

MPI Nijmegen  
Language Acquisition Group  
Tue, 16 July 2002

**Christine Czinglar & Katharina Köhler**  
University of Vienna & Austrian Academy of Sciences

## **The Copula in First Language Acquisition: A Comparison between German and Croatian Child Language**

Joint work by  
Christine Czinglar, Katharina Köhler, Antigone Katicic & Chris Schaner-Wolles  
University of Vienna & Austrian Academy of Sciences

The research project „First Language Acquisition of Austrian German Grammar from a Crosslinguistic Perspective“ is funded by the Austrian Science Fund (FWF), project P 13371-SPR to Chris Schaner-Wolles.<sup>1</sup>

Project-Website: [http://www.oeaw.ac.at/ling/kisy/index\\_kisy.html](http://www.oeaw.ac.at/ling/kisy/index_kisy.html)

### **1. Introduction and Background**

---

#### *What is the structure of predication?*

Predication: the linking of a subject with its predicate

*Predication with lexical verbs:*

- (i) semantic part (theta-roles) > VP
- (ii) functional part (agreement, finiteness, tense) > IP (or corresponding projections)

*Assumption:*

The copula is a semantically void verb (functional verb), i.e. in contrast to lexical verbs it does not assign theta roles; cf. Williams 1980, Rothstein 1987, Déchaine 1993 and many others

*Other opinions:*

Rothstein 1987: identity statements involve a lexical verb *to be*, which assigns theta roles to its arguments

Löbel 2000: the copula assigns a special theta role, a non-referential non-participant role (similar to the theta role of the measure phrase in *John weighs 5 kilos*)

If the copula does not assign a theta role, how is (i) accomplished in a copular construction?

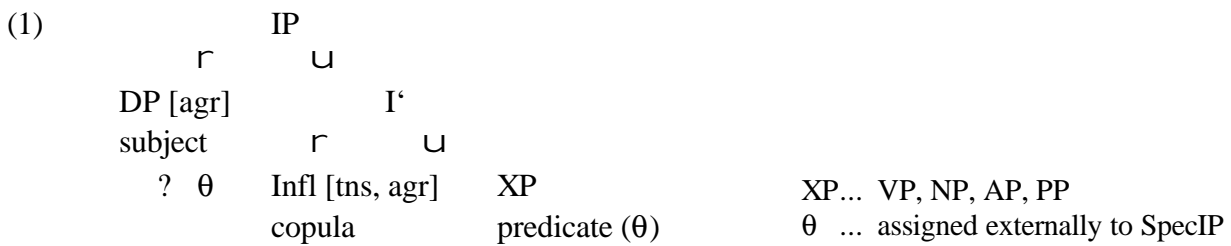
- > the theta role comes from the non-verbal predicate
- > structurally there are (at least) two options; cf. Cardinaletti & Guasti 1995

---

<sup>1</sup> Thanks are due to the Department of Speech- and Language Pathology, University of Zagreb, where the Antonija Corpus was collected as part of the project ‚Psycholinguistic Aspects of the Croatian Language‘ (principle investigator: Marta Ljubešić). Antonija data are also currently analyzed in the project ‚Jezicna obrada u hrvatskome: psiholingvistički i neurolingvistički pristup‘ (principle investigator: Melita Kovacevic), funded by The Croatian Ministry of Science and Technology.

### A. Collapsing (i) and (ii) in INFL

The copular construction is not special: The subject and the predicate are in the same configuration as in a 'normal' lexical predication with a VP; cf. Williams 1980, 1984

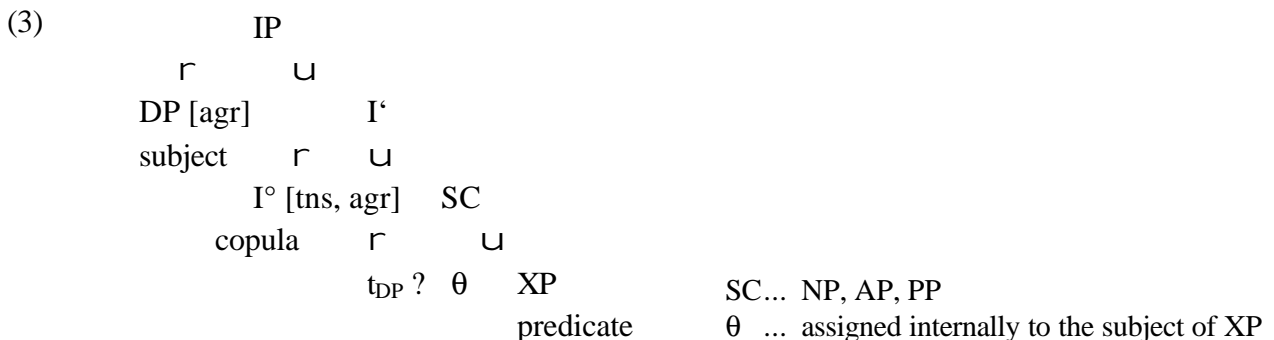


- (2) a. John - will - leave.      NP - Aux - VP  
 b. John - is - a fool.      NP - Aux - NP
- Williams 1984:136

> the copula is treated like an auxiliary, cf. (2)a

### B. Separating (i) from (ii): The Small Clause Analysis

The copular construction is special: The subject and the predicate are not in the same configuration as in a 'normal' VP-predication, they form a lexical small clause (SC), the copula takes the SC as its complement; cf. Stowell 1978, 1983



- (4) a. We consider [<sub>SC</sub> John clever].      SC = AP (secondary predication)  
 b. John<sub>i</sub> seems [<sub>CP</sub> t<sub>i</sub> to win the race].      CP = embedded clause  
 c. John<sub>i</sub> is [<sub>SC</sub> t<sub>i</sub> clever].      SC = AP (primary predication)

> small clauses are also assumed in secondary predication constructions, as in (4)a

> the copula is treated as a raising verb like *seem* in (4)b

>> our data do not favor one analysis over the other, but to be explicit we assume the Small Clause Analysis under B. to be the correct underlying structure for copular sentences

### The copula as a grammatical verb

> the copula is a functional verb with no or little thematic argument structure, similar to other grammatical verbs (auxiliaries, modal verbs, raising verbs)

> the copula is a genuinely grammatical phenomenon, some languages allow primary predication without an overt copula

in Russian non-existential predication cases, the copula *byt'* is not expressed in the present tense:

(5) Direktor v otpuske.  
boss on holiday „The boss is on holiday.“

- > UG-option: finite main clauses can have an independent temporal interpretation without an overt verbal element

### ***The copula in child language***

- > in languages where lexical verbs alternate between infinitival and finite forms in the speech of young children (e.g. English, German), grammatical verbs are mostly finite

cross-linguistic observation: the copula almost always appears in its finite form

- > in contrast to Russian, English does not allow copulaless predication, still English children produce predication structures similar to (5); e.g. Bloom 1970, Brown 1973, Radford 1990, Becker 2000a, 2000b:

(6) Mommy busy.

