

CROSSLINGUISTIC COMPARISON IN CONCEPT FORMATION: LOCALITY AND POSSESSION

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0. Introduction

At the time children start to acquire language, skills on various linguistic levels evolve together. Children have to isolate word-forms. Then they must create potential meanings and map these meanings onto forms. The early meanings children map onto forms are based on what they know already about the world around them.

Bloom (1991: 41) claims that "studies of children learning English and certain other languages (...) have revealed that the semantics of early sentences have to do with ideas about objects that originate in the development of sensory-motor intelligence in the child's first two years". This means that during this period children learn about the existence of objects; they learn that people do things to objects, that objects can be acted upon, and that they can be located in space.

Even though there seems to be a certain order of acquisition in terms of semantic or cognitive complexity, meaning that in the course of development children talk about the same kind of things in the same sequence, formal linguistic complexity also plays a role. In other words, children acquiring different languages may have more or less problems expressing a certain semantic function. By comparing children's hardships, respectively finding out what is simple for a child to acquire, we can learn a lot about the strategies children use to build a grammar.

In the following we will turn to two concepts children learn to express quite early, namely the semantic notions of locality and possession, and we will compare how these concepts are acquired in German, Russian and English. Since the three languages show large typological differences the children's strategies in expressing certain semantic notions are expected to follow similar guidelines in the initial phase which with growing input will be replaced by more language-specific means.

The model which is going to be the framework for the explanation of the acquisition processes is Karpf's model of self-organization (Karpf 1990, 1993, Peltzer-Karpf et al. 1994, in press) which relates to chaos theory.

1. Self-organization

According to the model of self-organization innate and environmental factors interact whenever language is acquired. Based on current research in neuroscience it is claimed, though, that once a crucial level of intelligence has been reached, a certain set of intellectual attributes appears which can rather be described as a product of input factors than of genetic encoding (Jones 1993, Peltzer-Karpf et al. in press). The development of natural systems (such as language) leads to a creation of global out of local order and can be seen in a framework which is both selective and dynamic.

The principal claims of the model of self-organization used here can be summarized as follows (Karpf 1990, 1993, Peltzer-Karpf et al. 1994, in press):

- (1) Living systems interact selectively with the environment.
- (2) The selection of data from the environment is based on the presently available criteria, i.e. the respective system determines and enlarges the basis for the further selection and organization of information.
- (3) The processes occurring in these changes are self-organizing and irreversible. Thus they lead to successive dissociations/modularity.
- (4) The organization of non-linear dynamic systems shows degrees of persistent order. The following states/stages are to be recognized: (1) the **initial state** (this phase is dominated by a search for coherence leading (linguistically) to the use of memorized chunks); (2) **the intermediate stages** (here reorganization takes place entailing over-productivity and fluctuations); (3) the **final state** (finally unordered input is dealt with with great stability).

At the same time as these processes are noticed on a macro-level, the following details can be noticed on a micro-level:

1. the context-dependent categorization
2. the separation of figure and ground
3. the segmentation of the input into groups
4. the extraction of features
5. the discovery of rules and categories
6. the organization of function-dependent hierarchies

These processes (cf. Peters 1983, 1985, 1995, Clark 1993, Slobin 1973) can also be seen as responsible for the formation and organization of patterns. Subsequently, the perception and identification of such patterns is vital for the development of subsystems such as the syntactic or morphological rule systems.

In short, the model of self-organization explains why language acquisition follows a certain basic pattern in a continuous sequence but – depending on the individual learner – varies in speed.

