THE PRIVILEGE OF THE FIRST POSITION IN AGRAMMATISM, CHILD LANGUAGE ACQUISITION AND HEADLINESE

Maria Teresa Guasti, Francesca Foppolo, Claudio Luzzatti e Claudia Caprin - University of Milano-Bicocca

INTRODUCTION

Article omission is a common feature of agrammatic and child speech, but is not unique to these peculiar conditions, as it is a widespread option in a register of the normal language: headlines. Our aim is to show that article omission is not arbitrary, but is regulated by syntactic constraints.

METHODS

The data

- Italian headlines: a corpus of 1021 headlines from several newspapers
- Children data: spontaneous production of 59 Italian speaking children
  (Mean age=28.92, SD=2.8 - cross-sectional data available in Caprin, 2003)
- Aphasic data: spontaneous speech of 7 Italian agrammatic patients recorded longitudinally after cerebral damage

Coding and Analysis

Spontaneous production data have been transcribed using the CHAT system of CHILDES (MacWhinney, 2000). Agrammatic data were coded morphosyntactically using Ayda (kindly made available by Cappelli, CNR, Pisa).
Omission and presence of articles were classified according to whether it occurred in:
- utterances with verbs
- utterances lacking a verb
- utterances with/out copula/auxiliary *be*

RESULTS

ITALIAN HEADLINES

I. ARTICLES ARE MOSTLY OMITTED FROM INITIAL POSITIONS

(1) Manager vince all'asta un Picasso (M*anager wins a Picasso at the auction*)
(2) Pensioni, riforma rinviata al 18 aprile (*Pensions, reform postponed to April 18*)
(3) Tanzi, ricovero d'urgenza all'ospedale (*Tanzi, emergency hospitalization*)

Articles are mostly omitted before the first noun (which can either be the subject, as in (1), or the Hanging Topic (HT, a phrase that introduces the topic of the headline, as in (2)) or before the phrase following the HT, as in (2) and (3). Articles are rarely omitted from a clause internal position. The association between presence/omission of articles and position is significant (χ^2=199.4; p<.0001).

Table 1 - Percentages of article omission depending on the position in the sentence

Initial position	After HT	Non-initial position
60%	27%	9%

II. ARTICLES ARE OMITTED MORE OFTEN IN NONFINITE VERBAL UTTERANCES OR IN VERBLESS UTTERANCES THAN IN FINITE VERBAL UTTERANCES (χ^2=26.1; p<.0001)

Table 2 - Percentages of article omission in Italian headlines depending on utterance type

Nonverbal utt.	Nonfinite verbal utt.	Verbal utt.
47%	42%	34%

Conflating omissions from the position after HT and omissions from first clausal position, we compared omissions in utterances with a finite verb and utterances with a non-finite verb+utterances without a verb. In both cases there is a significant difference (finite verbal utterances: χ^2=71.1; p<.0001; non-finite verbal utterances + verbless utterances: χ^2=100.01; p<.0001).

III. OMISSION FROM OBJECT NP IS POSSIBLE ONLY IF THE SUBJECT NP LACKS THE ARTICLE

(4) a. Pitbull ferisce (un) bambino (*Pitbull wounds (a) child*)
    b. (Milano) salva cucciolo di foca ((*Milan) saves baby seal*)
(5) *Un pitbull ferisce bambino (*A pitbull wounds child*)

When the verb is present, the article can be omitted from the object position only if it is also omitted from the subject position (as already observed by Stowell, 1999 for English headlines) or if the subject is null or it's a proper noun. In fact, (4 a-b) are attested as headlines but (5) is not.

IV. ON THE PRE-COPULAR NP, ARTICLES ARE NEVER OMITTED IF THE COPULA OR THE AUXILIARY *BE* ARE PRESENT (χ^2=16,7; p<.0001).

(6) Il catalogo è in rete (*The catalogue is on the web*)
(7) Benzina a prezzi record (*Petrol at record prices*)
(8) Interprete militare arrestato per spionaggio (*Military interpreter arrested for spying*)
(9) Il canile sarà ristrutturato (*The dog's home will be renovated*)

Articles are never omitted in pre-copular position, as in (6); they can be omitted, if the copula is also omitted (62%), as in (7). Similarly, articles in front of the subject are omitted when compound tenses lack the auxiliary *be* (38,8%), as in (8), but they are not when the auxiliary *be* is present, as in (9).