*Radford's Small Clause Hypothesis:*

the initial structures children produce are small clauses lacking functional structure altogether

- > some counterevidence comes from copulaless predication structures in German

### ***Research questions***

*Becker's Hypothesis:*

Predicative structures without a copula are the non-finite counterpart to the copular construction involving the functional verb *be*.

- German children use infinitives alongside finite verbs. Do they also use copulaless predication structures - as predicted?
- Croatian children do not use infinitives alongside finite verbs. Do they refrain from using copulaless predication structures - as predicted?
- What are the differences between copulaless predication structures and those with a copula? Are those differences found across languages?

## 2. English

---

Becker 2000a, 2000b

an extensive longitudinal study of the copula in child English, based on data from five children (2;0-3;4: Adam, Eve, Naomi, Nina, Peter) available from the CHILDES database (cf. MacWhinney & Snow 1990)

### *Predication with and without a copula*

Copula predication sentences alternate with utterances that combine a subject and a predicate, but do not contain a copula:

- |     |                  |                               |             |
|-----|------------------|-------------------------------|-------------|
| (7) | <i>adjective</i> | a. You're so dirty            | (Naomi 2;0) |
|     |                  | b. me tired                   | (Naomi 2;0) |
| (8) | <i>locative</i>  | a. Daddy's at school          | (Peter 2;2) |
|     |                  | b. I in the kitchen           | (Nina 2;1)  |
| (9) | <i>nominal</i>   | a. he's a dog                 | (Nina 2;0)  |
|     |                  | b. I not honey. I Adam Smith. | (Adam 2;11) |

### *Finiteness*

#### *Grammatical verbs:*

The copula almost always appears in its finite form (Nina and Peter 100%, Naomi 99.7%, Adam 97.3%, no figures for Eve); cf. Becker 2000a:94

#### *Lexical verbs:*

Children acquiring English use verb forms with and without an overt marking of finiteness.

- |      |                         |            |                     |
|------|-------------------------|------------|---------------------|
| (10) | a. Cromer wear glasses. | (Eve 2;0)  |                     |
|      | b. I don't want soup.   | (Eve 1;11) | CHILDES, Brown 1973 |

#### *Becker's assumption:*

the frequent omission of third person singular -s has a status similar to that of the usage of infinitives by children acquiring a language like German, although there is no morphological marking for the infinitive (English is categorized as a root infinitive language; cf. Wexler 1994)

### *Predicates*

#### *Becker's central observation:*

There is a connection between the omission of the copula and the kind of predicate.

average rate of present versus absent copula (5 children); cf. Becker 2000a:89:

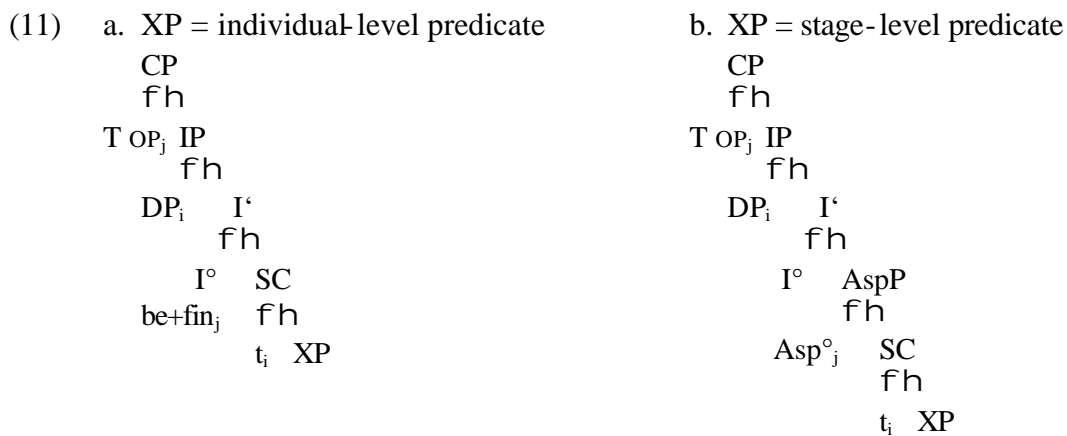
- |                             |                                   |                   |
|-----------------------------|-----------------------------------|-------------------|
| <i>locative predicates:</i> | 27.7% present versus 72.3% absent | (295 utterances)  |
| <i>nominal predicates:</i>  | 65.8% present versus 34.2% absent | (1155 utterances) |

- > crucial semantic difference
  - locatives are core cases of temporally bounded properties
  - nominals are core cases of temporally unbounded properties
- > stage/individual-level distinction; cf. Carlson 1977, 1980 and Kratzer 1988, 1995

**Becker's analysis**

*structural difference between predicates (in the target language):*

- > stage-level predicates contain an event argument selected by an Aspectual Phrase AspP above the predicative phrase
- > individual-level predicates lack an event argument and AspP; cf. Becker 2000b:63



*temporal anchoring of main clauses:*

- (i) adult-like: Tense Operator in the C-domain (in the sense of Eng 1987) binds Infl, the result is a finite clause and the spell-out of finiteness in English (overt *be*)
  - (ii) child option: Tense Operator binds Asp, no finite clause results, no spell-out of finiteness (omission of *be*)
- > the child option is operative during the root infinitive stage
  - > predication structures without a copula are the non-finite counterpart to copular constructions with an overt (finite) copula

### 3. German

---

#### 3.1 Target language

**Basic clause structure and verb placement**

Root clauses: verb second (V2), with subject initial order (12)a or other topicalized constituent (12)b, embedded clauses verb final with SOV word order as in (13)

- (12) a. Maria liest das Buch.  
Mary reads the book 'Mary is reading the book.'  
b. Das Buch liest Maria.  
the book reads Mary 'Mary is reading the book.'
- (13) Hans glaubt, dass Maria das Buch liest.  
Hans thinks that Mary the book reads 'Hans thinks that Mary is reading the book.'

