

**Heritage Chinese: A new view
from production
HL Institute IV**

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**INTRODUCING A NEW
METHODOLOGY FOR HS
STUDIES**

WHAT WE HAVE BEEN DOING SO FAR

Testing heritage speakers' comprehension and overall receptive skills

Testing heritage speakers' narrative ability (a very comfortable pedagogical strategy)

WHAT WE CAN ADD

Heritage language as an interactive tool:
building dialogue and communication
skills at different levels

FRUITCARTS



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EXAMPLE

- Consider a scenario where Ann tells Bob where to move an apple:

Mono-clausal

A: Move the apple to the right

B: ok

Bi-clausal

A: Take the apple

B: ok

A: Move it to the right

QUESTIONS

- *What* determines how speakers structure their message into clauses?
- *When* do speakers decide to structure their message?
- Do language specific properties affect message structure across clauses?

ADJECTIVE-NOUN ORDER

- How much of a NP is planned for spoken production depends on language specific properties (Brown-Schmidt & Konopka 2009)
- Prenominal adjectives are planned earlier than postnominal adjectives

“the **little** house” vs. “la casa **pequeña**”

- ➔ Lexical sized units seem to be a lower bound unit in incremental production of phrases (NP)... what happens at the clause level? Beyond the clause level?

HYPOTHESIS

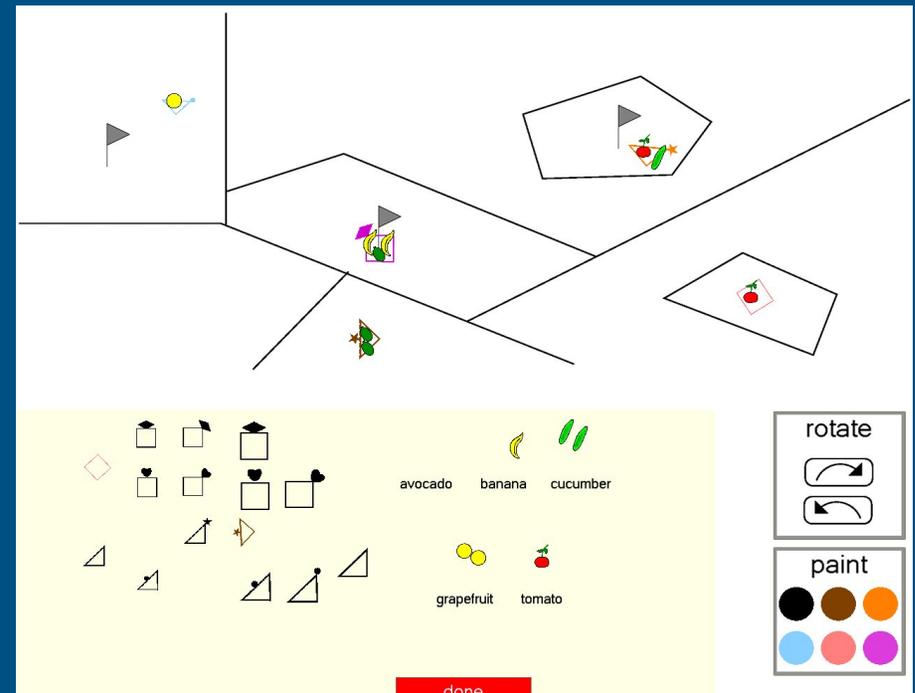
- We expect that speakers of prenominal modifying languages like English will prefer bi-clausals over mono-clausals to deal with the extra early planning required.
- We expect that planning the modification in postnominal modifying languages like Spanish will not impose an extra resource demand when planning the clause.

