

Developing diagnostic tools to identify L2 English listening difficulties: the example of an aural grammaticality judgment test

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Importance of listening

- Most frequent activity
 - in L1 (Rankin 1928, Barker et al. 1980)
 - in a school context (Imhof 2008)
 - in L2 classrooms (Feyten 1989)
 - essential to follow courses (lectures) in English
- Spoken input is essential
 - L1 acquisition (Lieven & Tomasello 2008)
 - L2 acquisition (Krashen 1981, Gass & Madden 1985, Ellis 2002, etc.)

Diagnostic approach



- **Goals**

- Identify strengths and weaknesses

- Suggest remedial activities

- For incoming university students (English and other majors)

- **Based on a model of language processing**

- Process not result (Field 2008)

- Theory of language proficiency (Bachman 1990, Alderson 2005)

- Underlying cognitive processes to suggest remedial activities (Laveault & Grégoire 2014)

- **Detailed feedback**

- Avoid collapsing several dimensions into a general score (Shohamy 1992)

- Online (self-correcting)

Role of morphosyntax

- Anderson (1995)'s processing model:
 - *Perception*: recognize objects (sounds and words) in the signal
 - *Parsing*: integrate meaning (syntactic analysis)
 - *Utilization*: add inferences to create a situation model
- Aural modality:
 - Reduced function words and inflections are difficult to perceive (Field 2004)
 - Absence of salience means that lexical items take precedence and grammatical information is not processed (Van Patten 2001)
 - Incomplete analysis in L1 as well (*good enough comprehension*, Ferreira)
- Correlation with listening
 - small to medium with written tests (Mecartty 2000, Zoghلامي 2015, ...)
 - stronger correlations with aural tests (Andringa et al 2012, Cai 2020)
 - Compared to lexical knowledge?

Validation of (diagnostic) language tests

- Important to show that the test actually measures what it intends to measure ('construct') :
 - Content validity (representative sample)
 - Reliability (stability of measurement)
 - > internal consistency (Cronbach's alpha)
 - Unidimensionality ('principal component')
 - Criterion-related/ concurrent validity (correlated with other test of same/ similar skill)

Tests of grammatical knowledge and processing

- Online tests
 - Self-paced reading/ listening (Andringa et al 2012)
 - Eye tracking (Suzuki et al 2017)
- Productive tests
 - Bilingual Syntax Measure (Dulay & Burt 1974)
 - Elicited imitation (Naiman, 1974; Tracy-Ventura et al 2014)
- Selected response (MCQ)
 - Written modality
- Tests of metalinguistic knowledge
 - Requires knowledge of grammatical terms
 - Discourages learners to use their intuition (Ellis 1991)
- Grammaticality judgement

Construct validity: domain coverage

- Noun phrase (12 items)
 - genitive/ of (2), quantifiers (3), demonstratives (2), adjectives (1), singular/ plural (1), (un)countable nouns (1), post-modifiers (2)
- Verb phrase (14 items)
 - Phrasal verbs (1), irregular verbs (3), modality (2), tense and aspect (4), present simple (2), verb subcategorization (2)
- Simple sentences (10 items)
 - Word order (2), negation (2), passive (2), questions (3), locative subject (1)
- Complex sentences (9 items)
 - V-ing/ (to) V/ that (4), reported questions (1), noun clauses (2), adverbial clauses (1), extraposition (1)

Coverage of difficulty

- CEFR does not attempt to link levels and grammatical structures
- EAQUALS: *Core Inventory for General English* (North et al., 2011)
 - structures present in 80% of a corpus of textbooks, language schools and teacher surveys
 - Present simple: A1; future perfect continuous: B2
- English Profile
 - critical features (distinguishing properties of CEFR levels)
 - > English Vocabulary Profile and English Grammar Profile
 - developing language features (*many advices* C1)
 - > not possible to use 'typical' mistakes

Link with CEFR

EAQ = EAQUALS

EVP = English Vocabulary Profile

EGP = English Grammar Profile

- Correct sentences

Every person is important

EGP A1 Can use a limited range of quantifying determiners with singular nouns ('a', 'every')

