

Development of the Morphosyntax of Verbal Inflections.

9.602J/24.905J

LANGUAGE ACQUISITION

Ken Wexler

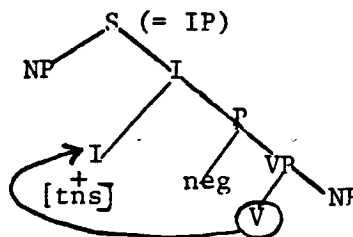
Department of Brain and Cognitive Science
Department of Linguistics and Philosophy

- (1) a. Mary left (finite)
b. Mary thinks that John left (finite embedded clause)
c. Mary wants Bill to go (nonfinite embedded clause)
- (2) Two views on Development of Inflection
a. Growing Strength, e.g. kinds 'add' inflection a greater proportion of time it's needed in obligatory contexts
b. Strong UG, i.e. kinds know everything expect 'form' of inflected verb--they just have to learn this form
- (3) a. Le chat (ne) chase pas le chien (LV pas in finite clauses)
The cat chase not the dog 'the cat doesn't chase the dog'
b. ...ne pas comprendre l'Italian...
not to understand Italian (pas V in nonfinite clauses)
c. ...* ne comprendre pas l'Italian...
- (4) Kids around 2;0 (Pierce 1989)
- | | |
|--|--|
| <p>[-finite]</p> <p>a. pas manger la poupee
not eat the doll</p> <p>b. pas tomber bebe
not fall baby</p> <p>c. pas attraper une fleur
not catch a flower</p> | <p>[+finite]</p> <p>d. Patsy est pas là-bas
is not down there</p> <p>e. marche pas
walks not</p> <p>f. est pas mort
is not dead</p> <p>g. trouve pas
finds not</p> |
|--|--|
- (5) Pierce: "Negative pas is placed correctly at the earliest observed stage."

	[+finite]	[-finite]
<u>pas</u> Verb	11	77
Verb <u>pas</u>	185	2

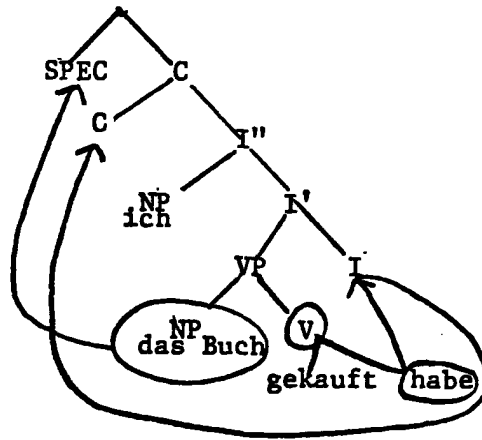
- (6) Conclusion: a) Kids use lots of infinitival as well as finite forms for matrix verbs,
b) Nevertheless, they know what finiteness/nonfiniteness is

(7)



- (8) Further (more specific) Conclusion: Kids know head movement and its motivation (e.g. Stray Morpheme (Lasnik's) Filter)

(9) German a.



b. Das Buch habe ich gekauft
the book have I bought 'I have bought the book'

c. Ich habe das Buch gekauft //

(10) Two movements: V to C (probably through I)
Another constituent to SPEC (of C)

(11) (10) yields V2 phenomenon

(12) German 25 month old data I described by Wagner (Childe):

a. ich der Fos hab'n
I the frog have

c. Thorston das haben
T that have
(Thorston to have that)

b. Sahne pussn
teeth brush

d. tein ('kein') Zahnbürste liegen
no toothbrush lie

[+finite]

e. Dosen ('grosen') Ball suchen all ('alle') beide
large ball look both
(Both look for large ball)

OVS, one of the few
w/-en, but it's plural
subject, so --en is
tensed form

f. mein Hubsaupe ('Hubschrauber') had Tiere din
my helicopter has animals in it

	+	-
	finite	finite
V2/not final	197	6
V final/not V2	11	37

g. bald ist Likelausabend
soon is Nikelauevening

Adv V S

(Poeppel & Wexler, 1993)

h. Caesar tiegt ('kriegt') e nich (Caesar kriegt er nicht')
Caesar gets he not

(13) Summary of German data: Lots of finite forms and lots of nonfinite forms. The finite forms most always show up in a V1 (question) or V2 position and the nonfinite forms are almost always in last position

