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

Michael Tomasello

1. The structure of the paper:

- Q: How do children acquire a language?
- ♦ General ideas
- ◆ Some recent findings in language acquisition
 - ♦ Observational studies
 - 1. Tomasello (cut/draw)
 - 2. Lieven (a/the)
 - 3. Pizzuto/Caselli (Verb

root)

- 4. Rubino and Pine
- 5. Bowerman/Pink

(overgeneralization)

- ♦ Experimental studies
 - 1. Tomasello (novel verbs)
 - 2. Other (novel verbs)
- ◆ Implications for theories of language acquisition
 - ♦ Linguistic nativism×
 - ◆ Usage-based accounts √
- ◆ Conclusion

2. What's the construction?

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

E.g., double object structure (X Ved Y the Z): the transfer of something.

3. What's item-based?

"Item-based" refers to the idea that young children's early language is organized around concrete, specific words and phrases, rather than abstract syntactic categories or schemas. (In other words, children initially learn language by memorizing individual words and phrases and then gradually build up more complex linguistic constructions from these building blocks.)

4. Some experiments:

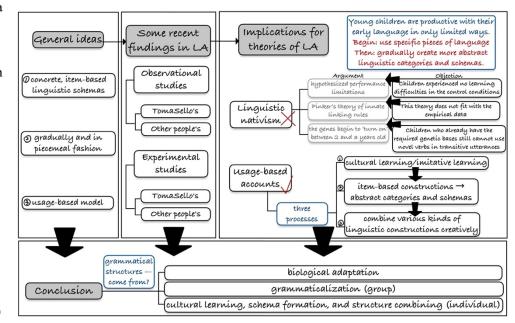
Tomasello (cut/draw): Some semantically similar verbs were used in only one sentence frame, whereas other verbs used in more frames. Each verb forms its own island of organization. (The Verb Island hypothesis).

Lieven (a/the): 92% of these children's earliest multi-word utterances emanated from one of their first 25 lexically based patterns, which were different for different children. When these same children began to use the determiners a and the between 2 and 3 years of age, they did so with almost completely different sets of nouns.

Pizzuto/Caselli (Verb root): Italian children do not master the whole verb paradigm for all their verbs at once, but rather they initially master only some endings with some verbs – and often different ones with different verbs.

Rubino and Pine: The verb forms this child used most frequently and consistently corresponded to those he had heard most frequently from adults.

Bowerman/Pink (overgeneralization): Children produced very **few** of these types of **overgeneralizations** before about **3** years of age.



儿童早期句法发展的基于词项的特点

迈克尔·托马寒洛

1. 论文结构

- ◆ 问:孩子如何习得一门语言?
- ◆ 总体观点
- ◆ 语言习得方面的一些最新发 现
 - ◆ 观察性研究
 - 1.托马塞洛(cut/draw)
 - 2.列文(a/the)
 - 3.披萨/卡塞利 (Verb

root)

- 4.鲁比诺/派恩
- 3.鲍尔曼/平克

(overgeneralization)

- ◆ 实验性研究
 - 1.托马塞洛(novel verbs)
 - 2.其他研究者(novel verbs)
- ◆ 对语言习得理论的启示
 - ◆ 语言天赋论×
 - ◆ 基于使用论√
- ◆ 结论

2. 什么是构式?

当且仅当 C 是一个形式—意义的配对,且形式的某些方面或意义的某些方面不能从 C 的构成成分或从其他已有的构式中得到严格意义上的预测,C 便是一个构式。

例如,双宾语结构 (X Ved Y the Z):某物的转移。

3. 什么是基于词项?

