**Aldona Sopata**[1]

# THE ACQUISITION OF NEGATION IN EARLY CHILD POLISH

## Introduction

The generative theory of first language acquisition predicts that with the acquisition of one functional category, children should acquire also relevant syntactic properties of the respective language. In the present study the acquisition of negation in early child Polish is investigated and, further, the process is compared with the development of finiteness as a phenomenon being the prior evidence for the implementation of a functional category in children's grammar. The analysis of Polish child data supports the hypothesis explaining the first language acquisition in terms of a gradual development of the language structure in a child's mind.

Grammar is rarely one of anyone's most-loved school subjects. Yet children acquiring their first language can carry out this complex acquisition untaught, under a wide variety of circumstances. Infants acquire language like clockwork. Children of all cultures will produce their first words, and by 18 months, 2-word combinations. By 3 years of age they know enough about the language to carry on an intricate conversation. Though no two children are precisely alike in their language development, they all exhibit the same general pattern of development within the same general time frame. On the basis of sometimes very limited exposure to language they can quickly build the correct grammar of their language. This grammar enables children to produce and understand new sentences which they have never heard before.

[1] Dr Aldona Sopata, Institute of Applied Linguistics; Adam Mickiewicz University, Poznań, ul. 28 Czerwca 1956 r. 198, 61-485 Poznań; e-mail: sopata@amu.edu.pl

Such observations are the reason for the nativist hypothesis that children learn language in the same way that they learn to walk upright, as it is first of all part of their nature. First language acquisition is a process of growing that is genetically determined but on the other hand it depends on external factors, too. It follows a natural course of development exactly in the same way as other biological abilities.

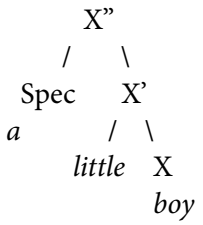
The special biological endowment for language has been described by generative theory as Universal Grammar (UG). It contains universal principles, which are the same in all languages, and parameters, which are specific for every language. Universal Grammar defines the range of possible language structure variety and then characterises the possible human language. Language acquisition is an interaction between the innate factors connected with Universal Grammar and input. The architecture of UG was first described by Chomsky (1981, 1986) as Theory of Principles and Parameters and further developed in the newer version of generative linguistics – The Minimalist Program (Chomsky 1995, 2000).

## 1. The architecture of Universal Grammar

Universal Grammar is the set of principles that all humans possess by virtue of having certain common genetic features. The principles are the common core of all human languages. An example of a principle is the X-bar Theory. It defines the prototypical syntactic form of a phrase. Every syntactic phrase is hierarchical and consists of three projections (s. Chomsky 1981, Haegeman 1991). All phrases in all languages contain a head (a key-word of the phrase, whose features determine the properties of the whole phrase). The head with a complement forms the next projection X' and the projection X' merges with specifier to form the maximal projection X". Chomsky (1993) argues that the head-complement relation is more fundamental, and the specifier-head relation is a kind of "elsewhere" relation. A child acquiring his first language doesn't have to learn the property of language because the knowledge of the phrase structure is claimed to be innate. An example of the X-bar theory[2] applied to a phrase is given in (1):

[2] The X-bar Theory is a part of the Theory of Principles and Parameters (Chomsky 1981, 1986). In Minimalist Program (Chomsky 1995), which is a father development of the theory, the operation of derivation is Merge. Products of applying the operations Merge and Move are phrases. The phrases have a head, as in X-bar theory, but they can have more than one Specifier (Chomsky 1995: 245).

(1)



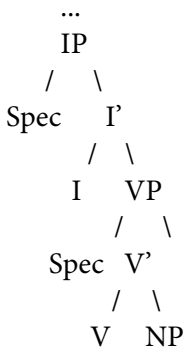

The inner structure of a phrase can be different in every language. The parameters of UG apply to such properties of languages . The head-parameter establishes for example whether the head of a phrase stands on the left or on the right side. In Polish the verbal phrase (VP) and inflectional phrase (IP) is head-initial (s. Mecner 1995, 1997, 2005). The canonical order of Polish sentences is then SVO (subject-verb-object) in main and subordinate clauses (s.2a, b).

(2) 2a Córka umie śpiewać piosenkę.
daughter can sing song
“The daughter can sing a song.”

2b Matka wie, że córka umie śpiewać piosenkę.
Mother knows that daughter can sing song
“The mother knows that the daughter can sing a song.”

The Polish structure of the relevant phrases is then to be presented as follows:

(3) The Polish structure of VP and IP




3a ..... *śpiewać piosenkę*
... [$_{VP}$ V *śpiewać* NP *piosenkę*]

3b ..... *umie śpiewać piosenkę*
... [$_{IP}$ INFL *umie*[$_{VP}$ V *śpiewać* NP *piosenkę*]]

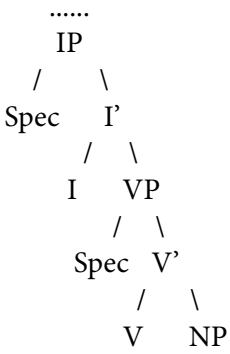
In German the verbal phrase (VP) and inflection phrase (IP) is head-final (s. Grewendorf 1988, 1992, 2002) resulting in the characteristic order of a German sentence. German is a "verb second" language with underlying SOV (subject-object-verb) order. Non-finite verbs occupy final position in main and subordinate clauses in German (s. 4a, b). The finite verbs move to next IP projection giving the verb-final order of German subordinate clauses (s. 4b)[3].

