

Being bilingual: the view from Linguistics

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Second Language Acquisition

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The framework: *syntactic theory*

The tool: *learner corpora and natural language technology*

What is L1 knowledge?

- **Specific features of mother-tongue (L1):**
e.g. vocabulary, sounds, verb morphology for past tense, gender markings, syntactic patterns e.g. cliticisation of pronouns in Romance (*te lo dije*).

What is L1 knowledge?

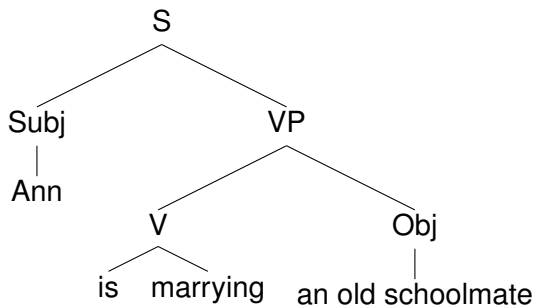
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e.g. vocabulary, sounds, verb morphology for past tense, gender markings, syntactic patterns e.g. cliticisation of pronouns in Romance (*te lo dije*).
- **Universals of language structure:**
highly **complex combinatorial system** for phrase and sentence building (**syntax**) with shared principles across natural languages.

Language engineering I: combining phrases

(1) Ann is marrying an old schoolmate.

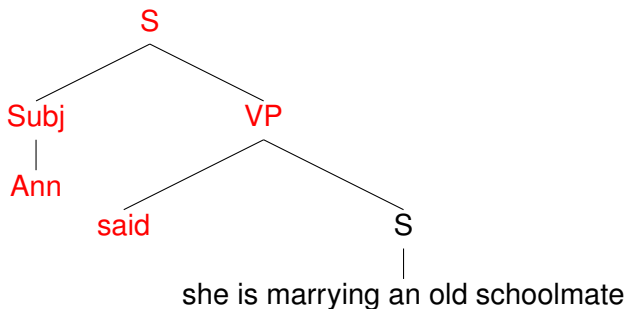
Language engineering I: combining phrases

(1) Ann is marrying an old schoolmate.



Language engineering I: combining sentences

- (2) Ann said **something**.
- (3) Ann said **she is marrying an old schoolmate**.



Language engineering II: moving phrases

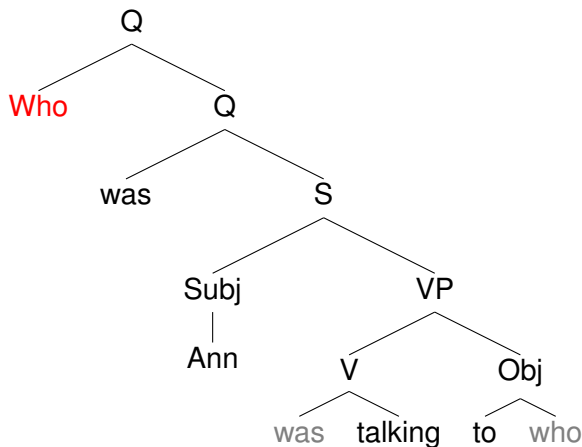
(4) **Who was** Ann **talking to** last night?

Language engineering II: moving phrases

- (4) **Who was** Ann **talking to** last night?
- (5) Who was Ann ... talking to ... last night?

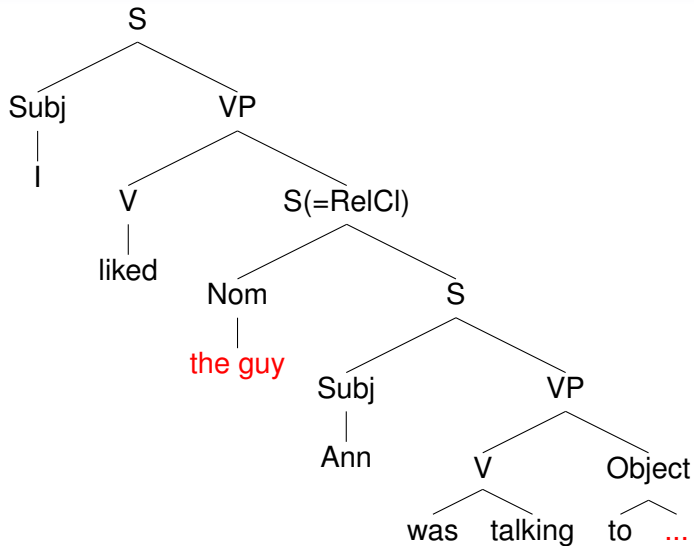
Language engineering II: moving phrases

- (4) **Who was** Ann **talking to** last night?
- (5) Who was Ann ... talking to ... last night?



Relative clauses: combining movement and recursion

- (6) Ann was talking to a guy last night.
- (7) I liked the guy.



What about second language acquisition and second language teaching?

- Learners have access to and can master highly complex linguistic structures before they acquire specific features of the L2.

