ADAM MICKIEWICZ UNIVERSITY IN POZNAŃ
Faculty of English

Gradient acceptability and language proficiency as factors in L3 acquisition of syntax

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Outline

- PROJECT DESCRIPTION

- GOALS

- PROPERTIES UNDER INVESTIGATION (GRADIENT ACCEPTABILITY)

- RESEARCH QUESTIONS

- THE EXPERIMENT

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- CONCLUSIONS

Project description

- The main project is a LONGITUDINAL STUDY of crosslinguistic influence in third language PHONETICS / PHONOLOGY and SYNTAX in POLISH (L1), ENGLISH (L2) and NORWEGIAN (L3).

Goals

- The long-term goal of the project is to observe the cross-linguistic influence over time (at T1, T2 and T3) in our experiment group.

- IN THIS PRESENTATION, WE ONLY FOCUS ON THE COMPARISON OF THE PILOT GROUP WITH THE MAIN GROUP AT T1.

Properties under investigation

- In the pilot study we tested:

  - the distribution of **REFLEXIVE POSSESSIVE / POSSESSIVE PRONOUNS**

  - the (pre- vs. post-verbal) position of **ADVERBS OF FREQUENCY**

Properties under investigation

- Additionally, for both properties the ungrammatical / marked sentences are characterized by GRADIENT ACCEPTABILITY in Polish.

- GRADIENT ACCEPTABILITY – varying, non-binary intuitions concerning the acceptable status of selected linguistic expressions.

Property 1: (reflexive) possessive pronouns

- Polish (a) and Norwegian (b): only the REFLEXIVE POSSESSIVE may be SUBJECT-ORIENTED;

- English (c): no reflexive possessive, thus the POSSESSIVE may be SUBJECT-ORIENTED.

a/ Jan znalazł swoje / jego klucze.

Jan found self's his keys

b/ Jan fant nøklene sine / hans.

c/ John found his keys.

Property 1: (reflexive) possessive pronouns

- However…

a/   Jan   znalazł   swoje / %jego   klucze.

Jan   found   self's /   his   keys

Polish speakers find the subject-oriented possessive **partially acceptable**. This reading is impossible in Norwegian.

Property 2: position of adverbs of frequency

- **Polish**: the default is PRE-VERBAL, POST-VERBAL is OK but marked

a/   Jan rzadko czyta e-booki. / Jan czyta %rzadko e-booki.

- **English**: the default is PRE-VERBAL, POST-VERBAL is out

b/   Jan seldom reads e-books. / *Jan reads seldom e-books.

- **Norwegian**: the default is POST-VERBAL, PRE-VERBAL is out

c/   *Jan sjelden leser e-bøker. / Jan leser sjelden e-bøker.

Research questions

RQ1:   Is GRADIENT ACCEPTABILITY supported by empirical data?

RQ2:   Does CROSS-LINGUISTIC SIMILARITY between Polish and Norwegian facilitate L3 learning?

RQ3:   Does acceptance of ''ungrammatical'' L1/L2 constructions increase with growing L3 proficiency?

What is L1 facilitation?

- Differences across test languages

    - Different exposure to English and Norwegian

- Differences across groups

    - No control group with comparable Norwegian proficiency

- Differences across conditions

    - predictions about participants' performance in Norwegian made on the basis of similarities / differences between Polish and Norwegian

The experiment: basic information

- **Pilot study**: June 2021.

- **T1**: December 2021.

- Tasks:

  - Perception and production study (non-syntactic)

  - Acceptability Judgment Task (syntactic)

The experiment: participants

- **Pilot study**: 15 (3rd year L1 Polish students of the Norwegian philology at a Polish college)

    L2 English: B2

    L3 Norwegian: B1

- **T1**: 24 (1st year L1 Polish students of the Norwegian philology at a Polish university and college)

    L2 English: B1

    L3 Norwegian: A1

The experiment: method and stimuli

- The **ACCEPTABILITY JUDGMENT TASK**:

  - an online questionnaire

  - L1, L2, L3 in three separate language blocks

  - reading a list of experiment items

  - answering follow-up questions on a 5-point Likert scale (1=very bad, 5=very good)

  - **Norwegian**: 40 items (4 conditions, 10 sentences each)

  - **Polish and English** (4 conditions, 6 sentences each)

The experiment: condition_1a

1a Paweł i jego wspólniczka Helena zarobili na giełdzie sporo pieniędzy. Paweł wydał **swoje** pieniądze na nowy samochód. (*refl_poss*)

*Peter and his business partner Helen made a lot of money on the stock exchange. Peter spent **own** money on a new car.

Per og partneren Ellen tjente mye penger på børsen. Per brukte pengene **sine** på en ny bil.

The experiment: condition_1b

1b ?Paweł i jego wspólniczka Helena zarobili na giełdzie sporo pieniędzy. Paweł
    wydał **jego** pieniądze na nowy samochód. ***(poss)***

    Peter and his business partner Helen made a lot of money on the stock
    exchange. Peter spent **his** money on a new car.