- Incorrect sentences

**She's name was Anna*

EAQ A1 possessive adjectives

EGP A1 Can use possessive determiners 'my' 'your' 'his' 'her' 'our' before nouns

**There are differents possibilities*

EGP A1 Can form simple noun phrases by pre-modifying plural nouns with an adjective and no determiner

EGP A1 Can use 'there are' + plural noun phrase as complement

Aural grammaticality judgement

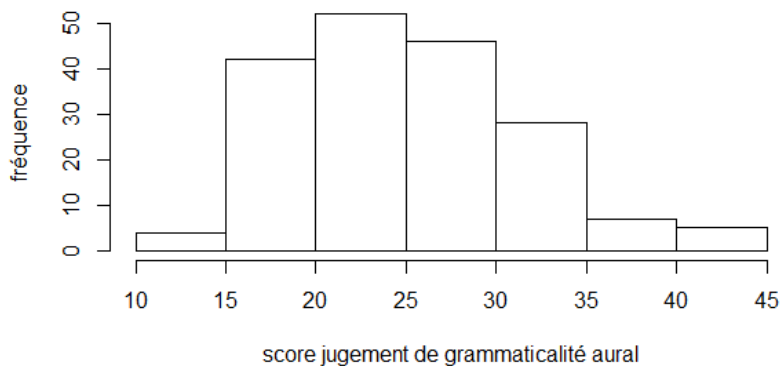
Task :
Form recognition (yes/ no)



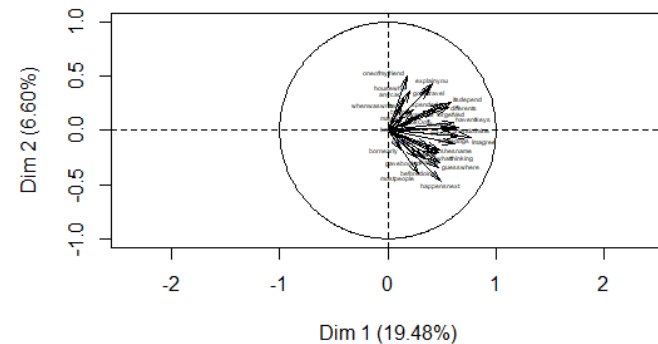
Piloting :
- 184 students
- 45 items (22 correct)

56% correct answers
Mean 25 (sd 6)
Scores 12-42
Skew .5
Cronbach's alpha .78 (.85)

Histogram of sum_scores



Plan des facteurs (ACP grammaticalité aurale)