### ***The copula***

Inflectional paradigm (present indicative) of *sein* 'to be' in standard German and colloquial southern German as spoken in the Vienna area

(14)	<i>standard</i>	<i>southern</i>
1.sg.	bin	bin
2.sg.	bist	bist
3.sg.	ist	is(t), 's
1.pl.	sind	sin(d)
2.pl.	seid	seids
3.pl.	sind	sin(d)

### ***Obligatoriness of the copula***

The copula is obligatory except in pragmatically marked circumstances, cf. the exclamatives (15)a, b; headlines in (15)c.

- (15) a. Hans ein Betrüger!?  
John a fraud  
b. Peter bankrott!?  
Peter bankrupt  
c. Aktienkurse im Keller  
stock prices in-the cellar

### ***Kinds of predicates***

the copula *sein* occurs with a variety of non-verbal predicates, e.g.:

- |      |                     |   |                                     |
|------|---------------------|---|-------------------------------------|
| (16) | a. <i>adjective</i> | dass Peter brav ist<br>that Peter good is                           | 'that Peter is good'                |
|      | b. <i>nominal</i>   | dass ihr Bruder (ein) Lehrer ist<br>that her brother (a) teacher is | 'that her brother is a teacher'     |
|      | c. <i>locative</i>  | dass die Kinder im Hof sind<br>that the children in+the yard are    | 'that the children are in the yard' |
|      | d. <i>particle</i>  | dass Peter schon weg ist<br>that Peter already away is              | 'that Peter is already gone'        |

### 3.2 German child data

#### *The corpora*

Spontaneous production data from two longitudinal child language corpora:

- *Nico-Corpus*, collected by Sabine Bruyère, cf. Köhler & Bruyère 1995/96
- *Paul-Corpus*, collected by Katharina Korecky-Kröll, cf. Korecky-Kröll 2000

Nico and Paul are boys growing up in Vienna, Austria.

#### *Analyzed utterances*

Declarative utterances, minimum length two words

- *Predication with a copula*, a subject and a predicate (and maybe other material)
- *Predication without a copula*: subject and predicate combinations that have the same meaning as this subject predicate combination would have with a copula, i.e. stative

#### *Analyzed period of development*

where predication constructions with and without a copula occur simultaneously

- *Nico*: 15 recordings, 1h each (2;03.30 - 2;09.04)
- *Paul*: 6 recordings, altogether 8h 15 min (2;04.06 - 2;08.21)

#### *Classification of subjects versus predicates*

Predication structures with two nominal constituents pose a potential classification problem. Which of the two is the subject, which the predicate nominal?

- the subject noun phrase picks out the referent - this is often accomplished by a deictic pronoun
- the predicate noun phrase specifies a property of this referent (predicates are underlined)

(17) autobus is das.  
bus is that                      „This is a bus.“                      Nico06 (2;3.30)

(18) auto flugzeug is.  
car airplane is                      “The car is an airplane.”                      Nico17 (2;7.24)

- Several bare noun constituents in Nico’s speech have the meaning of locative rather than that of nominal predicates

(19) keksi kueche noch.  
cookie kitchen still                      „The cookie is still in the kitchen.“                      Nico13 (2;6.12)

### 3.3 Copular predication constructions in child German

#### *Predication with or without a copula*

(20) a. das is die Mama .  
that is the mama                      ‚That’s mum.‘                      Paul13 (2;7.15)

b. keksi kueche noch .  
cookie kitchen still                      ‚The cookie is still in the kitchen.‘                      Nico13 (2;6.12)

Table 1: Overview of analyzed predication cases of Nico and Paul (absolute numbers and row percentages in brackets)

	copula	no copula	total
Nico (2;3.30 - 2;9.4)	372 (53.1%)	328 (46.9%)	700 (100%)
Paul (2;4.6 - 2;8.21)	69 (63.9%)	39 (36.1%)	108 (100%)

### *Predication structures and finiteness*

- the copula hardly ever occurs in the infinitive also in this sample:  
*Nico*: 369/372 or 99.2% finite copula forms  
*Paul*: 69/69 or 100% finite forms
- For both children, the coexistence of copula and copulaless predication structures falls in the same period as the coexistence of finite verbs and root infinitives

Figures 1 and 2 below give a (preliminary) comparison of the development of root infinitives and copulaless predication

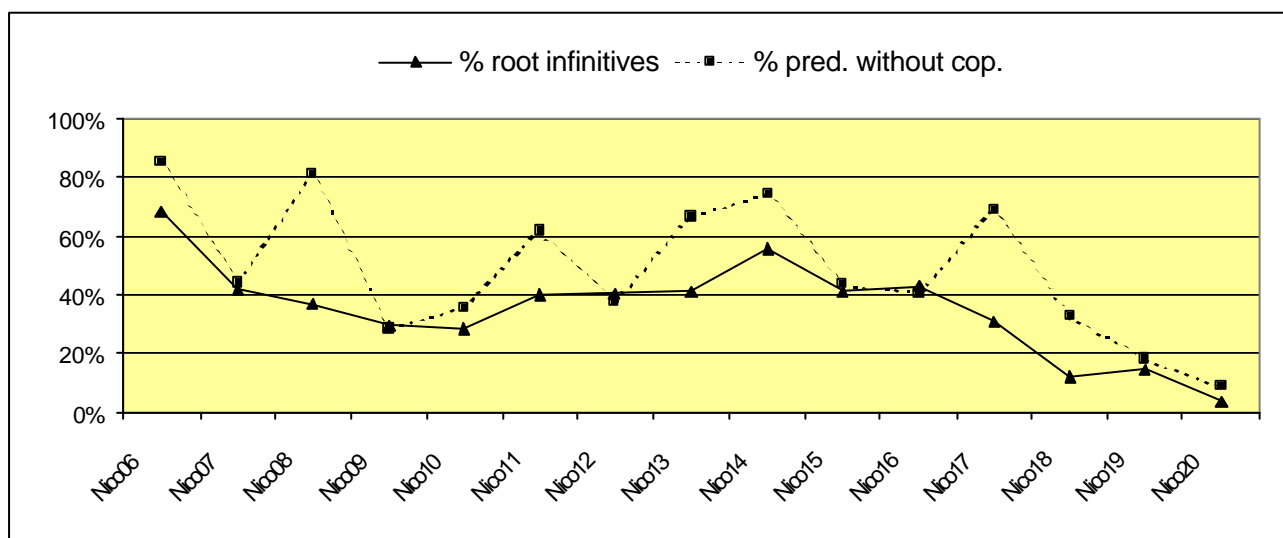
#### *Relative frequency of root infinitives:*

calculated on the basis of two- or multiword utterances, containing at least one verb, affirmative declaratives only, all verbs<sup>2</sup>