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- Learners have access to and can master highly complex linguistic structures before they acquire specific features of the L2.
- Complex linguistic structures are used by learners even when L2 specific knowledge is not yet acquired and often well before relevant structures appear in the curriculum.

Learner corpora

- L2 learner corpora: an empirical bridge between developmental SLA research and teaching

Learner corpora

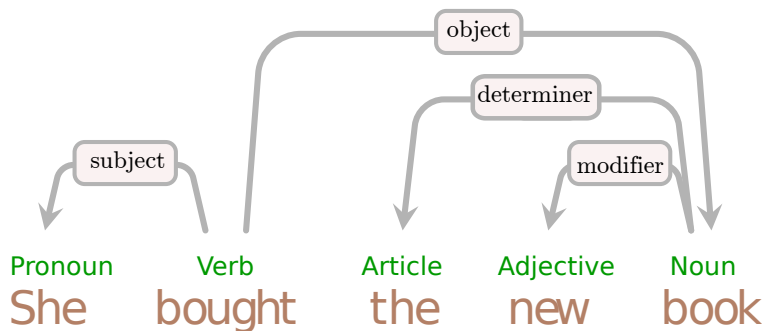
- L2 learner corpora: an empirical bridge between developmental SLA research and teaching
- Cambridge Learner Corpus (CLC), Cambridge Assessment and CUP
- EF Cambridge Open Language Database (EFCAMDAT), Dept of Theoretical and Applied Linguistics.

- (8) I had to married **a awful man that i don't love** for some time
- (9) We have **a lovely baby boy who named Nicolas**
- (10) You shouldn't pay lots of money for **things what you don't need**

The challenge of big data

- How can we extract information about linguistic structures (e.g. subjects, objects, verbs, questions, relative clauses) from large datasets?
- Natural language technology vital for automated data processing.

An example of a parsed sentence



When do RCs appear?

RCs become productive in levels 4-6 (CEFR A2) but they are introduced in the curriculum from level 9 (late B1 and B2).

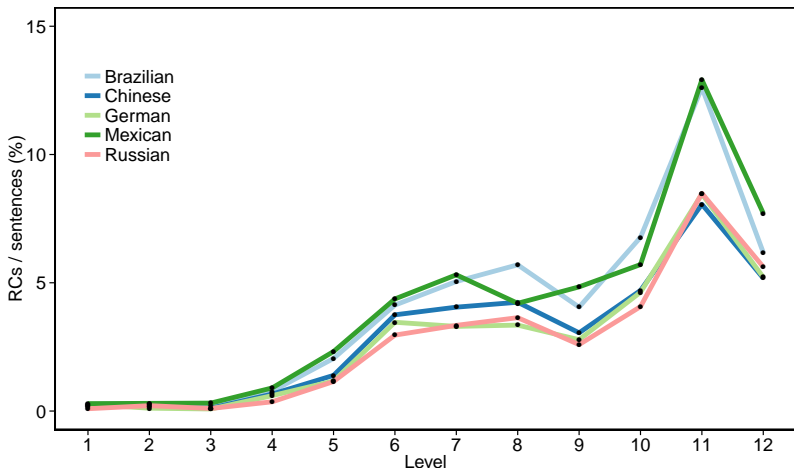


Figure: Percentage of RCs per sentence

- (11) Wins **who scores the most points.**
- (12) This job is really **the most suitable job what I have found for you**
- (13) If you want to know **opinion that what you need**
- (14) when we at the KFC we wanted to order **something what we want to eat**
- (15) also make a rule if **who broke the rule** need to do some performance to us
- (16) **this game who is called bowling alley** takes place on an area of about 8 meters x by 3 meters

Linguistic complexity and communication

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Linguistic complexity and communication

- (17) I had to married **an awful man that I don't love** for some time...
- (18) I had to marry **an awful man** (and) I don't love **the** awful man for some time...

Linguistic complexity and communication

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- (18) I had to marry **an awful man** (and) I don't love **the** awful man for some time...
- (19) I had to marry an awful man (and) I don't love **him** for some time...
- (20) I had to marry a man (and) the man is awful (and) I don't love the man for some time....

Linguistic similarity and L1 effects

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- Learners can transfer features from their L1 to their L2 when the two languages are typologically similar.
- Romance learners easily acquire 'that' as a relativiser in English transferring features from their native relativiser (e.g. que, qui etc).
By contrast, Russians, Germans and Chinese cannot transfer such features and as a result overuse 'who' in their relative clauses.

Conclusion

- L2 learners can master highly complex structure even when they have limited knowledge of specific features of L2 grammar.
- Linguistic complexity is vital for efficient communication.
- L2 learners use the power of the universal combinatorial principles to meet communicative requirements producing 'improvisations' of high structural complexity but, often low accuracy; the acquisition of specific features of the general structures is influenced by similarities in language specific features between L1 and L2.
- Language teaching can benefit from better linking specific features of L2 to the highly complex syntactic knowledge L2 learners master already at early stages of acquisition.



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