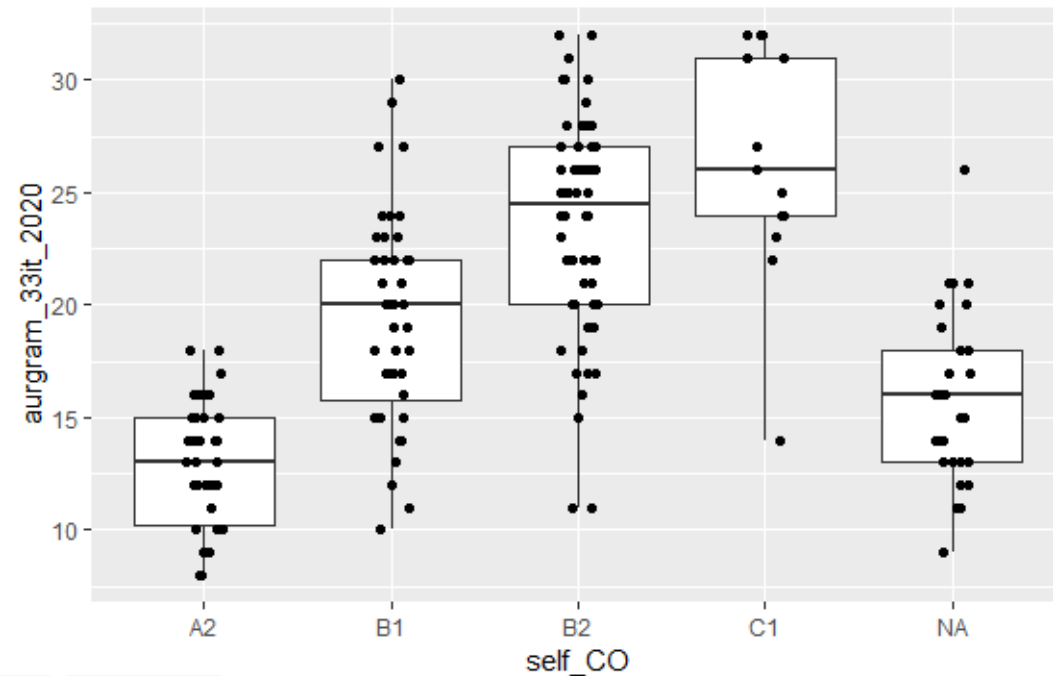


N	Mean	sd	Median	Min	Max	skew
184	25.31 (56%)	6.25	24	12 (27%)	42 (93%)	.49

- Correct vs incorrect sentences
much easier to accept correct sentences (67% correct)
than to reject incorrect sentences (46%) (cf. Ellis 1991, Loewen 2009, Gutierrez 2013)
Implicit vs. explicit (Ellis 2005)

Results by listening level

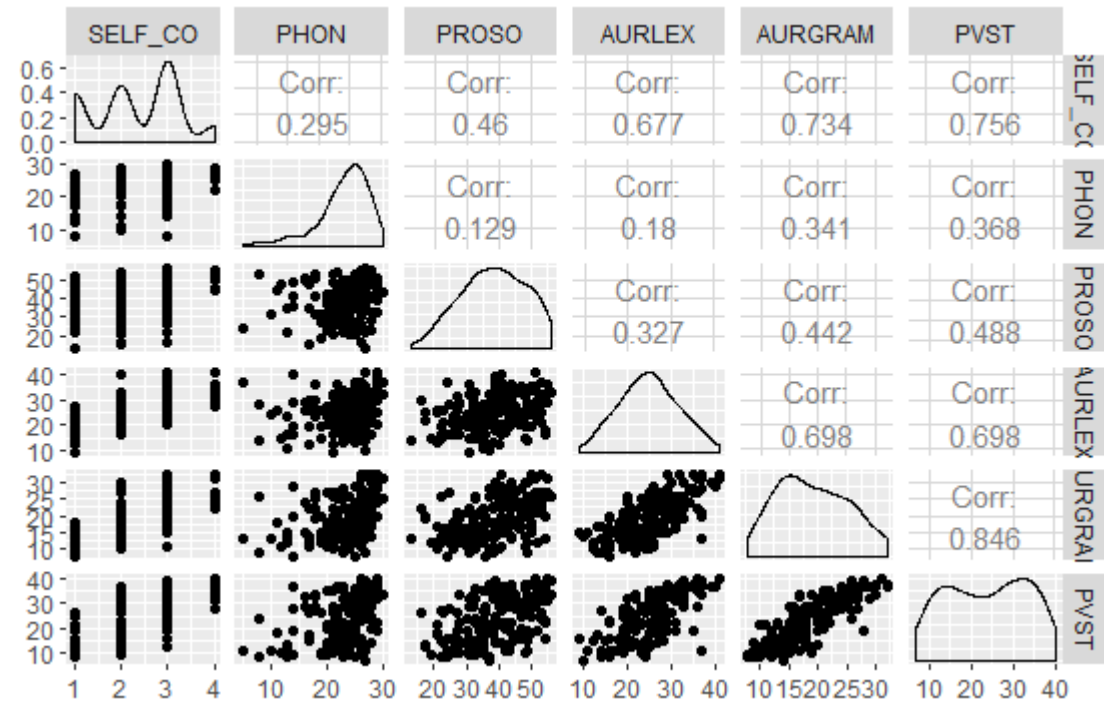
- Strongly correlated with listening (.6 / .7)