NOMINAL MODIFICATION

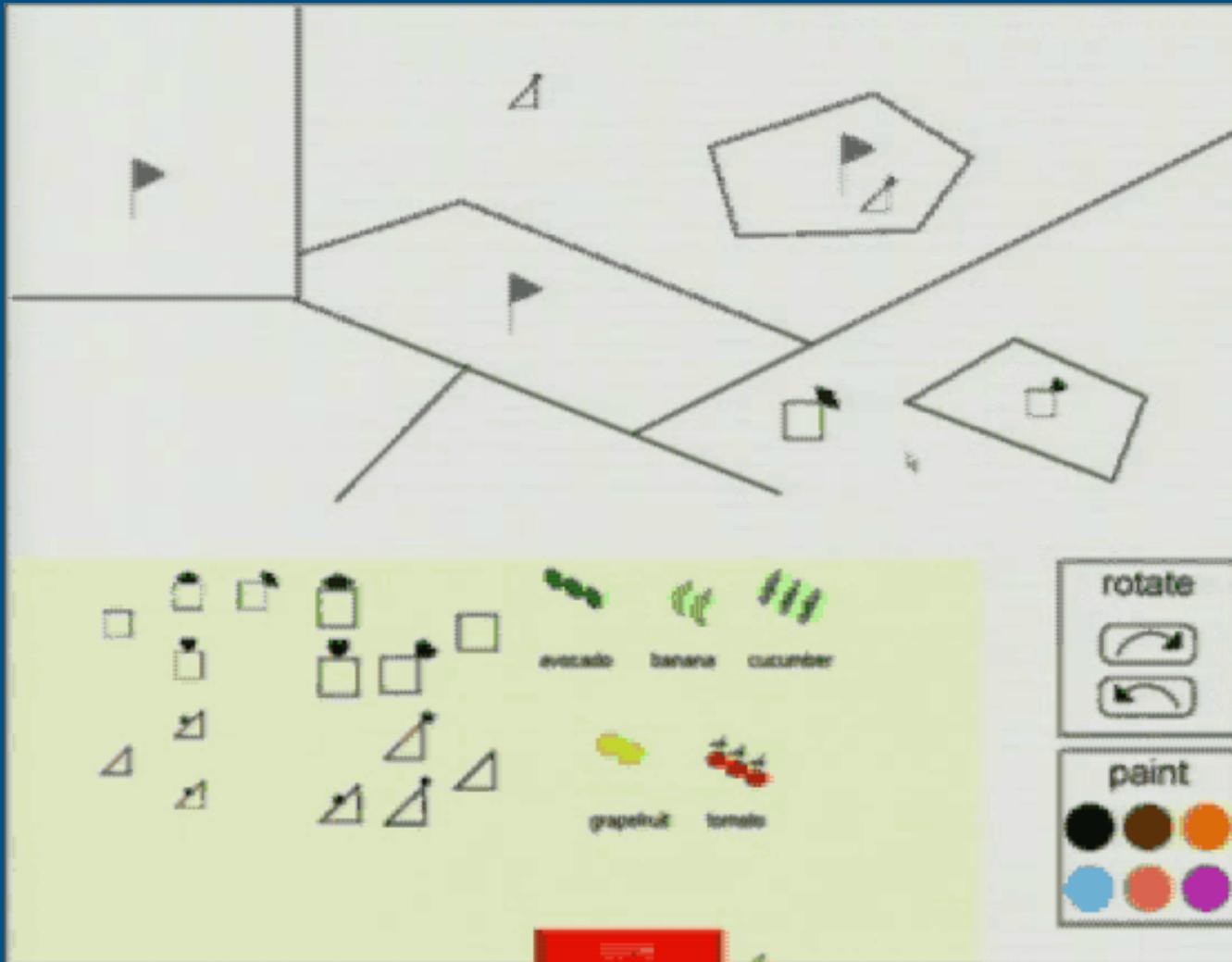
- We can use the nominal modification position in English (prenominal modifying language), and Spanish (postnominal modifying language) to explore differences in inter-clausal message structure.
- Need to have speakers of both languages produce spontaneous sentences while keeping the task constant

THE FRUIT CARTS DOMAIN

- Speaker describes a map to a confederate who moves objects on the screen (Gómez Gallo et al. 2007)
- Speakers produce spontaneous instructions to the confederate
- Confederates do not give verbal feedback.



SEE HOW IT WORKS



SUMMARY

- **HYPOTHESIS:** speakers of English include prenominal modification in their computation to choose a message structure. Speakers of Spanish are expected not to include postnominal modification when choosing message structure.
 - We found this...partly. Spanish speakers were not sensitive to postnominal modification when choosing clause structure. This was expected. However, English speakers were sensitive to BOTH prenominal and postnominal modification. This was less expected because we focused on adjectival modification alone, not on modification with RCs.
- ⇒ Spanish speakers plan for postnominal modification later, and seemed to be not concerned with choosing either mono/bi-clausal structure (all were null effects).

Ongoing study: exploration of the ways Spanish uses its extensive left periphery, which, unlike English, allows for the “1.5 strategy”

THE 1.5 STRATEGY

- Consider again Ann telling Bob what to do:

Mono-clausal

1.5 - clausal

Bi-clausal

A: Move the apple to the right
B: ok

A: Take the apple
B: ok
A: Move it to the right

A: *The apple* move it to the right
B: ok

OTHER LANGUAGES IN THE FRUITCART PRODUCTION STUDY

	Word order	Left periphery	Right periphery	Case marking	Agreement
English	SVO	weak	weak	no	minimal
Spanish	SVO/VSO	strong	weak	minimal	rich
Turkish	SOV/OSV	weak	strong	rich	rich
Mandarin	SVO/SOV	strong	no	no	no
Russian	SVO	strong	weak	rich	medium

CHINESE FRUITCARTS

Differences between native and heritage
speakers of Mandarin in controlled
production

EXPERIMENT

Conducted by
Boyan Zhang at
Harvard



CONTROLLED PRODUCTION

Mandarin Chinese

Ongoing; so far 13 native speakers and 17 heritage speakers

NATIVE SPEAKERS VS. HERITAGE SPEAKERS

	Native speakers	Heritage speakers
Word order	1) ba-construction 2) Attributes before head noun	1) SVO 2) Attributes after head noun
Complexity of verbs	Verb compound	Single verb

BASIC FACTS ABOUT WORD ORDER IN MANDARIN

§ Mandarin is SVO

§ Attributes including relative clauses precede the head noun

§ Locative expressions: in most cases, location phrases are positioned before the VP.

