



## LIMITS, SPACE AND THE PREPOSITION *OVER*

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As far as space relations are concerned, *over* is one English preposition about which much has been said since Brugman's [1988 (1981)] first study. The lines of analysis, which have essentially been taken within the cognitive framework, have been based on mental schematization, semantic networks or interpretation.<sup>1</sup> Only very occasionally do we come across studies not fitting the cognitive framework [SÖDERLIND 1960; GILBERT 2006; AŠIĆ 2008].

The '*above-across*' sense of *over* determined by Brugman as being its core value has initiated numerous different hypotheses concerned with the mono- or polysemic value of the preposition [DEANE 2005], the various interpretative degrees emerging from the multiple levels of schematization [KREITZER 1997], or the metaphorical developments due either to semantic networks<sup>2</sup> based on image schema transformations [LAKOFF & JOHNSON 1980; LAKOFF 1987; LANGACKER 1991; JACKENDOFF 1991; TALMY 2000] or to inference based on usage [SANDRA & RICE 1995; RICE 1996; TYLER & EVANS 2003].

The main values, whether stative or dynamic, of *over* when the preposition refers to space are linked to verticality, contact or a path schema between A and B [BRUGMAN 1988<sup>3</sup>; LAKOFF 1987; VANDELOISE 1990; KREITZER 1997; TYLER

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<sup>1</sup> See Kreitzer [1997] for a comprehensive presentation of the different descriptions of *over* by cognitive linguistics.

<sup>2</sup> The semantic networks in question emerge from a basic value which deals with space.

<sup>3</sup> For whom the semantics of *over* depends on eight variables: the size and shape of the Trajector (*TR*), the uniqueness or multiplicity of *TR*, the size and shape of the Landmark (*LM*), the vertical or horizontal orientation of *LM*, the vertical relation between *TR* and *LM*, the implicit or explicit trajectory existing between *TR* and *LM*, *LM*'s boundaries and physical contact between *LM* and *TR* [BRUGMAN 1988 : 13]. I use A (for *Locatum* or *TR*) and B (for *Locator* or *LM*) in the remainder of the paper with a view to remaining neutral as far as the different theories mentioned are concerned.

& EVANS 2003] whose salient features characterize the various semantic schemata [DEANE 2005 : 236].

Said cognitive analyses are essentially based on geometrical criteria which are presented as belonging to some reservoir of shared experience. The criteria in question determine the limits<sup>4</sup> of both A and B's referents in the A *over* B sequences, and schematize the value(s) of *over*, or of the connection that the preposition establishes between A and B. As a result, a one-dimensional plane is used to convey diagrammatic representations of space relations linguistically. However, these relations have no real linguistic bearing. Moreover, their legitimacy is seldom questioned [DEANE 2005 : 45] or underlain by thorough linguistic studies [KREITZER 1997 : 322].

This paper addresses the issue of linguistic limitation of space, or more specifically, the true nature of that limitation (see ROUSSEL 2012a for a holistic description of *over*). It seems to me that resorting to such geometrical patterns means neglecting both the fundamental behaviour of the preposition and the true role of the observer, which I intend to demonstrate through a semantic and syntactic analysis of utterances taken from a corpus. As a matter of fact, the cognitive factors underlying mental schematization pertain to Conception, not Perception [MANDLER 1998 and 1992]. I aim to deal with perception, and to question whether *over* relates to the structuring of our perception in the brain prior to the encoding of the extralinguistic world in new schematic forms.

### *I. Presentation of the sense of sight*

In concrete uses referring to space, the geometrical forms mentioned above are mainly and implicitly posited as being seen, or imagined, by the speaker. The visual criterion is considered unquestionable, and leads to a mere semantic variable of *over* among others [DEWELL 1994 : 353 & 361; KREITZER 1997 : 297, 303, 310, 312-313].

The occurrence rate of the sequence *over the horizon*<sup>5</sup> in the British National Corpus (BNC) totals 52, among which the semantic value of the verb units in the sequences [V + *over the horizon*] coincide with Brugman's path schema (*approach, stretch*) or infer loss of vision (*disappear, hide*). Among these

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<sup>4</sup> The term is to be understood as "a line separating two adjacent zones".

<sup>5</sup> In connection with the theme of the 2010 SAES Annual Conference: "*À l'horizon*" ("On the horizon").

occurrences, no verb unit denotes vision of B. This observation is in total accordance with the definition of the term *horizon* as “the limit of sight”, even if *over* is not the sole preposition to be used with the noun phrase *the horizon*.<sup>6</sup> At this point, the search for verbs of sight speaks for itself. One notes that there is no occurrence of *look/see over the horizon* and *look/see beyond* in the true sense (but there exist a few for each verb in the figurative sense) whereas *look at*, *look/see on* are recorded sequences. Accordingly, there seems to be a discrepancy between the use of a verb denoting the vision of an entity and the lexical item *horizon* when it is governed by the preposition *over*. A third search for the types of verbs used with other prepositions shows that a great number of those verbs deal with actual instances of seeing (*stare, lurk, spy*), appearance (*appear, loom, rise*), aim (*aim*) or effort (*strive*). *Appear* is the most frequent of these verb units. One can for instance find *appear on the horizon* and *appear above the horizon*, but there are very few occurrences of *appear over the horizon*. As for *in*, it focuses on stative verbs (*be, place, stay*).