#### *Relative frequency of predication without a copula:*

calculated on the basis of the sum of predication cases with and without a copula (this study)

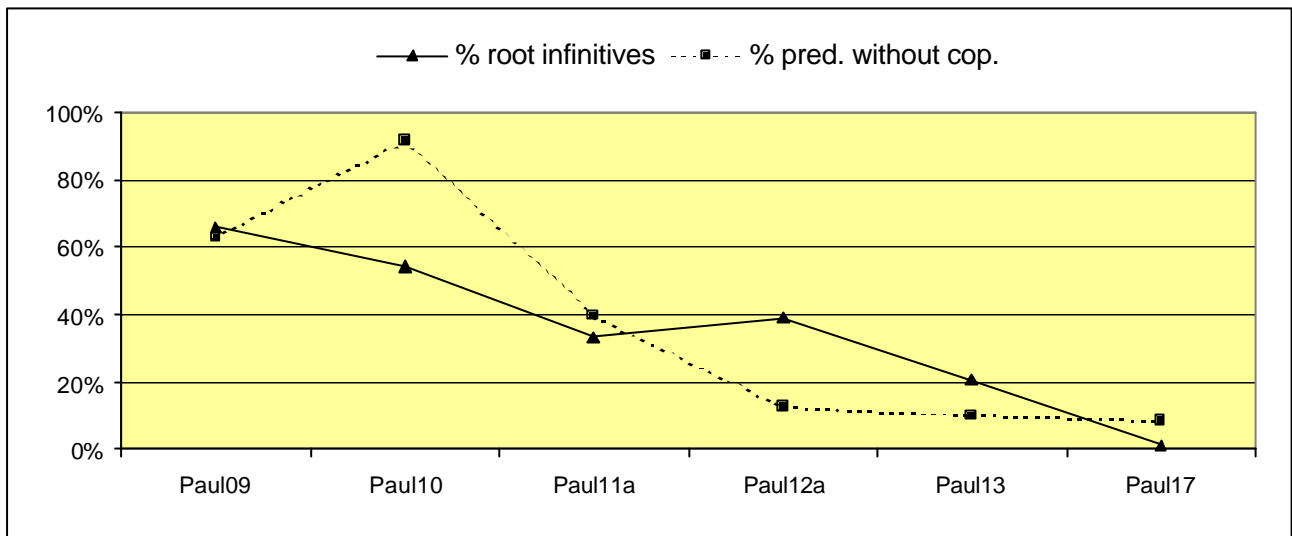
Figure 1: Relative frequency of root infinitives and predication without copula for Nico06-20 (2;3.30 - 2;9.4)



<sup>2</sup> Information on Nico06-21 is taken from Köhler & Bruyère 1995/96 and Schaner-Wolles 2000. For information on Paul09-13 we thank Katharina Korecky-Kröll (p.c.).



Figure 2: Relative frequency of root infinitives and predication without copula for Paul09-17 (2;4.6 - 2;8.21)



### *Distribution of different predicate types*

> classified wrt four categories, all kinds of predicates occur with and without an overt copula

#### *adjectival predicates*

- (21) a. Picki is krank.  
Picki is ill ,Nico is ill.‘ Nico17 (2;7.24)
- b. schmutzig duplokiste.  
dirty duplo-box ,The duplobox is dirty.‘ Nico13 (2;6.12)

#### *locative predicates*

- (22) a. kuchn is drinnen.  
cake is inside ,The cake is inside.‘ Nico06 (2;3.30)
- b. keksi kueche noch .  
cookie kitchen still ,The cookie is still in the kitchen.‘ Nico13 (2;6.12)

#### *nominal predicates*

- (23) a. das is die Mama .  
that is the mama ,That’s mum.‘ Paul13 (2;7.15)
- b. den da polizei.  
the.m.sg.acc there police ,This is the police there.‘ Nico15 (2;7.3)

#### *,other‘ predicates*

e.g. adverbials, particles, interjections, onomatopoeic expressions, child-specific words

- (24) a. jetzt is der da dran.  
now is the.m.sg there adv ,Now it is this one’s turn‘ Nico15 (2;7.3)
- b. sockn igitt.  
socks yucky ,The socks are disgusting.‘ Nico12 (2;6.1)

Table 2: Predicate types and occurrence of the copula (absolute numbers and total row percentages)

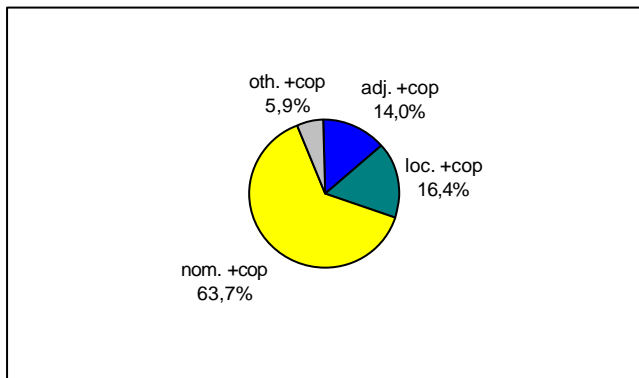
Nico	copula	no copula	total
predicate			
adjectival	52	46	98
locative	61	168	229
nominal	237	77	314
other	22	37	59
total	372	328	700
	53.1%	46.9%	100%

Nico06-20: 2;3.30 - 2;9.4

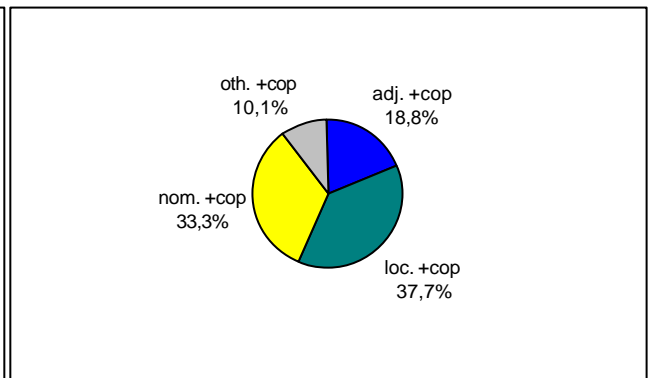
Paul	copula	no copula	total
predicate			
adjectival	13	8	21
locative	26	20	46
nominal	23	4	27
other	7	7	14
total	69	39	108
	63.9%	36.1%	100%