    *Per og partneren Ellen tjente mye penger på børsen. Per brukte pengene
    hans på en ny bil.

The experiment: condition_2a

2a   Wszyscy czytają teraz e-booki zamiast papierowych książek. Ale Grzegorz

rzadko czyta e-booki. *(main clause pre-verbal*)

E-books are really popular these days. But William **seldom reads** e-books.

*Alle leser e-bøker og ikke papirbøker nå. Men Øystein **sjelden leser** e-bøker.

2b   %Wszyscy czytają teraz e-booki zamiast papierowych książek. Ale Grzegorz

czyta rzadko e-booki. (***main clause post-verbal***)

*E-books are really popular these days. But William **reads seldom** e-books.

Alle leser e-bøker og ikke papirbøker nå. Men Øystein **leser sjelden** e-bøker.

The experiment: procedures

- Sets comprising conditions (with two levels per condition) were created, then two lists were made so that each participant would only see one of the two levels per each condition.

- In both the pilot and T1 there were additional conditions, which are not discussed in this presentation.

Descriptive statistics

- Mean ratings for grammatical and ungrammatical sentences.

PL T1
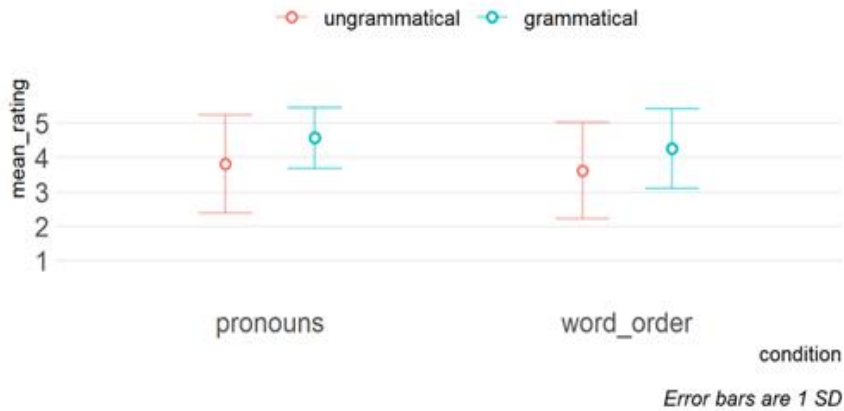
EN T1
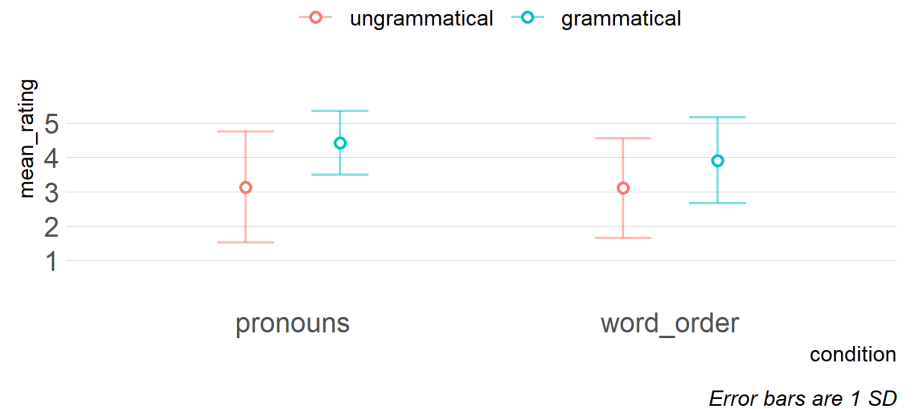
Descriptive statistics
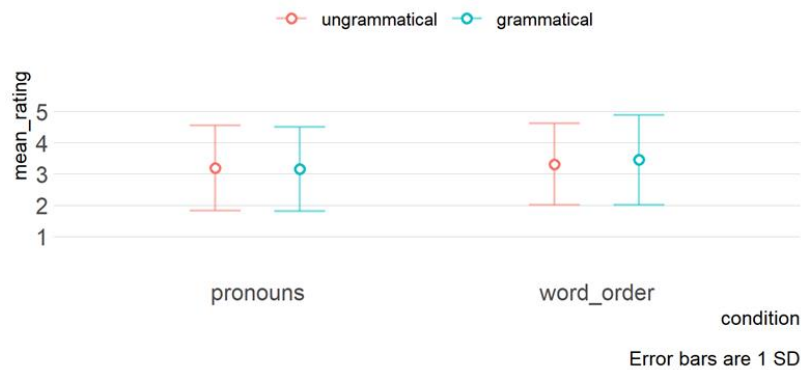
- Mean ratings for grammatical and ungrammatical sentences.
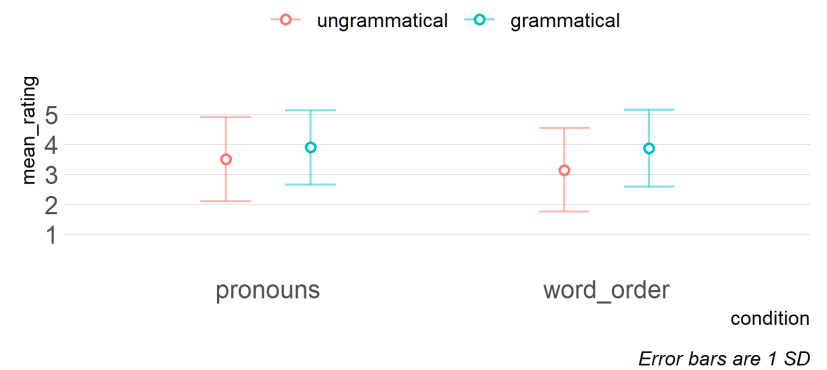
RQ1: Is GRADIENT ACCEPTABILITY supported by empirical data?