(4) 4a Die Tochter kann ein Lied singen.
the daughter can a song sing
"The daughter can sing a song."

4b Die Mutter weiß, dass die Tochter ein Lied singen kann.
the mother knows that the daughter a song sing can
"The mother knows that the daughter can sing a song."

The German structure of VP and IP is then to be presented as follows:

(5) The German structure of VP and IP




5a ..... ein Lied singen.
... [$_{VP}$ NP *ein Lied* V *singen*]

5b ..... ein Lied singen kann.
... [$_{IP}$ [$_{VP}$ NP *ein Lied* V *singen*] INFL *kann*]

[3] According to usual generative analyses, the word order of German main clauses is derived by further movement of the verb into COMP, the head of the next maximal projection CP, together with the movement of the subject NP, into Spec-CP. In subordinate clauses, the verb remains in INFL because the COMP position is occupied by a complementizer.

A child has to acquire the knowledge about the phenomena connected with language parameters. During the exposure to L1-input it has to discover the appropriate word order set and the relevant parameter.

The theory of principles and parameters introduced a difference between lexical and functional categories. The lexical categories are noun (N), verb (V), adjective (A) and preposition (P). They have lexical and descriptive content. The functional categories have to play only grammatical role and are not referential (see Radford 1997). Examples of functional categories are inflection (INFL), tempus (T) and agreement (AGR). They dominate the lexical categories and determine the syntactic structure of a sentence. According to Chomsky (1989, 1995) only functional categories are parameterized and the language variation is due to their different properties. Acquisition of relevant features of functional categories results in mastering appropriate grammatical phenomena by children.

In Minimalist Program (Chomsky 1995) functional as well as lexical categories consist of various features. The features are semantic, phonological or formal. The most essential distinction, for the purpose of the first language acquisition research, is the one between interpretable and uninterpretable features. Whereas the interpretable features are relevant for the interpretation at the level of Logical Form, the uninterpretable are not. The interpretable features have a sui generic semantic character. The uninterpretable features are erased in course of derivation. The example of interpretable features are the person, numerus and genus features of nouns. The uninterpretable features, on the other hand, are language-internal formal entities. Case marking serves as an example.

## 2. Hypotheses about first language acquisition

Generative theory as a theory of language faculty is a source of information and hypotheses about language development during first language acquisition. A variety of positions have been proposed to explain the process. These positions followed first either a Continuity or a Maturation perspective. These two perspectives make different claims about the nature of child's early syntactic representations and about the mechanisms that underlie developmental change. From a Continuity perspective, a child's grammar is formed of the same categories and principles as an adult grammar (Pinker 1984). In contrast, from a Maturation perspective (Felix 1984, 1992; Borer and Wexler 1987) the child's grammar can con-

tain unique properties not present in an adult system. Developmental change in linguistic behavior is explained by neurobiological maturation.

The development of functional categories in a child's grammar has been the subject of recent debate in the research on first language acquisition. Advocates of Full Competence Hypothesis (Poeppel and Wexler 1993, Borer and Rohrbacher 1997, 2002) have proposed that a child's earliest grammar contains all functional categories irrespective of whether the relevant morphemes and operations appear in production. The authors assume that the structure of a child's grammar is not significantly different from an adult's grammar and does not undergo change during the development. Additionally, proponents of Full Competence Hypothesis maintain that omissions of morphemes connected with relevant functional categories in child's speech do not necessarily indicate deficits in underlying syntactic representation (s. e.g. Hyams 1994).

In contrast to the Full Competence Hypothesis, other researchers have claimed that the child's initial representation of language structure is not identical to an adult system, although it is still assumed to be formed of categories and principles found in the adult system. Proponents of one Developmental view (Radford 1986, 1990, 1995, Clahsen 1991, Guilfoyle and Noonan 1992, Clahsen, Penke and Parodi 1993/94, Meisel 1994) consider omissions of morphemes and operations connected with relevant functional categories in child's speech to be evidence of deficits in syntactic representation. Changes in the underlying system during first language acquisition are the result of the interaction of Universal Grammar and the language input, which establishes the grammar of a particular language. The authors differ with respect to the initial state for child grammar.

Guilfoyle and Nonnan (1992) have proposed that no functional categories are projected in child's earliest grammar. The researchers have concluded that the absence of morphemes associated with relevant functional categories is a reflection of deficits in syntactic representation. According to their hypothesis known as the Structure-Building-Hypothesis, the initial stage in first language acquisition is a lexical grammar, where children's utterances consist of only lexical projections. The functional categories are acquired by children gradually. Radford (1986, 1990, 1995) argues that utterances during the first stage of language acquisition are similar to adult small clauses.

Clahsen (1991) and Clahsen, Penke and Parodi (1993/94) assumed that children have initially one functional category subcategorizing the verbal phrase. This functional category may not be fully specified. The Lexical Learning Hypothesis proposed by Clahsen, Eisenbeiss and Vainikka (1994) attempts to explain how functional categories and their specifications are implemented into a child's grammar. According to this view, a child projects functional category based on the features of the morphemes it has acquired in its lexicon. Children

do not project for example a Determiner Phrase unless they have acquired determiner morphemes. The projected category may not be fully specified for all features. The specification does not occur, until the relevant morphemes have been entered in the lexicon (s. e.g. Müller 1994).