Paul09-17: 2;4.6 - 2;8.21

Figure 3: Predicate types with an overt copula (+cop)

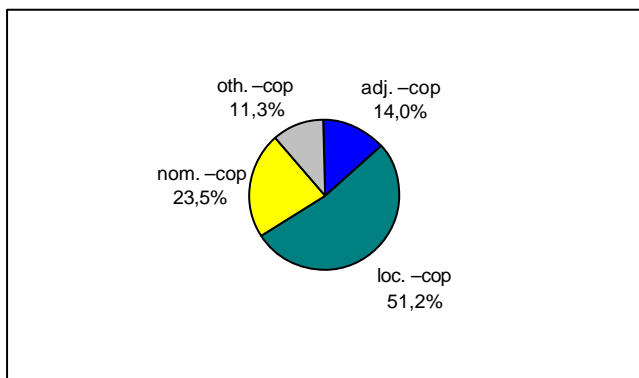


Nico06-20: 2;3.30 - 2;9.4

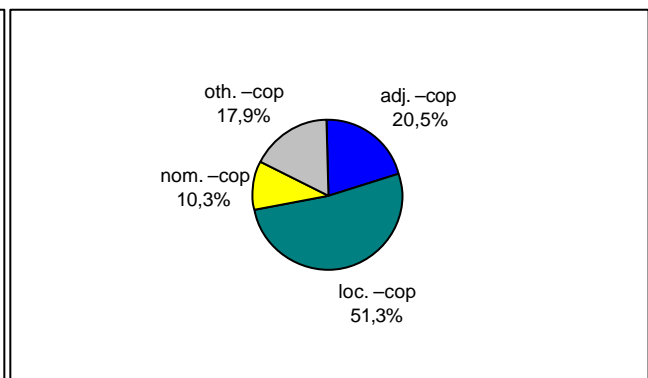


Paul09-17: 2;4.6 - 2;8.21

Figure 4: Predicate types without a copula (-cop)



Nico06-20: 2;3.30 - 2;9.4



Paul09-17: 2;4.6 - 2;8.21

### *Locative versus nominal predicates*

Locative and nominal predicates differ with respect to the frequency of occurrence of an overt copula. The majority of nominal predicates occurs with an overt copula. The German data confirm Becker's 2000a, 2000b observation on English predicatives.

Table 3: Locative vs. nominal predicates - occurrence of the copula (absolute numbers and row percentages)

Nico	copula	no copula	total
predicate			
locative	61 26.6%	168 73.4%	229 100%
nominal	237 75.5%	77 24.5%	314 100%
total	298 54.9%	245 45.1%	543 100%

Nico06-20: 2;3.30 - 2;9.4  
chi-square test sign.: p<.0000

Paul	copula	no copula	total
predicate			
locative	26 56.5%	20 43.5%	46 100%
nominal	23 85.2%	4 14.8%	27 100%
total	49 67.1%	24 32.9%	73 100%

Paul09-17: 2;4.6 - 2;8.21  
chi-square test sign: p<.05

### **Observation on locative predicates**

- > hardly any full fledged PPs (Nico: 3/229, Paul 3/46)
- > adverbs are the most frequent locative predicates (Nico 158/229, Paul 43/46)
- > Nico uses noun phrases with locative meaning, e.g., *küche* '(in the) kitchen' in (22)b  
68/229 locative predicates are nominal, 67 of which are bare nouns, one is a DP  
most of these 'locative nominals' appear without a copula (59/68)
- > non-target-like phenoma cluster together (predication without copula, locative nominals)

### **Observation on nominal predicates**

- > most nominal predicates are lexical (only 5 pronoun predicates (all in Nico))

*'lexical NPs' comprise proper names:*

the target language under discussion hardly allows bare nouns (even mass nouns take indefinite determiners), proper names for persons behave exactly like lexical noun phrases wrt article placement

- > Determiners are not present from the beginning  
they appear from Nico13 (2;06.12) and Paul11 (2;05.16) onwards
- > Determiners are more frequent in the context of predication structure with a copula than in the context of a predication structure without a copula

*Nico:* 309 lexical noun-predicates, out of which 70 have determiner, out of which 65 appear together with a copula

*Paul:* 27 lexical noun-predicates, out of which 10 have determiner, out of which 9 appear together with a copula

- > non-target-like phenoma cluster together (predication without copula, bare noun predicates)

**The distribution of subjects**

> two subject categories: pronominal and lexical descriptive NP subjects (predicates underlined)

- (25) a. das is die Mama .  
 that is the mama ,That’s mum.’ Paul13 (2;7.15)  
 b. den da polizei.  
 the.m.sg.acc there police ,This is the police there.’ Nico15 (2;7.3)
- (26) a. kuchn is drinnen .  
 cake is inside ,The cake is inside.’ Nico06 (2;3.30)  
 b. schmutzig duplokiste.  
 dirty duplo-box ,The duplobox is dirty.’ Nico13 (2;6.12)

**Observation:**

Pronominal subjects are strongly preferred in the context of the target-like predication structure with an overt copula. In copulaless predication structures, lexical noun phrases are preferred.

> non-target-like structures avoid functional elements, also in the case of pronouns

Table 4: Types of subjects in contexts with overt copula and without copula (absolute numbers, row and column percentages)

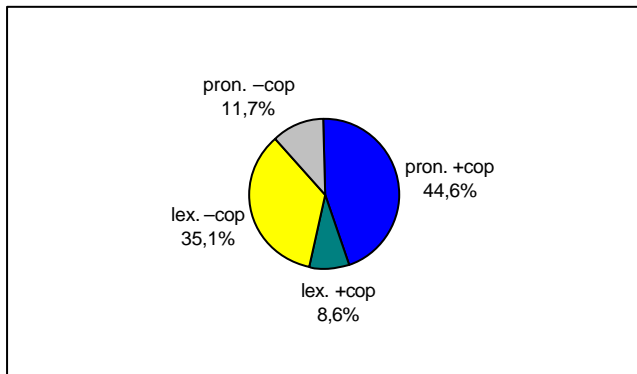
Nico	copula	no copula	total
subject			
pronominal	312	82	394
	79.2%	20.8%	100%
lexical	60	246	306
	19.6%	80.4%	100%
total	372	328	700
	53.1%	46.9%	100%
	100%	100%	100%

