Language Typology and Semantic Primitive of Space: evidence from European Portuguese

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In order to study space on a language level, we understand that first its place in the universal grammar is to be determined and then accidental, language-specific characteristics of a given, particular language are to be distinguished and compared with many other different languages. To investigate and compare many diverse languages we need a powerful and universally applicable metalanguage in terms of which the comparison can be carried out. Such a metalanguage, on the other hand, can only be constructed and verified on the basis of wide-spread crosslinguistic research.

After over three decades of empirical and theoretical investigations aiming at defining universal grammar, Anna Wierzbicka has finally arrived at a point (Wierzbicka, 1996, 1998) in which she proposes a (hypothetical) set of conceptual primitives and universals based on non-technical, non-arbitrary and intuitively intelligible *tertium comparationis*. The metalanguage she uses is based on empirically established lexico-grammatical universals proposed as NSM (Natural Semantic Metalanguage). The conceptual primitives Wierzbicka studies are as follows: Substantives; Determiners; Quantifiers; Attributes; Mental predicates; Speech; Actions, events, movements; Existence and possession; Life and death; Logical concepts; Time; Space; Intensifier, augmentor; Taxonomy, partonomy; Similarity. In this proposal we can distinguish at least four conceptual primitives that cover the expression of space, i.e. the Space prime itself and partially three other ones: *Time, Existence and possession and Action, events, movements* (Figure 1).

Figure 1

■ *Conceptual primitives*	Lexical universals (Spatial lexical universals in bold)
■ *Space*	**WHERE(PLACE), HERE, ABOVE, BELOW, FAR, NEAR, SIDE, INSIDE**
■ *Time*	**WHEN(TIME), NOW, AFTER, BEFORE, A LONG TIME, A SHORT TIME, FOR SOME TIME**
■ *Existence and possession*	**THERE IS, HAVE**
■ *Action, events, movements*	**DO, HAPPEN, MOVE**

Linguistically specific space markers are defined then in function of these primes or built up by more than one of them. In the constructing task it is also possible to take some other primes into consideration, as for instance the *Logical concept* NOT that makes possible the construction of marked and unmarked linguistic items or possibly some other conceptual primitives, as discussed in the 'there' example below. These primes let us cover for a basic locative structuring schema defined by Leonard Talmy as a *Motion situation*, i.e. a situation that consists of one object moving or located with respect to another object (Talmy, 1975:182). So, for a definition of a *Motion situation* in European Portuguese we can consider the following possibilities (Figure 2).

Figure 2

(1) Space = Motion situation	(2) *Conceptual primes*	(3) Lexical Universals spatial markers	(4) E. Portuguese spatial markers (nuclear examples)
Movement *movements*	*Action, events,*		
	MOVE		*ir, andar*
Location *possession*	*Existence and*		
	THERE IS, HAVE		*haver, ter, ser, estar*
Location	*Space*		
general location	**WHERE(PLACE)**		*onde*
vertical axe	**ABOVE, BELOW**		*cima,, baixo*
distance	**FAR, NEAR**		*longe, perto*
neighbourhood	**SIDE**		*lado*
enclosure	**INSIDE**		*dentro*
deictic location [+ I]	**HERE**		*aqui*
Location	*Time*		
sagital axe	**AFTER, BEFORE**		*depois, antes/*
(metaphorical expression)			*à frente, atrás*

Furthermore, if we want to describe, for instance, such Portuguese markers as *fora* ('outside') or *ali* ('there'), we must combine a *Logical concept* NOT with the primitives from the Figure 2. Thus we can define
   fora as NOT + INSIDE and *ali* as NOT + HERE.

But there are other possibilities. A deictic locative Portuguese form aí can be translated into English also as 'there', but it is a very specific 'there', the one that is located in reference to *you*. For this description we need a conceptual prime included in the conceptual group of *Substantives*: YOU. In such a way,
   aí can be presented as (NOT + HERE) + (NEAR + YOU).

In a very similar way other spatial markers may be described, using a basic spatial schema inferred from Wierzbicka's and Talmy's proposals, on the basis of conceptual primitives, lexical universals and the schema of a motion situation. Using Wierzbicka's minimal meaningful blocks we can account for a big part of spatial description in a given language but... there are some problems that still remain unsolved.

1. Typological problem

Let's focus our attention on the following problem (Example 1). In English we say *He swam across the river* but its literal Portuguese equivalent **Ele nadou atraves do rio* is incorrect. The Portuguese equivalent of the English sentence is: *Ele atravessou o rio a nado*, though it is impossible to use its litteral equivalent in English: **He crossed the river by swim.*

Example 1

(E)	*He*	*swam*	*across*	*the*	*river*
(EP)	**Ele*	*nadou*	*atraves*	*do*	*rio*
but					
(EP)	*Ele atravessou*	*o*	*rio*	*a*	*nado*
(E)	**He crossed*	*the*	*river*	*by*	*swim*

In the same way we say in English that We drove over the bridge but in Portuguese we literally say: we crossed the river by car: Atravessámos a ponte de carro (Example 2):

Example 2

(Portuguese)	*Atravessámos*	*a*	*ponte*	*de*	*carro.*
	(went across 1st pl. past	the	bridge	by	car)
	We drove over the bridge.				