Ratings of ungrammatical sentences
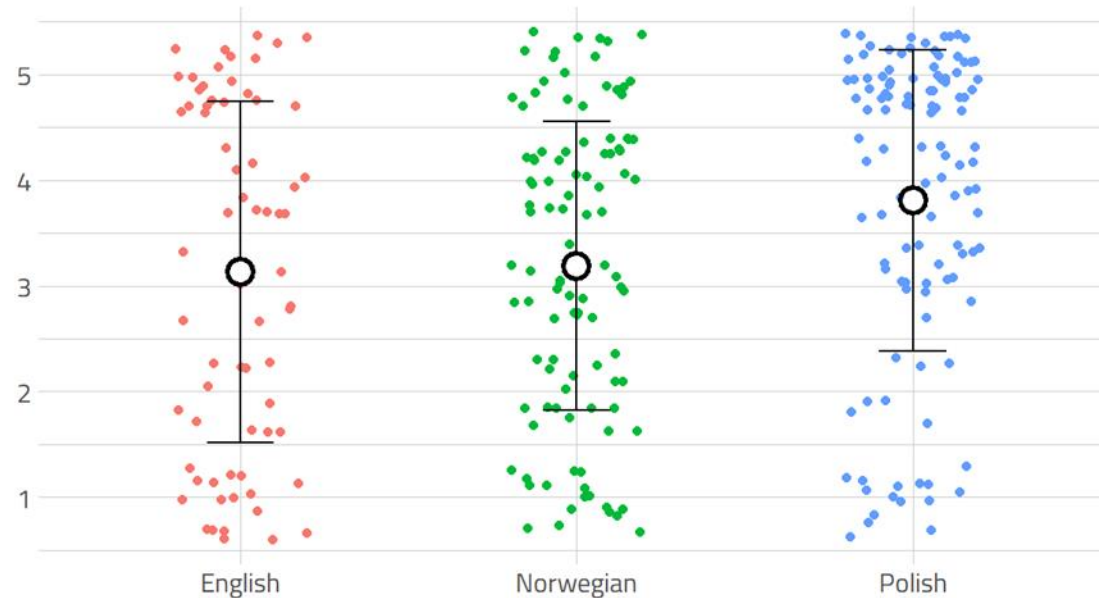
Points show means
Error bars span 1 sd above and below the mean

RQ1: Is GRADIENT ACCEPTABILITY supported by empirical data?

- Ratings of ungrammatical sentences highest in Polish.

Ratings of 'ungrammatical' sentences

T1 :: Pronouns
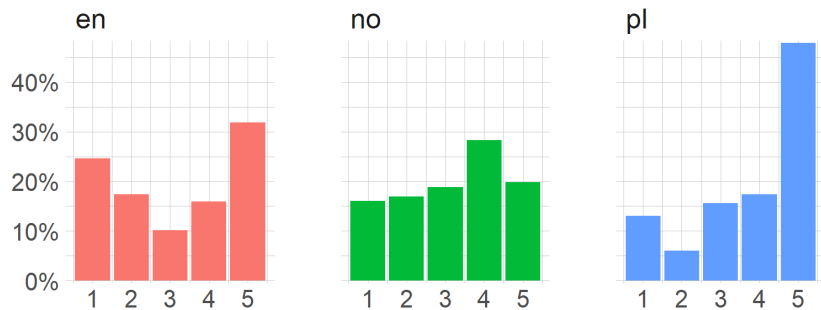
Ratings of 'ungrammatical' sentences

