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THE ACQUISITION OF VERB PLACEMENT IN GERMAN: A NEW LOOK

Abstract. After an overview of the V2 phenomenon and the explanations which have been given for it in theoretical linguistics, the developmental data and different accounts for them are discussed pointing out various problems. Based on findings from experiments with 2 to 6 years old children using the head turn preference paradigm and a sentence repetition task a new approach is proposed arguing for a very early access to the critical parametric information, and explaining the developmental facts as resulting from the interaction of grammatical and processing constraints.

1. INTRODUCTION

The position of the finite and non-finite verb in main and embedded clauses is a central locus of cross-linguistic variation. The issue of how to derive this parameter of typological variation from more general properties of a given language has been the major concern of much influential work in linguistic theory in the recent years (e.g. Chomsky, 1986, 1993, 1995; Pollock, 1989). The question how the child acquires this crucial aspect of the parametric structure of the target language has equally played a central role in the acquisition research of the last years (e.g. Meisel, 1992). Much of this latter work draws heavily on the linguistic analyses in order to explain how this aspect of adult linguistic knowledge is acquired by the child. Under the assumption that the way how acquisition proceeds is not independent from the structure of the knowledge which has to be acquired acquisition research may help to decide which theoretical account may be considered to most adequately represent the linguistic knowledge of the adult.

This paper will focus on a special case of verb placement, namely the acquisition of “Verb-Second” (henceforth V2) in German which has been and still is in the center of an ongoing debate. The structure of the paper is the following: First, we will give a short overview of the V2 phenomenon and the accounts that have been given for it in theoretical linguistics. Second, we will introduce the developmental data on which our subsequent discussion will be based. Third, we will sketch out different approaches including our own to language acquisition which underlie the discussion of the acquisition of V2. Forth, we will present and discuss different accounts of the developmental data concluding with our own proposals.

1.1 The Verb-Second Phenomenon

The issue of “verb placement” concerns the regularities that underlie the position of verbs in the clause. It is widely assumed that these regularities are the result of the interaction of properties like finiteness and agreement which may be

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morphologically instantiated by the verb. "Finiteness" is understood as a complex concept involving tense, mood and illocution (for an illuminating discussion see Klein, 1998). The V2 phenomenon concerns a particular case of verb placement namely the observation that in root clauses exactly one constituent can precede the finite verb. This property holds in a general way, i.e. for declarative and interrogative clauses, in a number of West Germanic languages like Dutch and German. In other languages like English or French it holds only for a subset of root clauses, e.g. interrogatives, whereas in declarative sentences more than one constituent may precede the finite verb as shown in Sentence 1 and Sentence 2:

(1) \textit{John he likes}

(2) \textit{Jean, il l'aime bien.}

John, he him\textsubscript{Chitic} likes well

Thus, in contrast to generalized V2 languages, English and French are considered residual V2 languages. Within a Universal Grammar framework these typological differences have been related to differences in the position of the finite verb in the underlying syntactic representation. That is, assuming X-bar Theory and two levels of functional projections, IP and CP above VP, the finite verb could be either located in I\textsubscript{0} or, for Verb-second, in C\textsubscript{0}.\textsuperscript{1} Different proposals have been made to account for these language particular positions of the verb. In a Minimalist framework (Chomsky, 1995), they are explained in terms of strong vs. weak verbal features, e.g. [+ Tense], [+AGR], associated with the functional heads I\textsuperscript{0} or C\textsuperscript{0}. The overt movement of the finite verb to C\textsuperscript{0} in Dutch and German is supposed to be forced by the presence of strong verbal features in C\textsuperscript{0}. Depending on the language, these may also be spelled out by complementizers.\textsuperscript{2} This leads to the well known root clause/non-root clause asymmetry for the placement of the finite verb in German and Dutch: the finite verb moves to C\textsuperscript{0} in matrix clauses but has to stay clause-final in embedded clauses with complementizers.