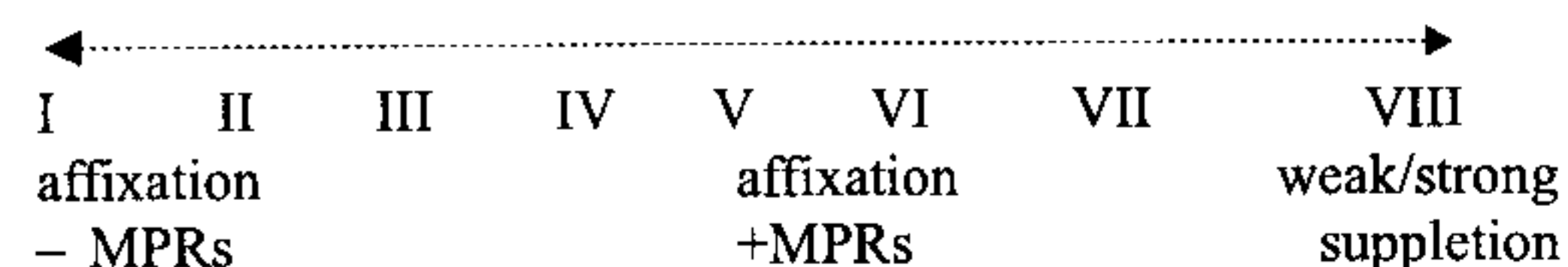
2. Natural Morphology

A theory which makes it possible to illustrate the acquisition of morphological structures in various languages is the Theory of Natural Morphology (Dressler 1985,

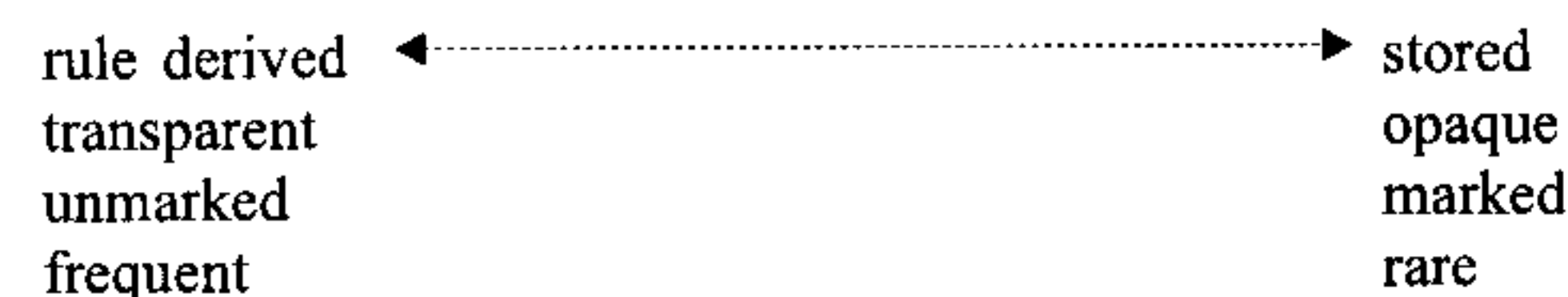
Dressler et al. 1987). This model finds an explanation for morphological structures and processes not only on a linguistic basis but it also shows the importance of mechanisms of human perception like semiotic and cognitive principles (Carstairs-McCarthy 1992).

For learners of a language some grammatical structures are more difficult to acquire than others. This depends on their complexity or, to put it differently, on their naturalness. More natural words are easier to acquire than less natural ones. What, however, is naturalness?

Karpf points out that morphological naturalness “is based on the interaction of various principles such as markedness, ease of processing, learnability, brevity and iconicity” (1990: 117). These leitmotifs are active in the interplay of two scales of naturalness. The following scale which was introduced by Dressler (1985: 317) shows that when words are formed their base can be affected up to a different degree, ranging from no modification, via modification through allomorphic/prosodic phonemic rules, the activity of morphological rules (MPRs) leaving the morpheme boundaries relatively intact or slurred, to partial and complete suppletion.



On this scale naturalness decreases from threshold I to threshold VIII. The two poles of the hierarchy correspond to constructions or elements which carry the following characteristics (Karpf 1990: 118):



The main principle of the natural theory can be summarized as “more or less natural” which corresponds to “more or less easy for the human brain” (cf. Dressler et al. 1987: 11).

For children who acquire a given language this means that those morphological constructions which are easier are learned faster. Constructions are easier which are rule-derived, transparent – meaning more easily segmentable – unmarked and frequent.