T1 :: Word order
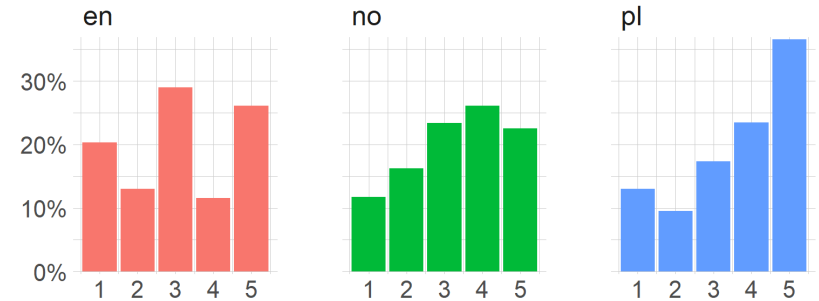
L1 facilitation: predictions

🇳🇴 poss   🇵🇱 poss   🇵🇱 post-v   🇳🇴 refl / 🔴 refl / 🇳🇴 post-v / 🔴 pre-v

🇳🇴 pre-v

Predictions about the interaction between conditions in Norwegian:

1. grammatical: word_order < pronouns

2. ungrammatical: pronouns < word_order

3. pronouns_ungram < pronouns_gram

4. word_order_ungram < word_order_gram

🇳🇴 poss / 🇬🇧 refl / 🇳🇴 pre-v / 🇬🇧 post-v   🇳🇴 refl / 🇬🇧 poss / 🇳🇴 post-v / 🇬🇧 pre-v

RQ2: Does CROSS-LINGUISTIC SIMILARITY between Polish and Norwegian facilitate L3 learning?

t-test: prediction_1

- GRAMMATICAL: WORD_ORDER < PRONOUNS
- **T1**: p=0.91
- **PILOT**: p=0.46
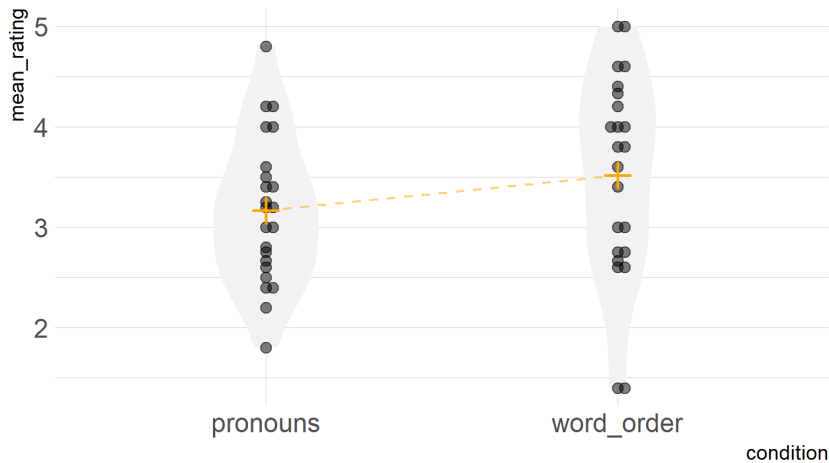
Low Norwegian proficiency
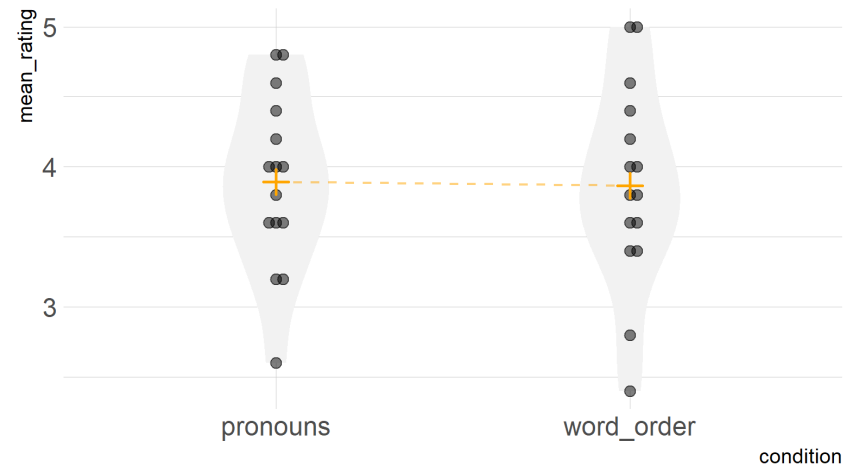
Intermediate Norwegian proficiency

