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**“The item-based nature  
of children’s early  
syntactic development”**

Reporter: Connie肖瑶

# Tomase llo

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### The item-based nature of children's early syntactic development

Michael Tomasello

Recent research using both naturalistic and experimental methods has found that the vast majority of young children's early language is organized around concrete, item-based linguistic schemas. From this beginning, children then construct more abstract and adult-like linguistic constructions, but only gradually and in piecemeal fashion. These new data present significant problems for nativist accounts of children's language development that use adult-like linguistic categories, structures and formal grammars as analytical tools. Instead, the best account of these data is provided by a usage-based model in which children intuitively learn concrete linguistic expressions from the language they hear around them, and then – using their general cognitive and social-cognitive skills – categorize, schematize and creatively combine these individually learned expressions and structures.

**B**y all accounts, a major characteristic distinguishing humans beings from their nearest primate relatives is the use of language. A central question in this regard is how humans being maintain the conventions of a particular language across generations in a speech community, that is to say, how children acquire a language. Of special interest to many developmental psychologists is the question of how children acquire the syntactic structure of a language, because they do not learn an adult speaking in abstract syntactic categories and schemes but only in concrete and particular words and expressions.

The last known answer to this question – first proposed by Chomsky and more recently popularized by Fodor's 'as if' notion – is that children do not learn to learn or construct abstract syntactic structures at all, but rather they already possess them as part of their innate linguistic faculty. This so-called *creativity hypothesis* (innate syntactic competence is fundamentally the same as all points in category) (under the use of adult-like formal grammar to describe children's early language. In this view, the 5000 or more natural languages of the world each derive from this same innate universal grammar, differing from one another only in the composition of their lexicons and in a few grammatical variations of syntax that are prefigured in the human genome.

Recently, however, a number of empirical findings that challenge this long-standing view have emerged. Most important is the discovery that virtually all of children's early linguistic competence is item-based. That is to say, children's early utterances are organized around concrete and particular words and phrases, not around any cross-wide syntactic categories or schemes. Abstract and adult-like syntactic categories and

schemes are observed to emerge only gradually and in piecemeal fashion during the preschool years. These new data are more generally accounted for by a usage-based model in which children intuitively learn concrete linguistic expressions from the language they hear around them, and then – using their general cognitive and social-cognitive skills – categorize, schematize and creatively combine these individually learned expressions and structures to reach adult linguistic competence.

#### Some recent findings in language acquisition

Most of children's early language is grammatical from the adult point of view, and this has been taken by some theorists as support for the hypothesis of an innate universal grammar. But children do not produce 'grammatical' language by simply reproducing the specific linguistic items and expressions (e.g. specific words and phrases) of adult speech, which are, by definition, grammatical. To differentiate between these two hypotheses, deeper analyses of children's linguistic competence are needed.

#### Observational studies

Many researchers believe that young children operate from the beginning with abstract linguistic categories and schemes because they are only follow adult grammatical conventions fully well, but they also on occasion produce more creative yet unlearned utterances that they could not have heard from adults – which means that they must be generating them via abstract linguistic categories or schemes. The most famous example is 'wug wug wug', as reported by Bruner, and indeed such creativity is sometimes evidence that the child has some kind of abstract linguistic knowledge. However, recent

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## **01** The structure of the paper

General ideas



```
graph TD; A[General ideas] --> B[① concrete, item-based linguistic schemas]; A --> C[② gradually and in piecemeal fashion]; A --> D[③ usage-based model];
```

① concrete, item-based  
linguistic schemas

② gradually and in  
piecemeal fashion

③ usage-based model

## General ideas

① concrete, item-based linguistic schemas

② gradually and in piecemeal fashion

③ usage-based model

## Some recent findings in LA

Observational studies

Tomasello's

Other people's

Experimental studies

Tomasello's

Other people's

## General ideas

① concrete, item-based linguistic schemas

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Other people's

## Implications for theories of LA

Linguistic nativism ~~X~~

Argument

hypothesized performance limitations

Pinker's theory of innate linking rules

the genes begin to 'turn on' between 2 and 3 years old

Objection

Children experienced no learning difficulties in the control conditions

This theory does not fit with the empirical data

Children who already have the required genetic bases still cannot use novel verbs in transitive utterances

Young children are productive with their early language in only limited ways.  
Begin: use specific pieces of language  
Then: gradually create more abstract linguistic categories and schemas.