Tsimpli (2005) argues on the basis of child's data on acquisition of Greek as first language that the developmental path of functional structure proceeds on the basis of the interpretability distinction of features at LF. Interpretable features are claimed to be acquired earlier than uninterpretable ones.

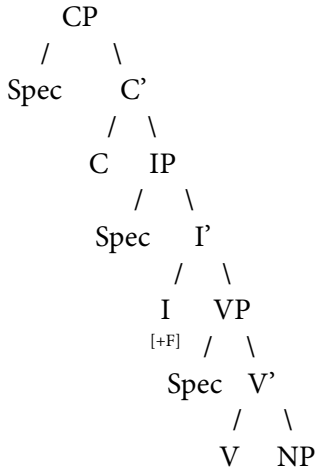
Meisel (2007) sums up the discussion above and proposes that child learners initially adopt a conservative approach, avoiding structure as much as possible. During the earliest phase of first language acquisition and in the absence of unambiguous empirical evidence in favour of specific functional heads children might allow for bare lexical structures, lacking functional layers altogether, e.g. a structure corresponding to a VP or to a Small Clause (see Radford 1986, 1990; Guilfoyle and Noonan 1992). The author points out that it appears to be in conflict with the spirit of the continuity assumption (Pinker 1984), since there are no human grammars totally lacking functional categories. This is to say that one can find specific constructions of this type, like Small Clauses, but not grammars lacking functional layers altogether. The most parsimonious option is obviously to postulate a single functional category which would not be fully specified, as compared to the mature system. This is indeed what has been suggested by a number of L1 researchers, e.g. Clahsen (1991), Déprez and Pierce (1993), Rothweiler (1993).

## 3. The syntax of negation in Polish

Polish is regarded a SVO (subject-verb-object) language, meaning that the canonical order of Polish sentence is subject – verb – object. As stated above, the verbal phrase (VP) and functional phrases, that is inflectional phrase (IP) and complementizer phrase (CP) are in Polish head-initial (s. Mecner1995, 1997, 2005, Pilarski 2002)[4]. The verb is generated in V and then moves to I to check the inflection features. The Polish structure is then to be presented as follows:

[4] Current generative theory offers two approaches to this problem. Minimalist Program (Chomsky 1995, 2000) aims at reducing the number of projections in sentence structure, leaving only V, v, T, and C, other scholars, cf. Cinque (2002, 2006), Belletti (2004), and Rizzi (2004), advocate a finely grained structure of functional categories. Both approaches agree in postulating a universal sentence structure and an invariant hierarchical order of functional categories.

(6) Polish structure:




6a *.....czy córka umie śpiewać..*
whether daughter can sing
"whether the daughter can sing"
[$_{CP}$ C *czy* [$_{IP}$ Spec *córka* I *umie* [$_{VP}$V *śpiewać*]]]

6b *Anna umie śpiewać..*
Anna can sing
"Anna can sing."
[$_{IP}$ Spec *Anna* I *can* [$_{VP}$V *sing*]]

The expression for a negation in Polish is a particle *nie* (not). It is placed before the finite verb (see examples in 7a,b,c).

7 7a *Anna nie lubi zupy.*
Anna not likes soup
"Anna does not like the soup."

7b **Anna lubi nie zupy*.
Anna likes not soup.

7c **Nie Anna lubi zupy.*
not Anna likes soup

Pollock (1989) proposes a X-bar conform projection for negation NEG, the negation phrase (NegP). The structural position of this phrase is controversial. NegP is placed by Pollock (1989) between the Agreement Projection (AgrP) and Tempus Projection (TP), as according to his split-INFL hypothesis INFL is de-

composed into these two independent categories. It is possible that the position of NegP is the result of a parameterized option of UG (s. Ouhalla 1991). Pilarski (2002: 127) assumes that Neg is in Polish a functional head. She places the Negation Projection between the AgrP and TP.

## 4. The syntax of negation in first language acquisition

The acquisition of negation has been documented for different languages in several studies. The classical studies are the ones by Klima and Bellugi (1966), McNeill and McNeill (1968). Wode (1977) summarizes the results of those and some further research and proposes three universal stages in the development of negative structures. During the first stage children use one-word negation (*no, nein, non,* etc.). At the second stage negative multi-word utterances emerge, but the negator appears in external position. Wode (1977) splits the stage into two phases IIa and IIb. In the phase IIa the negative element (anaphoric negation) is placed in utterance-initial position. In the phase IIb children place negative element (non-anaphoric negation) utterance-initially. There are cases, however, where negation appears in final position. At stage three the syntax of children is modeled on the respective adult language, and negation is placed inside the utterance. Occasional placement errors may still persist.

Subsequent research dealing with the acquisition of negation in a number of languages confirms the developmental pattern presented by Wode (1977). In German for example it has been observed that the negation first appears externally. The anaphoric negative element (nein) is occasionally used in non-anaphoric function and is placed both in first and in last position. In initial position the negation precedes the subject, thus confirming the hypothesis which claims that negation is initially adjoined to the verbal phrase containing the subject. The German non-anaphoric negation (nicht) appears almost exclusively in final position (s. Clahsen 1988, Meisel 1997). The position of negation after the finite verb is its position in German adult system. Clahsen (1988) modifies Wode's hypothesis. On the basis of German data he claims that negation is placed outside the verbal phrase, not outside the whole phrase.

