

IN: NELSON, K. E.; A. AKSU-KOC; C. JOHNSON (eds.) (2001). *Children's Language Vol. 10, Developing Narrative and Discourse Competence*, Lawrence Erlbaum Associates Publishers, 31-54.

REPRESENTATION OF MOVEMENT IN EUROPEAN PORTUGUESE.  
A Study of Children's Narratives.

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**Pre-print version**

## **1. Introduction.**

A big part of recent language acquisition research has significantly focused on the organization of information in discourse, with special reference to person, space and time (Hickmann, 1995; Hendriks, 1993; Smoczynska, 1992; Berman and Slobin, 1994; cf. also Berman in this volume). Special interest is given to two decisive aspects: the marking of information status and the grounding of information in discourse. In all domains three recurrent observations are reported that must be taken into account in any model of mother tongue acquisition (Hickmann, 1995: 215):

- (1) relatively late developmental progression in discourse organization,
- (2) interrelations among the utterance and discourse levels of analysis,
- (3) and a combination of general developmental cognitive patterns as well as language-specific ones.

Taking into consideration both the cognitive-oriented and the linguistic-oriented studies it can be postulated that early acquisition is not only based on universal sensoriomotor concepts but also on the particular language being acquired. Earlier

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literature (as, for instance, Johnston and Slobin, 1977 and Slobin, 1985) predicted that children's production of locative expression across a large number of languages followed a similar sequence determined by cognitive complexity observed in three sequential stages of the acquisition of space markers:

- (a) *in, on, under, beside*;
- (b) *between, back, front*, with featured objects;
- (c) *back*, and *front* with nonfeatured objects.

Since the eighties, however, and due to language typology developed by Talmy (1983, 1985) and followed in Bowerman's research (Bowerman, 1989, Choi and Bowerman, 1991), it has been shown that children must acquire a number of linguistic devices in order to mark spatial relations such as static locations and dynamic ones (motion with general locations, or changes of locations).

It is claimed (Cf. Hickmann, 1995) that there are two types of linguistic devices both of global and of local character. Local devices include motion and posture verbs, prepositions, adjectives, adverbials, particles, deictics, case markings, etc., whereas global devices include word order and event conflation correlated with other language-specific factors, such as syntactic prepositions or postpositions, morphological complexity, lexical diversity, synonymity, and others. So, for instance, a Portuguese motion verb *atravessar* (go over/ across), an English particle *over* (Example 1), a Polish preposition *do* (into) and a Genitive case *-u* marking direction in Polish (Example 2) are language specific local devices of lexical or morphological character, whereas event conflation of Motion and Path in Portuguese *atravessar* (go + over/ across) or conflation of Motion and Manner in English *drive* (go + by car) (Example 1) instantiate global devices.

#### Example 1.

(Portuguese)	<i>Atravessámos</i> (went across 1st pl. past We drove over the bridge.	<i>a</i> the	<i>ponte de</i> bridge by	<i>carro.</i> car)
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#### Example 2.

(Polish)	<i>Wejsc do</i> (go into	<i>domu.</i> <i>dom +</i> house/home	<i>-u</i> Gen)
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Enter the house.

It is considered (Hickmann, 1995: 201) to be easier for children to interpret sentences when their language has a rich and transparent morphology (e.g. Polish) than when it depends more on word order to express grammatical relations (e.g. English). Studies of sentence comprehension across languages show that regardless of their age native speakers use the cues that are the most available and reliable in their language, e.g. *word order* in English and *lexical or morphological cues* in Polish, suggesting a model in which children must learn how functions complete and fuse in relation to available forms. Following these claims we can hypothesize that the Portuguese speakers will behave in the process of acquisition of their native language according to the Polish model, i.e., following lexical and morphological cues the most available and reliable in their language.

## 2. Methodology.

Our research (Batoréo, 1996) set in the theoretical parameters referred to above examines spatial reference and spatial expression in narratives produced by European Portuguese native speakers, children and adults, in a situation of absence of mutual situational knowledge. Narrative productions were elicited with two picture stories: *Horse Story* and *Cat Story*<sup>1</sup> (Appendix). The stories are based on a sequence of images<sup>2</sup> in which different animals are involved in interacting situations which determine the status of the type of character in the Protagonist category. So in the *Horse Story* there is a horse, a cow and a bird and in the *Cat Story* a mother-bird with her little ones, a cat and a dog. Though the general frame is very much alike in both cases, the stories differ in the role various protagonists can have in the story itself and in relation to the other animals. In the first story the horse is definitely the main protagonist, that runs

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<sup>1</sup> Described since 1982 in Hickmann's studies and developed, among others, by Hendriks (1993) and Smoczynska (1992)

<sup>2</sup> The Horse Story: (1) A horse is running in the field near a fence; (2) The horse looks across the fence at a cow; (3) The horse jumps the fence with the cow in the background and a bird on the fence; (4) The horse stumbles on the fence and falls. The cow and bird watch; (5) The cow bandages up the horse's leg. The bird brings a first aid kit. The Cat Story: (1) A bird is sitting in a nest which is on a limb of a tree; (2) A bird flies away and a cat comes up to the tree; (3) The cat sits watching the empty nest; (4) The cat climbs the tree as a dog watches; (5) The dog pulls the cat's tail, as the bird flies back; (6) The dog chases the cat away, as the bird hovers at the nest.

in the fields, falls down and gets help from his friends, a cow and a bird. In the second story, we really do not know who the main character is. The title is *Cat Story*, but there is no cat in the first picture, where we can only spot a mother bird and some little birds in a nest in a tree. The cat appears only in the second picture when the mother bird flies away and he tries to grab the chicks in the nest. He cannot reach them though as there is a dog who pulls him down from the tree. Finally, the birds are safe when the cat runs away chased by the dog and the mother-bird comes back to take care of her little ones.