All these arguments, as soon as concrete spatial limitation is concerned, speak in favour of a study of the preposition *over* which would take the visual factor into account, in connection with the sentential elements with which it appears. The sense of sight with relation to the use of *over* with spatial meaning has been analysed by Deane [2005], who uses human visual and motor neurological properties in order to account for the polysemy of the preposition. He shows that the brain distinguishes itself by its ability to “localize objects either by reference to the external world (i.e., *in allocentric terms*), or egocentrically, in terms of their relation to the body” [DEANE 2005 : 247]. The idea is there are three types of egocentric space: personal space, peripersonal space and extrapersonal space. The first type deals with the space occupied by the body, the second with the space that is “accessible to direct manipulation by the body” and the third with “more distant regions accessible by sight or hearing but not touch” [STEIN 1991 : 211; DUHAMEL, COLBY & GOLDBERG 1991]; [REGAN, BEVERLEY & CYNADER 1979]. Deane [2005 : 247] also refers to the fact that prepositions in English are “part of an egocentric system centred on the body” whose “primary reference frames for humans are tied (i) to the line of sight, (ii) to frontal vs. lateral orientation of the torso, as well as to the direction of (potential) movement or bodily interaction, and (iii) to true vertical as defined by gravity” [VANDELOISE 1991]; [BISIACH & al. 1985]; [PAILLARD 1991b : 472].

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<sup>6</sup> The BNC gives 267 hits for *on*, 12 for *at*, 21 for *beyond*, 22 for *above* and, interestingly enough, 5 for *in*.

My study of the sense of sight differs from Deane's in that it also considers the physical properties of entities (whether animate or inanimate) in space, with a viewpoint based on the assumption that language bears some relation to the external world. According to said physical properties, I cannot but consider that objects are moving entities in space, even when they do not seem to and however disconcerting this may be. It is often forgotten that absolute immobility cannot stand up to scientific analysis.<sup>7</sup> All the more so when an observer, i.e. a speaker, is mentioned. Actually, space relations between objects are altered whether an observer is present or not. Without any observer, the relations cannot be described, whether shown in diagram or encoded by language. When they are described, this means that they have been observed, and that the system of reference cannot be but the observer, not the entities. As a result, the presence of an observer equates with perception, i.e. calculation from the brain, and the reference to spatial data signals the presence of an observer-cum-speaker. Which pertains to the linguistic production of said speaker in context [DEWELL 1994 : 372].

It is therefore essential for me to attempt to link the brain data to the physical data in an overview of the question of space, and try to find out whether the preposition as a grammatical morpheme lets all or part of the data, namely neural factors and mobility, show linguistically. Given that the sense of sight is a special way of establishing spatial relations [DEANE 2005], that the brain only distinguishes forms which are contrasted, consist of lines and/or angles, and exist naturally in the environment of the observer [DEHAENE 2006 : 17], the geometrical forms on which the aforementioned cognitive analyses are based may well have to be "seen" differently. The best way to carry out the linguistic analysis seems to deal with what the observer-cum-speaker perceives first, namely the shape of A and the shape of B prior to their being related to each other. Which I set out to expose by analysing the semantic features of the referents of A and B in various utterances from my corpus. I applied semantic and syntactic criteria to 196<sup>8</sup> occurrences in the corpus, in the hope of determining a relevant pattern.

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<sup>7</sup> The fact is directly linked to basic physical properties inherent in Einstein's [1916] general relativity and the rotating movement of the Earth.

<sup>8</sup> The occurrences in question are those dealing with space. The corpus consists of 297 utterances taken from 4 novels, oral or written discourse and, for a few of the utterances, from the Internet.

## II. The contexts in which spatial *over* is used

If the utterances from my corpus illustrate the two main syntactic patterns that are typical of the preposition *over*: NP *over* NP and V *over* NP, it appears that the semantic characteristics of the referents of A and B differ from those found in the sources that I have consulted, of which the following are a few examples:

- (1) A lamp hung over the door. [QUIRK & al. : 685]
- (2) There was a lamp hanging over the table. [OALD<sup>9</sup> : 1079]
- (3) They threw a blanket over her shoulders. [QUIRK & al. : 685]
- (4) They climbed over the wall. [QUIRK & al. : 685]
- (5) He lives over the hills. [ADAMCZEWSKI & GABILAN : 281]
- (6) They splashed water (all) over me. [QUIRK & al.: 285]
- (7) The coffee is spilt all over the table. [AŠIĆ : 260]
- (8) They've travelled all over the world. (OALD : 1079)
- (9) He travelled over hills and dales. [ADAMCZEWSKI & GABILAN: 281]
- (10) It's no use crying over spilt milk. [QUIRK & al.: 709]