To explain this phenomenon, Talmy (1985) postulates that event conflation in the clause is object of linguistic variation. As we know, 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). According to Talmy, some languages - as those from the Germanic family, for instance, - combine Motion with Manner in the verb (as in English *swim* or *drive* in Examples 1 and 2), while others - like Romance languages (Portuguese, Spanish, French, etc.), for example, - combine Motion with Path in the main verb (as in Portuguese *atravessar* in Examples 1 and 2), while Manner is expressed by other means, such as adverbial or prepositional phrases (as *a nado* or *de carro* in examples above) or by 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 shown the following example from '*The Frog Story*' (Example 3) (Batoréo, 1996):

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 Spanish1 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

(E. Portuguese)

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

em baixo.
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).

So, as the examples above show, the Universal Grammar we want to built on lexico-grammatical basis must not only provide us with a set of well defined conceptual primitives but also with some general lexicalisation patterns. Talmy (1985) defends that these patterns are not only of spatial character but combine spatial, aspectual and causal characteristics (see: Batoréo, 1996).

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1 Sometimes, though, it is dangerous to overgeneralise the basic characteristics of one language group to all the tongues classified as its members, as it is discussed in Batoréo, 1996 and Batoréo & Faria, 1998.

2. Language specific problem: expression of existence.

The determination of a well-defined set of concepts and lexical universals on one hand and of lexicalisation patterns on the other does not resolve all our problems. We have to deal with language variation and with specificity of distinct linguistic variants.

Let's consider the following case. As for the expression of the *Existence and possession* prime Wierzbicka proposes two lexical universals: **THERE IS** and **HAVE**. It is very important to combine these two universals in one class, as languages are - for instance some Slavic languages - where the expression of existence requires one of these verbs whereas the expression of no-existence the other one (Example 5):

Example 5

(Polish)			
EXISTENCE	*Jest*	*dom.*	
	(is	house (Nom.))	
	There is a house		**THERE IS**
No existence	*Nie*	*ma*	*domu.*
	(Not	has	house (Gen.))
	There is no house		**HAVE**
Cf.			
POSSESSION	*Ma*		*dom.*
	(Has (3rd sing)		house (Acc))
	He has a house		**HAVE**
Negative possession			
	Nie ma		*domu.*
	(Not has (3rd sing)		house (Gen))
	He has no house		**HAVE**

Note: No existence = no possession (3rd sing. present)

In the Romance languages the coexistence of the TO BE verbs and the to have verbs in some grammaticalised uses is quite common, as for example in the construction of composed tenses (see: the case of French Passé Composé). In the Iberian languages, though, the situation is even more complex as there are two to be markers: *ser e estar* (Spanish and Portuguese) and two to have markers: *haver* and *ter* (Portuguese) or haber and tener (Spanish) and they can show different degrees of gram-

matical and lexical marking both on the synchronic and on the diachronic level. In addition, we must remember that both Portuguese and Spanish are transcontinental languages (officially) spoken in different American and African countries, originating 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. The following examples illustrate diversity observed in Portuguese existential construction (Example 6).

Example 6

(European Portuguese)

Há	*um*	*cavalo a*	*galopar.*
(there is	a	horse (prep.)	to gallop [infinitive clause])

There is a horse running

(Brazilian Portuguese)

Tem		*cavalo*	*galopando.*
(have	(0 det.)	horse	galloping [gerundive])

There is a horse/there are horses running

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. As the studies of Portuguese narratives show (Batoréo, 1996, Batoréo & Faria, 1998, and Batoréo & Duarte, 1998) 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 packaging 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

(a)

Há	*um cavalo*	*que*	*passeia*	*pelos prados*
(there is	a horse	that	walks	in the meadow)

Havia	*um cavalo*	*a*	*galopar*	
(there was	a horse	(prep.) to galop [infinitive clause])		

Era uma vez	*um cavalo*	*que*	*estava a galopar*	*no campo*
			estava galopando	
(there was	a horse		that was galloping	in the fields)
once upon a time		[infinitive or gerundive]		

There was a horse that galloped in the fields/ in the meadow

(b)

Andava	*um*	*cavalo*			*pelos prados*
(used to go/walk	a	horse			across the meadows)

Andava	*um*	*cavalo*	*a*	*correr*	*pelos prados*
(used	a	horse	(prep.)	to run	across the meadows)

There was a horse that used to run across the meadows.