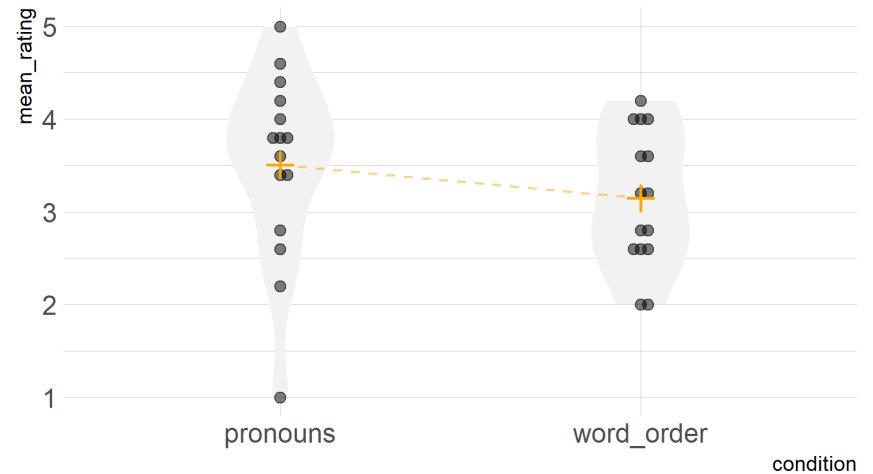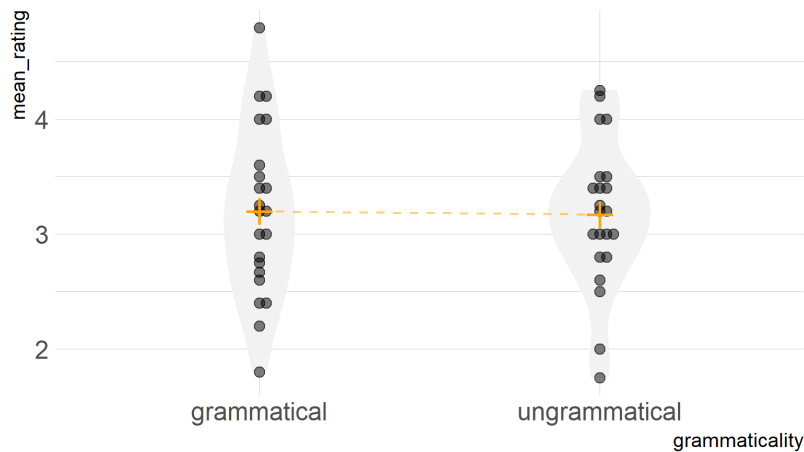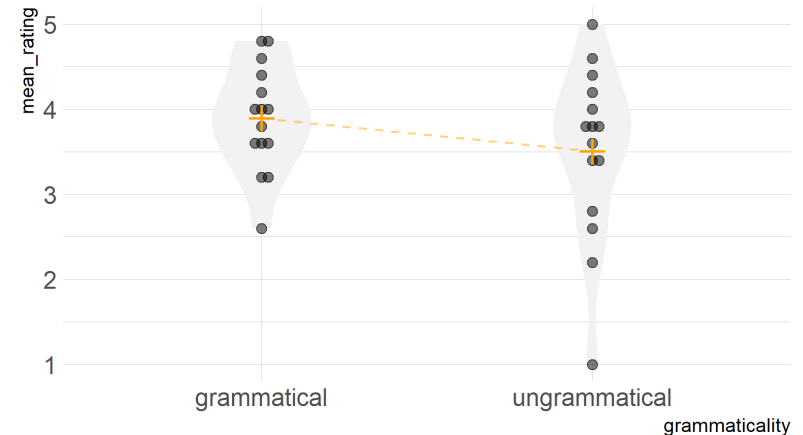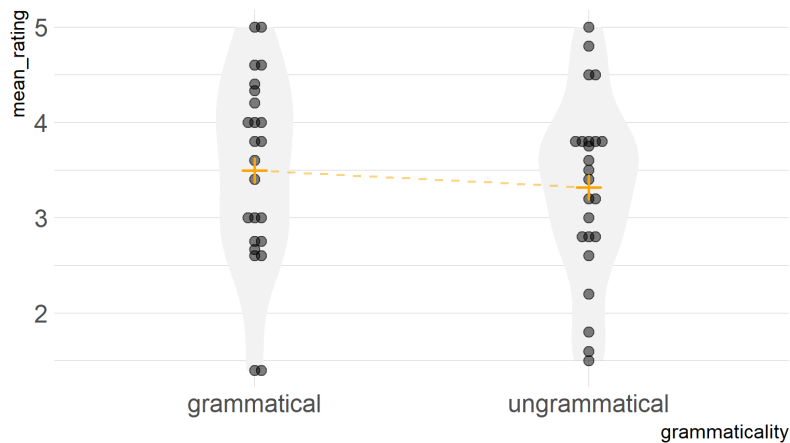# RQ2: Does CROSS-LINGUISTIC SIMILARITY between Polish and Norwegian facilitate L3 learning?