Nico06-20: 2;3.30 - 2;9.4

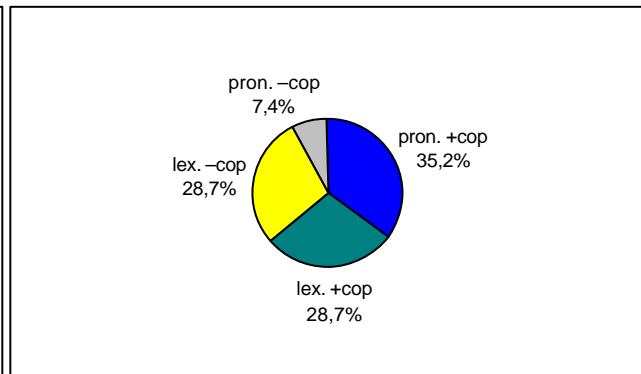
Paul	copula	no copula	total
subject			
pronominal	38	8	46
	82.6%	17.4%	100%
lexical	31	31	62
	50.0%	50.0%	100%
total	69	39	108
	63.9%	36.1%	100%
	100%	100%	100%

Paul09-17: 2;4.6 - 2;8.21

Figure 5: Subject types in predication structures with and without copula (+/-cop)



Nico06-20: 2;3.30 - 2;9.4



Paul09-17: 2;4.6 - 2;8.21

individual differences in the distribution of subjects with a copula:

- > Nico: 83.9% pronouns vs. 16.1% lexical
- > Paul: 55.0% pronouns vs. 45.0% lexical

Nico's preference for one particular word order pattern: *X is das* 'X is that' (161)

### ***Placement of subjects and predicates***

#### *Predication structures with a copula*

- > the copula is mostly V2 (339/372 or 91.1% for Nico, 61/69 or 88.4% for Paul)
- > topicalization: any constituent can move across the subject to the clause-initial position
- > Nico and Paul have command of the V2 property and topicalization; cf. Köhler & Bruyère 1995/96, Korecky-Kröll 2000

- (27) su-V2 a. das is die Mama (Paul 2;7.15)  
                   that is the mama 'That's mum.'  
       pr-V2 b. da is eh lastauto. (Nico 2;5.11)  
                   there is adv truck 'There is a truck anyway.'

Nico: preference for predicate topicalization (in 62.8% of the cases)

>> due to his preference for *X is das* 'X is that' (excluded for comparison with Paul)

- (28) X is das    autobus is das.    (Nico 2;3.30)  
                   bus is that            'This is a bus.'

Table 5: Copula V2 clauses: distribution of subjects, predicates, and other constituents in initial position (absolute numbers and column percentages, including and excluding 'X is das')

<i>initial constituent</i>	<i>Nico06-20 (2;3.30 - 2;9.4)</i>			<i>Paul09-17 (2;4.6 - 2;8.21)</i>		
	#	%	% <i>excl.</i> 'X is das'	#	%	% <i>excl.</i> 'X is das'
subject	123	36.3	69.1	31	50.8	59.6
predicate:						
'X is das'	161	47.5	–	9	14.8	–
other predicate	52	15.3	29.2	19	31.1	36.5
other constituent	3	0.9	1.7	2	3.3	3.8
<i>total V2</i>	339	100.0		61	100.0	
<i>total exc. 'X is das'</i>	178		100.0	52		100.0

*What is the structure of predicative utterances without a copula?*

- *Radford's Small Clause Hypothesis*  
 if we take Radford 1990 serious, the structural representation of copulaless predication is a bare lexical small clause (no landing site available)
  - > no predicate-initial orders expected in copulaless predication structures
  - > but we find both orders:

- (29) su - pr a. den da polizei (Nico 2;7.3)  
the.m.sg.acc there police 'This is the police there.'  
pr - su b. fertig Picki. (Nico 2;4.10)  
ready Nico 'Nico is done.'

Table 6: Relative order of subject and predicate in predicative utterances without copula, all predicate types (absolute numbers and row percentages)

Nico predicative utterances without copula			Paul predicative utterances without copula		
subj (...) pred	pred (...) subj	total	subj (...) pred	pred (...) subj	total
248	80	328	27	12	39
75.6%	24.4%	100%	69.2%	30.8%	100%

Nico06 - 20: 2;3.30 - 2;9.4      Paul09 - 17: 2;4.6 - 2;8.21

• *Other hypotheses about clause structure*

- > clause structure of copulaless predication identical to overt copula construction, no phonetic spell-out of the copula
    - > expectation: inversion and topicalization rates should be the same (excluding *X is das*)
    - > evidence inconclusive: inversion rates are below topicalization rates, but the difference is not big (24.4% compared to 29.2% for Nico, 30.8% compared to 36.5% for Paul)
  - > clause structure of copulaless predication is comparable to the German Mittelfeld-structure
    - > predicate inversion in the Mittelfeld is better for locatives than for nominals
      - > expectation: locatives invert more often than nominals
      - > not born out: inversion rates are roughly the same
- >> no conclusion for the exact clause structure of copulaless predication so far

**3.4 Summary for German predication structures**

Table 7: Properties of predication structures with and without a copula in early child German

	<i>predication with copula</i>	<i>predication without copula</i>
<i>copula</i>		
finiteness	finite	not finite
placement	V2	(does not apply)
<i>predicate</i>		
nominal predicates	preferred context	dispreferred context
locative predicates	dispreferred context	preferred context
Nico's bare N locatives	dispreferred context	strongly preferred context
<i>subject</i>		
lexical subjects	infrequent	frequent
pronominal subjects	frequent	infrequent
<i>DPs</i>		
determiners	some dets occur	very few dets occur
<i>word order</i>		
predicate inversion	available/more frequent	available/less frequent
	(V2-topicalization)	

## 4. Croatian

---

### 4.1 Target language

#### *Null subjects*

Verbal inflection can identify sentential subjects which can therefore be null. Yet, in the variety acquired by the child, i.e. the variety spoken in Zagreb, overt pronominal subjects are not necessarily connected with an emphatic meaning (cf. Magner 1966:34).

- (30) a. idemo u grad.  
go-1pl to town 'We are going to town'  
b. MI/mi idemo u grad.  
we go-1pl to town 'WE/we are going to town'

#### *Copula*

There are clitic, strong and negated forms of the verb *biti* 'to be'. Strong affirmative forms have emphatic interpretation. Negated forms are always strong. The clitic copula is fixed to the second position of the clause<sup>3</sup>.