These examples are said to illustrate the various meanings of position, destination, passage, result of an action, orientation, accompanying circumstances [(11) We discussed it over a glass of wine<sup>10</sup> – QUIRK & al. : 685] or even pervasive static meaning [(12) Leaves lay thick over the ground – QUIRK & al. : 685]. In other words, they illustrate meanings deriving from the main semantic values of verticality, contact and bounded path schema (*cf. supra*). It seems therefore that the semantics of the utterances are determined by an interaction between the properties of the referents of A and B and/or the context.

However, the study of my utterances reveals that their semantics is also governed by the observer's perception underlying the establishment of any relation between entities by means of the preposition *over*. That is the reason why I will be focusing on Perception rather than Conception (*cf. supra*).

The 196 occurrences listed illustrate three types of spatial reference denoted by the sequence A *over* B. According to the classifying criteria mentioned above, the occurrences in question have the following semantics:

- position (of A in relation to B), or gesture (from A to B): 21 occurrences (10, 71 %);
- distance: 34 occurrences (17, 35 %);

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<sup>9</sup> *Oxford Advanced Learners' Dictionary*.

<sup>10</sup> We can see that the spatial source is *a priori* questionable for this example.

- covering of B by A: 141 occurrences (71, 94 %).

## II. 1. *The referents of A and of B*

As we can see, the spatial occurrences express position, distance (linear distance between A and B, or a surface extending between A and B), or complete or partial covering of B by A.<sup>11</sup> This notion of covering includes (i) a relation of verticality between A and B with or without contact, (ii) a movement of covering of B by A with or without contact, or (iii) superposition of A and B.

The perceptive arguments shed new light on these types of spatial reference which become identifiable in terms of limitation of sight of the referent of B in particular, whose importance in the semantics of *A over B* has been shown [GILBERT 2006 : 290].

II. 1. a. The analysis of my utterances reveals that in numerous occurrences denoting a static position or a gesture, the referent of B relates to a person, and more specifically, to the face or the head of that person (*body* : 2 occurrences ; *head* : 3 ; *face* : 2 ; *lips* : 1 ; *forehead* : 1 ; *hands* : 1 ; *eyes* : 1); witness (13), (14) or (15) in which the referents of *hers*, *his eyes* and *your face* are covered completely:

(13) He must have pulled a chair up close to the bed because he was sitting there, his hands over hers on top of the bedcover. [KENT : 362]

(14) An old man was sitting there, slumped in sleep, a hat down over his eyes and a fishing bag on his knee. [KENT : 368]

(15) 'Now will you tell me, master, or am I going to have to hold a pillow over your face until you cooperate?' [LAURIE : 67]

With other prepositions, such as *on* or *above*, these utterances would be correct syntactically, but they would convey a different meaning because *on* only denotes partial covering, except if A and B denote the same referent (as in (13)); and *above* cannot denote covering. Both *on* and *above* cannot fit the limit [OALD 2005 : 1061; GILBERT 2006 : 293].

In the other utterances, the referent of B either names the person indirectly (*telephone*, *remark*) - in which case the referent of A is clearly human animate

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<sup>11</sup> Talmy [2000 : 221] sums up the spatial schema of *over* to a single geometrical figure; in other words Brugman & Lakoff's path schema [DEWELL 1994 : 353].



(*voice, fingers*); or else the referent of B does not refer to a human at all but to a thing (9 occurrences) - then A can be linked to some human activity (*cloth, hush*), even though this is not the rule but only a tendency.

One also notes that in a sequence V *over* NP, the segment *over* B denotes a resultative position or gesture. In that case, the verb unit refers to an action (*close his fingers, break my dustpan and broom, hit*) or to a movement which is often a lateral movement (*came, passed, ran, fall, slid*) from either the whole body, a body part – usually the hand – or an object held in the hand (*cloth*) onto the referent of B:

(16) ... as he ineffectually passed a greasy cloth over his bartop. [KENT : 56-57]

(17) Silently the barman removed the empty glass and ran a cloth over the marble... [KENT : 81]

The utterance (17) goes on as follows: ...*where it had left a ring*. Therefore, the purpose of the action denoted by the verb is to clean the bartop, which suggests contact between the cloth held by the hand and the bartop, and rules out the use of *above*. The same conclusion applies to (16), even though the cleaning is presented as ineffective. In addition, *on* is also ruled out mainly because of the dynamic meaning of the verbs used (*pass* and *ran*), which is stronger than the covering sense, however partial, of the preposition. My English informant will neither accept *on* nor *onto* (which implies a change of place).