3. Reorganizational processes

An important factor in the acquisition of rule systems are reorganizational processes. In her model of self-organization Karpf (1990: 62) points out that equilibration or reorganizational processes are vital in a system in order to reach a state of higher efficiency, mobility and also stability. Rule systems are constantly reanalyzed and

if necessary reorganized. This is to be seen in syntactic as well as in morphological subsystems (Bowerman 1982, Morgan and Demuth 1996) (cf. Piaget and Inhelder 1973 for reorganizational processes in cognitive development).

Over time children constantly shift from one rule to another. Concerning inflectional morphology Slobin termed such shifting “inflectional imperialism” (Bowerman 1982: 322). In a richly inflected language like Russian where each case ending has up to six allomorphs a child usually chooses the allomorph which is least complex and applies it to all other nouns. Later the child may drop this allomorph, select a different allomorph of the same inflection and overgeneralizes it in the same way as before. Finally, however, the child finds out which allomorph applies to which nouns so that equilibrium on a higher level is achieved.

In similar ways the syntactic rule system is perpetually analyzed and reorganized. Word order rules are modified and hierarchical orderings are extended.

4. Particularities of locative and possessive functions in adult Russian, German and English

4.1. Locality

In general locative utterances can be split into two categories – utterances which express locative action and utterances which express locative state. According to Bloom (1991: 50), those utterances expressing locative action refer to movement where the goal in the movement is a change in the location of a person or object. In comparison to that, expressions suggesting locative state refer to a relationship between a person or object and its location. This distinction is especially interesting for languages where a differentiation between locative action and locative state leads to differences in morphological marking.

In Russian, location is encoded in prepositions and noun inflections. Depending on the preposition certain noun inflections are required; i.e. the preposition *ot* ‘from’ and *do* ‘to’ asks for the genitive, while *k* ‘towards’ asks for the dative. A bit more tricky are those prepositions which can encode both direction (locative action) and position (locative state). When such ambiguous prepositions (i.e. *v*, *na*) are used directionally they ask for a noun in the accusative. For example: *Moskva – v Moskvu*, ‘to Moscow’; *koncert – na koncert*, ‘to the concert’. When the same prepositions are used to express a locative state the noun appears with prepositional case inflection. For example: *v Moskve*, ‘in Moscow’; *na koncerte*, ‘at the concert’.

This means that sometimes inflection is meaningful distinguishing position from direction and sometimes it is redundant, namely when a preposition takes one exclusive case. What adds to this complexity is that case inflection is determined by gender (especially in the accusative) and by the final sound of each particular noun.

In the German language the expression of location is also quite a complex field. Just as in Russian most locative utterances require the use of a preposition and a particular case, predominantly the dative or accusative. Whereas the noun in either of the two cases – at least in the singular – remains unmarked, most of the accompanying articles require an inflectional ending. Parallel to Russian locatives a number of prepositions can be used either with dative or accusative case, conveying

once a stative and then a directional meaning. For example: *ich gehe in das Büro* (accusative and directional) ‘I go into the office’; *ich arbeite in dem Büro* (dative and stative) ‘I work in the office’. In these examples – just as in Russian – case information becomes crucial.

An additional source of complication is the use of prepositions which amalgamate with definite articles. Neuter and masculine definite articles in the dative case are affected. For example: *er steht im (= in dem) Zimmer am (= an dem) Fenster* ‘he is standing in the room at the window’. Affected are also neuter definite articles in the accusative. For example: *er geht ins (= in das) Haus* ‘he goes into the house’.

The English language with its modest morphological system does not require any noun inflections to express location. Unlike Russian but similar to German it asks for an article before the noun, though. English has a number of prepositions which encode locations: *in*, *on*, *from* etc. Just as in the other two languages some of the prepositions encode direction (i.e., *to*, *from*) while some do not distinguish between direction and position (i.e., *put it in the box* as compared to *it is in the box*). In these contexts the verb determines whether the preposition is used in the stative or in directional sense.

4.2. Possession

In all three languages discussed possessivity can be expressed by a large range of constructions. One device which appears in either language is the possessive pronoun – noun construction. While in German and Russian the pronoun has to be inflected depending on case, English does not require any inflectional marking. Here the only distinction to be made is based on gender. In Russian an additional source of complexity is the reflexive possessive pronoun *svoj/svoja*.