BA-CONSTRUCTION

The canonical word order in Mandarin is SVO. However, there are other alternative word orders due to various semantic and pragmatic needs. One of these alternatives: *ba*-construction

§ Syntactically, the function of *ba*-construction is to move the postverbal NP to a preverbal position:

$$\begin{array}{l} \text{NP}_1 \text{ V NP}_2 \quad \rightarrow \\ \text{NP}_2 + \textit{ba} + \text{NP}_1 + \text{Compound Verb} \end{array}$$

BA-CONSTRUCTION

Semantically, “the ba-construction expresses an object being affected, dealt with, or disposed of.” (Li & Thompson, 1972; Huang, Li & Li, 2009)

Typically used to describe the object of spatial displacement (or change of location) (Zhang, 2001)

Extremely appropriate in the fruitcart situations

THE USE OF *BA*-CONSTRUCTION: NATIVE SPEAKERS

§ Native speakers tend to use ba-construction to both complex object and location, e.g.,

把 角上 有 菱形 的 小 正方形 放到 北京。

BA corner has diamond AND small square put Beijing.

‘Put a small square that has a diamond at its corner in Beijing.’

放到: verb compound, literally “put and arrive”

THE USE OF *BA*-CONSTRUCTION: HERITAGE SPEAKERS

Poor control of *ba*-construction

Instead, heritage speakers use multiple short utterances with canonical SVO word order, e.g.,

在北京 放一个正方形. 正方形 角上 有一个菱形.

to Beijing put a square. Square's corner has a diamond.

是一个小的.

Is a small one.

‘Put a square in Beijing. There is a diamond at the corner of the square. It is a small one.’

RELATIVE CLAUSE PLACEMENT: NATIVE SPEAKERS

Relative clauses (RC) precede the head noun (HN)

Most native speakers strictly follow this rule,

e.g.,

[_{RC}角上 有 菱形 的 小] [_{Head Noun} 正方形]
corner has a diamond de small square
'a small square that has a diamond at its corner'

RELATIVE CLAUSE PLACEMENT: HERITAGE SPEAKERS

Heritage speakers tend to put the relative clause after the head noun, e.g.,

Possible reasons:

- late planning in production, due to the overall complexity of the theme description
- interference from English

VERBS *vs.* VERB COMPOUNDS

Another difficulty contributing to the lack of *ba*-construction in heritage speakers: use of verb compounds

Heritage speakers show a strong tendency to use simplex verbs in all their constructions

LINGUISTIC CONCLUSIONS

Heritage speakers have no problem with the canonical word order, SVO, but they are not proficient in word orders that are different from SVO

Heritage speakers show difficulty with relative clause placement, which suggests that they may also have problems interpreting relative clauses

All these effects may also be due to interference from English: the deficient areas are exactly the ones where the two languages differ structurally

LINGUISTIC CONCLUSIONS, cont'd

Heritage speakers have problems with embedding and more complex utterances—this may be either a performance limitation or a sign of restructuring observed in other heritage languages; possibly, there are two subgroups of HSs: “poor performers” and “reanalyzers”

Poor performers :: more advanced speakers

Reanalyzers :: lower proficiency heritage speakers

HOW TO TELL THEM APART?

optimize the conditions under which heritage speakers have to perform (e.g., give them more time, give them attentional support)

if there is an improvement for heritage speakers, then this is a timing/performance problem

WHAT STARTS OUT AS A TIMING PROBLEM

and seems to be a processing problem may lead to a structural reanalysis over the lifespan, hence divergent grammar in adult heritage speakers

THEY DO END UP WITH A GRAMMAR



An incomplete grammar differs from the grammar of the respective full language in a systematic, rather than random way

Recurrent structural similarities across incompletely acquired languages

WHAT DETERMINES THE SHAPE OF DIVERGENT GRAMMAR?

Knowledge of lexical categorization (HS are very good at noun-verb distinctions)

The fundamental mechanism of predication

Transfer from the dominant language



Pedagogical conclusions

The result of this research can shed light on the pedagogy of Mandarin teaching, and help language instructors bring heritage speakers closer to native level.

§ Emphasize language specific features during language instruction. Eg. What is the best situation to use ba-construction? How to form verb-compounds, and consolidate them to the heritage speakers' lexicons?

§ Compare the heritage language with the speakers' dominant language, and prevent the interference from the dominant language.