(c)

?? Um	*cavalo*	*andava a correr*			*pelos prados*
(a	horse	used	(prep.)	to run	across the meadows)

There was a horse that used to run across the meadows.

Example 8

(Brazilian Portuguese)
    (Horse and Cat Stories in Guimarães, 1994):

(a)   *Aqui*   *tem*   *um*   *cavalo*   *correndo*
(5 y.)   (here   have   a   horse   runing - Gerundive)
        There is a horse running here.

(b)   *Tem*   *um*   *cachorro e*   *passarinho na*   *árvore.*
(5 y.)   (have   a   dog   and 0 det   birdie   in the tree)
        There are a dog and a bird in the tree.

(c) (..) *e*   *tinha o cachorro que*   *puxou o gato pelo rabo.*
(7 y.) (and   had   the   dog   that   pulled the cat   by the tail)
        There was a dog that pulled the cat by his tail.

(d)   *Aqui tem*   *uma árvore e nessa árvore tem um ninho de*
(10 y.)   (here   have   a   tree   and in this tree   have a   nest   of
        passarinho pousar.
        birdie   to sit)
        There is a tree and in the tree there is a nest for a bird to sit.

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

(e)   *Lá*   *em Búzios, na*   *praia da Ferradura,*   *tem uns*
Adult   (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.

(in: Hendriks, 93: 86)
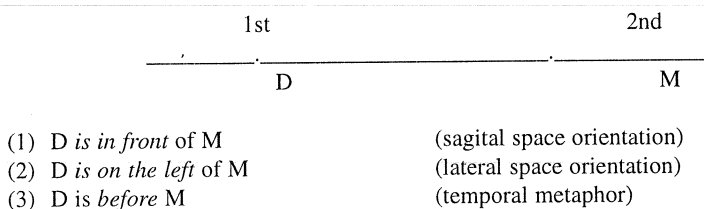
     (a)   (English)   O.K.   *There was a horse running in a meadow*
     (b)   (German)   O.K.   *Es war einmal ein Pferd auf einer Wiese.*
     (c)   (Dutch)   ??   *Er staat een koe in een wei.*

(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.*

As the examples above show it is not enough to know that in Portuguese we have two different verbs for TO BE and also two different verbs for TO HAVE to express existence and possession. In order to achieve a good linguistic description for particular language we have to account for all sorts of varieties not only on the different systemic levels, but also on contextual level in different kinds of discourse.

3. Language specific problem: non-intrinsic fronts.

Generally speaking, if we express relations between elements of a text, we can refer to them as being either laterally or sagitally oriented, or even expressed temporally (anteriority vs. posteriority). Thus, if in a given text we have two units, let's say, D and M (such as letters, words, expressions, paragraphs, chapters, etc.) and we know that in chronological terms the element D was written first and the element M followed when the first had been already written, this relationship between D and M can be expressed as follows (Figure 3).

Figure 3.

1st		2nd
D		M

(1) D *is in front* of M   (sagital space orientation)
(2) D *is on the left* of M   (lateral space orientation)
(3) D is *before* M   (temporal metaphor)

In the case of (1) a typical "canonical encounter" situation can be observed in which the reader/writer (= Locutor) recognises as left the position that corresponds to his left hand. In (2) and (3) the situation is no more seen in reference to the Locutor but as a space reference of one element in the relation to the other. Thus, the element written first is conceived as written in front of the second one which often is considered as being *before* it[2]. This convergence between the expression of the front

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2 "Front-back orientation. This schema is applied, in the first instance, to the human body. The front of a human body is that side on which major sensory organs, especially the eyes, are located. The front also faces in the direction in which a human being normally moves. A partularly widespread conceptual metaphore aplies this schema to orientation of time. The future lies in front (look forward to the future), while the past is at one's back (look back on the past) Events, too, have fronts and backs." (Taylor, 1989: 135).

sagital orientation and the anteriority is recognised as being frequent in many languages[3]. This means that in some languages, such as English, French, German, Spanish, for example, the situation can be presented as follows (Figure 4).

Figure 4

D	M
left	*right*
in front of	*behind*
before	*after*

Nevertheless, in the European variety of Portuguese - and unlike the Brazilian variety, for example, - quite a different spatial conceptualization and language expression is verified. Thus, in European Portuguese the situation observed is as follows (Figure 5).

Figure 5

D		M	
à *esquerda*	(on the left)	à *direita*	(on the right)
atrás	(behind)	à *frente*	(in front of)
antes	(before)	depois	(after)

Comparing these two possibilities (Figures 4 and 5) we can observe that while many languages recognize the *left* side of the global text (...D...M...) as being *in front* of or *before* the *right* side of it, European Portuguese conceptualises the *left* as located *before* but this means *behind* the other elements of the text and not *in front* of as could be expected.