The acquisition of negation in other languages has been studied as well. The crucial point is, however, that the emergence of clause-internal negation coincides with that of the acquisition of finiteness and verb movement (s. Meisel 1994, 1997, Clahsen at all 1996). Generative theory predicts that along with the

acquisition of finiteness, children should acquire certain other syntactic properties of the respective language. One of these phenomena is the placement of verb in respect to the negative elements. Following Pollock (1989) one can use the position of negation as a window to the child language structure.

## 5. The acquisition of negation in Polish as first language

The acquisition of Polish as first language (L1) has been documented in several studies (Smoczyński 1955, Szuman 1968, Shugar and Smoczyńska 1980, Święcicka 1993, Przetacznik-Gierowska 1994, Łuczyński 2004). There are, however, very few studies of Polish child language which make use of the insights into the cognitive system delivered by generative theory.

The present study is based on longitudinal data available on CHILDES (MacWhinney and Snow 1985). Two monolingual Polish children were studied: Basia (age 1;7 – 2;0) and Kasia (age 1;4 – 1;9). Each CHILDES file represents data collected over the period of one month. As the study has been concerned with the placement of negation in respect to verbs, the analysis is based on utterances involving a finite or non-finite verb and a negative element. Utterances with a negation and a noun or an adverb only have been excluded from the analysis.

The earliest manifestation of negation in speech of the first studied child, Basia, are utterances such as:

(8) *mma dziadzia* (Basia 1;5)
"There is no grandfather."

Such utterances are, however, an imitation of an adult sentence. The few examples of the type "*ne cie*" ('do not want') are probably rote-learned expressions, too, since the negative element is not combined with any other verb in this phase of language development. Since such utterances show the early presence of the notion of negation in child's mind, they can be interpreted as evidence in favor of hypothesis claiming that interpretable features are acquired earlier than uninterpretable ones (see Say 2001, Tsimpli 2005).

In the first phase of productive use of negation Polish children use quite frequently the negation in external position. In the case of the first studied child Basia the phase starts in the age of 1;8. In her data utterances such as these in examples (9a,b) were found:

(9) 9a *nie Basia śpi* (Basia 1;9)
not Basia sleep-3rd sg
"Basia does not sleep."

9b *nie pama boi, nie* (Basia 1;9)
not man-acc. fear-3rd sg not
"I do not fear the man"

In the example (9a) the negative element precedes the lexical subject and the verb. This is not target-like and can be treated as good evidence in support of the claim that at the stage the negative element is adjoined to the verbal phrase containing the subject. The example (9b) exhibits a negation-object-verb order, which is not the canonical word order in Polish. It is here not target-like, even when the sentence could be treated as grammatical under certain circumstances in Polish adult language[5].

At the stage of language development there are of course expressions in child data which conform to the adult norm, too. They contain negative elements preceding finite verbs. The utterances exhibit then mostly the word order Neg-verb-subject, and the verb is finite or non-finite. Examples are given in (10a,b):

(10) 10a *nie pisze dziadzi* (Basia 1;9)
not write-3rd sg grandfather
"The grandfather does not write"

10b *nie pać Basiunia* (Basia 1;9)
not sleep-infinitive Basiunia
"Basiunia does not sleep./Basiunia does not want to sleep."

The example (10a) contains a negative element preceding the verb and the subject what conforms the adult norm. In the second example (10b) there is a so called root infinitive[6] preceded by a negation and the subject. In respect to the placement of negation the utterance is target-like.

[5] In the Polish adult language such word order could appear by negation of a topicalized object, for example *Not the man I fear (but an another)*. This is in the studied data not the case.

[6] Root infinitives are non-finite verb forms marked as infinitives which appear in the matrix verb position where adult grammar requires a finite form. The stage during which children produce a substantial amount of such forms has been found in a number of languages (s. Bar Shalom and Snyder 1997, Tryzna 2007 for the description of the root infinitive stage in Polish).

Table 1 shows the acquisitional sequence of negation in the data of Basia.

Table 1. Acquisitional sequence of negation: Basia

| Month | Neg +V(inf) +(S) | Neg+ V(fin) +(S) | Neg+ V(imp) | S+ Neg +V | Neg+ S+ V(inf) | Neg+ S+ V(fin) | Neg+ O+ V(fin) | V+ S+ Neg | V+ Neg |
|---|---|---|---|---|---|---|---|---|---|
| 1;8 | 2 | - | 1 | - | - | - | - | - | - |
| 1;9 | 1 | 5 | - | 1 | 1 | 1 | 2 | - | - |
| 1;10 | 2 | 19 | 3 | - | 1 | - | - | - | - |
| 1;11 | - | 6 | - | 5 | - | - | - | - | - |
| 2;0 | - | 10 | 3 | 3 | - | - | - | - | - |

Looking at table (1), exhibiting the use of negation by Basia, the crucial observation one can make is that the child uses in the first phase of negation acquisition the not target-like expressions exhibiting the word order *Neg+S+V(inf), Neg+S+V(fin)* or *Neg+O+V(fin).* In the second phase starting at the age of 1;10 the negated utterances are quite frequent in child's speech, there is found, however, only one expression with not adult-like word order.

The second studied child, Kasia, first uses some negated constructions which are to be analyzed as fixed expressions. They involve the same verb as the data of the first child Basia, namely "*nie cie*" – "do not want". Since the negation is combined with only one verb at the stage of language development, the utterances have to be interpreted as chunks – rote learned expressions.