The *Corpus* of Batoréo (1996) is composed of 120 narratives produced by 60 monolingual European Portuguese subjects: 30 adults and 30 children (half boys and half girls) of 5, 7 and 10 years of age, ten children in each age group (Table 1). The children were tested in a kindegarten and a primary school in the centre of Lisbon.

All the data used in this study were recorded, transcribed and codified in the CHILDES System (MacWhinney, 1994; Faria & Batoréo, 1994).

Group	Subjects	Range of ages	Mean age
G1	( 5 y.) 10	4;4 - 5;11	5;7
G2	( 7 y.) 10	7;3 - 7;11	7;6
G3	(10 y.) 10	10;1 - 10;10	10;7
G4	(adults)30	18 - 47	24;3

**Table 1.** Portuguese narrative (Batoréo, 1996): sample of subjects.

In the following discussion some data from Faria (1998) will be taken into account in order to provide further information on the acquisition of narratives in European Portuguese. The Faria (1998) data are based on a corpus of 30 children of three age groups (ten children per group): G 1 (4; 6 - 5; 3), G 2 (6;5 - 7;1) and G 3 (9;4-10;2).

### **3. Theoretical phrame: discution on the specificity of European Portuguese.**

The Batoréo (1996) research focusing on the expression of Space in European Portuguese follows Talmy's postulates (1975,1983, 1985) that event conflation in the clause is

object of linguistic variation. A Motion Situation is defined as one in which one object (Figure) is moving or located with respect to another object (Ground), whereas the respect in which one object is located or moving to another object functions as the Path (Talmy, 1975: 182). Some languages - as those from the Germanic family, for instance, - combine Motion with Manner in the verb (as in English *drive* in Example 1), while others - like Romance languages (Portuguese, Spanish, French, etc.), for example, - combine Motion with Path in the main verb (as in Portuguese *atravessar* in Example 1), while Manner is expressed by other means, such as relative, infinitive or gerundive clauses (see: Examples 4 and 7 below). Thus it follows that whereas English speakers elaborate the trajectories that protagonists follow in their displacement through space, Portuguese, Spanish or French speakers provide simpler displacements with less elaborate Paths and more stative information situating protagonists. This means that in English stative locations must be inferred from Paths as e.g. in *The Frog Story*<sup>3</sup> (Example 3).

**Example 3.** (English) *The boy put the frog down into a jar.*

In this example the present *inferior* frog's position is given as a result of the boy's movement on the Path directed *down*. In Portuguese or in Spanish Paths must be inferred from Path verbs (e.g. '*meter*' = put inside) and static locations (e.g. '*haver em baixo*'/ '*haber abajo*' = there be (located) + down), as in Example 4:

**Example 4.**

(Portuguese)

*O menino meteu o sapo no frasco que havia lá em baixo.*  
 (the boy put the frog in/on the jar that there was there below).

(Spanish)

*El niño metió la rana en el frasco que había abajo.*  
 (the boy put the frog in/on the jar that there was below).

Our research (Batoréo, 1996) shows, however, that it is sometimes dangerous to overgeneralize the basic characteristics of one language group to all the tongues classified as its members<sup>4</sup>. The group of the Romance languages is considered (Slobin, 1989) as being more stative than the Germanic one but we must take into consideration that the degree of stativity may vary from one

<sup>3</sup> Cf. Slobin, 1989, Berman e Slobin, 1994.

<sup>4</sup> Cf. Hickmann, 1995, 207 e 208, as well as Hendriks, 1993, and Batoréo, 1993, 113.

language to another. Portuguese does not seem very keen on accepting strongly marked stativity on some verbs, even if the verb used in both languages (Portuguese and Spanish) can be considered formally as a cognate, as e.g. *subir* (move up) (Example 5).

**Example 5.**

(English)	<i>He (= the boy) climbed a tree.</i>					
(Portuguese)	<i>O</i>	<i>menino</i>	<i>subiu</i>	<i>a</i>	<i>uma árvore.</i>	
	(the	boy	moved up	to	a tree)	
(Spanish)	<i>Está subido</i>		<i>arriba</i>	<i>de</i>	<i>un árbol.</i>	
	(is located		moved up	to the top	of a tree)	
(Portuguese)	*	<i>O menino</i>	<i>está</i>	<i>subido</i>	<i>em cima</i>	<i>da árvore.</i>
		(the boy	is (located)	moved up	the top	of the tree)
	O.K.	<i>O menino</i>	<i>está</i>		<i>em cima</i>	<i>da árvore.</i>
		(the boy	is located		the top	of the tree)
(6;06)	<i>O menino</i>	<i>empoleirou-se</i>	<i>para</i>	<i>ver</i>	<i>nos buracos.</i>	
	(the boy	perched himself	to	see	in/ into the holes)	

The difference shown by the Romance examples is not only transparent between the dynamic and the static perspective but also on the level of aspectual marking: the Spanish example - *está subido* - is both Stative and Resultative, i.e. Imperfective in character (Present Tense), while the Portuguese is either Resultative and Perfective (Simple Past Tense) - *subiu* or *empoleirou-se* - or Stative, i.e. Imperfective (Present Tense), as in *está em cima*.