Another possibility of expressing possessivity is the *of* – or periphrastic genitive as in *the shoe of the girl* ‘*der Schuh von dem Mädchen*’ (Golinkoff and Markessini 1980). Even though this construction exists in both English and German, only in German is a morphological marking of the noun phrase which forms the possessor required.

Morphological marking with the help of genitive case inflections is also quite common to express possessivity. In German as well as in English inflectional {-s} is applied (*Mamas Kopf* ‘mother’s head’). In German, when the possessor is not a proper noun, word order is changed so that the object possessed comes before the possessor who appears in the genitive (i.e. *der Wagen der Männer* ‘the men’s cart’). Children like to overgeneralize the possessive of proper nouns and produce constructions like *das ist Männer-s Wagen* (Mills 1985: 185).

The possessive relationship can be expressed with genitive case marking of the possessor also in Russian. Whereas in German and in English the possessor – with genitive inflection – is put in first place and the object possessed in second, Russian requires the opposite order (e.g. *papa Leny* ‘Lena’s daddy’). It is also the Russian language which offers the possibility of expressing possessivity with possessive adjectives – a phenomenon which neither exists in German nor in English (e.g. *Lenin mama* ‘Lena’s mum’).

While in English and in German possessive relationships are usually indicated by the use of verbs like *to have*, 'gehören', Russian does not have an equivalent expression but prefers a verbless construction instead, namely *u* (= *at, by*) + *possessor (genitive)* + *possessed*.

5. Method

5.1. Subjects

The corpus underlying our investigation consists of several longitudinal observations of children's language development. German data come from two boys, Michi and Oliver who were visited on a regular basis in their homes. Oliver's speech samples cover the age range of 1;6 to 2;5, Michi's of 2;2 to 3;2 years.¹

Russian data come from Ekaterina Protassova's little daughter Varja. Her productions were taken from the age of 1;6 to 2;10.²

English data were taken from longitudinal studies made by Brown (1973), Cazden (1973), Fletcher (1985), Weir (1970), Miller/Ervin (1964), Bloom (1970) and others.

5.2. Material

The material which was used for the elicitation of the German data consists of various picture-books designed to provoke descriptions of actions, localizations and subject reactions from the child. In addition to the books which were used as stimuli for the picture-book sessions various toys like cars or trucks, playing-cards, building blocks etc. formed the stimulation for spontaneous speech productions.

5.3. Procedure

In general there were two situations in which the German-speaking children were taped: (1) in spontaneous situations where child and parent were playing, and (2) in situations where child and parent were looking at a picture-book.

The size of the speech samples taken from the children ranges between the minimum of 15-20 minutes and the maximum of 45 minutes.

Both the German and the Russian data were transcribed according to the guidelines of CHILDES (MacWhinney 1991).

6. Results

6.1. The Concept of Locality

Our German and Russian data show that in both languages the very first stage of expressing location is basically the same. Children form one-word utterances – mostly a noun or a locative particle – exclaiming them with a distinct intonation and sometimes combining the exclamation with a pointing gesture. Comparisons

¹ Data were collected in the course of the FWF project P 10250-SPR and appear in Hasiba (1996).

² Data were collected and transcribed by Ekaterina Protassova and appear in MacWhinney (1995).

with English data will prove that the initial stage of English-speaking children is identical as will be shown by the following examples:

Table 1. Comparison: use of lexical means (English data come from Greenfield and Smith 1976: 152ff)

Language	English	Russian	German
<i>use of lexical means</i>	mouth (putting a pretzel into his mouth) chair (puts a lamb on a chair) (age: 1,8 – 1,9)	gr'az' (mud) (age: 1;6)	da ('here') Bett ('bed') (age: 1;6)

Thus, one could say that in the initial stage in all three languages location is expressed by lexical means. This does not rule out the possibility, though, that with these utterances syntactic intention is implied.

As the language repertoire extends and children start to produce two- and multi-word utterances, the situation already looks a little bit different in the languages discussed. Comparing the expression of locality in German and Russian it can be said that once a child has moved out of the one-word stage he or she expresses location more or less the same way. Children use syntactic means juxtaposing a locative particle *here, da, vot* most of the time with a noun but now and then also with a verb or adjective.