At the stage of productive use of negative elements starting at the age of 1;7 Kasia uses the external negation, too. The examples of Kasia's utterances containing a negation are given in (11a) and (11b):

(11) 11a *pacie Kasia nie* (Kasia 1;7)
cry-3rd sg Kasia not
"Kasia does not cry."

11b *gyzie nie* (Kasia 1;8)
bite-3rd sg not
"She/He does not bite."

In the example (11a) the negation is placed after the verb and subject. The example (11b) exhibits the post-verbal position of the negative element which never occurs in Polish adult language.

Alongside with the external negation Kasia uses the adult-like preverbal negation, too. The relevant examples are (12a) and (12b):

(12) 12a *nie padi deścik* (Kasia 1;7)
not rain-3rd sg rain(noun)
"It does not rain."

12b *mama nie ma ciasu* (Kasia 1;8)
mother not have-3rd sg time-Gen.
"The mother does not have time."

The utterances (12a) and (12b) both exhibit the acceptable in adult Polish word order. In (12b) it is the order negation-verb-subject, and in the second example it is the sequence subject-negation-verb-object.

The co-existence of adult-like and not adult-like forms in a limited period of time is a necessary phase and has to be interpreted as the evidence for the process of implementation of negation into the phrasal structure. A further support to this claim are the child's utterances, where both internal and external negation is used by the child in one expression (see examples 13a,b):

(13) 13a *nie pciuje Kasia lale, apciuje nie Kasia lale* (Kasia 1;8)
not break-3rd sg Kasia doll, break-3rd sg future? singular not Kasia doll
"Kasia does not break the doll, ..."

13b *Kasia nie pciuje, Kasia pciuje nie* (Kasia 1;8)
Kasia not break-3rd sg, Kasia break-3rd sg not
"Kasia does not break..."

The findings concerning the acquisitional sequence of negation in data of Kasia are shown in the table (2) below:

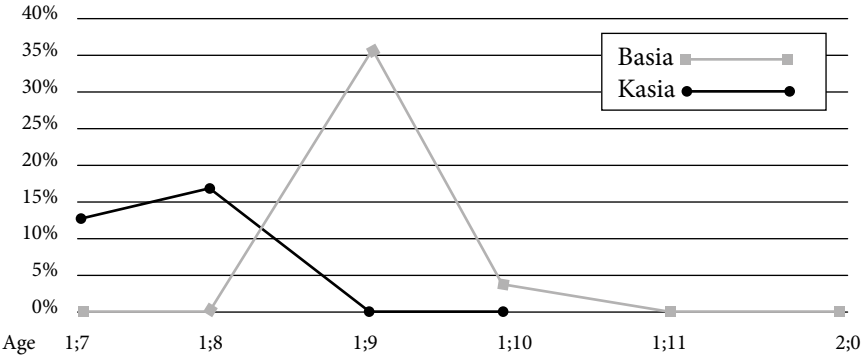
Table 2. Acquisitional sequence of negation: Kasia

| Month | Neg +V(inf) +(S) | Neg+ V(fin) +(S) | Neg+ V(imp) | S+ Neg +V | Neg+ S+ V(inf) | Neg+ S+ V(fin) | Neg+ O+ V(fin) | V+ S+ Neg | V+ Neg |
|---|---|---|---|---|---|---|---|---|---|
| 1;7 | 1 | 4 | 2 | - | - | - | - | 1 | - |
| 1;8 | - | 18 | 6 | 3 | - | 1 | - | - | 5 |
| 1;9 | - | 25 | 12 | 5 | - | - | - | - | - |
| 1;10 | 2 | 36 | 6 | 2 | - | - | - | - | - |

Kasia clearly goes through the same developmental stages as the first child. She uses the not target-like word order *Neg+S+V, V+S+Neg* and *V+Neg* only at the first stage of negation acquisition (1;7-1;8). At the age of 1;9 the forms disappear from her speech.

The acquisitional sequence of negation in Polish conforms to the universal stages proposed by Wode (1977) but let us now compare further the dynamics of the use of external negation for the individual subjects. The chart below illustrates the proportion of external negation in a given file over the period of 6 months.

Figure 1. The change of the external negation rate over the period of 6 months




The chart shows that during the first period of negation acquisition, the proportion of external negations as compared to the total of negated expressions is relatively high, namely 36%/4% in Basia's data, and 12,5%/18% in Kasia's data. The period of external negation use appears to last for one or two months. Then we can see a rapid decrease resulting in an adult-like usage of negation[7].

The generative theory of language acquisition predicts that with the acquisition of one functional category, children should also acquire relevant syntactic properties of the respective language. The acquisition of negation

[7] The only phenomenon which appears to be sometimes problematic for children in the subsequent language development is the double negation. One can find in the child data of early Polish utterances: *nic pojedział* (Basia 2;0) – nothing say-3rd sg mask past – "He did not say anything." Polish adult grammar would require here a double negation: *Nic nie powiedział*.

has to be compared with the development of finiteness[8] since the acquisition of finite markings is the prior evidence as to whether IP or an equivalent functional category subcategorizing VP has been implemented in the child's grammar. Verb placement phenomena including the position of the verb in respect to negation are effects of the emergence of the functional category (see Meisel 1994).