In addition, we must remember that both Portuguese and Spanish are transcontinental languages (officially) spoken in different American and African countries, originating a great diversity of linguistic variation. As for Portuguese, due to specificity (Faria and Duarte, 1989) not only of lexical choice but also of morphosyntactic structure and pragmatic strategies, the distinction on the standard level has been defended between European Portuguese and Portuguese from Brazil, claiming that the research in Portuguese should be first developed separately in each variety and only then globally appreciated within its diversity. Example 6 illustrates the diversity observed in Portuguese spatial construction.

**Example 6**

European Portuguese:	<i>Há</i>	<i>um</i>	<i>cavalo</i>	<i>a</i>	<i>galopar.</i>
	(there is	a	horse	(prep.)	to gallop [infinitive clause])
Brazilian Portuguese:	<i>Tem</i>	<i>cavalo</i>	<i>galopando.</i>		
	(have	(0 det.)	horse	galloping [gerundive])	

As the example shows the difference between the two main varieties of Portuguese is observed in the selection of the determiner, in the choice of the existential introductory verb - *haver* (there be/ have) or *ter* (have) - and on the morphosyntactic level. The European variety prefers the infinitive clause (though the gerundive construction is still possible both in the standard variety and, especially, in some dialects), whereas in Brazil the gerundive is used. The usage of *haver* in the opening constructions of adult speakers (cf. Fig. 4 below) in European Portuguese (Example 7) and *ter* in Brazilian Portuguese (Example 8) throughout the age range is consistent. The usage of a construction *era uma vez* (the Portuguese equivalent of *once upon a time*) is quite common in both varieties and independent of age range.

As examples 7 and 8 show the beginning of a narrative contains much new information included in the first or the first few utterances. Such a packing of information presents a big psychological burden which can be dealt with in different ways. While some languages, as Portuguese, are more lenient to the combination of new animate and inanimate referents in different roles in the same utterance, some other seem to want to avoid the overload and distribute the new information over more than one unit (cf. the discussion in Hendriks, 1993: 85-86) (Example 9).

### Example 7

CAVALO	(HORSE)				
<i>Há</i> (there is	<i>um cavalo</i> a horse	<i>que</i> that	<i>passeia</i> walks	<i>pelos</i>	<i>prados</i> in the meadow)
<i>Havia</i> (there was	<i>um cavalo</i> a horse	<i>a</i>	<i>galopar</i> (prep.) to galop [infinitive clause]		
<i>Era uma vez</i> (there was once upon a time	<i>um cavalo</i> a horse	<i>que</i> that	<i>estava a galopar</i> <i>estava galopando</i> was galloping [infinitive or gerundive]		<i>no campo</i> in the fields)
<i>Era uma vez</i> (there was once upon a time	<i>um cavalo</i> a horse	<i>que</i> that	<i>estava preso</i> was imprisoned		<i>numa cerca</i> in the corral)
<b>(a)</b> There was a horse that galloped in the fields/ in the meadow/ in the corral.					

<i>Andava</i> (used to go/walk	<i>um</i> a	<i>cavalo</i> horse			<i>pelos prados</i> across the meadows)
<i>Andava</i> (used	<i>um</i> a	<i>cavalo a</i> horse	<i>a</i> (prep.)	<i>correr</i> to run	<i>pelos prados</i> across the meadows)
<b>(b)</b> There was a horse that used to run across the meadows.					
??	<i>Um</i> (a	<i>cavalo</i> horse	<i>andava a</i> used (prep.)	<i>correr</i> to run	<i>pelos prados</i> across the meadows)
<b>(c)</b> There was a horse that used to run across the meadows.					

**Example 8.** Brazilian Portuguese

(*Horse and Cat Stories in Guimarães, 1994*):

- (a) (5 years)      *Aqui tem um cavalo correndo*  
(here have a horse                    runing - Gerundive)  
  
There is a horse runing here.
- (b) (5 years)      *Tem um cachorro e                    passarinho na árvore.*  
(have a dog and 0 det birdie        in the tree)  
There are a dog and a bird in the tree.
- (c) (7 years)      *(..) e tinha o cachorro que puxou o gato pelo rabo.*  
(and have the dog                    that pulled the cat by the tail)  
There was a dog that pulled the cat by his tail.
- (d) (10 years)      *Aqui tem uma árvore e nessa árvore tem um ninho de*  
(here have a tree and in this tree have a nest of  
There is a tree and in the tree there is a nest for a bird to sit.  
  
*passarinho pousar.*  
birdie        to sit)

(Chavegatto et al. , 1997: 4, ex. 1)

- (e) Adult      *Lá em Búzios, na praia da Ferradura, tem uns*  
(there in Búzios at the beach of Ferradura have some  
  
*bares em cima.*  
bars in/on top)

In Búzios in the upper part of the Ferradura beach there are some bars.

**Example 9.** (Hendriks, 93: 86)

- (a) (English) O.K. *There was a horse running in a meadow*
- (b) (German) O.K. *Es war einmal ein Pferd auf einer Wiese.*
- (c) (Dutch) ?? *Er staat een koe in een wei.*
- (f) (English) ?? *In a meadow there was a horse*
- (g) (German) O.K. *Auf einer Wiese war eine Pferd.*
- (h) (Dutch) ?? *In een wei staat een koe.*

In the group of the Romance languages we can also observe some differences between pro-drop languages (Italian, Portuguese, Spanish), on one hand, and French - a non-pro drop language -, on the other. Thus, in Portuguese, for example, you will not come upon a left-dislocated construction of the type *Le chat il arrive* (= The cat + he comes) unaccepted by the French adults but, as Hickmann argues (1995: 208), frequent in French children until seven.

