on-line trying to tackle different areas of WD knowledge
- both receptive and productive tasks
- words representing different parts of speech and frequency bands
- different difficulty levels of affixes (Bauer and Nation 1993)

- +general vocab knowledge (VLT and Read's associates)
- +written performances
- + a questionnaire to the teachers

Examples of the derivation tasks used

❑ Recognition:

The farmers work in the field.
The farm**ers** work in the field.

It was, however an extremely difficult "make-up," if I may use such a theatrical expression in connection with one of the greatest mysteries of the supernatural, or, to employ a more scientific term, the higher-natural world, and it took him fully three hours to make his preparations. At last everything was ready.

❑ Production:

I am _____ (varma) that he will get the job in London.
He will _____ (varmasti) get the job in London.

➔ *sure – surely*

Examples of the derivation tasks used

❑ Non-words (gap-filling):

   *She could **bourble** animals very well because she was a good ____ **bourble**____. (henkilö, joka tekee lihavoidun sanan kuvaamaa toimintaa/työtä)*

   (a person who does the action described by the bolded word)

❑ A list of prefixes from which the participants were to choose suitable ones to fill in the gaps in sentences

Writing tasks used in Topling

- 5 different task types varying in formality and register. Assessed by 3-4 raters using CEFR

- E-mail to a friend
- E-mail to a teacher
- E-mail to an Internet store
- Narrative
- Argumentative text

Results: Students' English proficiency (Vocabulary Levels Test)

		Mean %	Std.Dev.	
VLT 3000	Estonia	70.8	18.6	Possibly significant difference
	Finland	78.0	18.5	
VLT 5000	Estonia	57.7	20.5	No difference
	Finland	63.7	17.5	
VLT AWL	Estonia	65.5	19.9	No difference
	Finland	71.0	18.1	
VLT TOTAL	Estonia	64.7	18.2	No difference
	Finland	70.9	16.8	

Results: Correlations between Word Derivation tasks

- The Vocabulary Levels Test correlated with the WD measures at .6 level (in most cases)

  - Correlations were somewhat stronger in Finland than in Estonia (difference was biggest for the correlation between VLT and Word Associations test, i.e. .8 vs .6)

- WD task where the learner had to recognise derived words and mark affixes did not correlate with the other WD tasks

Results: CEFR writing levels and vocabulary tests

Writing in English - Estonians NB 15 Estonian students did not complete the task		VLT 3000 - %correct	VLT 5000 - % correct	VLT AWL - % correct	VLT total - % correct	% correct in Read's test
A2	N= 4					
	Mean	52.5	41.7	50.0	48.1	56.7
B1	N=29					
	Mean	66.0	49.2	55.7	57.0	52.5
B2	N=14					
	Mean	82.7	69.5	74.8	75.6	66.2

Relationship between word-formation skill and more general language proficiency

Writing in English - CEFR level		Task A % correct	Task B %correct	Task C %correct	Recognition	Recognition	Recognition	Detection	Detection – more refined	Metalinguistic clues
A2	N=4									
	Mean	58.3	19.2	27.1	52.5	62.5	45.0	55.4	30.1	11.7
B1	N=29		22							28
			7							1
	Mean	44.8	19.6	50.0	55.5	54.1	54.1	46.0	24.8	12.7
B2	N=14	13	13							13
		1	1							1
	Mean	71.3	46.2	70.8	82.1	75.0	75.0	46.6	26.5	26.7

Results: different derivational tasks

- Despite having been explicitly taught word derivation, Estonian participants did not manage quite as well as Finns in the tests.

- The differences significant on non-word test and recognising affixes in a text -test

- However, text recognition did not correlate with other derivation tasks

- Overall proficiency level of Finnish participants may have been slightly higher

New questions

- B1 seems to be the threshold level but there's a giant leap between B1 and B2. (simply an indication of general vocab knowledge?)

- Is derivation something that can be taught in the first place? If so, at what level would it be most beneficial?
  - > a teaching experiment?

- ❏ If we want to test derivation. a sentence seems to be the longest possible piece of text. There seems to be no difference between recognition and production tasks, however.

- ❏ A non-word test despite being unfamiliar to participants. seems to correlate well with other measures → worth developing further

- ❏ Learner's L1 – are Estonian and Finnish too close to each other?