THE PHENOMENON OF UNDERSPECIFICATION IN EARLY CHILD GRAMMAR: THE EXAMPLE OF VERB PLACEMENT AND OPTIONALITY / LE PHÉNOMÈNE DE SOUS-SPÉCIFICATION DANS LA GRAMMAIRE ENFANTINE: L'EXEMPLE DU POSITIONNEMENT DU VERBE ET DE L'OPTIONNALITÉ / FENOMENUL FORMULĂRII INEXACTE ÎN GRAMATICA TIMPURIE A COPILULUI: EXEMPLUL PLASĂRII VERBULUI ŞI OPŢIONALITATEA[1]

Abstract: The aim of this paper is to discuss the phenomenon of underspecification in early child grammar with respect to the syntactic consequences it has in the child language system. The paper addresses the phenomena of verb placement and optionality and how they are accounted for by first language acquisition theories assuming identity between child and adult grammatical systems. These phenomena are discussed within the weak and strong continuity frameworks which account for L1A by incorporating the notion of underspecification among their basic assumptions.

Continuity approaches to L1A find underspecification to be of crucial importance in the early grammar. It seems that underspecification of functional categories and their features is what makes the child and adult systems different by provoking a number of syntactic consequences evident in the child system, while absent in the adult one.

Key words: underspecification, child grammar, L1 acquisition, verb placement, optionality.

Introduction

The notion of underspecification is central in many accounts of child language acquisition. It is particularly relevant to the approaches of first language acquisition (L1A) that assume partial or complete equivalence of the child and adult grammar systems (Clahsen et al. 1996, Hyams 1996, Wexler 1994). Although they offer different explanations for what triggers the development of the child system towards the adult one, they all agree that underspecification points to some specificities of child grammar. Namely, according to all these accounts underspecification of functional categories and their features has certain syntactic consequences in the child grammar and marks the difference between the two systems.

In this paper I will discuss the phenomenon of underspecification in early child grammar with respect to the syntactic consequences it has in the child language system. Particular attention will be paid to the phenomena of verb placement and optionality. They will be discussed within the weak and strong continuity frameworks which account for L1A by incorporating the notion of underspecification among their basic assumptions.

Verb placement

---

[1] Sonja Kitanovska-Kimovska, Blaze Koneski Faculty of Philology, Skopje, Macedonia, sonjakitanovska@yahoo.com.

Within the weak continuity framework (Clahsen at al. 1996), which assumes that deviations in the child grammar with respect to the adult one are a matter of degree, the phenomenon of underspecification has been proposed to be a reason behind the differences between child and adult language. According to Clahsen at al. (1996) early grammars are small structure grammars which lack certain functional projections, while having some which are not fully specified. In their Lexical Learning Hypothesis they use the notion of underspecification to indicate that some functional categories lack certain grammatical features. Their basic assumption is that morphology develops before syntax (White 2003), i.e. features that are morphologically realised trigger head representation (Parodi 2004). Adopting Chomsky's theory of merger, this view assumes that functional projections are bundles of features whose properties are determined by the features of their head (Clahsen at al. ibid.). Adult and child grammars differ with respect to the feature content of the head. For example, if a given head X is specified by a certain number of features, say F1, F2, F3 and F4, child systems in their early stages of development are characterised by a projection of the head X containing only features F1 and F2 and lacking all the others. This lack of features makes child grammar underspecified with respect to the adult one and is reflected in the phrase structure as well as in the syntactic distribution of elements. According to Clahsen at al. (ibid.) children's phrase structure consists only of one functional projection in the verbal domain (FP – Finite Phrase) with a head specified only by the feature F (finite) and lacking all the others. Since the specifier of this head cannot be filled by a subject or a wh-element, the head cannot be identified with IP, AGRP or CP. In this sense the functional projection occupies a position which is underspecified. Clahsen at al. (ibid.) propose this theory of the early child grammar based on their investigation of the acquisition of German as a first language. Namely, looking at finite and non-finite verb placement as well as verb placement in verb clusters, their analysis of the data shows that there is a sharp correlation between finiteness and verb placement. Children consistently use finite verbs in their V2-position (1) and non-finite verbs in clause final position (2), whereas in verb clusters finite verbs always precede non-finite ones (3).