Agreement markings are coded in Polish as verbal affixes:

| | | | |
|---|---|---|---|
| 1st sg | -ę/-m | 1st pl | -my |
| 2nd sg | -sz | 2nd pl | -cie |
| 3 rd sg | -0 | 3rd pl | – ą |

Various differences in the verbal paradigm can be reduced to stem-suffixes (see Nagórko 1998: 115-119)[9].

In Polish child data the form of 3rd sg occurs quite early. The first studied child Basia starts to use the ending for 3rd sg productively, this means with more than one verb, in the age of 1;7. This phase lasts about three months (1;7-1;9). Towards the end of this period, one can also find forms of 2nd sg and 3rd plural in Basia's speech. They do not represent, however, productive uses since they are forms of single verbs. All other suffixes apart from 2nd pl emerge during the next phase[10], which lasts for two months (1;10-1;11).

The second child Kasia acquires the personal markings approximately three months earlier that the first one. She starts to use the marking for 3rd sg in the age of 1;4. Since they are zero markings they can be interpreted, however, as bare stems, too. During this phase one can also encounter single forms which could be interpreted as 1st sg. These are cases where the difference between 1st and 3rd sg forms is not phonetically realized[11]. During the second phase which starts at the age of 1;7 and lasts two months, all other personal agreement markings emerge, that means forms of 2nd sg (1;7), 1st plural and 3rd plural (1;8).

---

[8] Finiteness is defined in terms of agreement and of tense. Since Meisel (1994) has shown that agreement alone is sufficient in order to trigger syntactic consequences, the present study deals only with the acquisition of agreement markings.

[9] One can differentiate three paradigms in respect to the morphological structure of Polish verbs: 1st sg (-ę,-ę,-m), 2nd sg (-esz, –isz, –sz), 3rd sg (-e, –i, –0), 1st pl (-emy, –imy, –my), 2nd pl (-ecie, –icie, –cie) and 3rd pl (-ą, –ą, –ą) (see Nagórko 1998: 118-119).

[10] 2nd pl verb forms are extremely rare in child data what can be seen in other corpora, too (see Meisel 1994).

[11] The example pisie (Kas 1;6) "I write = he/she/it writes" can be interpreted as 1 st and as 3 rd sg because the correct ending for 1 st sg (-ę) is pronounced by adults as –e, too.

The findings are summarized in table (4) below:

Table 4. Developmental sequence of finite verb forms in Polish

| | | | |
|---|---|---|---|
| -0 | 3 rd sg | Basia 1;7-1;9 | Kasia 1;4-1;6 |
| -sz | 2 nd sg | Basia 1;10 | Kasia 1;7 |
| -ę/-m | 1st sg | Basia 1;11 | Kasia 1;7 |
| -my | 1st pl | Basia 1;11 | Kasia 1;8 |
| -ą | 3rd pl | Basia 1;11 | Kasia 1;8 |

Table 3 shows the developmental pattern evidenced in the child language use of studied children acquiring Polish as their first language. One can clearly distinguish between two phases in the occurrence of verb forms. Leaving details aside, we can say that in the first phase of agreement acquisition lasting three months only the marking for 3rd sg occurs in child data and in the second phase lasting for two months the whole inventory of verbal inflection markings for person and number is acquired.

The above observations show that the time of acquisition of more than one agreement markers is exactly the point when the not-target-like external negation disappears from child language. The first studied child Basia starts using other personal markings than 3rd sg at the age of 1;10 and 1;11 and at the same stage as of age 1;10, external negations disappear almost instantaneously from her language. Applying the same criteria to the data of the second child Kasia yields a similar result: she starts using various verb forms at the age of 1;7 and 1;8 and shortly after that at the age of 1;9 one finds in Kasia's speech a homogeneous adult-like pattern of the negative element preceding the verbs (see figure 1).

To sum up, it thus appears that in developing grammar of Polish, effects of finiteness emerge at more or less the same age namely the time at which children begin to use agreement markings other than third person marking. This confirms findings made in other languages (see e.g. Meisel 1994, 1997). This is, again, strong evidence that a category subcategorizing VP has been implemented at this point of development in the children's grammar.

## Conclusion

The analysis presented in the study leads to the conclusion that the children acquiring Polish as their first language initially go through a period of VP-only structure or alternatively a period of one strongly impaired functional category. Subjects and verbs do not move out of VP to check their features until some time after the emergence of various agreement markings. The 3rd sg forms appear to represent the default value and are not sufficient to trigger the acquisition of syntactic phenomena related to finiteness, i.e. the placement of verbs in respect to negation.

Soon after the emergence of agreement, structural positions must be available for movement of verbs and subjects. At the stage of language development with the emergence of subject verb agreement, verb and NP movement resulting in positioning of negation in front of verb, there can be no doubt that a functional category subcategorizing the verbal phrase has been implemented in the children's grammar.

The development of negation in an early child Polish supports then the claim that the functional categories emerge consecutively in child's grammar. The correlation in time of acquisition of two different but syntactically related phenomena can not be interpreted as a coincidence. This is rather the relation of cause and effect. The findings support then the hypothesis assuming the structure building as the main process of first language acquisition (Radford 1986, 1990, 1995, Guilfoyle and Noonan 1992, Tsimpli 2005, Meisel 2007). The correlation can not be regarded as plausible in the framework of the Maturation Hypothesis (Borer und Wexler 1987) since the hypothesis makes the neurophysiological maturation the main point of language development. The findings can not be accounted for on the basis of Full Competence Hypothesis (Poeppel und Wexler 1993, Borer und Rohrbacher 2002) according to which functional categories are instantiated in the children's grammar right from the very beginning of language acquisition. The development of early child Polish shows the opposite. Even when Polish children use finite verbs from very early on, the full range of phenomena related to the functional category of finiteness emerges a bit later, when children have implemented the functional category into their grammar.

