

Statistic training workshop- session 2

Study documentation

English nominal recursion study

Context and goals. This data set is part of a larger project investigating the emergence and development of recursive nominal embedding in 5 languages. These include four types.

Condition A. Recursive possessives (*Elmo's sister's ball*)

Condition B. Recursive comitative (*with*) modifiers. (*The baby with the woman with the flowers*)

Condition C. Recursive locative modifiers (*The dog next to the tree next to the house*)

Condition E. Recursive relational nouns (*the box of cans of tomatoes*)

Recursive self-embedding is rare in spontaneous speech, and the productivity of these forms vary within and possibly across languages. The overall goal is to examine whether structural factors such as directionality of branching (left/right) type of linking strategy available, etc. determine the developmental path; and which individual factors (age, memory, vocabulary, general language measures) determine whether a child can produce recursive structures.

Task. We used a referential elicitation task which forced speakers to contrast the target referent against two other referents ('dog next to the tree next to the house') vs. other dog which is next to the house but not next to the tree, or a third dog, next to another tree that is not near the house.

Which dog is barking? *The dog next to the tree next to the house.*

Coding. Utterances were coded along many dimensions, structural and semantic. In this analysis we are simply concerned with whether the response was target or not, and for the target responses, whether they relied on the specific configuration for the condition.

The baby. –not target

The baby with the woman with the flower—strict target

The baby that is being held by the woman with the flowers—not strict target, but still recursive

General measurements (for children)

These are a series of measurements on general language, originated from standardized test (vocabulary, both from CELF and from the PPVT packages, composite grammar tests included in the CELF), sentence repetition, which is generally a good indicator of language level as well as memory for language, and non-verbal memory measures from the KBIT and the KABC test.

Participants. Monolingual English-speaking children and adults.

- 13 adults (only recursion measures)

- 71 children (recursion measures + memory and general language measures)
 - Fours (n=25)
 - Fives (n=25)
 - Sixes (n=21)

Data structure.

Participant	numeric code for individual subjects
AgeinMonths	children's age as integers
Group	Adult vs. Children
Agegroup	Adult/4 year olds/5 year olds/6 year olds
Condition	A=possessives, B=comitatives, C= locatives, E=relational nouns
Item	alphanumeric code
StrictTarget	{0,1} only the specified recursive construction
AllTargets	{0,1} other recursive constructions, including relative clauses and mixing types

The remainder columns represent the general language and memory measures scores of the participants. These are all continuous scores, and for the CELF and PPVT we used raw scores rather than the standardized scores.

Label in file	Test name	Type of measure
KABC-hand	KABC Raw Score Hand Movements	non-verbal memory
Celf-SS	Celf Subtest Raw Scores SS	general language
Celf-WS	Celf Subtest Raw Scores WS	general language
Celf-EV	Celf subtest Raw score EV	productive vocabulary
	Celf Subtest Raw Score Concepts & Directions	vocabulary
Celf-SentRep	Celf Subtest Recall Senten- Raw score Celf Subtest Basic Concepts (4 y/o) raw Score	sentence repetition general vocabulary
PPVT	PPVT- Raw Score	receptive vocabulary
KBIT	KBIT: Non-verbal	nonverbal memory