To summarize, the underlying structure for German declarative, interrogative and embedded clause would thus be as shown in Sentence 3 a-c:

(3 a) \[ \text{[CP Hans\textsubscript{i} [C liest\textsubscript{j} [IP t\textsubscript{i} ein Buch t\textsubscript{j}]]] \]

Hans reads a book

(3 b) \[ \text{[CP Was\textsubscript{i} [C liest\textsubscript{j} [IP Hans t\textsubscript{i} t\textsubscript{j}]]] ?} \]

what reads Hans

(3 c) \[ \text{[CP [C dass [IP Hans ein Buch liest]]] \}

that Hans a book reads

Since the seminal work of Bierwisch (1963) and Den Besten (1989) verb placement in German has been extensively discussed in the literature (for an overview see
Müller & Penner, 1996). One major issue in this debate, relevant to the discussion of the acquisition of V2, concerns the question whether all main clauses in German have the same underlying representation or not. Thus contrary to the assumption that in root clauses all verbs move to C0 (e.g. Schwartz & Vikner, 1996) it has been proposed (e.g. Reis, 1985; Travis, 1984; Zwart, 1997) that this holds only for a subset of root clauses namely non-subject initial clauses and wh-questions but not for subject initial clauses. In these clauses the verb is supposed to move only to I0 as shown in Sentence 4:

\[
(4) \quad [_{IP} \text{Hans}, \_i \text{liest}, \_i \text{VP, ein Buch, } i)]
\]

Hans reads a book

One problem with this proposal is how to explain why structures like in Sentence 1 and Sentence 2 are not allowed in German and Dutch. There must be a difference between the IP of English and French on the one hand and of German and Dutch on the other hand which blocks topicalization of objects or adjuncts.

Another problem with the proposal that subject-initial clauses should be analyzed as IPs arises from the clause final position of the finite verb in embedded clauses with complementizers. If one assumes that in embedded clauses the verb also stays in I0, one would have to pose two kinds of IPs for German: a head-initial IP in matrix clauses vs. a head-final IP in embedded clauses. There are at least two proposals in the literature which constitute potential solutions to this paradox. One is Haider’s (1993) suggestion that in German there is no convincing evidence for a head-final IP projection in embedded clauses and that consequently there is only one functional projection dominating VP which can be the result of matching several functional projections, e.g. CONFL (see also Platzack, 1994). From this it follows that V0 must be a possible host for finite verbs. The other way to cope with this paradox is to assume with Zwart (1997), following Kayne (1993) that there is an universal base-structure namely (S)V0. This means that the (S)OV structure in Dutch and German embedded clauses are not supposed to reflect the base structure as first proposed by Bierwisch (1963) and Den Besten (1989) but has to be considered as derived by object movement to a preverbal position.

In the following we will leave aside the question whether subject initial main clauses differ syntactically from non-subject initial clauses and will assume that the finite verb occupies the same position, i.e. C0, in both structures.

1.2 Acquisition Data and Linguistic Theory

Given the different accounts for verb placement in adult Dutch and German the question arises whether the acquisition data can help us to decide between them. Obviously the language learning the child must be able to derive at least all language particular regularities of the target from the input. We thus assume following among others Lebeaux (2000), Penner (1994b), Rizzi (1994), Roep (1996), Weissborn (1994), that the proposed structures for the adult language should be compatible with the acquisition data in order to be considered as potentially empirically adequate.
1.3 The Developmental Problem

Given the above characterization of the V2 phenomenon, the developmental issue can be formulated as follows: First, the German child has to find out that the language to be learned is a genuine V2 language, i.e. has obligatory V2 (V-to-C) movement. The occurrence of non-subject sentences alone cannot tell the child that V-to-C is obligatory in all finite matrix clauses: as we have seen above, subject initial clauses at the first sight are ambiguous between an IP and a CP interpretation. Second, the child has to find out that in embedded clauses introduced by a complementizer the verb has to stay in the final position.

2. THE DEVELOPMENTAL DATA

In this section we will briefly present the data which underlie most of the discussion on the acquisition of verb movement in German.