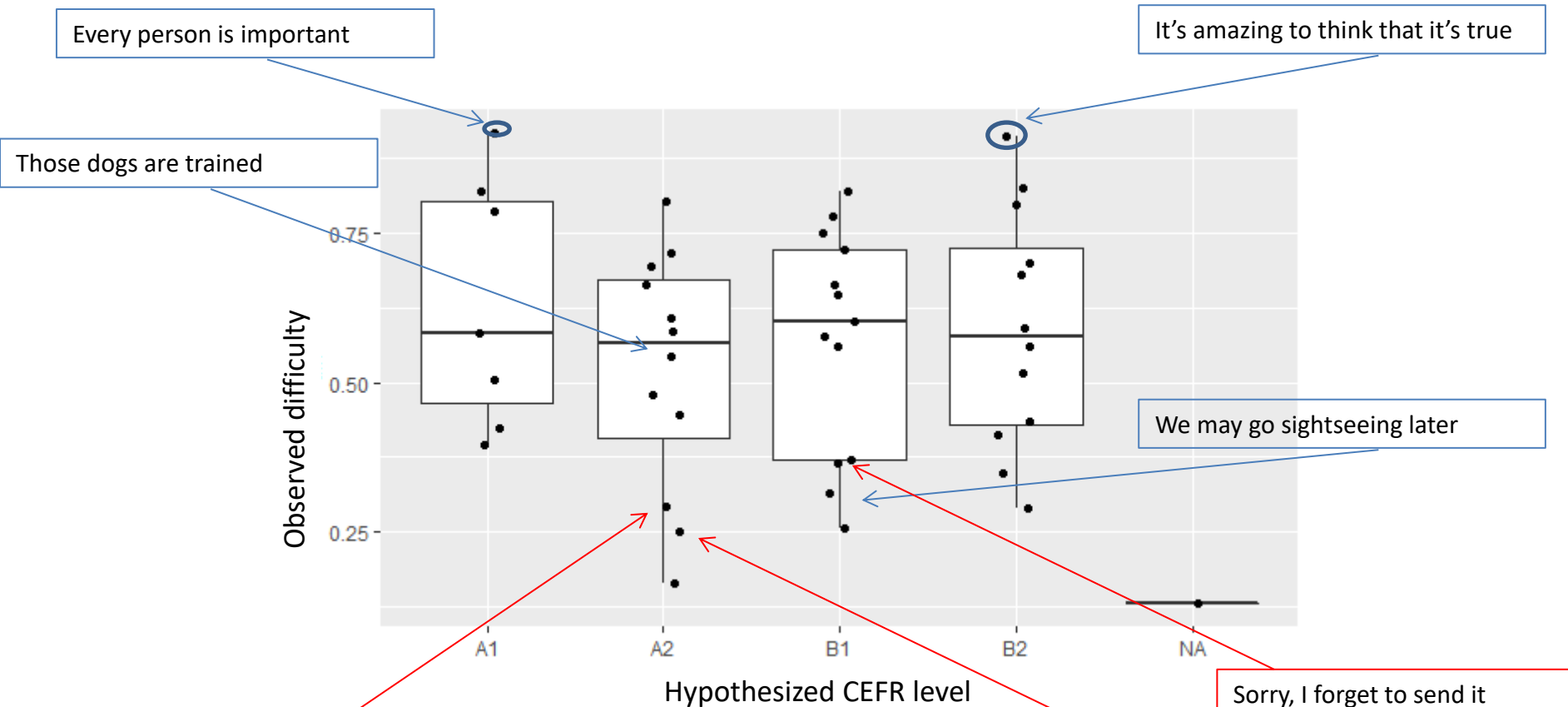
- Very strongly correlated with phrasal vocabulary test (.85)

- Written test
- Meaning recognition
- Composed of highly frequent words

-> judgment of familiarity (rather than grammaticality)



Item analysis



*I have seen it last year

- Influence of L1 French
- Low perceptual salience
- morphosyntax attached to lexical items

She's one of my friend

Sorry, I forget to send it

Conclusions

1. Content validity

adequate content coverage, but not difficulty (link with CEFR?)

2. Reliability and unidimensionality

very satisfactory

3. Criterion-related validity

Highest correlation with a written test of meaning recognition

Results:

- A test of familiarity rather than grammaticality judgment
- Focus on meaning more than on form
- Does not explain additional variance in listening once lexical / phraseological knowledge taken into account
- Separability of lexicon and grammar?

Merci!

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