(31)	<i>biti</i> 'to be'		<i>ne biti</i> 'not to be'
	<i>clitic</i>	<i>strong</i>	<i>negated</i>
1.sg.	sam	jesam	nisam
2.sg.	si	jesi	nisi
3.sg.	je	je <sup>4</sup>	nije
1.pl.	smo	jesmo	nismo
2.pl.	ste	jeste	niste
3.pl.	su	jesu	nisu

#### *Kinds of predicates*

- (32) a. *adjective* Jelo je vruce.  
food-n is-CL hot-n. 'The food is hot.'  
a'. *adjective* Juha je vruca  
soup-fem is-CL hot-fem 'The soup is hot.'  
b. *nominal* Mercedes je žena.  
M. is-CL woman 'Mercedes is a woman.'  
c. *locative* to je u kuci  
that is-CL in house-loc 'That's in the house.'

#### *Obligatoriness*

The copula is obligatory in Croatian. Generally, copulaless predication structures are rare and stylistically marked in the target language. Example (33) is an idiom. (cf. Katicic 1991, Baric et al. 1997).

---

<sup>3</sup> When it appears together with other 'second position' clitics (e.g., pronouns), they form a clitic cluster. The nature of clitics in Croatian constitutes a part of the general discussion on the status of clitics in general and slavic clitics in particular with respect to phonology, morphology and syntax; cf. e.g., Cavar & Wilder 1999, Wilder & Cavar 1994.

<sup>4</sup> In the variety spoken in Zagreb.

(33) Sve uzalud. ‘Everything in vain.’

## 4.2 Croatian data

Spontaneous production data from a longitudinal child language corpus

- *Antonija-Corpus*, collected by Draženka Blaži

Antonija is a girl growing up in Zagreb

### *Analyzed utterances*

declarative copula predication sentences, including one word contexts

### *Analyzed period of development*

seven months from the onset of the child’s two-word stage (1;7.2 - 2;1.28), 17 recordings

## 4.3 Copular constructions in child Croatian

Copula constructions are present from the beginning of the two-word stage.

### *No omissions of the copula*

We find no instances of non-verbal predication without a copula at all. Furthermore, we find that Antonija corrects herself when she skips the copula as it is shown in (34).

(34) to kajun - to je kajun [: klaun]  
that clown - that is-CL clown ‘That is a clown’ Ant10 (1;9.15)

### *Utterances with a copula*

Antonija’s usage of the copula conforms to the regularities of the target language (contextual use of clitic, emphatic or negated forms, clitic placement, subject and verb agreement). The dominance of enclitic forms indicates that the child chooses enclitic forms for the neutral (non-emphatic) affirmative contexts.

Table 8: Clitic, non-clitic and negated forms of the copula (absolute numbers and row percentages)

copula forms			total
clitic copula	strong copula	negated copula	
72	12	13	97
74.2%	12.4%	13.4%	100%

Antonija07-23: 1;7.2 - 2;1.28

Analyzed copular constructions include utterances with overt subjects and non-verbal predicates, null subject sentences with a predicate, one utterance with an overt subject without a predicate, and copulas as one-word utterances. The latter can be interpreted as elliptic comments or answers.



Table 9: Types of utterances with a copula (absolute numbers and row percentages)

cop, subj, pred	cop, pred	cop, subj	cop	total
48	31	1	17	97
49.5%	32.0%	1.0%	17.5%	100%

Antonija07-23: 1;7.2 - 2;1.28

### *Predicates*

#### *adjectival predicates*

- (35) a. deda je umoran  
 grandpa is-CL tired-masc-sg ‘Grandpa is tired’ Ant11 (1;10.0)  
 b. ti si joceta [: zlocesta]  
 you-sg are-sg-CL bad-fem-sg ‘You are bad’ (said to grandma) Ant16 (1;11.17)

#### *locative predicates*

- (36) a. tu je koka  
 there is-CL hen ‘There is the hen’ Ant12 (1;10.10)  
 b. u omaju [: ormaru] je  
 in cupboard-loc is-CL ‘(the plate) is in the cupboard’ Ant10 (1;9.15)

#### *nominal predicates*

- (37) a. i ja sam t(v)oja mama  
 and I am-CL your mama ‘And I am your mama’ Ant13 (1;10.21)  
 b. a ovo je s(l)onic  
 and this is-CL elephant-DIM ‘And this is a small elephant’ Ant22 (2;1.17)

#### *‘other’ predicates*

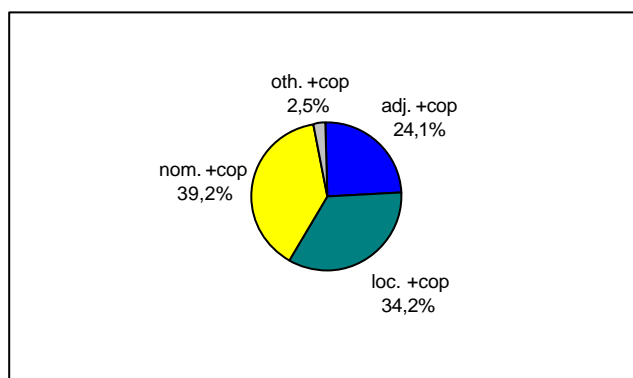
- (38) nije bocboc kaze(t)ofon  
 not-is yucky taperecorder ‘The t. is not yucky’ Ant18 (2;0.2)

Table 10: Predicate types (absolute numbers and row percentages)

predicate types				total
adjectival	locative	nominal	other	
19	27	31	2	79
24.1%	34.2%	39.2%	2.5%	100%

Antonija07-23: 1;7.2 - 2;1.28

Figure 6: Predicate types with an overt copula (+cop)



Antonija07-23: 1;7.2 - 2;1.28

### Subjects

Antonija uses null, pronominal, and lexical subjects. The relative frequencies are similar to those with other types of verbs (cf. Katicic 1997, Katicic & Schaner-Wolles 2001).

Table 11: Subject type in copular utterances (absolute numbers and row percentages), 17 one-word utterances not included

subject type			total
null subject	overt subject		
		pronominal	lexical
31	39	10	80
38.8%	48.8%	12.5%	100%

Antonija07-23: 1;7.2 - 2;1.28

### Placement of subjects and predicates

The basic subject initial word order is most frequent, subject predicate inversion takes place, too.