#### **4. Data analysis.**

##### **4. 1. Variables in the *Horse and Cat Stories*.**

To study representation of movement in a language means to analyse nominal reference, i.e. to determine what sort of linguistic realisations appear for Figure and Ground, as well as verbal reference, i.e. to define the relationship between the realisations of Figure and Ground existing in the text. We realised that studying **four variables - age, language, story and protagonist** - was crucial for our research, trying to answer the following questions: When and how do Portuguese children provide a spatial anchoring for the story, on one hand, and set a spatial frame in their narratives, on the other? In linguistic terms it means:

- what semantic roles do they assign to Figures and Grounds?
- what kind of nominal and verbal reference do they use?
- what specific Portuguese linguistic markers do they choose to establish new spatial information?
- what kind of linguistic constructions do they select?

In answer to the questions asked above we shall discuss the form-function relation we investigated in our narratives (Batoréo, 1996) in relation to the four variables considered relevant.

#### 4. 1. 1. The story and protagonist variables.

The differentiation between the *spatial anchoring* and *the setting of the spatial frame* is a very important one. All spatial information throughout the narrative provides a spatial anchoring for the story, whereas the spatial frame is the most important spatial information given at the very beginning of the story which provides background information in the absence of mutual knowledge. This distinction has to do with the role different protagonists play in the story: setting a spatial frame at the very beginning of the narrative implies, in general, introducing the main protagonist, whereas spatial anchoring has to do with all the categories, protagonist as well as instrumental, not only in the introduction but across the whole narrative.

It seems easier to introduce the main protagonist, i.e. to set a spatial setting, than other protagonists. This result can be clearly observed while comparing the data from the *Horse Story* (Fig. 1) where the roles protagonists play are clear-cut and well-defined and the data from the *Cat Story* (Fig. 2), where there are at least two main protagonists and a third one, situated very close to the first two in the protagonist hierarchy. The percentage of the introductory constructions decreases with the lowering of the status of the type of the character in the Protagonist category. The lower the role of the character in the protagonist category the later the setting of the space anchoring takes place in the process of acquisition.

**4. 1. 2. The protagonist variable.** The introduction of the most important protagonists requires syntactically complex and varied constructions. At the absolute beginning most of the protagonists are introduced by existentials - *haber* (there be), *ser* (be), *existir* (exist), or the "*era una vez*" construction (once upon a time) - of the relative paradigm (Q-type), with stative constructions *estar* (to be located): "*estar + a + Infinitive*", "*estar + Gerundive*" or a descriptive one (Example 7) (Fig. 3 & 4).