(1) ich hab hier reintecken tasche A (2;6)[1]

    I have here put-in bag

    'I have put (this) into the bag'

(2) mone auch lump ausziehen S (1;11)

    Simone also rag take-off

(3) ich habe das mach M (3;0)

    I have that done

On the basis of such results they conclude that early child phrase structure consists of two underspecified verb positions. One, specified for +F accommodating only finite verbs, and another, neutral with respect to finiteness, restricted to clause final position. Being underspecified for finiteness, the latter may host both finite and non-finite verbs, however,

---

[1] Examples (1), (2) and (3) are taken from Clahsen et al (1996).

clause-final position being able to accommodate only one verb, whenever two verbs occur, the finite verb raises to the position specified for +F. Thus, the conclusion is that child language produces underspecified positions and there is only one functional projection in the verbal domain.

Similarly, Clahsen and Eisenbeiss (Clahsen and Eisenbeiss 1992 in Clahsen at al. 1996) propose that there is only one functional projection with underspecified positions in the nominal domain. They state that the head of the projection is specified for definiteness, but underspecified for gender and number, thus giving rise to a distinction between definite and indefinite determiners, but lack of inflection for gender and number in child language (Clahsen et al. 1994 in Clahsen at al. 1996). These parallels indicate that underspecification is not a marginal phenomenon, rather it is significant in making a contribution to the explanation of early functional projections as well as the differences between child and adult systems.

Optionality

The notion of undespecification is further developed within the strong continuity framework, especially in the work of Hyams (1996) and Wexler (1994). Assuming identity between child and adult grammars, these researchers propose that the primary differences are not in the system as such, as both grammars have fully developed lexical and functional projections, but in the overt realisation of some elements (Parodi 2002).

Null subjects, optional infinitives, optional determiners

According to Hyams (ibid.) a full set of functional categories is available to children from the very beginning of the acquisition process; however, some of them are not fully specified. Drawing parallels between the inflection (I) and determiner (D) systems, she makes generalisations about what she calls the optional specificity stage in child language development. On this account differences between the pragmatic systems of children and adults lead to underspecification of functional categories, which in turn have morphosyntactic consequences in child production. Namely, as a result of functional head underspecification children fail to produce lexical elements which carry important syntactic information. Thus, it is common to find null subjects (4) or optional infinitives in root clauses in early child utterances (5).

(4) want biscuit (Jem 1;9)[1]

(5) Paula play with ball (Paula 1;6)

Hyams (ibid.) accounts for such examples by proposing underspecification of the I projection which contains neither tense nor agreement features. Taking Chomsky & Lasnik's theory for null case assignment as a starting point, she relates the root infinitive phenomenon to the null subject phenomenon. Notably, null case being realised only when I lacks tense and agreement features explains why underspecification of I creates a suitable context for PRO[2],

---

[1] Examples (4) and (5) are taken from Radford (1990).

[2] PRO is an empty category in Government and Binding Theory. It is the subject of non-finite vebrs. According to Chomsky (Chomsky 1982 in Hyams 1996:98) the distribution of PRO is derived from the

which Hyams assumes is the null subject of child language. This explains why children produce null subjects at the same time they use root infinitives. Similarly to the syntactic consequences of I underspecification, the underspecification of D in early child grammar results in a different distribution of some elements with respect to the adult system. According to Hyams (ibid.), child language is characterised by optional determiners (6) and no scrambling[1] (7), phenomena absent in adult language.

     (6) baby eat cookies   (Allison 1;10)[2]
     (7) heb   jij   nog   niet   thee   opedaan   (example from Dutch)
        have   you   yet not   tea   up-done
        ' Haven't you written down [ ] 'tea' yet'

As can be seen from (6), children produce sentences without determiners in cases where there would be ones in the adult grammar. In addition, in languages in which specific nominals are obligatorily moved, children fail to do so with determinerless NPs (Schaeffer 1994 in Hyams 1996). These examples show that child functional category of D is not specified in the same way the adult one is.