In addition, location is expressed by two-word utterances of the form object – location, action – location and so on. In the German as well as the English data, examples are found where both components are unmarked, so that locality is only expressed by syntactic means. Here are some examples of the way location is expressed at the two- and multi-word stage in the three languages discussed:

Table 2. Comparison: use of syntactic means (English data come from Bloom 1970: 86ff, Leonard 1976: 32)

Language	English	Russian	German
<i>use of syntactic means</i>	block bag sweater chair pig water	tam kolgoty ('there are tights') vot on ryzij ('here he is orange')	da Bett ('here bed') da ansen (=anzünden) ('here to light') B(l)ume Wasser ('flowers in the water')

In our Russian data unmarked two-word utterances are usually only found in the combination *vot + x* or *tam + x*; in noun – noun or noun – verb combinations location is usually already morphologically marked. In Gvozdev's data (1961: 164)

unmarked two-word utterances of that kind exist, though. It could be that Varja either omitted this stage or that at the time she produced unmarked noun – noun combinations no data were collected. In any case it is crucial to point out that while English-speaking children do not have to care about morphological marking, Russian-speaking children still have to learn a lot about case inflection.

Once English-learning children move out of the two-word stage prepositions and articles are added. Unfortunately we are unable to tell whether children tend to insert prepositions before articles or articles before prepositions or if such preferences exist at all. The reason for not being able to do so, is that no such detailed investigations on the development of locative expressions in English could be found. We will, however, show how children construct more advanced locative utterances in Table 3:

Table 3. Comparison: use of morpho-syntactic means (English data from Leonard 1976: 177ff., Fletcher 1985: 85ff., Weir 1970: 110ff.)

Language	English	Russian	German
<i>morphological means added</i>	not necessary	Pl'uti krovatki* ('Pluto in the bed') kol'ask'e visit ('hanging on the pram') jamu pokatilas' (gone into the pit) (age: 1;7 – 1;8)	no marking yet
<i>new syntactic means added</i>	put in box on the plane take it to Daddy go to microphone men in the car in a big bed (age: 2;6)	pospit a* krovatk'e on ('he'll sleep in the DIM bed') oj, prosnuls'a miska na pol'e ('oh, the teddy has woken up on the floor') na masinku s'ela a pojexala ('sat into the car and drove away') Carli idi s'uda a* ruckax* (Charlie come here into my arms) (age: 1;8 – 1;10)	bei Oma am Meer ('at granny's at the sea') mag in Kindergarten Mama geh(e)n ('want to go into the kindergarten, mommy') ein Dreirad # im Keller auch ein Dreirad unten ('a tricycle # down in the cellar also a tricycle') (age: 2;3)

<i>new morpho-syntactic means added:</i>	not necessary	not necessary	bei die* Oma ('at granny's') über die Füßen* ('over the feet') in einen* Rucksack ('in a rucksack') die* Traktor oben ('on the tractor') (age: 2;5)
addition of inflected article:			
1. prep. + art. + noun			
2. art. + noun + adverb			

In a number of the English utterances cited above, the locative phrase consists of preposition plus noun with the according article missing. It might be possible that the addition of preposition and article describes a procedure in the language development of an English-learning child which is too complex to be made at once. Thus the child approaches the final and correct local phrase step by step with the help of syntactic means, namely by first adding prepositions and later also articles.

A similar development can be noticed in our German data with the only difference that at the point where English-speaking children can stop worrying about the correct locative utterance having found the corresponding preposition and – if necessary – article, German speaking children still have to go on in their learning process. The complex German case system requires a correctly marked article which still has to be derived from rule. At the age of 3;2 – which is the time we stopped analyzing data – articles were not correctly marked yet, a sign of the complexity of the process.