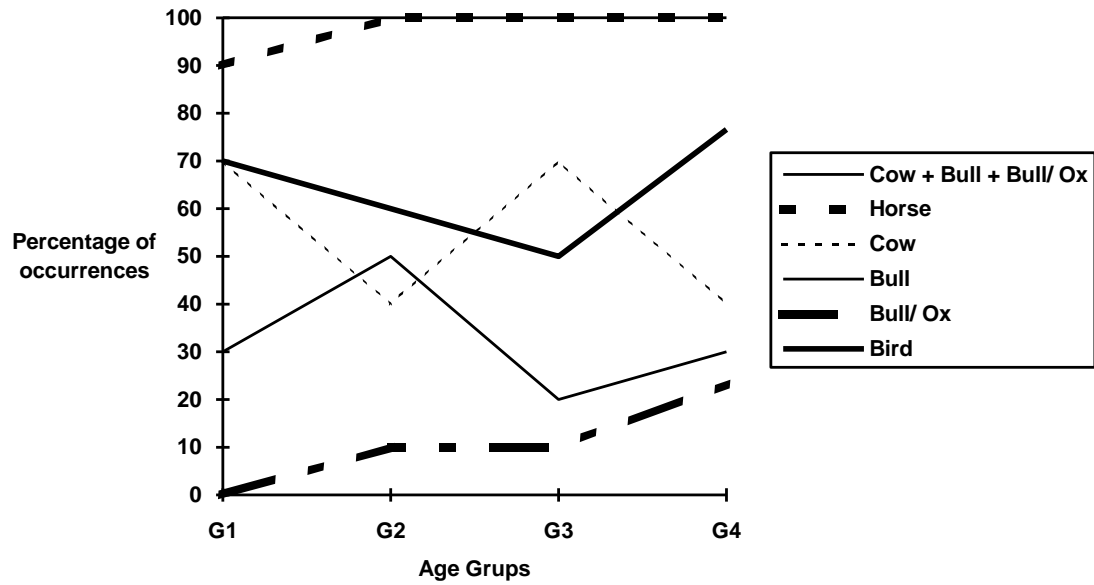


Figure 1. *Horse Story*: Introducing the Protagonist category

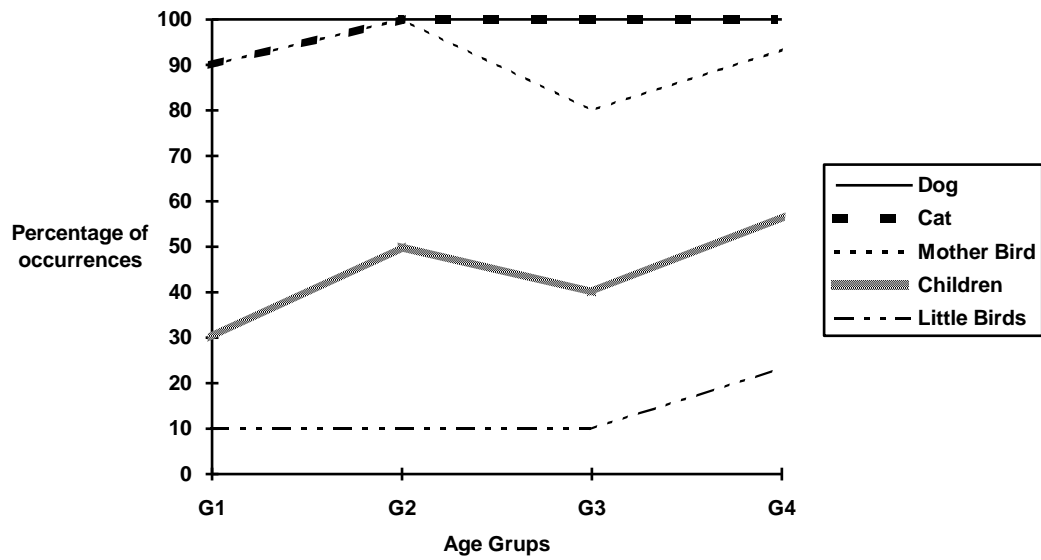
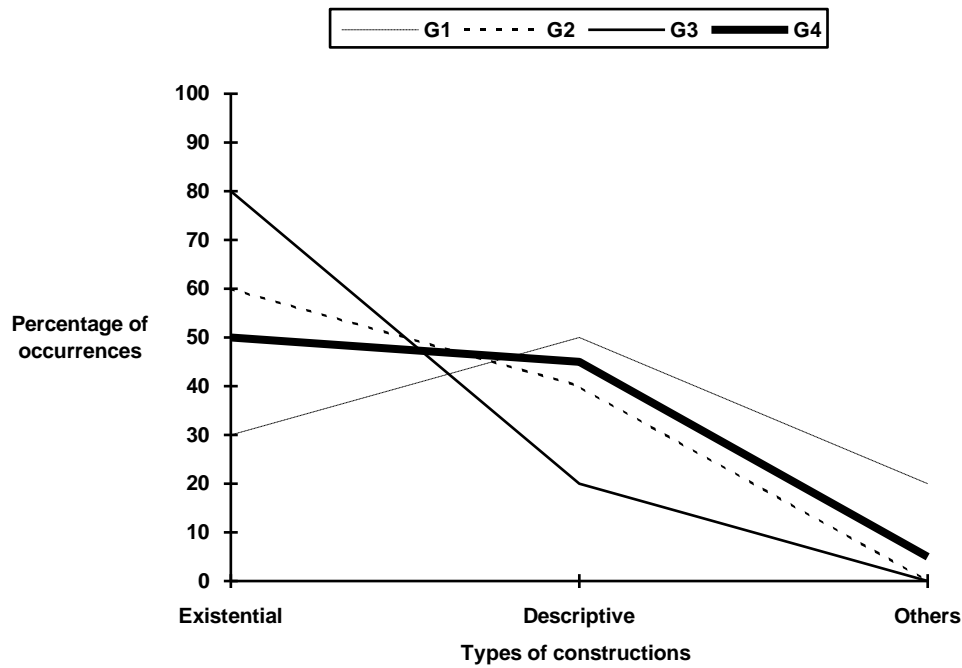
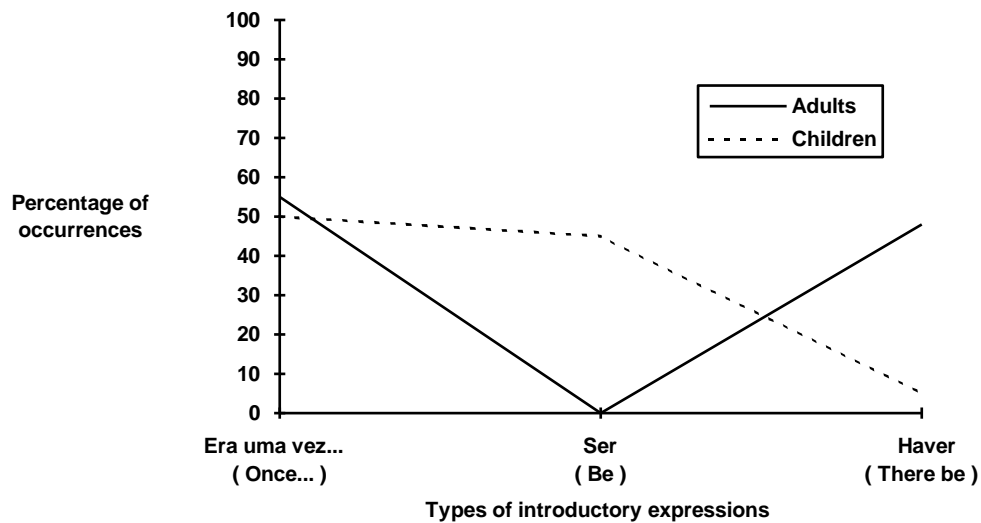


Figure 2. *Cat Story*: Introducing the Protagonist category.