## REFERENCES

Bar Shalom, E. and Snyder, W. 1997. Root infinitives in Child Russian: a comparison with Italian and Polish. *Proceedings of GALA*.

Belletti, A. 2004. *Structures and Beyond: The Cartography of Syntactic Structures*. Vol. 3. New York: Oxford University Press.

Borer, H. and Rohrbacher, B. 1997. Features and projections: arguments for the Full Competence Hypothesis. In: E. Hughes, M. Hughes and A. Greenhill (eds). *Proceedings of the 21st Annual Boston University Conference of Language Development.* Somerville: Cascadilla Press, 24-35.

Borer, H. and Rohrbacher, B. 2002. Minding the absent: arguments for the Full Competence Hypothesis. *Language Acquisition* 10/2, 123-175.

Borer, H. and Wexler, K. 1987 The maturation of syntax. In: T. Roeper, and E. Williams (eds). *Parameter Setting.* Dordrecht: Reidel, 123-172.

Chomsky, N. 1981. *Lectures on Government and Binding*, Dordrecht: Foris.

Chomsky, N. 1986. *Knowledge of Language: its nature, origin, and use*. New York: Praeger.

Chomsky, N. 1989. Some notes on economy of derivation and representation. In: I. Laka and A. Mahajan (eds). *Functional Heads and Clause Structure. MIT Working Papers in Linguistics,* Vol. 10, 43-74.

Chomsky, N. 1993. A minimalist program for linguistic enquiry. In: K. Hale and S. J.Keyser (eds). *The View from Building 20.* Cambridge, Mass.: MIT-Press, 1-52.

Chomsky, N. 1995. *The Minimalist Program*. Cambridge, Mass.: MIT-Press.

Chomsky, N. 2000. Minimalist inquiries: the framework. In: R. Martin, D. Michaels and J. Uriagereka (eds). *Step by Step: essays on minimalist syntax in honor for Howard Lasnik.* Cambridge, Mass.: MIT Press, 89-156.

Cinque, G. 2002. *Functional Structure in DP and IP: the cartography of syntactic structures*. Vol. 1. New York: Oxford University Press.

Cinque, G. 2006. *Restructuring and Functional Heads: the cartography of syntactic structures*. Vol. 4. New York: Oxford University Press.

Clahsen, H. 1988. Kritische Phasen der Grammatikentwicklung. Eine Untersuchung zum Negationserwerb bei Kindern und Erwachsenen. *Zeitschrift für Sprachwissenschaft* 7, 79-106.

Clahsen, H. 1991. Constraints on parameter setting: a grammatical analysis of some acquisition stages in German child language. *Language Acquisition* 1, 361-391.

Clahsen, H., Eisenbeiss, S and Penke, M. 1996. Lexical learning in early syntactic development. In: H. Clahsen (ed.). *Generative Perspectives on Language Acquisition: empirical findings, theoretical considerations and crosslinguistic comparisons.* Amsterdam: Benjamins, 129-159.

Clahsen, H., Eisenbeiss, S. and Vainikka, A. 1994. The seeds of structure: a syntactic analysis of the acquisition of case marking. In: T. Hoekstra and B. Schwartz (eds). *Language Acquisition Studies in Generative Grammar*. Amsterdam: Benjamins, 85-118.

Clahsen, H., Penke, M. and Parodi, T. 1993/94. Functional categories in early child German. *Language Acquisition* 3, 395-429.

Déprez, V. and Pierce, A. 1993. Negation and functional projections in early grammar. *Linguistic Inquiry* 24, 25-67.

Felix, S. 1984. Maturational aspects of Universal Grammar. In: A. Davis, C. Cripper and A. Howatt (eds). *Interlanguage.* Edinburgh: Edinburgh University Press, 133-161.

Felix, S. 1992. Language acquisition as a maturational process. In: J. Weissenborn, H. Goodluck and T. Roeper (eds). *Theoretical Issues in Language Acquisition: continuity and change in development.* Hillsdale, NJ: Earlbaum, 25-53.

Grewendorf, G. 1988. *Aspekte der deutschen Syntax. Eine Rektions-Bindungs-Analyse.* Tübingen: Narr.

Grewendorf, G. 1992. Parametrisierung der Syntax. In: L. Hoffmann (ed.). *Deutsche Syntax: Ansichten und Aussichten*. Berlin: de Gruyter, 11-73.

Grewendorf, G. 2002. *Minimalistische Syntax.* Tübingen: Francke.

Guilfoyle, E. and Noonan, M. 1992. Functional categories and language acquisition. *Canadian Journal of Linguistics* 37, 241-272.

Haegeman, L. 1991. *Introduction to Government and Binding Theory*. Oxford: Basil Blackwell.

Hyams, N. 1994. V2, Null arguments and COMP Projections. In: T. Hoekstra and B. Schwartz (eds). *Language Acquisition Studies in Generative Grammar.* Amsterdam: Benjamins, 21-56.