In Russian where articles are not needed but where the case system requires morphological marking on the noun endings, things look a bit different again. At the time English-speaking children only form juxtapositions of agent – location or object – location, a Russian-learning child has to connect the mere use of syntactic means already with that of morphological means. As nicely shown in our Russian data pool, Varja starts to add case inflection to the noun already before she applies any prepositions. Only later when the morphological marking has stabilized to a certain extent, are prepositions added. Here a dummy preposition *a* is preferred first which is later replaced by correct forms.

Concerning the appearance of utterances expressing locative action vs. locative state mix-up in morphological marking was found both in German and in Russian where this distinction is meaningful. Later the systems stabilize and examples of mixing up of morphological forms vanish.

6.2. The concept of Possession

Comparable to the development in the children's expression of locality also the expression of the concept of possessivity undergoes dramatic changes in the course of time. In the following, examples of the changing strategies of Russian-, German- and English-speaking children will be presented.

6.2.1. Russian

While at the beginning of the observation at the age of 1;6 only syntactic means are used by the child which means that possessor and possessed are juxtaposed, later morphological devices are added. The possessor is marked with a genitive case ending and the preposition *u* is put in front of it. This verbless construction is the Russian equivalent to German and English possessive phrases with the verbs “*gehören*” or “*belong to*”.

The possessive function stands in close relationship to the meaning of self-reference so that with the growing tendency of experiencing herself as an individual Varja replaces referring to herself as Varja with referring to herself as “I”. After a period of mixed usage, the use of “I” succeeds. A state of turbulence has been replaced by a state of order. At the same time possessive adjectives, which have been increasingly active up to that point, vanish almost completely. The early emergence of the possessive adjective can be explained by its morphotactic and morphosemantic transparency (Ceytlin 1995). Later as the reflexive possessive pronoun is acquired the complexity of the system increases again.

The following chart will exemplify the changes in the development of the various subsystems and provide examples for the different stages:

Table 4. Acquisition of possession by the Russian-speaking child Varja

age	system development	examples
1;6	<i>syntactic means</i> juxtaposition of uninflected possessor and possessed	Varja butylka (‘Varja bottle’)
1;6	<i>morpho-syntactic means are added</i> 1. genitive ending on possessor 2. preposition <i>u</i> placed before possessor	masinka u Varen’ki (Varenka has got a DIM car’) u Varen’ki tufel’ki (‘Varenka has DIM shoes’)
1;7	<i>morphological means</i> deduction of possessive adjective from a noun	a gd’e mamina knizka (‘and where is mommy’s book’)

6.2.2. German

Just as in the Russian data, in the German data starting at the age of 1;10 possessivity is marked only by syntactic means through juxtaposition of possessor and possessed. Concerning self-reference it can be noticed that Oliver first refers to himself as *Baby*. Later he replaces this expression by a modified version of his first name, *Olilo*. *Olilo* appears also as possessor in possessive relationships which consist of uninflected noun – noun combinations.

At the age of two these two-word combinations are replaced by constructions like *Olilo mein gehört da*, ‘Olilo my this belongs to’ where the possessor *Olilo* is combined with a chunk containing a verb form. In addition to that the possessor is redundantly marked. At the same time the personal pronoun *ich* ‘I’ starts to appear but only reduced to *i* and connected to the end of the verb. One reason for this might probably be that more attention is paid to the end of words which can, for example, be noticed in the acquisition of the morphological system where suffixes are acquired before prefixes (Karpf 1990: 127).

At the age of 2;2 *er* ‘he’ is introduced as a new word of self-reference; at the same time the personal pronoun *ich* ‘I’ appears in full form and free standing but still in postverbal position. In the field of possession an utterance is formed where the possessor which should appear in the dative is accompanied by the reduced form of an article *n*. Along with that the personal pronoun *mir* ‘me’ appears which is marked for the dative.

Two months later the redundant marking *Olilo – er* ‘Olilo – he’ emerges just as parallel to it *mir – Olilo* ‘to me – Olilo’ in utterances expressing possession. An increased notion of the own self is also expressed by the use of the possessive pronoun *meine* ‘my’ which has not been produced since the age of 1;9 when it appeared as a chunk.

Finally the personal pronoun *ich* ‘I’ appears in preverbal position. At the same time the proper name *Olilo* is expelled from possessive utterances just as the combination possessor + chunk *gehört des* ‘this belongs to’ is finally analyzed and segmented into its constituent parts.