**Figure 3.** *Horse Story*: Acquisition of structures used in the introduction of the Horse category.

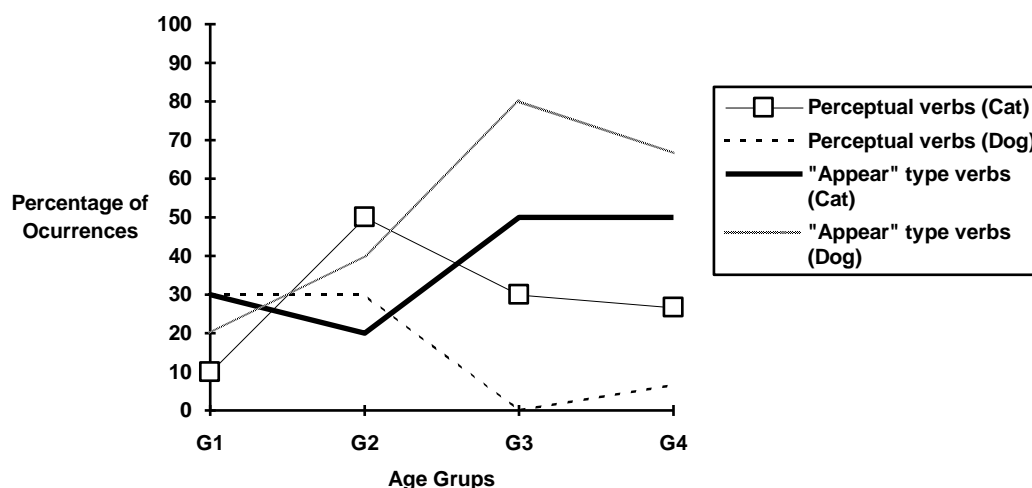


**Figure 4.** *Horse Story*: Introduction of the Horse category. Acquisition of existential relative constructions.

On the contrary, when the protagonist (even the main one) is not in the absolute initial position, it is introduced either as a result of perceptual (or physical) contact between protagonists, marked by the perceptual verbs - such as *ver* (see), *olhar* (look), *avistar* (spot), etc. - or it results from the change of state, marked by the "appear" type of verbs - *aparecer* (appear), *surgir* (turn up), *vir* (come, get in), *chegar* (come), etc. - frequently in syntactic preposition (Example 10) (Fig. 5).

**Example 10.**

CÃO e GATO (DOG & CAT)		
(a)	O gato (The cat)	<i>apareceu</i> appeared)
(b)	<i>Apareceu / Surgiu/ Chegou/ Veio</i> (Appeared, came/ arrived)	um gato a cat)



**Figure 5.** *Cat Story*: “Appear” type and perceptual verbs in introducing the Cat and Dog categories.

In the case of a clearly defined secondary protagonist (*cow*) we can observe a mixed situation of plurality of constructions: existentials, stative and “perceptual encounters” (Example 11).

**4. 1. 3. (a) The language variable: semantic roles assigned to Figures and Grounds.**

Narrators show functional motivation while choosing different linguistic markers in introducing Figures, i.e., main versus secondary protagonists. The difference is not only marked syntactically as shown above but is also marked at the semantic level. Whereas the main character is clearly introduced as Agentive in the story with clear-cut roles, i.e., the *Horse Story*, its status is less clear in the situation where the main character position is ambiguous as it happens in the *Cat Story* with

**Example 11.**

	<b>VACA</b>		<b>(COW)</b>				
<b>(a)</b>	<i>Do outro lado</i> ( on the other side	<i>da</i> of the	<i>sebe</i> fence	<i>havia</i> there was	<i>uma</i> a	<i>vaca</i> cow)	
	<i>Do lado de lá</i> ( on the other side	<i>da</i> of the	<i>cerca</i> fence	<i>estava</i> was located	<i>uma</i> a	<i>vaca</i> cow)	
	On the other side of the fence there was a cow.						
<b>(b)</b>	<i>Do outro lado</i> (on the other side	<i>da</i> of the	<i>cerca</i> fence	<i>viu</i> saw (3rd sing.past)	<i>uma</i> a	<i>vaca.</i> cow).	
	On the other side of the fence he saw a cow.						
<b>(c)</b>	<i>Encontrou</i> ( met (3rd sing.past)	<i>uma</i> a	<i>vaca</i> cow	<i>dentro de</i> in	<i>uma</i> a	<i>sebe.</i> hedge)	
	He met a cow in the corral.						

three different animals disputing the main role in the narration. These animals are introduced either Agentively (e.g. the mother- bird is going away to find some food for the little ones, the cat is trying to grasp the chicks, the dog is chasing the cat) or Statively (e.g. the mother-bird is in the nest taking care of her little ones, the cat is sitting by the tree). In the clear-cut situation the roles alternate only by the end of the story where Agents turn Patients and vice versa, i.e., the running horse (Agent) falls down (Experiencer) and is helped (Patient) by his friends while the cow spotted (Patient) in the meadow bandages up (Agent) the horse's leg. On the other hand, in the *Cat Story* the roles keep changing through the narration. Thus the cat comes up to the tree (Agent), then he is sitting by it (Stative) and watching (Agent) the birds, and after that he is climbing (Agent) the tree, being finally pulled down (Patient) and chased (Patient) by the dog. The dog, being the counterpart in this situation, turns up passively (Patient) in the second part of the story to protect (Agent) the nest from the cat and make (Agent) him flee.

As for the Grounds, the same Ground can be chosen with different roles for different protagonists: while it is an *entity* for one it can be a *place* for another, as, for instance, in the case of the *fence* that plays different roles for the horse and for the bird in the *Horse Story* and of the tree conceptualised either as an independent Figure or a Ground for the birds in the *Cat Story*. As far as syntactical construction are concerned, only the verbs of Motion (but not the verbs of

Location) allow the omission of the Ground (Example 10). The strategies of the assignment of semantic roles to Figures and Grounds and the realisation of nominal and verbal reference may be evaluated from the point of view of the perspective that the narrator is adopting in different parts of the story.