## General ideas

① concrete, item-based linguistic schemas

② gradually and in piecemeal fashion

③ usage-based model

## Some recent findings in LA

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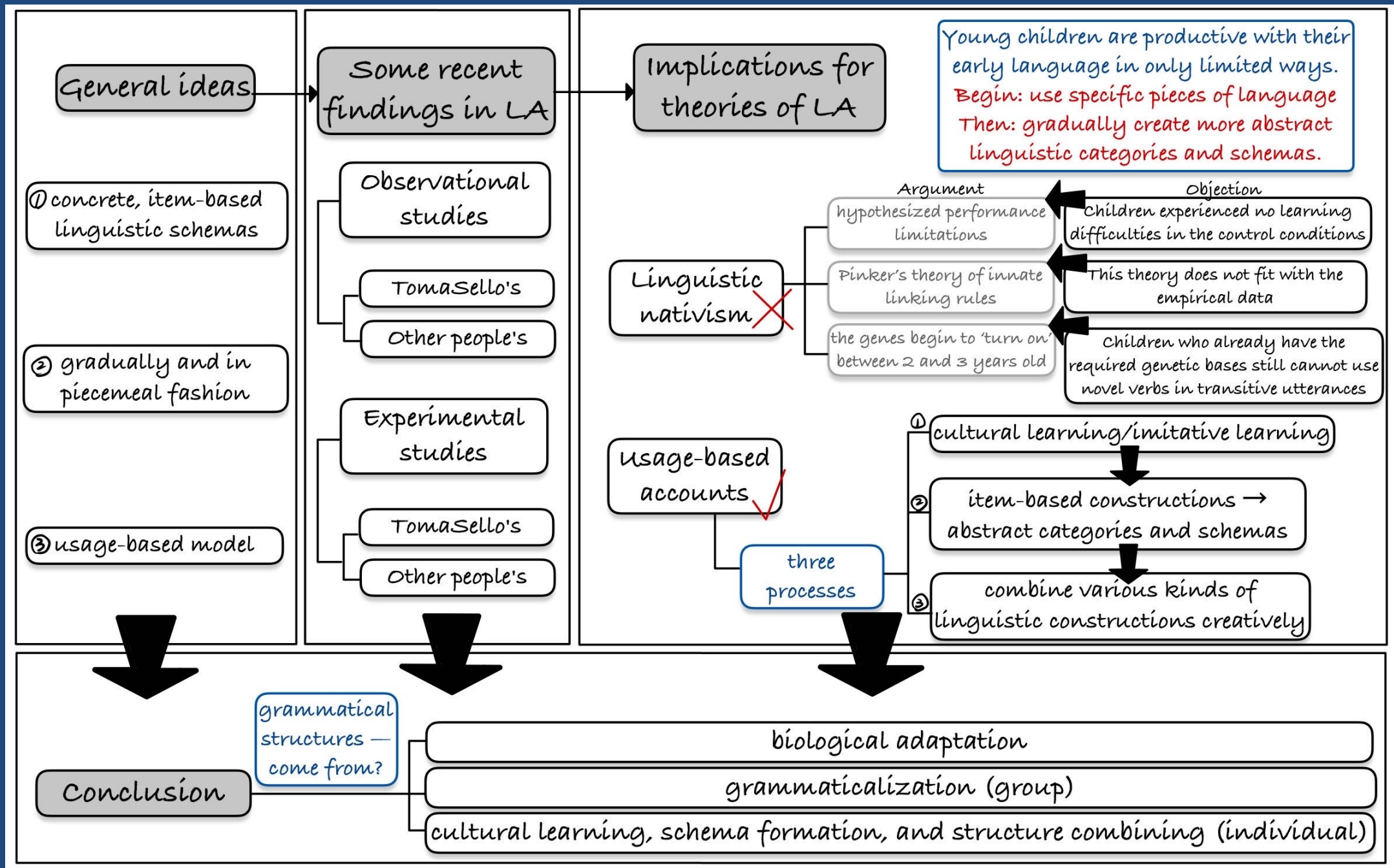
usage-based accounts ✓

three processes

Young children are productive with their early language in only limited ways.  
Begin: use specific pieces of language  
Then: gradually create more abstract linguistic categories and schemas.

- ① cultural learning/imitative learning
- ② item-based constructions → abstract categories and schemas
- ③ combine various kinds of linguistic constructions creatively







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## 02 Some important concepts

## Some important concepts

### 1. What's the **construction**?

C is a construction if C is a **form-meaning pair** such that some aspects of form or some aspects of meaning is **not strictly predictable** from C's components parts or from other previously established constructions (Goldberg, 1995).