In general it can be said that a certain interrelationship between self-reference and possessivity exists. Parallel to a development of terms for self-reference which change from *Baby* through *Olilo* through *der Olilo* through *er* to *ich*, showing a strong relationship to the input, comparable changes can also be found in the expression of possession.

It is also interesting to note that periods where terms of self-reference are redundantly marked are usually followed by periods where a new term for self-reference is applied. In other words it could be said that always after a state of turbulence – e.g. redundant marking – something new comes into being.

Table 5. Acquisition of possession in German

age	system development	examples
1;9	<i>syntactic means</i> juxtaposition of uninflected possessor and possessed	Mama Nase ('mommy nose') Oliver Hose ('Oliver trousers')
2;0	<i>syntactic means</i> possessor + chunk 'g(e)hört das'	Olilo g(e)hört das! ('this belongs to Olilo') Olilo mein g(e)hört das ('this belongs to Olilo mine')
2;2-2;4	<i>morphological means added</i> possessor marked for dative inflection	n@ Papa g(e)hört des ('it belongs to daddy') mir Olilo g(e)hört des ('it belongs to me Olilo') de@ Mama ghet [: gehört] des ('this belongs to mommy')
2;7	<i>new morpho-syntactic means added</i> 1. chunk <i>g(e)hört des</i> is analyzed 2. possessor switched into first position	des g(e)hört mir ('this belongs to me') des g(e)hört dir ('this belongs to you') der g(e)hört mir ('MASC this belongs to me')

In addition to the language changes by morphological and syntactic means, a development can be recognized in the way a German-speaking child expresses self-reference. The following chart will give an impression of the fundamental changes taking place in this field:

Table 6. Changes in self-reference by the German-speaking child Oliver.

age	kind of self-reference	examples
1;6-1;10	<i>Baby</i>	
1;10	proper name <i>Oliwa, Olila</i>	Oliwa Hose ('Oliwa trousers')
1;10	personal pronoun <i>ich</i> only postverbally connected	da habi@ de@ Apfel ('here I have the apple')

2;2	personal pronoun <i>er</i> instead of proper name <i>Oliwa, Olilo</i>	des xx will er! ('this xx he wants')
2;3	-personal pronoun <i>ich</i> appears in full form and free standing -redundant marking of <i>ich</i>	das da hab ich ja das da ('this here I do have this here') habi gessen ich ('have I eaten I')
22;4	redundant marking of proper name <i>der Olilo</i> with pronoun <i>er</i>	der Olilo schalt er ein ('Olilo he switches on')
22;5	personal pronoun <i>ich</i> appears in preverbal position	ich zeichne was ('I draw something')

Even though we cannot establish an exact time-related link between the data represented in the two charts, there are certain developments noticeable which stand in clear relationship to each other. As the child's feeling for the own self increases – which is shown in the changing use of terms for self-reference – the way of expressing possession develops and new morpho-syntactic means are added.

In the Russian data comprised in Table 4 the incipient marking of the semantic notion of possession in connection with the child's changing preferences in applying the various ways of expressing possessive utterances were shown as well.

6.2.3. English

Similar developments to those observed in the German and Russian data are hardly to be reconstructed from the English examples available in various research projects (e.g. Bloom 1970, Leonard 1976, Fletcher 1985, Brown 1973). For crosslinguistic purposes, however, we will present English examples trying to show which developments are taking place when children acquire the concept of possessivity.

Children will start out with a period of one-word utterances where they express possessivity by lexical means usually exclaiming the possessor. Nicky, for example, exclaims *daddy* when he points to his father's razor (Greenfield and Smith 1976: 149). The same can be seen among Russian- or German-learning children (Ceytlin 1995, Vollmann and Bryere 1995). Unfortunately we do not have such examples in our data because our children's language ability was already too advanced to produce such basic utterances.

Once children learning either of the three languages enter the two-word stage possession is mostly expressed by syntactic means juxtaposing possessor and possessed. Here are some English examples:

Kathryn I	tiger tail sheep ear Kathryn sock	(Bloom 1970: 61)
Kendall Jonathan David	Daddy book Daddy pipe baby toy	(Leonard 1976: 32ff.)