t-test: prediction_2

- UNGRAMMATICAL: PRONOUNS < WORD_ORDER
- **T1**: p=0.19
- **Pilot**: p=0.86
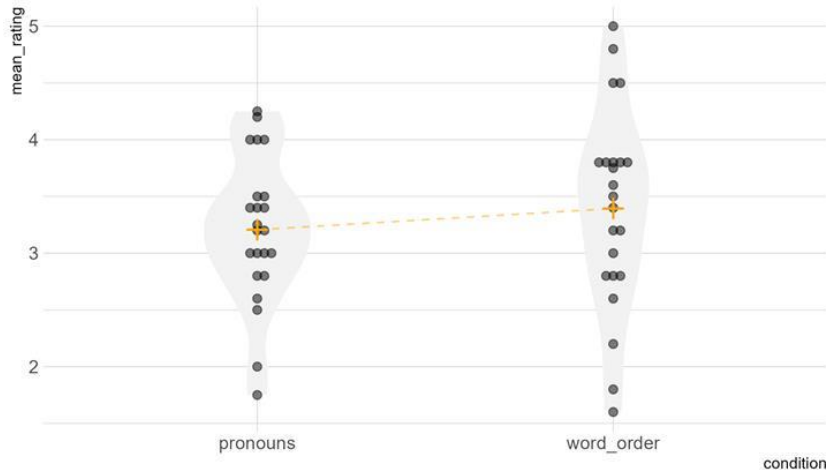
Low Norwegian proficiency

Intermediate Norwegian proficiency

RQ2: Does CROSS-LINGUISTIC SIMILARITY between Polish and Norwegian facilitate L3 learning?

t-test: prediction_3

- PRONOUNS_UNGRAM < PRONOUNS_GRAM
- **T1**: p=0.43

- **Pilot**: p=0.14

Low Norwegian proficiency

Intermediate Norwegian proficiency

RQ2: Does CROSS-LINGUISTIC SIMILARITY between Polish and Norwegian facilitate L3 learning?

t-test: prediction_4
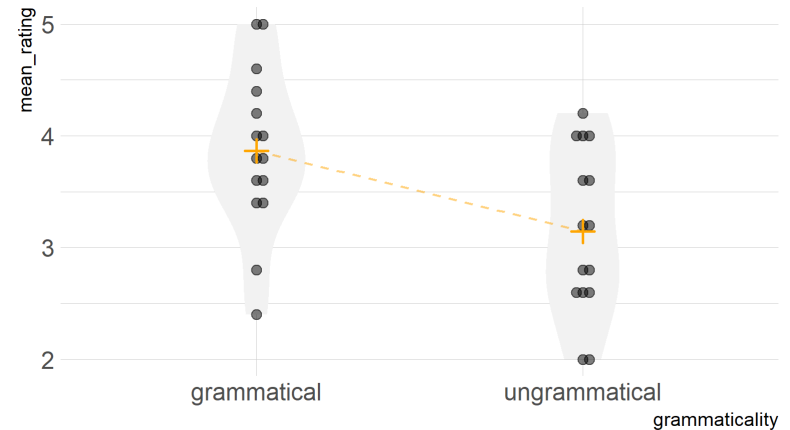
- WORD_ORDER_UNGRAM < WORD_ORDER_GRAM
- **T1**: p=0.22
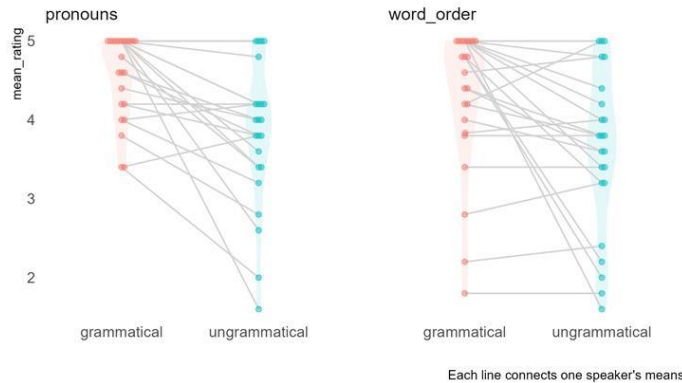- **Pilot**: p<0.01

Low Norwegian proficiency

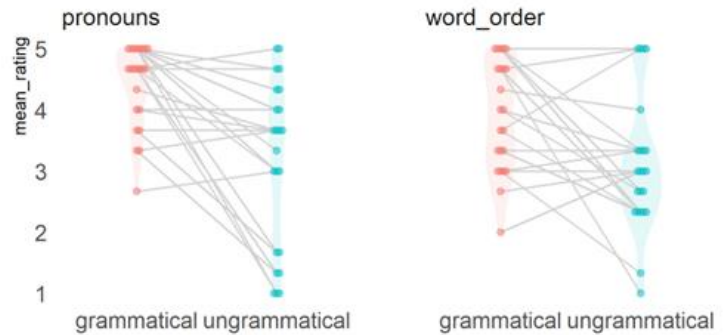Intermediate Norwegian proficiency

RQ2: Does CROSS-LINGUISTIC SIMILARITY between Polish and Norwegian facilitate L3 learning?