In order to account for the underspecification of functional categories in early child grammar, Hyams proposes that there is a difference between pragmatic systems of children and adults. Assuming that I marks temporal specificity denoting a particular interval of time and D, nominal specificity within the discourse domain, she proposes that underspecified I and D lead to the default interpretation, i.e. deictic here and now for I and familiar interpretation for D, respectively. Specifically, on this view, root infinitives denote ongoing activities or states, while determinerless nominals the antecedent which is most salient in the given context. As children restructure the mapping between grammar and pragmatics, they acquire the full specification of all functional categories. Thus, this account clearly shows what the phenomenon of underspecification points to: the differences between child and adult systems and the apparent cases of deviations typical of child language.

Optional infinitives - revisited

That underspecification is a crucial importance in early child grammar is evident from Wexler's (1994) account too. He bases the notion of optionality in L1 on the phenomenon of underspecification. According to him children know the grammar of inflection but are not fully aware of the forms of inflection, which makes them use optional inflection in contexts where adult grammar has obligatory inflection. On this account children's clause structure is complete but inconsistent such that they use a properly inflected form at one occasion and an improperly inflected or uninflected one at another.

Basing his analysis on cross-linguistic evidence from French (8), German (9), Dutch, Mainland Scandinavian languages (Swedish, Danish, Norwegian) and English, Wexler (ibid.) posits that children know the head movement parameter, know that finite verbs move to I

PRO-theorem, that is, the requirement that PRO be ungoverned. According to Chomsky and Lasnik (Chomsky & Lasnik 1992 cited in Hyams 1996:98) PRO is the only argument which bears Null Case. Null case is the realisation of Spec-Head agreement between a lexical subject and non-finite I.

[1] Scrambling is non-canonical word order. Scrambling does not occur in English, but is frequent in languages with freer word order.

[2] Examples (6) and (7) are taken from Hyams (1996).

(8b) or C (9a), while non-finite ones stay in their base-generated position ((8a) and (9b)), yet, they use finite and non-finite verbs in matrix clauses interchangeably.

(8) a. pas   tomber [- finite] bebe[1]
        not   fall   baby
    b. marche [+ finite]   pas
        walks   not
(9) a. das Buch   habe   ich   gekuft [+ finite]
        the   book   have   I   bought
        I have bought the book'
    b. ich   will   das Buch   kaufen   [- finite]
        I   want   the book   buy
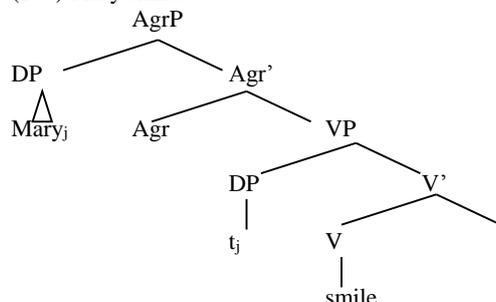   'I want to buy the book'

The reason for the optional infinitive stage in which children produce both finite and non-finite verb forms in positions where adult performance licenses only finite forms lies in the underspecification of T(ense). Children's not distinguishing between tense values (past-present) indicates that the values for T have not yet developed. Wexler (1999 in Guasti 2002) accounts for this phenomenon by assuming an interaction of four constraints in child language: tense constraint (according to which a main clause must be specified for tense), checking constraint (both Agr and T have a D-feature, which must be checked against the D-feature of a DP-subject that raises to Spec TP and Spec AgrP), uniqueness constraint (according to which a subject can check the feature of either Agr or T, but not both) and minimise violations (according to which one should choose that representation which violates the smallest number of constraints). The interplay of these constraints makes children face a dilemma. They know they must obey three constraints, but they can obey only any two at a time: realise tense, realise agreement or unique checking constraint. Based on this, when producing finite forms (10a) children violate the uniqueness constraint because the subject, generated in Spec VP, has raised to Spec TP and Spec AgrP to check the D-features of T and Agr.