The juxtaposition of possessor and possessed is a feature which appears in all three languages. Once the uninflected two-word stage has passed by, though, the possibilities of expressing possession start to develop in different directions in the various languages and children are confronted with difficulties of varying degrees in their language situations.

Of course children do not make use of the whole repertoire of constructions which might be used to express possessivity but rather focus on one or a few ways to do so. Nevertheless it can be seen that in German as well as in Russian certain linguistic devices are added and that either by syntactic or morphological means the possibilities of expressing possession are increased.

English-learning children do not have to work very hard on their morphology but rather on their syntax. The only morphological device they have to pay attention to is the addition of the possessive {-s} in certain constructions.

It is interesting to note that while many features like the balance between morphological and syntactic devices is quite different certain aspects stay the same in all three languages. It can be noticed that children go through a phase of redundant self-reference, as the following examples will show:

Kathryn	That's Kathryn my book	
	These my Kathryn's	(Bloom 1970: 35)

Also an English-learner undergoes different phases of self-reference. While Kathryn first used a proper name to refer to herself she gradually shifted over to "I", "me", and "my" (Bloom 1970: 132). Of course overgeneralizations are made, as in *That's mine toy* (Bloom 1970: 35), or *my have this this mys* (Bloom 1970: 22), *me want your tea* (Fletcher 1985: 61). Here possessive determiners and possessive pronouns are confused with each other.

In conclusion it can be said that while in the early stage in all three languages possession is marked by the same means, namely lexical and later syntactic ones, after a certain period of time children start to acquire whatever is needed in their language. While Russian and German demand a complex inflectional system which is also reflected in the pronouns, English requirements concerning morphology are rather poor. Of course the possessive constructions in German and Russian are not identical since in Russian a verb *gehören* ('to have') does not exist except for the verb *imet'* ('to have') which is mainly applied in phrases or on very special occasions. Nevertheless morphological aspects are similar in German and Russian and are certainly more demanding than in English.

7. Conclusion

The acquisition of language is characterized by a perpetual appearance of patterns. With increasing input accumulation the language repertoire of the child increases and the attentional focus shifts. Rules are discovered, applied and overgeneralized up to a point where the particular language system reaches a level of complexity and is forced to reorganize itself. Subsystems such as the syntactic or

morphological rule systems are developed and change from states of varying turbulence to states of order.

In the particular subsystems reorganization follows the same principles as in the whole system. Morphological devices, for example, are acquired according to a naturalness scale which exemplifies that morphemes which are more natural are also easier to acquire and are thus acquired first (Dressler 1985, Dressler et al. 1987).

According to the model of self-organization (Karpf 1990, 1993, Peltzer-Karpf 1994, in press) input selection from the environment is crucial for the developing of language and depending on the basis a child has acquired, further information can be taken up and organized.

In the three languages discussed in this article it can be noticed that children tend to use universal language devices in the initial stages of language learning where they have been exposed only to a rather small proportion of input (cf. Slobin 1982). Later, however, they start to respond to their specific language situation so that particulars emerge. Slobin explains the construction of a child's grammar with Operating Principles (OP) pointing out that with an accumulation of information new OPs are acquired and "children move from a UNIVERSAL grammar to the divergent grammars of individual languages" (Slobin 1985: 1160).

In the case of children learning either English, German or Russian we can see that while all of them use lexical means in the initial stages they change into different directions once they know more about their particular language. Nevertheless in both functional relations (location and possession) almost all children investigated apply the same means in the next stage, namely syntactic ones. Later in German and Russian, morphological means are added, and one has to notice that a rather strong interrelationship between morphological and syntactic devices exists. In English where morphological means are hardly necessary children can more or less only focus on the syntax and thus rest when German and Russian-speaking children still have to deal with their morphology. It is not exactly clear what English-speaking children do at the time the little Germans and Russians are busy with acquiring their morphology but since the English lexicon is a rather large one it is very likely that English-learning children work on their lexicon.

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