Table 12: Relative order of subject and predicate in utterances with overt subject (absolute numbers and row percentages)<sup>5</sup>

order of subject and predicate		total
subj – (...) – pred	pred – (...) – subj	
39	8	47
83.0%	17.0%	100%

Antonija07-23: 1;7.2 - 2;1.28

<sup>5</sup> One utterance *to je to* 'that is that' is not included here, because it is not classifiable in the given context

## 5. Summary

---

- Adult English, German, and Croatian: copula obligatory
  - child English and German: predication structures without a copula
  - child Croatian: no predication structures without a copula
- Child English and German:
  - the copula is almost always finite
  - the occurrence rate of the copula is different for different kinds of predicates
    - Nominal predicates (temporally unbounded predicates) favor the occurrence of a copula.
    - Locative predicates (temporally bounded predicates) do not.
- Non-target like properties of predication without a copula in German:
  - predication without copula
  - locative nominals
  - more bare noun phrases than in predication contexts with a copula
  - fewer pronominal subjects than in predication contexts with a copula
- Similar cross-linguistic split: finiteness in language acquisition
  - English: verbs with and without -s in adult 3rd singular contexts
  - German: finite verb and root infinitives in adult finite contexts
  - Croatian: finite verbs from the beginning
- Question for future research:  
Do the presence or absence of root infinitives and occurrence or nonoccurrence of copulaless predication structures also cluster together in the acquisition of other languages?

## References

- Baric, Eugenija, Mijo Loncaric, Dragica Malic, Slavko Pavešić, Mirko Peti, Vesna Zecevic & Marija Znika (1997). *Hrvatska gramatika*. Zagreb: Školska knjiga.
- Becker, Misha (2000a). The Development of the Copula in Child English: The Lightness of Be. PhD Dissertation. UCLA.
- Becker, Misha (2000b). The Acquisition of the Copula in Child English. In: Roger Billerey & Danielle Lillehaugen eds. *WCCFL 19 Proceedings*. Somerville, MA: Cascadilla Press, 57-70.
- Bloom, Lois (1970). *Language Development: Form and function in emerging grammars*. Cambridge, MA: MIT Press.
- Brown, Roger (1973). *A first language*. Cambridge, MA: Harvard University Press.
- Cardinaletti, Anna & Maria Teresa Guasti eds. (1995). *Small Clauses. Syntax and Semantics 28*. London: Academic Press.
- Carlson, Gregory (1977). Reference to Kinds in English. PhD Dissertation. University of Massachusetts, Amherst.
- Carlson, Gregory (1980). *Reference to Kinds in English*. New York: Garland Publishing.
- Cavar, Damir & Chris Wilder (1999). 'Clitic third' in Croatian. In: Henk Van Riemsdijk ed. *Clitics in the languages of Europe*. Berlin: de Gruyter, 429-467.
- Déchaine, Rose-Marie (1993). Predicates across categories. Towards a category-neutral syntax. PhD Dissertation, University of Amherst.
- Enç, Mürvet (1987). Anchoring Conditions for Tense. *Linguistic Inquiry* 18(4), 633-657.
- Katicic, Antigonja & Chris Schaner-Wolles (2001). Subjekt i predikat u usvajanju hrvatskoga jezika. Paper presented at *Psycholinguistics and Cognitive Science in Croatian Applied Linguistics. 15. Jahrestagung der Croatian Applied Linguistics Society (Hrvatsko društvo za primjenjenu lingvistiku)*, Opatija im Mai 2001.
- Katicic, Antigone (1997). Zum Erstspracherwerb des Kroatischen: Morphologische und syntaktische Aspekte beim Erwerb des Verbalsystems. M.A. Thesis. University of Vienna.
- Katicic, Radoslav (1991). *Sintaksa hrvatskog književnog jezika*. Zagreb: Globus and Hazu.

- Köhler, Katharina & Sabine Bruyère (1995/96). Finiteness and verb placement in the L1-acquisition of German. *Wiener Linguistische Gazette* 53-54.
- Korecky-Kröll, Katharina (2000). Der Erwerb von Subjekt- und Objektklitika in der Sprachentwicklung eines Wiener Kindes im Alter von 2-3 ½ Jahren. MA Thesis. Universität Wien, Institut für Sprachwissenschaft.
- Kratzer, Angelika (1988). Stage-Level and Individual-Level Predicates. Ms. University of Massachusetts, Amherst.
- Kratzer, Angelika (1995). Stage-Level and Individual-Level Predicates. In: Gregory Carlson & Francis J. Pelletier eds. *The Generic Book*. Chicago: University of Chicago Press, 125-175.
- Löbel, Elisabeth (2000). Copular verbs and argument structure: participant vs. non-participant roles. *Theoretical Linguistics* 26, 229-258.
- MacWhinney, Brian & Catherine Snow (1990). The child language data exchange system. *Journal of Child Language* 17, 457-472.
- Magner, Thomas F. (1966). *A Zagreb Kajkavian Dialect: The Pennsylvania State University Studies* 18. University Park: Pennsylvania State University Press.
- Radford, Andrew (1990). *Syntactic theory and the acquisition of English syntax: The nature of early child grammar of English*. London: Blackwell.
- Rothstein, Susan D. (1987). Three Forms of English *Be*. *MITWPL* 9, 225-238.
- Schaner-Wolles, Chris (2000). Der Erwerb von Finitheit. Paper presented at *Jahrestagung der Deutschen Gesellschaft für Sprachwissenschaft, Universität Marburg, März 2000*.
- Stowell, Tim (1978). What was there before there was there? In: Donka Farkas, W. Jacobson & K. Todrys eds. *Papers from the Fourteenth Regional Meeting of the Chicago Linguistic Society*. Chicago: University of Chicago, 458-471.
- Stowell, Tim (1983). Subjects across categories. *The Linguistic Review* 2, 285-312.
- Wexler, Ken (1994). Optional infinitives, head movement, and the economy of derivations. In: David Lightfoot & Norbert Hornstein eds. *Verb Movement*. Cambridge: Cambridge University Press, 305-350.
- Wilder, Chris & Damir Cavar (1994). Long Head Movement? Verb Movement and Clitization in Croatian. *Lingua* 93, 1-58.
- Williams, Edwin (1980). Predication. *Linguistic Inquiry* 11, 203-238.
- Williams, Edwin (1984). There-Insertion. *Linguistic Inquiry* 15, 131-153.

University of Vienna  
 Department of Linguistics  
 Berggasse 11, A-1090 Wien  
 christine.czinglar@univie.ac.at,  
 antigone.katicic@univie.ac.at  
 katharina.koehler@univie.ac.at  
 christiane.schaner-wolles@univie.ac.at