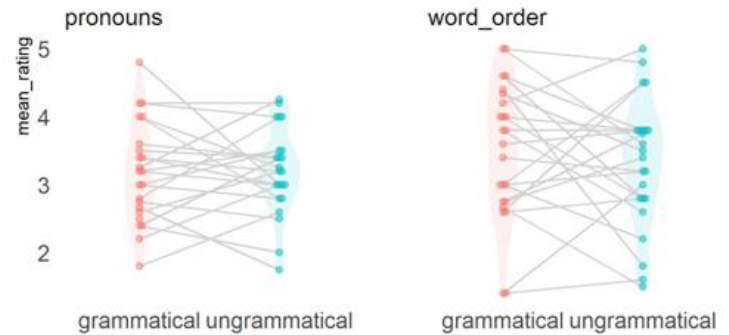- Mean ratings (gram vs. ungram) for individual participants at T1.

English

Polish

Norwegian

RQ3: Does acceptance of "ungrammatical" L1/L2 constructions increase with growing L3 proficiency?
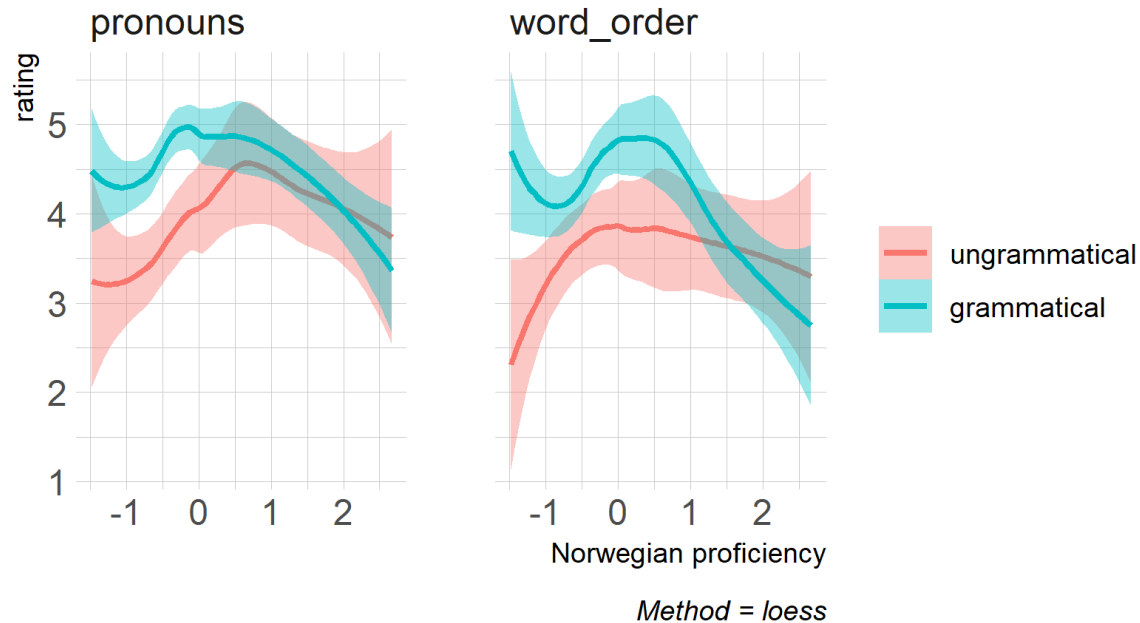
- English T1
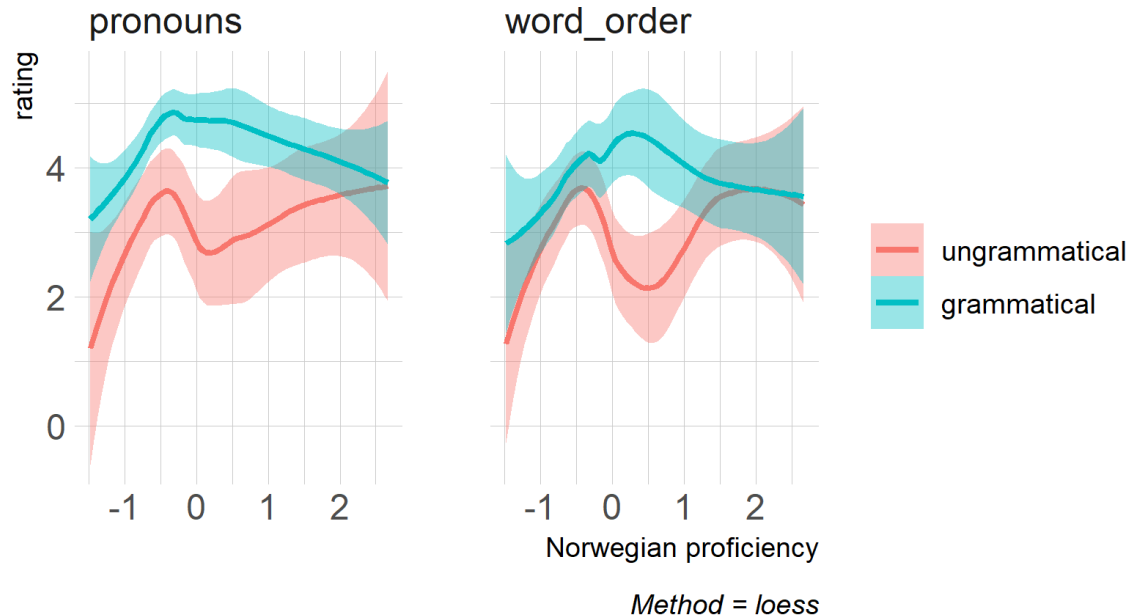
RQ3: Does acceptance of "ungrammatical" L1/L2 constructions increase with growing L3 proficiency?

