

From a Classifier Language to English: Do EFL Classrooms Benefit Acquisition of English Number Marking?

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How Acquirable are Incongruent L2 Features?

Issue:

How acquirable are morphosyntactic L2 features that contrast with L1 features?

- e.g., GRAMMATICAL GENDER, TENSE, AGREEMENT

Specific Issue:

Do speakers of Chinese languages (e.g., Mandarin & Cantonese) interpret English number marking on nouns as native speakers do?

What is the Source of Trouble?

Do L2 learners simply have trouble accessing L2 knowledge in real time (*processing difficulties*), or is there something fundamentally different about their knowledge (*representational differences*).

PROCESSING:

A disconnect exists between underlying knowledge and use. The underlying L2 knowledge is *the same* as the knowledge of a native speaker.

REPRESENTATION:

L2 information is qualitatively *different* from the knowledge of a native speaker.

What Does 'Representation' Mean?

Nativist Theories:

- ▶ The 'core' grammatical features of a language are genetically endowed.
 - ▶ All humans have essentially the same linguistic *representation*.

Usage-Based Theories:

- ▶ Linguistic knowledge is a reflection of individual language experience with form-meaning pairings.
 - ▶ Linguistic *representation* varies between individuals.

Can Adults Learn L2 Gender Marking?

Findings for gender marking show:

Adult language learners frequently produce incorrect gender marking, but Hopp (2013), and Lemhöfer, Schriefers, and Indefrey (2014) claim that if you account for the idiosyncratic errors L2 learners have, then **yes** they can process gender like native speakers.

Arnon and Ramscar (2012) point out that children typically hear nouns in unsegmented context (e.g., *la tasse*, but adults often learn nouns independently (*tasse*). Participants trained on unsegmented novel words processed gender marking like native speakers (Grüter, Lew-Williams, & Fernald, 2012).

'Chinese' Syntax

Chinese here means Mandarin and Cantonese which are both *classifier* languages. (1) shows bare nouns. (2) shows a mensural classifier. (3) shows a sortal classifier.

(1) gǒu yǒu wěibā
dog have tail

'The dogs have tails' or 'The
dog has a tail'

(2) yī bēi shuǐ
one cup-CL water
'one cup of water'

(3) sān zhī gǒu
three CL dog
'three dogs'

Evidence for Representational Deficits

Jiang (2007) Tested Chinese ESL participants sensitivity to:

1. **Number Marking:**

The visitor took several of the rare **coin in the cabinet*

2. **Verb Subcategorization:**

The teacher insisted the students **to write their homework*

Jiang, Novokshanova, Masuda, and Wang (2011)

Replicated Jiang (2007) but with Russian and Japanese (a classifier language) ESL groups.

Both studies found that ESL learners with a classifier L1 were insensitive to number errors, while the Russian ESLs in Jiang et al. (2011) detected them.

Evidence for Processing Deficits

Findings of Wen, Miyao, Takeda, Chu, and Schwartz (2010) & Song (2015) conflict with Jiang and colleagues:

Advanced but not **Intermediate** ESL learners whose L1 was a classifier language (Chinese or Korean, respectively) were able to detect broken agreement.

Key Modifications:

1. Syntactic complexity of stimuli reduced:
**'these nice house'* rather than **'several of the nice house'*
2. A cloze task in addition to standardized English test scores

Research Question

Central Question

When using a methodology that can directly reflect language comprehension, do Chinese L1 ESL users show real-time integration of morphologically marked number information?

The Visual World Paradigm

Advantages over Self-Paced Reading

- a) measures online integration of information *i.e.*, comprehension
- b) uses speech stimuli rather than written stimuli
- c) does not require stimuli with errors

Picture Stimuli



Audio: The peach that we saw yesterday doesn't look rotten. It is still on the tree.