(14) A possible counter example, but its not clear from context what it means
Likelaus mitfahrn Opa
Nikelaus drive Grandpa (infinitival form in V2)

(15) Dutch, Another SOV, V2 language

a. ik pak 't op
I pick it up

Weverink (1989), ki around 2.

c. sroot is e ball
big is ball

b. baaby slaapt
baby sleeps

d. wou Tobiasje hebben (Topic drop)
wanted T have

- (16) More Dutch (Weverink)
 [-finite]
- | | |
|--|--|
| a. pappa schoenen wassen
daddy shoes wash | c. ik ook lezen
I also read |
| b. pappa nieuwe scooter kopen
daddy new scooter buy | d. papa kranten weg doen
daddy newspapers do away |
- (17) Dutch Conclusion: tensed verbs are always in V_a or V₂, untensed verbs are always at end. There are a few cases of, e.g. OVS, but not many (Topic Drop seems to apply in a number of cases). Plenty of infinitival and finite verbs.
- (18) de Haan (1987) finds essentially the same results for another Dutch kid. In his data he claims there are no counterexamples to the correlation of finiteness with V₂ position.
- (19) Swedish: SVO V₂ language. Kid data from Platzack(1990), 3 kids (20-26 months).
- (20) Platzack claims no functional categories, i.e. no V₂, but data doesn't agree with the claim.
- (21) Tables 3 and 4 show that there is evidence for V₂, and that it only occurs with finite verbs.
- (22) finite forms with V in second position
- | | |
|--|---|
| a. Dar ar Nalle
there is Teddy | d. Vad gjorde missen?
what did the-pussycat |
| b. 'Kissa' sa barnet
pee said the child | e. Namn har den
Name has it |
| c. Ar det dorren?
is that the door' | f. Sa dar gjorde den
so there (=thus) did it |
- (23) In Tables 3 and 4, note there are 30 examples of V₂ sentences with finite verbs and 0 (zero) examples with nonfinite verbs. Conclusion: Early Swedish has V₂, as expected, only for finite verbs Platzack was misled by the proliferation of subject first sentences, but we'd expect that. The important question is, are there any V₂ non-finite? The answer is, no (although there are V₂ finite.)
- (24) GENERAL CONCLUSION: In French, German, Dutch, Swedish (also Icelandic and Italian), kids around 2;0 give both finite and non-finite forms to matrix verbs. They also are CORRECT on morphosyntactic processes that correlate with finiteness. So, they know head movement, and its relation to finiteness.
- (25) Mystery: Why do these kids not require finiteness in matrix clauses?

- (25a) What happens in English? Why is "s" deleted?
- (25b) English is the only Germanic or Romance language which derives the infinitival form via zero morphology. Obviously conclusion from our generalization: the "stem", i.e. "bare s" form in English kids is simply the English infinitival. Thus English falls squarely within the generalization. There is no particular process of "s drop".
- (25c) "do drop" or neg/medial stage: she no/not go (Bellugi)
- (25d) Traditional explanations, e.g. Brown (1970) or Radford (no functional categories) assert that take/takes are in free variation. Prediction:
- (i) she take the book
 - (ii) she takes the book
 - (iii) she no/not take the book
 - (iv) she no/not takes the book
- (25e) Suppose, on the other hand, that "she take" is an optional root infinitive. Suppose that kids know that in English, TNS may not lower over NEG (or, equivalently, TNS may not raise over NEG at LF). Then we predict that TNS will never show up on the verb after NEG:
- (i) she take the book
 - (ii) she takes the book
 - (iii) she no/not take the book
 - (iv) *she no/not takes the book
- (25f) A search of CHILDES data agrees with the latter prediction (25e), although there's not much data. Harris and Wexler experiment elicits these sentences and finds the pattern in (25e). Harris and Wexler also elicit sentences with "never" replacing NEG and find that kids produce both (25g i,ii):
- (25g) (i) she never take the book
(ii) she never takes the book
- (25h) The adverb "never" allows lowering of NEG of it; thus kids should accept the sentences in (26g), and they do. Thus it can't be that the "longer, more complicated" sentence with negation (25e iv) "drops" the s because it is more complicated.