#### **4. 1. 3. (b) The language variable: syntactic constructions and morphosyntactic marking.**

European Portuguese avoids the overload of the information by distributing it in different positions of initial utterances and using three basic strategies to achieve this aim (see the discussion above on examples 7 - 11):

(a) verb-first position;

(b) sentence final relative clauses and

(c) three different positions for the locative phrases (initial, medial and final). The

study of Space in European Portuguese is closely related to the study of Tense and Aspect, as well as the expression of Possession (see e.g. *bull's field*). The rate at which temporal-aspectual distinctions are acquired at the sentence level (Perfectivity) and at the discourse level (Imperfective grounding) depends on the richness and transparency of the morphology acquired. There is richness in verbal inflections - functioning as main anchor tenses and tense shifting - and in temporal-aspectual adverbials and connectives. European Portuguese native speakers show no difficulties in early acquisition of these strategies.

#### **4. 1. 4. The age variable**

Age 6-7 is determinant for significant changes on cognitive and linguistic levels and, therefore, should be dedicated some more specific studies in a more thorough analysis. At that age children start to reorganise their discourse and begin to use cognitive and linguistic structuring strategies in an adult way. This shows clearly at the level of existential/ stative syntactic structure (Fig. 3 & 4). It takes quite a lot of time to acquire the adult realisations, i.e. the preference for the *haver* constructions, as children of 7 and 10 still show very clear preference for other strategies (Fig. 4). Our study shows that children have difficulties establishing and maintaining spatial frames until late, i.e. around the age 7- 10.

The study of linguistic expression is closely related to its interpretation on the cultural, cognitive and social level, as shown by the realisation of the Cow category (*Horse Story*) and the Bird category in both stories (Fig. 1 & 2). Young children, for instance, use only *vaca* (cow) and *boi* (bull) as instantiations of the Cow category until the cultural realisation *touro* (bull/ox) is acquired at about seven (Fig. 1). The young ones prefer the realisation *pássaro* (bird1) for Bird, learning late the cognitive hyperonym *ave* (bird2), quite common among the adults. Specific instantiation of this category depends on its social recognition as a symbol of peace (*Horse Story*) - as in *pomba* (dove) - or as a symbol of a parentship (*Cat Story*) - as for instance in *pássaro-mãe* (mummy bird).

#### **4. 2. Variables in the European Portuguese *Frog Stories*.**

The analysis of the Faria (1998) data corroborate the narrative analysis proposed in Batoréo (1996). Studying three (extended to four) variables - **age, language and protagonist** (together with the **story** variable) - was taken as crucial for the analysis and the data.

##### **4. 2. 1. The protagonist (protagonist + story) variable.**

The *Frog Story* has three main (but not clear cut or defined) protagonists - a frog, a boy and a dog - and some secondary categories that may occur as protagonists such as a mole, bees, an owl, a dear and the frog's family. In European Portuguese we find some variety in the designation of the frog, which may be realised as a *rã* (frog-feminine) or as a *sapo* (frog-masculine), conducing to a gender marking along the narrative, which may interfere with the identification of the frog within the group of frogs and determine its social position and role-playing. If it is the case of a frog-feminine *rã*, it is either a 'mother' of the frog family willing to escape to join her family members, or a 'daughter' willing to visit them but then, possibly, to come back to the boy's home. If the realisation is frog-masculine *sapo*, the frog is responsible for his family and he has to run away from the boy to take care of his loved ones. In such a situation at the end of the story the boy brings home either a 'son' or a 'daughter' of the *sapo*-protagonist.

In relation to the secondary categories, as observed in other stories (see: 4.1.), a much larger lexical variation and different degrees of protagonism are observed. The lexical diversity associated to the categories may be due to difficulties in recognising their image representation and/or to the frequency of their names within the vocabulary in use by each child. This is more

frequent in relation to the mole which occurs as a *esquilo* (squirrel) or a *sapo* in G 1, a *castor* (beaver), *rã* (she-frog), *rato* (mouse), *toupeira* (mole) or simply *bicho* (animal) in G 2, and a *esquilo* (squirrel), *rato* (mouse), *doninha* (weasel), *texugo* (brock) and a *toupeira* (mole) in G 3.

**4. 2. 2. The language variable: semantic roles and syntactic constructions.** Main protagonists may show different degrees of Agency, depending not only on the processes and events going on but also on the perspective taken by the child in relation to each process or event. Let us exemplify with the Picture 1 in *Frog Story*, where the frog, the boy and the dog are present. The frog mentioned in fifty seven per cent of the narratives is either part of the locative state (e.g. she is inside the jug) or is object of a resultative event (e. g. she has been put inside the jug), this event being often caused by the boy (e. g. the boy puts the frog inside the jug). In the same picture, however, the boy may be seen not as a causative Agent, mentioned only by twenty seven per cent of the narrators (e. g. the boy is looking at the frog), and the same may be said in relation to the dog (e. g. peeping at the frog), mentioned by the same amount of the speakers.

The frog is an Agent in picture 2, mentioned by over seventy per cent of the children, with the following verbs being used: *sair* (to go out) - nine narrators, *saltar* (to jump) - five, *fugir* (to run away) - seven, *ir embora* (to go away) - two, *soltar-se* (to set herself free) - one, *ir a outro sítio* (to go to another place) - one, *ir passear* (to go for a walk) - one.