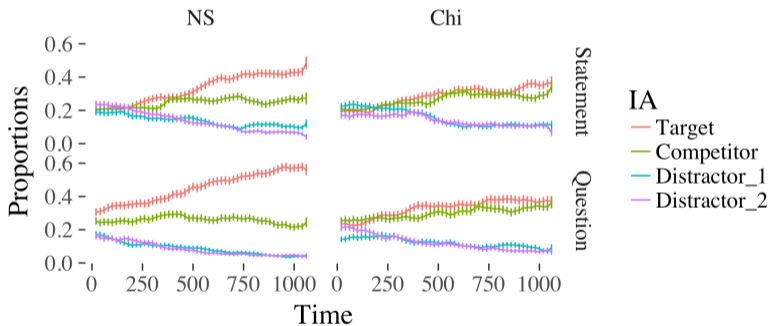
Stimuli Conditions and Lists

Each picture stimuli set was presented in four different conditions. From these four conditions, four stimuli lists were created so that each participant would only see a single picture set once, but could be in any of the forms below.

1. **Singular Statement:** *The peach that we saw yesterday doesn't look rotten. It is still on the tree.*
2. **Plural Statement:** *The peaches we saw yesterday don't look rotten. They are on the picnic table.*
3. **Singular Question:** *Does the delicious-looking peach feel soft? It is still on the tree.*
4. **Plural Question:** *Do the delicious-looking peaches feel soft? They are on a picnic table.*

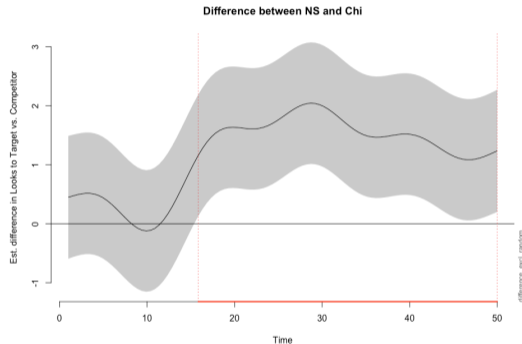
Noun Number Cue

Grand Averages for Interest Areas: Noun Marking



All interest areas (IA) from 's' onset or absence of plural 's' to 1000 ms post onset. Error bars indicate standard error.

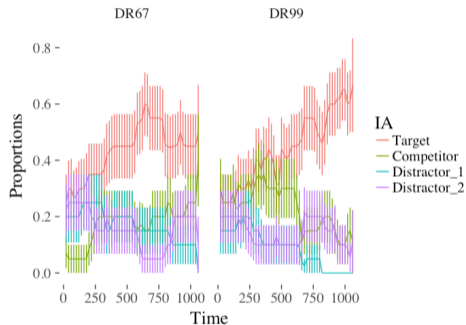
GAM Results for Nouns in Statements



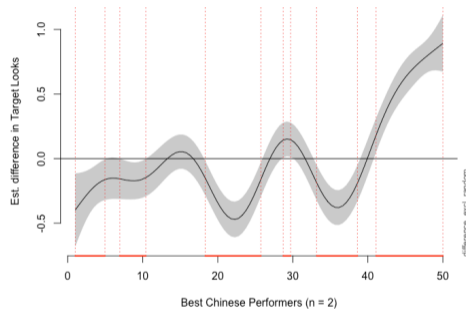
Generalized Additive Model: Differences between the participant groups for looks to the target post noun marking. Areas between the dotted vertical lines indicate regions where the difference is significant.

Performance Range for Chinese Speakers

Grand Averages: Noun Marking



Difference between NS and Chi



Generalized Additive Model: Differences between for looks to the target post noun marking. Dotted vertical lines indicate where the difference is significant.

Discussion

The data provide support for the hypothesis that as group the participants of the Chinese-L1 group are integrating number information differently than the native speakers.

As the Visual World Paradigm gauges comprehension, these differences are unlikely to be rooted entirely in PROCESSING.

However, two participants show evidence of native-like comprehension, suggesting this group of learners displays at least two separate ideas about how number-marking is used in English.

Some Additional Considerations

- a) Plural 's' is one of the earliest acquired morphemes in L1 English.
- b) Number marking is extremely frequent in English.
- c) Despite possibly low proficiency, all participants are competent English users.

Conclusion

Richards (2006) states that in contemporary *Communicative Language Teaching* grammar is not taught in isolation but often arises out of a communicative task, thus creating a need for specific items of grammar.

Compare the need for specific items of grammar for:

- ▶ A parent and child playing Lego.
- ▶ Two ESL classmates discussing their daily routine.

If a learner's L1 does not already mark number similarly to English, how much opportunity does a classroom provide for inductive learning of what turns out to be a difficult feature?

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