(26) Swedish (Plunkett and Stromqvist) --adult judgments

- a. *han vill komma inte 'he wants to come not'
- b. han vill inte komma 'he wants not to come'
- c. *han inte vill komma 'he not wants to come'
- d. jag vet att han inte vill komma
I know that he not wants to come

i.e. 'inte' is before finite V in matrix, but after V in subordinate

(27) Kid data (Lange and Larsson, as reported in Plunkett and Stromqvist) Emblas, 23-25 months

[+Finite]

- a. alg sag-er inte mu 'elk say-PRES NEG moo'
- b. ga-r inte SITta pall 'go-PRES NEG sit:INF stool'
('it's not possible to sit on the stool')

[-Finite]

- c. inte ha den 'NEG have-INF that one'
- d. inte mamma tvatta 'NEG mummy wash-INF'

(28) P&S: "Embla consistently places syntactic negation after the verb when the verb is in a finite form and before the verb when the verb is in the infinitive form". (p. 48)

(29) Danish (P&S) Anne

"If the verb is finite then NEG is placed after the verb whereas if the verb is in the infinitive form NEG is placed before the verb.

Det ikke vaere 'It NEG be-INF' (23;26)

Det er ikke den der 'It be-PRES NEG that there' (24;11)

(30) Similarly for Norwegian (Nora and Thomas) (P&S) p. 52

In fact, the pattern holds for all 6 Mainland Scandinavian kids P&S looked at, 2 from each language.

(31) Do the non-finite forms indicate that a modal has been left out? Unlikely, because:

- a) Why should modals be "omitted"?
- b) We have gone through a German transcript and found many infinitival matrix verbs where the context implied definite temporal reference, even some "past" occurrences.
- c) evidence from the "VP internal subject" stage show that verb raising only fails to occur with nonfinite verbs-- see evidence in (32)

(32) Pierce and Deprez 1990 (see also Pierce 1989) predict and find that "negative 'pas' appears in sentence initial position solely in the context of nonfinite verbs.

(33) Pierce, from Lightbown 1977 data ---Nathalie

[-finite]

- a. pas la poupee dormir (21;3)
not the doll sleep

- b. pasmanger (24;1)
not eat

[+finite]

- c. veux pas lolo (24;1)
want not water

- d. est pas couteau (26;3)
is not knife

- (34) Problem: Kid has an "optional" structure. How is that possible, given Economy
- (35) Problem: Isn't tense necessary?
- (36) Chomsky (Economy of Derivation) dealt w/ case of "optionality", e.g. pas placement w/ infinitives.
- a. n'etre pas heureux
b. ne pas etre heureux
- (37) Chomsky's explanation: either V may raise to I, or I may lower to V, each involves one step, economy makes no choice. I may lower to V (actually to [etre-AGR] because "[-finite] is deletable, playing no LF role".
- (38) Assumption: Kid doesn't know interpretation of Tense. That is, kid know "finite", but there are no values, past, non-past.
- (39) Thus [+finite] plays no LF role, doesn't have to have scope over VP, and a lowered I does not have to raise up again at LF. Thus, either lowering or raising involves one step, and either is possible.
- (40) Prediction: Kid doesn't know tense values. Seems true. That is, at this age, kid doesn't use past tense. Only uses present tense, even for what appear to be past happenings. (Though I have not done a systematic study of the data here).
- (41) Question: what tells the kid to use agreeing (finite form) or nonfinite form?
- (42) Answer: When V raises, we have V adjoined to I, so I head. I head selects finite form. When I lowers to V, we have I adjoined to V, so V head. V head selects nonfinite form.
- (43) Question: With nonfinite (V headed) verbal complex, what assigns case to subject?
- (44) Answer: To be Continued