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3 "Many languages make no formal distinction between *in front of* and *before*, and between *behind* and *after*. What is *in front* of an event is what happens *before*; what is *behind,* happens *after*." (Taylor, 1989:135). As an example of this phenomenon we can give Hebrew or Polish. In Polish, for example, you say przed *domem* ('in front of the house') and *przed rokiem* ('a year ago'). Cf. note 8.

To account for this divergence we propose the existence of two different mental models of cognitive-linguistic-cultural character. The first one is **static** in character: the text is considered as a block, a product of a certain movement, which has its own *front* (to the *left*) and *back* (to the *right*). It can be conceptualised as a container (The container metaphor).

On the contrary, the second model is **dynamic** in character. This means that the text is not considered as a static product but it is conceived as a still on-going process of Motion heading to the right. If the movement is *right*-oriented, its *front* is to the *right*, and its back to the left. We conceptualise it as travel (The travel metaphor).

In some languages, the maintenance of these two perspectives can be considered as coexisting, though in a very reduced scale, as is the case of the French[4] verb *avancer*, Portuguese *adiantar* and English *advance*. "When someone writes that "*he has advanced the date of the meeting by two days*" do you decide to attend two days earlier or two days later? " If you think of time as static and of yourself as advancing into the future, you will believe the meeting was postponed; if you think of yourself as static and time advancing toward you, you will believe the meeting was moved two days earlier"[5] If we say 'le ministre *avance* la reunion' ('the minister is moving up the meeting') or *ele adiantou o trabalho*[6], it means it is going to take place earlier than planned initially. If, on the other hand, we say 'la montre du cure *avance*' ('the priest's watch is fast') or *adiantar o relógio* it means that the time indicated by the watch is future (*later* in time) in relation to the actual moment.

Analogically we can observe some parallelism in the expression of vertical location in temporal reference to events. So, for example, what is a *down payment* in English (i.e. when you pay for something before you get it), in Polish it is conceived as being an 'upper payment' in the expression placic (to pay) z gory (paying from the upper position). In Chinese[7], on the other hand, you use fixed expressions for distant time reference (week, month, year), conceptualising before = above (i.e. last

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4 French examples are from Vandeloise, 1991: 141.
5 Miller & Johnson-Laird, 1976, 463 (discussing Fillmore, 1971).
6 But we say antecipar a reunião (moove up the meeting)
7 Personal communication by Henriette Hendriks at Espinho Conference (see: Batoréo, 1996 b); Hichmann et al. (1994), Hendriks (1993).

week = week above) and after = below (i.e. next week = week below), as if the chronological order was "sliding down" from the upper to the lower position.

Nevertheless, the examples quoted here are globally infrequent, contradicting in a way the usual perspective used for the spatial orientation of the text units. On the contrary, in European Portuguese the different space perspective is systematically represented and our proposal is to consider it as a different language model of cognitive, linguistic and cultural character (Figure 6).

Figure 6

EUROPEAN PORTUGUESE MODEL (TRAVEL METAPHOR)
IN FRONT OF = RIGHT = AFTER

NON-EUROPEAN PORTUGUESE MODEL (CONTAINER METAPHOR)
IN FRONT OF = LEFT = BEFORE

Our proposal is a possible answer for the question "**how**" the different conceptualisions can be approached and analysed. It is consistent with the merging argument[8], according to which a polissemic character of two expressions accounts for the subjacent conceptualisation, as it happens in European Portuguese in the expressions estar à frente ('to be in front of') and *ir para a frente* ('to go ahead'), while in Brazilian Portuguese it does not[9].

The problem of "**why**" of the heterogeneity discussed here is, on the other hand, a highly complex one. One of the possible ways of explanation is the Hazen's perspective:

> "We might also wish to know why one human culture uses different strategies for spatial orientation than another. These types of questions may also be approached using analogical comparisons, in which different cultural techniques for orientation are interpreted as adaptations to different ecological demands". (Hazen, 1983: 32).

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8 See: note 3.
9 The corresponding Brazilian expressions are: estar diante de and ir para a frente, respectively.

To sum up we understand that in order to study expression of space we need to account for:

ON LANGUAGE LEVEL
■ conceptual primitives and lexical universals of space (Wierzbicka, 98)
→ fives of space, time, existence, possession and movement
■ lexicalisation patterns (Talmy, 1985) that account typological differences by conflating e.g. Movement + Manner or Movement + Path.

ON A PARTICULAR LANGUAGE LEVEL
(e.g. European Portuguese (Batoréo, 96))

■ language specific characteristics: e.g. in expression of existence
→ introduction of new information requires detailed studies on discourse construction and discourse variety
■ language specific characteristics: e. g. assigning "fronts" to objects with no intrinsic front
→ definition of what is conceived as "front" requires detailed studies of cognitive - linguistic - cultural character.

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