(10a) Mary smiles.

---
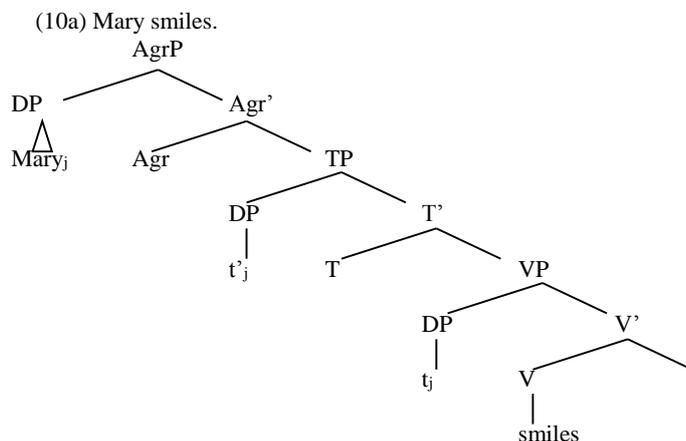
[1] Examples (8) and (9) are taken from Wexler (1994).

When producing non-finite forms (10b) they violate the tense constraint because the subject, generated in Spec VP, has raised to Spec AgrP while the TP layer is omitted.

(10b) Mary smile.

```
                    AgrP
              ┌──────┴──────┐
           DP               Agr'
           ╱╲          ┌─────┴─────┐
         Mary_j       Agr          VP
                            ┌───────┴───────┐
                           DP               V'
                            │          ┌────┴────┐
                           t_j         V
                                       │
                                     smile
```

Given that in both cases the same number of constraints is violated, according to minimise violations, either one can be chosen. This explains why children use these structures optionally. On this account the difference between child and adult language lies in the presence or absence of the uniqueness constraint. That not holding in adult grammar[1], adults produce only finite forms in main clauses as it causes no violations.

Thus, again, it seems that underspecification of functional categories is crucial in early child language development.

4. Conclusion

In this paper I discussed the phenomenon of underspecification in early child grammar with reference to the syntactic consequences it produces in child grammars. Phenomena like verb placement and optionality were particularly addressed. I showed that some theories on first language acquisition, especially those assuming identity between child and adult grammatical systems, account for these phenomena through the phenomenon of underspecification. Although they propose different accounts of what triggers the development of the child system, they are all unanimous on the issue of underspecification: it is a crucial phenomenon in the early grammar. The conclusion is that underspecification of functional categories and their features is what makes the two systems different by provoking a number of syntactic consequences evident in the child system, while absent in the adult one.

Bibliography
Clahsen, H., Eisenbeiss, S. & Penke, M., 1996, *Lexical Learning in Early Syntactic Development*. In (ed.) Clahsen, H. *Generative Perspectives on Language Acquisition*. Amsterdam: John Benjamins. pp. 129-159.
Guasti, M. T., 2002, *Language Acquisition: The Growth of Grammar*. Cambridge, Mass: MIT Press.
Hyams, N., 1996, *The Underspecification of Functional Categories in Early Grammar*. In (ed.) Clahsen, H. *Generative Perspectives on Language Acquisition*. Amsterdam: John Benjamins. pp. 91-127.

---

[1] It must be pointed out that this is not true of adult learner varieties.

Parodi, T., 2002, *Language Acquisition*. In (ed.) Malmkjaer, K. *The Linguistic Encyclopedia,* ed. London: Routledge.

Radford, A., 1990, *Syntactic Theory and the Acquisition of English Syntax: The Nature of Early Child Grammars of English*. Oxford: Blackwell.

Wexler, K., 1994, *Optional Infinitives, Head Movement and the Economy of Derivations*. In (eds.) Lightfoot, D. & Hornstein, N. *Verb Movement*. Cambridge: Cambridge University Press.

White, L., 2003, *Second Language Acquisition and Universal Grammar.* Cambridge: CambridgeUniversity Press