CHILDREN DATA

Collapsing together verbal and nonverbal utterances, we found a significant effect of position in article omission (Friedman test χ^2=12.316, df=2, p=.002): omission is higher from sentence initial position than from a position after a verb (Wilcoxon test z=-4.4; p<.001), as displayed in table 3.
In addition, omission is higher in nonverbal utterances than in verbal utterances (Wilcoxon test, z=-3.8; p<.001), as displayed in table 4.

Table 3 – position in the sentence | Table 4 – type of utterance

Initial position	Non-initial position	Nonverbal utt.	Verbal utt.
36%	24%	45%	20%

We also note that article omission from internal position occurs in the vast majority of the cases when the subject is null; in the few cases in which a subject is present, it is a proper noun, a pronoun (personal or demonstrative) or a bare noun.
We also found a tendency to omit the article before the subject more often when *be* is absent (6/14=42,9%) than when it is present (4/23=17,4%).

AGRAMMATIC DATA

Overall, article omission is significantly higher from initial position than from utterance internal position (Wilcoxon test: z=2.4; p=.01), unlike Baauw, de Roo and Avrutin, 2002 for Dutch, as shown for each patient in table 5.
In addition, it is higher from nonverbal utterances (M=.30, SD=.10) than from verbal utterances (M=.16, SD=.14) (Wilcoxon test: z=2.2; p=.02), as shown in table 6.

Table 5 – position in the sentence | Table 6 – type of utterance

	Initial position	Non-initial position	Nonverbal utt.	Verbal utt.
LZO	47%	28%	31%	10%
PGI	34%	3%	41%	27%
FCE	64%	37%	32%	9%
ADS	39%	5%	18%	1%
MGA	15%	2%	18%	0
ROL	20%	10%	43%	34%
DRO	73%	33%	31%	31%

There is also a tendency to omit the article before the subject more often when *be* is absent (6/11=54,5%) than when it is present (5/20=25%).

GENERAL DISCUSSION

Some generalizations can be derived from the data presented:

- articles are generally omitted from first clausal position (unless a copula is present)
- article omission is higher in utterances with no verb or with a nonfinite verb than in utterances with a finite verb

A competence-based explanation for article omission in agrammatic and child speech is not tenable, given that very similar features are found in headlines. Following Stowell (1999), we assume that the highest NP in the clause is marked +R if it is reduced (it's not the complement of a D-head) and –R if it is not. Then, the constraint that regulates article omission can be expressed as follows:

a +R NP cannot be c-commanded by a –R NP

This constraint is satisfied in the first clausal position, because there a +R NP is not c-commanded clause internally. It is also satisfied in a clause internal position provided that no appropriate antecedent (a –R NP) is available, as in the headline examples in (4).
Dropping material from initial clausal position is not unique to articles, but it's also attested in clausal subjects and topicalized object pronouns (e.g., Rizzi, 2002; Haegeman, 1990 and De Roo, 1999). This fact suggests that omission of functional material from the highest clausal position is a universal option of UG that the processing system can exploit under limited resources.

This option is exploited under conditions of space limitation and requirements of informativeness in headlinese (Avrutin&De Lange, 2004) and of reduced capacity of the production system, as in agrammatics and children (Kolk et al., 1990; De Roo, 2000 and Rossi et al. 2003).
Articles tend to be omitted more from utterances without a verb or with a nonfinite verb than from utterances with a finite verb. This follows from a violable constraint holding between Spec and head: a +R NP requires a +R tense (a deficient tense) and reduction of tense can be more or less radical and be achieved in different ways: by omitting the lexical verbs, by using a nonfinite verbs or by using a verb whose tense is deficient in that it is encoded through the aspectual feature of the verb. This happens in the present tense, which is the tense generally used in headlines. This tense is deficient, however, in that it is encoded through the aspectual feature of the verb: if the verb is eventive, it refers to a past event; if the verb is stative it refers to the present. Finally, article omission is not possible when copula/aux *be* is present, since this verb is just the pure expression of tense: it refers to the present and it is inserted to carry this tense feature. Hence, *be* expressres a –R tense and thus requires a –R NP (i.e., a noun with the article).
In conclusion, article omission is not the expression of an incomplete grammatical system, but of a system that, under reduced capacity, adopts options that are regulated by syntactic constraints.

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E-mail for correspondence: francesca.foppolo@unimib.it