"基于词项"指的是幼儿早期的语言是围绕具体的、特定的单词和短语组织的,而不是抽象的语法类别或图式。(换句话说,孩子们最初是通过记忆单个的单词和短语来学习语言的,然后逐渐从这些积木中建立起更复杂的语言构式。)

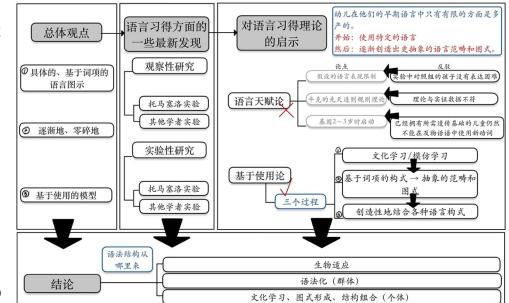
4. 一些实验:

托马塞洛(cut/draw): 一些语义相似的动词只出现在一个句子框架中,而另一些动词则出现在更多的句子框架中。每个动词都有自己的组织结构。(动词岛假说)。

列文(a/the): 92%的孩子最早的多词话语来自他们最初 25 个基于词汇的模式之一,**这对不同的孩子来说是不同的。** 当这些孩子在 2 岁到 3 岁之间开始使用限定词 a 和 the 时,**他们使用的名词几乎完全不同。**

披萨/卡塞利 (Verb root): 意大利孩子不会一下子掌握 C 所有动词的整个动词范式, 而是他们最初只掌握了一些动词的一些结尾, 而且往往是不同的动词的不同结尾。

鲁比诺/派恩:这个孩子最常使用的动词形式与他从成年人那里听到的最频繁的动词形式一致。鲍尔曼/平克(overgeneralization):孩子们在3岁之前很少产生这种类型的过度泛化。



Supplementary material (Handout)

Tomasello (novel verbs): The outcome was that very few children at either age produced a transitive utterance with the novel verb. As a control, children also heard another novel verb introduced in a transitive sentence frame, and in this case virtually all of them produced a transitive utterance. This demonstrates that children can use novel verbs in the transitive construction when they have heard them used in that way.

5. What is usage-based approaches? Three of these processes?

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.

Processes:

- ①Cultural learning/ imitative learning (in the specific sense used by Tomasello et al.) It is the attempt by children to reproduce the language adults produce and for the same communicative function.
 - Non-canonical aspects of language structure: e.g., idioms "That won't go down well with him" means that he won't like that. → Just imitate, rote memorization.
- ②Go beyond these early item-based constructions in due course. To find patterns in the language they are hearing → to form some kinds of abstract categories and schemas.
 - "Pull stick", "pull string", "pull towel" \rightarrow Pull X.
- 3 Combine various kinds of linguistic constructions creatively, involving both concrete and abstract constructions of varying levels of complexity.
 - "See ___" schema + "Daddy's __" schema → "See Daddy's car". Note that to do this she had to understand that 'Daddy's car' as a complex expression was in some sense equivalent to the other things she previously had been talking about seeing (Ball and Mommy).

6. Conclusion

- 1) Children **imitatively** 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.
 - (2) Where do grammatical structures come from?

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.

★Comparison:

Two theories	Chomsky	Tomasello
Acquisition Theory	Generative grammar	Construction grammar (CxG)
What is universal and innate?	Grammar is universal.	Experience is universal.
Where does LA begin with?	abstract syntactic categories or schemas	concrete, specific words and phrases
What to learn in the	how to transform innate language competence	gradually accumulate different
acquisition process?	into external language performance	constructions from direct experience
Account for experimental	use adult-like linguistic categories, structures	usage-based approaches
result	and formal grammars as analytical tools	

Other References:

Goldberg, A. E. Constructions: A construction grammar approach to argument structure. Chicago: University of Chicago Press, 1995. Tomasello, M. Constructing a language: A usage-based theory of language acquisition. Cambridge: Harvard University Press, 2003. 王寅. 构式语法研究(上卷): 理论思索[M]. 上海: 上海外语教育出版社, 2011:93.

冀光菊. "托马塞洛的构式语法习得理论."河南师范大学, 2015. MA thesis.