Klima, E. and Bellugi, U. 1966. Syntactic regularities in the speech of children. In: J. Lyons and R. Wales (eds). *Psycholinguistic Papers.* Edinburgh: Edinburgh University Press, 183-208.

Łuczyński, E. 2004. *Kategoria przypadka w ontogenezie języka polskiego czyli o wchodzeniu dziecka w rzeczywistość gramatyczną*. Gdańsk: University of Gdańsk.

Mac Whinney, B. and Snow, C. 1985. The child language exchange system. *Journal of Child Language* 12, 271-296.

McNeill, D. and McNeill, N. B. 1968. What does a child mean when he says no? In: E. M. Zale. Proceedings of the Conference on Language and Language Behavior. New York, Appleton-Century-Crofts, 51-62.

Mecner, P. 1995. Vorstudien zur generativen Morphosyntaxdes Polnischen: Das X-bar Schema des Verbkomplexes (Finitparadigma). *Linguistica Silesiana* 16, 79-86.

Mecner, P. 1997. Skizzen zur generativen Morphosyntax des Polnischen im Vergleich mit dem Deutschen. *Colloquia Germanica Stetinensia* 7, 5-26.

Mecner, P. 2005. *Elementy gramatyki umysłu. Od struktur składniowych do Minimalizmu.* Kraków: Universitas.

Meisel, J. M. 1994. Getting FAT: The role of finiteness, agreement and tense in early grammars. In: J. M. Meisel (ed.). *Bilingual First Language Acquisition: French and German Grammatical Development.* Amsterdam: Benjamins, 89-129.

Meisel, J. M. 1997. The acquisition of negation in French and German: contrasting first and second language development. *Second Language Research* 13, 227-263.

Meisel, J. M. 2007. *Universal and Particular in language acquisition: The emergence of functional categories*. University of Hamburg. Manuscript.

Müller, N. 1994. Gender and number agreement within DP. In: J. M. Meisel (ed.). *Bilingual First Language Acquisition: French and German Grammatical Development.* Amsterdam: Benjamins, 53-88.

Nagórko, A. 1998. Zarys gramatyki polskiej. Warszawa: PWN.

Ouhalla, J. 1991. *Functional Categories and Parametric Variation.* London: Routledge.

Pilarski, A. 2002. *Die Operation Merge im Verbalkomplex des Polnischen und des Deutschen.* Frankfurt/Main: Peter Lang.

Pinker, S. 1984. *Language Learnability and Language Development.* Cambridge: Harvard University Press.

Poeppel, D. and Wexler, K. 1993. The Full Competency Hypothesis of clause structure in early German. *Language* 69, 1-33.

Pollock, J.-Y. 1989. Verb movement, universal grammar and the structure of IP. *Linguistic Inquiry* 20, 365-424.

Przetacznik-Gierowska, M. 1994. *Od słowa do dyskursu: studia nad mową dziecka.* Warszawa: Energeia.

Radford, A. 1986. Small children's small clauses. *Research Papers in Linguistics* 1, 1-38.

Radford, A. 1990. *Syntactic Theory and the Acquisition of English Syntax.* Oxford: Blackwell.

Radford, A. 1995. Phrase structure and functional categories. In: P. Fletcher and B. MacWhinney (eds). The Handbook of Child Language. Cambridge, Mass.: Basil Blackwell, 483-507.

Radford, A. 1997. *Syntactic Theory and the Structure of English. A Minimalist Approach.* Cambridge, Mass.: Cambridge University Press.

Rizzi, L. 2004. *The Structure of CP and IP: The Cartography of Syntactic Structures*. Vol. 2. New York: Oxford University Press.

Rothweiler, M. 1993. *Der Erwerb von Nebensätzen im Deutschen.* Tübingen: Niemeyer.

Say, T. 2001. *Feature Acquisition in Bilingual Child Language Development. Working Papers in Multilingualism Series B.* Hamburg: Research Center on Multilingualism.

Shugar, G. and Smoczyńska M. 1980. *Badania nad rozwojem języka dziecka: wybór prac.* Warszawa: PWN.

Smoczyński, P. 1955. *Przyswajanie przez dziecko podstaw systemu językowego.* Wrocław: Ossolineum.

Szuman, S. (ed.) 1968. *O rozwoju języka i myślenia dziecka.* Warszawa: PWN.

Święcicka, M. 1993. *Charakterystyka składniowa wypowiedzi dzieci w wieku przedszkolnym.* Bydgoszcz: WSP.

Tryzna, M. 2007. Root infinitives in early child Polish: the syntactic and interpretative properties. *Proceedings of the 31tst Annual Boston University Conference of Language Development.* Somerville: Cascadilla Press, 632-643.

Tsimpli, I.-M. 2005. Peripheral positions in early Greek. In: M. Stavrou and A. Terzi (eds). *Advances in Greek Generative Syntax: synchrony, diachrony and acquisition.* Amsterdam: Benjamins, 176-216.

Wode, H. 1977. Four early stages in the development of L1 negation. *Journal of Child Language* 4, 87-102.

## ABSTRACT

The generative theory of first language acquisition predicts that with the acquisition of one functional category, children should acquire also relevant syntactic properties of the respective language. In the present study the acquisition of negation in early child Polish is investigated and, further, the process is compared with the development of finiteness as a phenomenon being the prior evidence for the implementation of a functional category in children's grammar. The analysis of Polish child data supports the hypothesis explaining the first language acquisition in terms of a gradual development of the language structure in a child's mind.