Therefore, it appears that the referents of A and B are likely to refer to body parts, whether directly or indirectly, notably in occurrences dealing first and foremost with the spatial positions of objects. Either an object relates to a body part, or a body part relates to an object. Consequently, the position or gesture denoted by a sequence A *over* B is never absolute but relative to the referent of A or the referent of B, which is in keeping with the grammatical role of a preposition and the establishment of relations in space. Nevertheless, the body or a body part seem to be a requisite for the nature of the referents, at least in my corpus.

*II.1.b.* In the occurrences expressing distance, B refers to places with different limits: concrete and visible (*tin*), imaginable (*house*), or not tangible. The only limit that can be envisaged in that last case corresponds to the horizon, in other words to the limit of eyesight (*country, area, world*). Lexical items such as *house, country, place, hills, royaume, bay, world, (wide) area, town, continent (Europe), tin, property* or *river* are recurrent. They mainly denote areas and

even, to a lesser extent, three-dimensional volume considered as a whole (*over the house* which can be paraphrased as *all over the house*). The existence of concrete limits does not seem to be a prerequisite for the use of *over* referring to distance. On the other hand, if such limits do exist, they are visible *a fortiori*. It follows that visibility is a distinctive criterion inherent in B in those of my utterances that refer to distance. Indeed, when the referent of B is not clearly delimited, it is because its indicative limits are not visible in the spatial context of the utterance (which does not imply that they do not exist). The standard measuring device of distance is not the metre, the kilometre, the yard or even the mile but rather visibility, meaning what is perceptible to the human eye. It is noteworthy that occurrences of this kind also tend to rely on reference to a body part. A case in point is (18) in which the eye cannot survey the entire surface area referred to by the noun phrase *the country*; yet the preposition used is *over*:

(18) '..., spoke as if Kingsmarkham Police and forces all over the country were looking for an umbrella he had mislaid on a bus. [RENDELL : 151]

The question is whether this use of *over* where B lacks a clearly defined referent is typical of this preposition. It is a major issue in so far as other prepositions can be used in (18), notably *in* (18a) with a few syntactic alterations of the initial utterance as far as the absence (18b) or the position (18c) of *all* are concerned:

(18a) '..., spoke as if Kingsmarkham Police and forces in the country were looking for an umbrella he had mislaid on a bus.

(18b) '..., spoke as if Kingsmarkham Police and forces ∅ in the country were looking for an umbrella he had mislaid on a bus.

(18c) '..., spoke as if Kingsmarkham Police and force ∅ in all the country were looking for an umbrella he had mislaid on a bus.

The preposition *on* cannot be used, either with (18d) or without (18e) *all* for the reason set out above:

(18d) \* '..., spoke as if Kingsmarkham Police and forces all on the country were looking for an umbrella he had mislaid on a bus.

(18e)\* '..., spoke as if Kingsmarkham Police and forces ∅ on the country were looking for an umbrella he had mislaid on a bus.

As for the preposition *in*, it seems to require the semantic filling of *all* in order to indicate that the spatial reference stretches from one point to



another, which is not the case for *over*.<sup>12</sup> *In* seems to deal with space without taking limits into account<sup>13</sup>, which is in total accordance with the fact that *in* focuses on that which is within boundaries rather than the boundaries themselves.<sup>14</sup> If what matters is points, the focus is *a fortiori* not on the limits and even less on the potentially visible or invisible character of those limits. This is in line with the verb units used with the noun phrase *the horizon* (cf. *supra*) for which I have underlined the stative meaning. In other words, those verbs are not susceptible to limits because they denote an unbounded process. However, (18) to (18c) are grammatical, even though no verb is used. Which means that the features of the preposition are specific enough to be meaningful without a verb. For instance, if *in* would not be impossible, it would be unlikely with *travel across* in (19a), because it would present the different places as isolate points<sup>15</sup>, which is not the case with *over*. In (19a), *in the hills* denotes an area made of several hills, which enables the speaker to create a new three-dimensional space, compatible with the use of *in*, in spite of the meaning of the verb:

(19) I thought of them travelling across England. Hampshire, Wiltshire, Somerset, over the hills and far away. [SWIFT : 53]

(19a) ? I thought of them travelling across England. Hampshire, Wiltshire, Somerset, in the hills and far away.

But (19b) whose verb is *be* is possible, whereas (19c) needs a specific context, in which <be> means <fly>, to be compatible with *over*:

(19b) I thought of them being in England.

(19c) I thought of them being over England.

Accordingly, *over* seems to repeat the scanning process denoted by the verb phrase *travel across*, leading to a trajectory sense, which *in* cannot do. On the other hand, *travel (across)* is a verb denoting accomplishment and as such it needs the spatial limits that *over* determines, which is not true of *in*.