2.1 The Data Base

There exists a number of longitudinal corpora the classical one being the one presented in Stern and Stern (1928) (see also Clahsen, 1991; Kaltenbacher, 1990; Miller, 1976; Tracy, 1991). Nevertheless the overall data situation is still unsatisfactory because given the limited number of corpora it is difficult to draw firm conclusions from the absence or the scarcity of particular types of developmental data. Certain developmental phenomena may be so rare and so fast that they may have escaped documentation in the available data base. Thus, in the absence of a near to complete, i.e. day by day, documentation of the acquisition process for at least some children up to the age of three years, our conclusions must stay more speculative than they ought to be.

2.2 Descriptive Picture of Overall Development

In the following overview we will only mention the main phenomena related to the question of the development of verb placement.

Verbs and verb particles (e.g. rein “into”, weg “away”) occur from the one word stage on (e.g. Bennis, den Dikken, Jordens, Powers, & Weissenborn, 1995; Penner, Wymann, & Dietz, 1998). The first verbs are main verbs. The copula, modals and auxiliaries emerge slightly later (e.g. Behrens, 1993; Kaltenbacher, 1990; Mills, 1985).

Main verbs are mainly non-finite in the beginning. Modals and auxiliaries first occur only as finite forms. From the two-word stage on finite and non-finite verbs when combined with an object or an adverb occur predominantly in the target position: initially for finite verbs, finally for non-finite verb, e.g. geht nicht “doesn’t work” vs. nicht gehen “not work”. An asymmetry can be observed between finite and non-finite verbs with respect to position errors: there are almost none for the latter, and about up to 10% for the former. Interestingly, erroneous finite verb-final constructions are found predominantly in children with language disorders (Penner, Wymann & Dietz, 1998; Schaner-Wolles, 1994).

Non-finite utterances like the ones in Sentence 5 and Sentence 6 are initially
predominant with up to 90% of the utterances containing a verb (e.g. Behrens, 1993; Weissenborn, 1990):

(5) \textit{schuh ausziehn} \quad \text{S (1;11;13)}^4
\text{shoe take off}

(6) \textit{maxe auch (mu)sik mache(n)} \quad \text{S (1;11;14)}
\text{Max also music make}

The number of clauses with non-finite verbs decreases gradually over time without disappearing completely (e.g. Lasser, 1997; Weissenborn, 1990, 1994). The number of non-finite constructions with subjects is mostly below 10% (Weissenborn, 1990).

A source of finite verb initial utterances are clauses with missing subjects. These are structurally adult-like although pragmatically they may be inadequate (e.g. Weissenborn, 1992).

Similarly, the first \textit{wh}-questions may occur without an overt operator resulting in finite verb-initial utterances which look like yes-no questions (e.g. Felix, 1980; Penner, 1994a):

(7) \textit{is das?} \quad \text{S (2;00;05)}
\text{(what) is this}

The occurrence of target-like \textit{wh}-pronouns may be preceded by the appearance of placeholders, i.e. phonologically reduced forms (e.g. Müller & Penner, 1996). A similar development can be observed for embedded finite clauses: here too the \textit{complementizer} may be first missing resulting in deviant finite verb-end structures (e.g. Müller & Penner, 1996; Weissenborn, 1990):

(8) \textit{papi sagt (...) schöne hose anzieht (\textit{= angezogen}) hat} \quad \text{H (2;01;18)}
\text{daddy says (that) (he) has put nice pants on}

Here too placeholders may appear before the first overt complementizers emerge. It should be noted that from the beginning the finite verb correctly occupies the final position in embedded clauses even when the complementizer is missing.

(9) \textit{fenster heiss ist} \quad \text{S (2;00;03)}
\text{window hot is}

(10) \textit{dass du hast(f) net die meerjungfrau} \quad \text{B (3;00;19)}
\text{that you have not the seemaid}

(Gawlitzek-Maiwald, Tracy, & Fritzenschaft, 1992)
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