**She did an experiment**



## Some important concepts

### 1. What's the **construction**?



Susan **ftaperred** Becky a cake.



The double-object structure: giving & receiving  
("X Ved Y the Z" ) a **construction** indicating  
the transfer of something

## Some important concepts

### 2. What's **item-based**?

Recent research using both naturalistic and experimental methods has found that the vast majority of young children's early language is organized around concrete, item-based linguistic schemas. From this beginning, children then construct more abstract and adult-like linguistic constructions, but only gradually and in piecemeal fashion. These new data present significant problems for nativist accounts of children's

Young children's early language is organized around **concrete, specific** words and phrases, rather than abstract syntactic categories or schemas.

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## **03** Usage-based approaches

## Usage-based approaches

### *Usage-based accounts*

Usage-based approaches to language acquisition attempt to characterize children's language not in terms of innate, adult-like, formal grammars, but rather in terms of the cognitive and communicative processes involved. With respect to the data reviewed above, the hypothesis would be that children's earliest language is based on the specific linguistic items and expressions they comprehend and produce. Children begin to form an abstract category of 'concrete noun' quite early, and this allows them to use any symbol categorized in this way productively in a wide range of linguistic contexts. It takes some time for children to categorize or schematize the



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**Usage-based approaches to language acquisition attempt to characterize children's language not in terms of innate, adult-like, formal grammars, but rather in terms of the cognitive and communicative processes involved.**



## Usage-based approaches

01

### Cultural learning or imitative learning

It is the attempt by children to reproduce the language adults produce **for the same communicative function.**



"more juice"

~~relationship~~

## Usage-based approaches

01

## Cultural learning or imitative learning

idiom

E.g., That won't go down well with him.



He won't like that.

塞翁失马

比比皆是

拐弯抹角

亡羊补牢

忍辱负重

祝你好运

Idiom	Meaning	Usage
A blessing in disguise	a good thing that seemed bad at first	as part of a sentence
A dime a dozen	Something common	as part of a sentence
ungrammatical uses		
Bite the bullet	To get something over with because it is inevitable	as part of a sentence
Break a leg	Good luck	by itself

imitate✓

be born with✗

## Usage-based approaches

02

### Form abstract categories and schemas

They use the same motion to creatively apply to different objects.

“pull string”

“pull stick”

“pull towel”

**Pull**

**Pull X**

## Usage-based approaches

03

Combine various kinds of linguistic constructions creatively

“See Daddy’s car”

=

“See \_\_\_\_\_”

+

“Daddy’s \_\_\_\_\_”



in a sense  
equivalent to

“See ball”

“See mommy”

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04

## Conclusion

## Conclusion



### Step 01

imitatively learn **concrete linguistic expressions** from the language they hear around them

### Step 02

and then – using their **general cognitive and social-cognitive skills** – categorize, schematize

### Step 03

and creatively combine these individually learned expressions and structures.



## Conclusion

# Where do grammatical structures come from?

**a species-unique biological adaptation for symbolic communication**

**groups — grammaticalization**

**individuals — cultural learning, schema formation, structure combining**

to the historical products of grammaticalization<sup>37</sup>. Overall, then, we may hypothesize that human language originated ultimately from a species-unique biological adaptation for symbolic communication, but the actual grammatical structures of modern languages were humanly created through processes of grammaticalization during particular cultural histories, and through processes of cultural learning, schema formation, and structure combining during particular individual ontogenies.

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## Question?

# What are the **implications** of Tomasello's theory for **foreign language teaching**?

### 第三章 对托马塞洛构式语法习得理论的比较分析

教学过程中，教师可以根据构式的这一特点来改革英语语法教学。例如，申璐在《构式语法简述及其对外语教学的启示》一文中明确指出，在教授双及物动词的语言结构时，教师过去给动词分小类的教学方法应当改变，不要去分析语言结构的主语、谓语和宾语等句子成分，而是要让学生了解这个语言结构的构式意义，让学生把握语言结构的整体意义。王原霞在《构式语法及其对外语教学和习得的启示》一文中指出，传统的语法教学比较单调，老师往往只是对学生进行机械的语法规则的操练，对语法规则的学习不够重视。因此，真正的语言教学目的很难实现。针对这一情况，她指出“构式语法为语法

the **overall** meaning of language constructions

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**Thanks for your attention.**

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