It is obvious from the following utterances with *beyond the hills* that the verb prevails over the noun phrase:

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<sup>12</sup> Kreitzer [1997 : 303] suggests the opposite, but then the meaning of *over* is different.

<sup>13</sup> "At a point within an area or a space." [OALD : 782]

<sup>14</sup> "Within the shape of something; surrounded by something."; "Into something." [OALD : 782]

<sup>15</sup> I thank one of my reviewers for pointing this out to me.

(20) There were mountains beyond the hills. [BNC : APU 906]

(21) Beyond the hills in the background lies the Soviet Union. [BNC : ED9 3014]

The limit that is denoted by the NP *the hills* is dealt with differently and corresponds to the initial limit of the field to which the preposition applies whereas the final limit is not envisaged at all. That is what the recourse to stative verb units (*be* and *lie*) seems to indicate, which is reinforced by the absence of hits for the BNC query *travel beyond the hills*. In (21), postmodification of the sequence *beyond the hills* by the prepositional phrase *in the background* hinders the reference to a clear-cut limit, notably because of the semantics of *background*. With *beyond* the actual existence of a limit is questioned. That is not the case with *over* which focuses on the final limit, as shown by (22) in which *wide areas* has exactly the same influence as *far away*, even though *over* refers to covering here:

(22) He disagreed, saying that yellowing was typical only of high altitude damage in foggy conditions, whereas green needles were falling off trees over wide areas at lower altitudes. [BNC : AM4 1673]

Consequently, *in* ignores limitation, *beyond* focuses on the initial limit of the referent of B, whereas the limit denoted by *over*, whatever its sense (trajectory or covering), seems to have to be perceptible to the eye. In addition, *over* is more frequent when the referent of A and/or the referent of B is the body or a body part.

II. 1.c. Finally, when the spatial criterion consists in indicating that the referent of A covers the referent of B partially or totally, it can be noted that the utterances are split into two subgroups depending on what they denote: either a vertical position (with or without contact between A and B), or a covering movement of an object or obstacle (with or without contact between A and B). In such cases, *-er* is often presented as a linguistic mark of movement in so far as it is said to indicate reference to actual or metaphorical transcendence of a limit. What matters, then, is to underline the existence of a contrast between the two sides of that limit.

The two ways in which the concept of covering<sup>16</sup> is considered are illustrated by the following utterances, verticality from (23) to (26) and covering on

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<sup>16</sup> For Tyler & Evans [2003 : 92], *over* “has developed a distinct Covering Sense”, one consequence of which being that B (the landmark) is hidden from view. “Typically the scene described in the example [*the tablecloth is over the table*] is that the tablecloth

either side of the referent of B from (27) to (29) respectively (not all of the referent of B is visible in these last three examples):

(23) She ain't built on Brenda's lines any more but she's not doing so bad for nearly forty herself, and there's the clobber, red leather jacket over a black lace top, for a start. [SWIFT : 7]

(24) The officer frowned as he took in the arrangement of figures in the hallway, Rose sitting on the stairs and Robbins standing over her, his face flushed.<sup>17</sup> [KENT: 280]

(25) There's the sign dangling over his head: NIL BY MOUTH. [SWIFT : 36]

(26) He's still lying there, with the mask over his face and the extra tubes, in the little unit where they put them after they wheel them out ...<sup>18</sup> [SWIFT : 185]

(27) But the appearance of a waiter in the doorway with a napkin over his arm, gave her an access of determination ... [Brookner : 30]

(28) Bernie's at the other end of the bar, usual drying-up towel over his shoulder. [SWIFT : 10]

(29) If the chair should slip its moorings, it would almost certainly go over the edge -; and there was a thirty-foot drop. [BNC : BMU 797]

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occludes the table from the observer". This example with (*table*)*cloth* and *table* is recurrent and variously treated in the consulted sources. As a matter of fact, difficult visual perception is not an argument which holds Tyler's and Evans' attention. For them, the use of *over* is mainly linked to the fact that the observer's eyes naturally lie over B: "on the basis that the analysis does not reflect the way humans experience the world" (...) "Humans constantly orient themselves from the perspective of the earth, under the influence of gravity." In saying so, the authors disagree with Lakoff [1987 : 429] for whom "... there must be an understood viewpoint from which the TR is blocking accessibility of vision to at least some part of the LM" (...) "We will refer to these as rotated (RO) schemas, though with no suggestion that there is actual mental rotation degree-by-degree involved". For Jackendoff [1991 : 105], those occurrences are "semi-idiomatic combinations". As for Kreitzer [1997 : 302], he suggests that in such instances *over* indicates that a flat object is able to cover part of a surface area. Deane [2005 : 258] sees the utterance as referring to a situation that can be perceived from two different angles in the real world. Either from the side: no space lies between TR and LM; or from above: TR totally conceals LM.

<sup>17</sup> Yet the characters face each other...

<sup>18</sup> There may be contact in that case, but the mask in question is the mask of death and as such is not as concrete as a real mask can be.