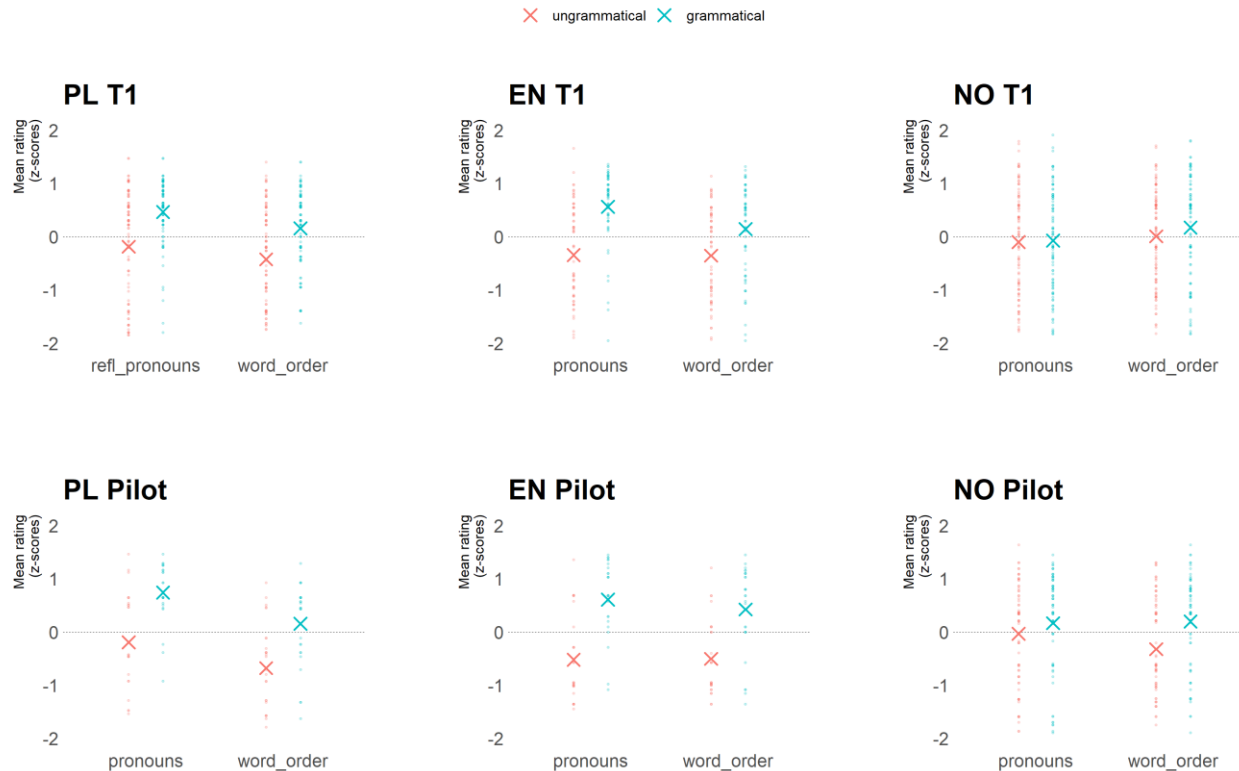- Polish T1

Method = loess

RQ3: Does acceptance of "ungrammatical" L1/L2 constructions increase with growing L3 proficiency?

- Higher Norwegian proficiency ≠ higher acceptance for "ungrammatical" sentences in Polish and English in the pilot.

Discussion

RQ1:   Is GRADIENT ACCEPTABILITY supported by empirical data? ✔

RQ2:   Does CROSS-LINGUISTIC SIMILARITY between Polish and   Norwegian facilitate L3 learning? ✘

RQ3:   Does acceptance of marked L1 constructions increase with growing L3 proficiency? ✘

Possible reasons:

- low number of participants

- low L3 proficiency

- differences in learnability between word order and pronouns

- not the same participants, not identical stimuli (pilot & T1)

Conclusions

- The role of gradient acceptability (non-binary distinctions) has to be better understood.

- The position of prescriptive grammar has to be re-evaluated (less important for bi-/multilinguals).

- Matching properties for learnability makes the analysis simpler.

Acknowledgements

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- PI: Magdalena Wrembel