辅助资料(讲义)

肖瑶

托马塞洛(novel verbs): 结果是,两个年龄段的孩子都很少能使用新动词的及物性表达。作为对照,孩子们还听到了一个及物句框架中引入的另一个新动词,在这种情况下,几乎所有的孩子都发出了及物句。这表明,当孩子们听到新动词以及物结构的方式使用时,他们可以使用新动词。

5. 什么是基于使用的模型? 其三个过程是?

基于使用的语言习得方法试图从认知和交际过程的角度来描述儿童的语言,而不是从先天的、类似成人的、正式的语法来描述。

过程:

- ①文化学习/模仿学习(托马塞洛等人所使用的特定意义上的)。儿童为了同样的交际功能而试图复制成人所使用的语言。
 - 语言结构的非规范方面:例如,习语——"That won 't go down well with him"意思是他不会喜欢那个。
 →只是模仿、死记硬背。
- ②在适当的时候超越这些早期基于词项的构式。在他们所听到的语言中寻找模式→形成一些抽象的范畴和图式。
 - · "拉棒"、"拉绳"、"拉毛巾" → 拉 X。
 - ③创造性地结合各种语言构式,包括不同复杂程度的具体和抽象结构。
 - "看__"模式 + "爸爸的__"模式 → "看爸爸的车"。注意,为了做到这一点,她必须理解"爸爸的车"作为一个复杂的表达在某种意义上等同于她之前谈论过的其他东西(球和妈妈)。

6. 结论

①孩子们从他们周围听到的语言中**模仿地**学习具体的语言表达,然后利用他们的**一般认知和社会认知技能**,对 这些单独学习的表达和结构进行**分类、概括和创造性地组合**。

②语法结构从何而来?

总的来说,我们可以假设,人类语言最终起源于**一种物种特有的生物适应符号交流**,但现代语言的实际语法结构是人类通过特定的文化历史中的**语法化过程**,以及在特定的个体个体发生中通过**文化学习、图式形成和结构组合的过程**创造出来的。

★对比:

711 PG .		
两种理论	乔姆斯基	托马塞洛
习得理论	生成语法	构式语法(CxG)
什么是普遍和先天的?	语法 是普遍的。(先天普遍观)	体验 是普遍的。(体验普遍观)
语言习得始于什么	抽象的 语法范畴或模式	具体的 、特定的单词和短语
习得过程中学习什么	如何将先天 语言能力 转化为外在 语言表现	从直接经验中逐渐积累不同 构式
对于实验结果的解释方法	使用成人语言范畴、结构和形式语法作为分	基于使用的分析模型
	析工具	

★补充材料: • 针对乔姆斯基的"先天普遍观",构式语法学家提出了另一种语言普遍观,即"语言中之所以存在一定的普遍性,不是乔姆斯基所说的人先天带有普遍句法结构,而是因为全人类面对的是基本相同的客观世界,共享自然规律;我们还有相同和类似的身体器官、感知能力和认知能力,这就决定了使用不同语言的人具有基本共通的思维,成为人类能够交际、理解和互译的认知基础。(王寅)

• 由于我们与古人的生理功能以及所生存的环境基本相同,所以在与外部世界互动体验时,并不会发生很大的变化, 因此,我们能够与古人进行对话。我们之所以能够理解外国人,原因也是一样的,都是基于体验的普遍性。托马塞洛认为,在儿童习 得语言方面,体验的普遍观同样适用,儿童只有在亲自体验了周围世界发生的事件,并且试图去辨别成人在使用语言符号来提及这些 事件时,儿童才能够习得语言。(冀光菊)

其他参考文献:

戈德堡, A. E. *构式:论元结构的构式语法方法*. 芝加哥:芝加哥大学出版社,1995. 托马塞洛, M. *构建语言:基于使用的语言习得理论*. 剑桥:哈佛大学出版社,2003 王寅. *构式语法研究(上卷):理论思索[M]*. 上海:上海外语教育出版社,2011:93. 冀光菊. "托马塞洛的构式语法习得理论."河南师范大学,2015. MA thesis.