Among these occurrences referring to some kind of “covering”, those denoting covering on either side of the referent of B, even when no verb is used (see (27) and (28)) are more numerous (98 out of 126, that is 77,8 %) than those denoting verticality with or without contact (28 out of 126: 22,2 %). Accordingly, verticality is not the main semantic feature of the preposition in context, even though it is presented as characteristic of the semantics of *over* [*In or to a position higher than but not touching somebody/something* – OALD 2005 : 1079].

In the sequences V *over* NP, the verb unit is in fact a verb denoting accomplishment, that is to say verbal happening implying an end-point. Thus the verb is dynamic and as such endows the utterance with dynamic semantics as well. Yet, it should be noticed that the type of verb in question is also used where light contact<sup>19</sup> is denoted between A and B. In other words when the action named by the verb is no prerequisite to the mention of any passage on either side of the referent of B, as shown by (30) and (31):

(30) She passed a hand over her forehead, smelled the girl on her. [KENT : 263]

(31) He leaned back against the kitchen unit and folded his arms, his eyes skimming over her slim figure suggestively. [BNC : HGT 377]

This means the notion of passage from one side of B to the other that is frequently put forward concerning the semantics of *over* [*From one side of something to the other: a bridge over the river* – OALD 2005 : 1079] cannot solely define the core meaning of *over* in a spatial context either.<sup>20</sup> Consequently, it now becomes essential to reckon with the semantic field of the referent of B.

When a vertical or horizontal relation is established between two entities, whether contact occurs or not, it appears that the referent of B can name a thing (*a deck, a table, an umbrella, a bed, toast, rails, a cake*) or, again, a person - either as a whole (*body*) or as a body part (*head, feet, ankles, forehead, face, fingers, mouth* or *ears*). In the same way, when the semantic meaning has to do with passage or transition from one point of an obstacle to another, the referent of B denotes a thing (*glass, top, box, sink, river, stones, roof, hills, headland, chair, windows, ridge, edge, wall, obstacle, back of the upright chair*) or a person (*body, hair, head, eyes, face, neck, arms, legs, figure*). That the referent of B is likely to be human is not mentioned in the sources presented as representative of the use of *over* (see (1) to (10)), even though the noun

<sup>19</sup> Notably concrete (30) or abstract (31) light contact.

<sup>20</sup> Kreitzer [1997 : 307] underlines the fact.

shoulder and the pronoun *me* appear in (3): *They threw a blanket over her shoulders* and (6): *They splashed water (all) over me*. This may be significant, as well as the fact that the shoulder(s) of a person is mentioned 27 times in my corpus.

## II. 2. Componential analysis

I have conducted a componential analysis of the inanimate<sup>21</sup> referents of B, so as to determine the recurring characteristic semantic components that are likely to define the salient elements perceived by the observer when establishing a spatial relation between A and B. The advantage of the approach is to propose an alternative typology to the geometrical definitions of the referents of B, insofar as the componential analysis considers various semantic features of a lexical item. The table below shows the results of this analysis in terms of distinctive features<sup>22</sup>:

**Table 1a (11 lexical items):**

Lexical item ----- Feature	deck	table	umbrella	bed	toast	rail	cake	glass	top (garment)	box	sink
thin	-	-	+	-	-/+	-	-	+	-	-	-
thick	+	+	-	+	+/-	+	+	-	+	+	+
flat	+	+	-	+	+	+	-	-	-	-	-
horizontal	+	+	-	+	+	+	-	-	-	-/+	-
vertical	-	-/+	-	-/+	-	-	-	+	-	+/-	-
point	-	-	-	-	-	-	-	-	-	-	-
surface	+	+	+	+	+	+	+	-	+	+	-
volume	-	-	+	-	-	-	+	+	-	+	+
line	+	+	-	+	+	+	-	-	-	+	-
straight line	+	+	-	+	+	+	+/-	-	+/-	+	-
side	+	+	-	+	+	+	+	+	+	+	-
angle	+	+	-	+	+	+	+	-	+	+	-
point, end, tip	-	-	+	-	-	-	-	-	-	-	-
edge, ridge	-	+	-	+	-	-	-	-	-	+	-
roundness	-	-	+	-	-	-	+	+	-	-/+	+
circular	-	-	+	-	-	-	+/-	+	-	+/-	-

<sup>21</sup> 22 lexical items are concerned.