Further in the story (*Frog Story*, picture 4), the dog is either an Agent, Origin, Experiencer or even a Patient as he puts his head inside the jug, he gets his head inside the jug, he peeps at the jug and gets stuck or he is with the jug in/on his head. In picture 6, the dog is either a Patient (he falls down the window) mentioned by sixty per cent of the speakers or an Agent (he jumps out of the window) mentioned by twenty per cent of the narrators. It is interesting to observe that only ten per cent (i.e. three children) referred some more complex relations. Thus, one seven year old child, for instance, mentions the dog first as an Agent then as a Patient, victim of his own actions: *o cão chegou-se tão para frente que caiu* (the dog moved so much towards the front that he fell). The other two nine year old children mention the dog as a Patient deprived of control of his experience: *o cão sem querer caiu pela janela abaixo* (unwillingly, the dog fell down the window) and *como o frasco pesava muito, sem querer caiu lá para baixo* (as the jug was heavy, unwillingly the dog fell down). This variety of degrees of Agency, may also be due to differences

in perspective related to levels of development. In the set of pictures 9 to 12, where in 9 the dog is trying to reach the bee-hive, different perspectives are correlated to age groups: the younger children refer to modalities of experiences instead of actions, expressed by periphrastic constructions such as *está a tentar apanhar* (he is trying to reach), *queria comer aquilo* (he wanted to eat that), *queria subir* (he wanted to climb), *queria agarrar* (he wanted to grasp). The G2 children prefer to refer such actions as playing as e. g. in *começou a brincar com a colmeia* (he started playing with the bee-hive). Older children refer mainly to goal oriented actions such as, at 6;6, *meter as patas na árvore* (putting his feet on/against the tree), at 6;11, *estar à procura nas árvores* (looking for in the trees), at 7;0 and 9;8, *abanar a árvore* (shaking the tree) or, at 9;6, *apoiar-se à árvore* (leaning against the tree). Similar modality differences are attributed to the boy in the same set of pictures (9 to 12). The younger children emphasise the visual experience of the boy looking through a little hole, while the children of the second group tend to emphasise the calling for the frog, and the older children put forward the searching activity.

#### **4. 2. 3. The age variable.**

The most significant change in perspective is felt between G 1 and G 2 as the change from experiencing the situation towards the action. The change observed between the two older groups (G 2 and G 3) consists of a kind of specialisation towards oriented actions in relation to goals. In the *Frog Story* this direction meets also the goal of the story (to find the/another frog and take it back home). This is probably the reason why, at the very end of the story, only the majority of older children mention the frog coming back together with the boy and the dog. Bad experiences tend to be omitted or altered by a false interpretation as, at seven, in: *deixaram a rã estar com a sua mãe; adeus! - disse o menino; adeus! - disseram todas as rãs* (they let the frog stay with its mother; goodbye! - said the boy; goodbye! - said all the frogs). Otherwise, the end is sad as, at 5;3: *foram-se embora para casa e a mãe ficou muito triste* (they left for home and the frog's mother became very sad).

#### **5. Discussion of the results and further research proposal.**

The final results of the research show the relevance of all the four variables proposed previously and give answers to the questions formerly made, leading to the presentation of some

conclusions. While acquiring their native language, Portuguese children must learn the following cognitive and linguistic tasks:

(a) they must realise the existence of spatial anchoring, and especially setting of the spatial frame, i.e. they must learn to refer to all the types of the Locales, even the rarest ones, and to express them as thoroughly as possible;

(b) they must learn to situate their expressions in all the sentence positions used by adults, especially at the very beginning of the utterance;

(c) they must learn syntactic pre-position of the verbs, especially the existential ones as well as their contextual synonyms.

These conclusions only partially meet our initial hypothesis according to which the Portuguese speakers acquiring their native language will behave according to the lexical and morphological cues model. In fact we can observe both the models - the one based on lexical/morphological cues (as in Polish) and the one based on word order (as in English) - integrated in the process of language acquisition. Portuguese children select lexical items according to the event conflation type their language represents, i.e. fusing Motion and Path, and they choose all the types of cues - lexical, morphological and syntactic - as available, reliable and obligatory in this process.

Our results corroborate recent research on the linguistic marking on local and on global levels as a result of crosslinguistic differences in the acquisition of spatial expression. Recent research has begun to examine children's uses of spatial devices in discourse across languages, showing (Berman and Slobin, 1994), e.g. that "typological differences such as those suggested by Talmy affect what spatial information is focused upon and how the flow of information in discourse is organised both on the local and on the global level" (Hickmann, 1995:210). Other analyses (Hendriks, 1993) focus more specifically on how children mark status of spatial information in discourse across languages. According to Hickmann (1995: 207-208) the results show first a general development progression: with increasing age children become gradually able to set spatial frames and to maintain reference to them by means of appropriate devices. Second, some recent crosslinguistic analyses focus on how children organise discourse in controlled situations, where pictures formed a story and mutual knowledge could not be assumed, with particular attention to NP types and clause structure

(Hickmann, 1995: 207, 208, 218 and Smoczynska, 1992) . Third, a relatively late development progression in discourse organisation is noticed.

Following the conclusions of our study we propose that further research should be devoted to a thorough understanding of the interrelations among general aspects of children's cognitive development, general discourse development as well as language-specific aspects and their interdependence. By general cognitive aspects, we mean spatial and temporal conceptualisation as well as scripts and narrative schemata. General discourse development includes the acquisition of global and local principles guiding discourse organisation, whereas language-specific aspects of acquisition include the impact of formal and functional variations on the rate and course of acquisition in specific subdomains of discourse organisation, particularly on the level of interdependence among different linguistic expression of Space in relation to categories such as Tense, Aspect, Possession and also Existence and non-Existence.

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