<sup>22</sup> Key: + = semantic feature present; - = semantic feature absent; +/- = semantic feature present *a priori*, but it can be absent; -/+ = semantic feature absent *a priori* but it can be present. Two tables are necessary for the 22 lexical items to be described. The features that I have selected are in connection with the spatial issue at stake in this paper.

hollow	-	-	-	-	-	-	+/-	+	-	+	+
cavity	-	-	-	-	-	-	-	+	-	+	+
empty	-	-	-	-	-	-	+	+	-	+	+
full	-	-	-	-	-	-	+	-	-	-	-
hard	+	+	-	+	-	+	+/-	+	-	+	+
soft	-	-	-/+	-/+	+	-	+/-	-	+	-	-
inanimate	+	+	+	+	+	+	+	+	+	+	+
object	+	+	+	+	+	+	+	+	+	+	+
elements	-	-	-	-	-	-	-	-	-	-	-
human animate	-	-	-	-	-	-	-	-	-	-	-
mobile	-	-	-/+	-	-	-	-	-	-	-	-
immobile <sup>23</sup>	+	+	+/-	+	+	+	+	+	+	+	+

**Table 1 b (11 lexical items):**

<i>Lexical item</i> ----- <i>Feature</i>	hill	head-land	chair	window	ridge	edge	wall	obstacle	Back of the up-right chair	river	roof
thin	-	-	-	-	-/+	-/+	-	-	-	-	-
thick	+	+	+	+	+/-	+/-	+	+	+	+	+
flat	+	-	+	+	+	+	+	-/+	+	-	-
horizontal	-	-	+	+	+	+	-	-/+	-	+	-
vertical	+	+	+	+	+	+	+	+/-	+	-	+
point	-	-	-	-	-	-	-	-	-	-	-
surface	+	+	+	+	+	+	+	+	+	+	+
volume	+	+	-	-	-	-	-	+	-	+	-
line	+	+	+	+	+	+	+	+/-	+	+	+
straight line	+	+	+	+	+	+	+	+	+	+	+
side	+	+	+	+	+	+	+	+/-	+	+	+
angle	+	+	+	+	+	+	+	+/-	+	+	+
point, end, tip	-	-/+	-	-	-	-/+	-	-/+	-	-	+
edge, ridge	-/+	-/+	+	+	+	+	+	+/-	-	-	+
roundness	+/-	+/-	+/-	-	-	-	-	-/+	-	+	-
circular	+/-	+/-	-	-	-	-	-	+/-	-	-	-
hollow	-	-	-	-	-	-	-/+	-/+	-/+	+	-
cavity	-	-	-	-	-	-	-	+/-	-	-	-
empty	-	-	-	-	-	-	-	+/-	-/+	-	+
full	+	+	+	+	+	+	+	-/+	+/-	-	-
hard	+	+	+	+	+	+	+	+	+	-	+
soft	-	-	-	-	-	-	-	-	-	-	-
inanimate	+	+	+	+	+	+	+	+	+	+	+
object	-	-	+	+	-	-	-	-/+	+	+	+
elements	+	+	-	-	+	+	+	+/-	-	+	-

<sup>23</sup> In all the tables I deal with semantic features.

human animate	-	-	-	-	-	-	-	-	-	-	-
mobile	-	-	-	-	-	-	-	-/+	-	+	-
immobile	+	+	+	+	+	+	+	+/-	+	-	+

**Table A: Synthesis of Table 1a and Table 1b** (+ is for the presence of the selected feature, - is for the absence of the selected feature; the figure in brackets stands for the number of + or of - when the feature can be both present or absent)

<i>Lexical item</i> ----- <i>Feature</i>	Total (+)	Total (-)	Ratio (+/-)
thin	2 (3)	17 (3)	->+
thick	17 (3)	2 (3)	+>-
flat	12 (1)	9 (1)	+>-
horizontal	10 (2)	10 (2)	+ = -
vertical	10 (4)	8 (4)	+>-
point	0	22	->+
surface	20	2	+>-
volume	9	13	->+
line	16 (1)	5 (1)	+>-
straight line	17 (2)	3 (1)	+>-
side	19 (1)	3 (1)	+>-
angle	18 (1)	3 (1)	+>-
point, end, tip	2 (3)	17 (3)	->+
edge, ridge	9 (3)	10 (3)	+>-
roundness	5 (5)	12 (5)	->+
circular	2 (5)	15 (5)	->+
hollow	4 (4)	14 (4)	->+
cavity	3 (1)	18 (3)	->+
empty	5 (2)	15 (2)	->+
full	8 (2)	12 (2)	->+
hard	17 (1)	4 (1)	+>-
soft	2 (3)	17 (3)	->+
inanimate	22	0	+>-
object	16 (1)	5 (1)	+>-
elements	6 (1)	15 (1)	->+

human animate	0	22	->+
mobile	1 (2)	19 (2)	->+
immobile	19 (2)	1 (2)	+>-

The reading of Table A shows that when the referent of B is inanimate in the sequence A *over* B, said referent can be vertical, horizontal, immobile, flat, thick, and show lines, angles or sides.<sup>24</sup>

A second componential analysis has then been conducted with the referent of B being human animate (Tables 2a and 2b); the synthesis appears in Table B:

**Table 2a (8 lexical items)<sup>25</sup>:**

Lexical item ----- Feature	body	figure	head	hair	forehead	face	eyes	ears
thin	-	-	-	+	-	-	-	-
thick	+	+	+	-	-	+	+	+
flat	-	-	-	-/+	+	-	-	-
horizontal	-	-	-	-	+	+	+	-
vertical	+	+	+	+	-	+	-	+
point	-	-	-	-	-	-	-	-
surface	+	+	+	+	+	+	+	+
volume	+	+	+	+	-	+	+	+
line	-	-	-	+	-	-	-	-
straight line	-	-	-	-	-	-	-	-
side	+	+	+	-	-	-	-	+
angle	+	+	-	-	-	+	-	+
point, end, tip	-	-	-	+	-	+	-	+
edge, ridge	-	-	-	-	-	+	-	-
roundness	+	+	+	-	+	+	+	+
circular	-	-	-	-	-	-	+	-
hollow	+	+	+	-	-	+	+	+
cavity	-	-	+	-	-	+	+	+
empty	-	-	-	-	-	-	-	-

<sup>24</sup> In lexicology, the presence of semantic features usually appears in obliques, as follows: /+INANIMATE/, /+VERTICAL/, /+HORIZONTAL/, /+FLAT/, /+THICK/, /+LINES/, /+ANGLES/, /+SIDES/.

<sup>25</sup> Two tables are necessary for the 16 lexical items to be described





**Table B:** (+ is for the presence of the selected feature, - is for the absence of the selected feature; the figure in brackets stands for the number of + or of - when the feature can be both present or absent)

<i>Lexical item</i>	Total (+)	Total (-)	Ratio (+/-)
----- <i>Feature</i>			
thin	1	15	->+
thick	14	2	+>-
flat	2 (1)	13 (1)	->+
horizontal	5 (1)	10 (1)	->+
vertical	11 (2)	3	+>-
point	0	16	->+
surface	15	1	+>-
volume	9	7	+>-
line	1	15	->+
straight line	0	16	->+
side	12	4	+>-
angle	11	5	+>-
point, end, tip	3	13	->+
edge, ridge	1	15	->+
roundness	15	1	+>-
circular	1	15	->+
hollow	7	9	->+
cavity	5	11	->+
empty	0	16	->+
full	10	6	+>-
hard	5 (7)	4 (7)	+>-
soft	6 (7)	3 (7)	+>-
inanimate	0	16	->+
object	0	16	->+
elements	0	16	->+
human animate	16	0	+>-
mobile	16	0 (16)	+>-
immobile	0 (16)	16	->+

The reading of Table B now shows that when the referent of B is human animate, said referent can be vertical, mobile, immobile, thick, hard, soft, and show sides or rounded angles.

In other words, the criteria are quite similar to those observed when the referent of B is inanimate. Some of them are common to both types of

referent: verticality, surface, thickness, sides and angles. Whether the referent of B is inanimate or animate, it shows the same semantic features. Consequently, being either animate or inanimate is not a salient feature. However, tables 2a, 2b and B show that the referent of B belongs to the upper part of the human body in a number of occurrences. Accordingly, for the referent of B to be animate is not enough to select *over*. The referent of B must be human animate. This was previously noted with the spatial reference denoting a position (II.1.a). It is true that such a clear-cut classification of the occurrences dealing with distance (II.1.b) does not exist.

On the other hand, quite similarly to what was exposed in the study of the two previous corpora, the visible or invisible characteristic of the referent of B is pertinent in 29 utterances out of 34. Either B is clearly visible or it is hidden (entirely or partially), which is significant for the spatial relationship between A and B. Visibility is the property of what meets the observer's eyes. More specifically, it means no intent to perceive on the part of the observer, which would require wilful looking. Looking at an entity is a means of situating that entity, whereas visibility reflects a property of the entity.<sup>26</sup> Therefore, the relation of space that is established between A and B depends both on the property of the referent of B to be perceptible to the human eye and on the observer's sense of sight.

The results of the above componential analyses also happen to show that what is perceptible to the eye in the sequences A *over* B when B is human animate or inanimate shows surface, thickness, sides, angles and/or is

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<sup>26</sup> I thank my informant for pointing out to me that the opposition seems to reflect the semantic dichotomy between the verb items *look* and *see*. Quite interestingly, the hits for *look over* (196) and *see over* (66) in the BNC show semantic regularity as far as the context is concerned. *See over* (with its proper meaning) is used whenever there is difficulty in perceiving something. One notes collocations such as: ... *they were not tall enough to see over their stable doors* [ADF 411]; ...*it was impossible to get high enough to see over the neighbouring branches* [BMX 1513]; 'I tell her to sit at the back of the class, otherwise nobody can see over her head.' [CRA 803] etc. Inversely, perception is favoured with *look over*, and the collocation *look / shoulder* is once more frequent: *To check this, when you are in position on the floor, look over your shoulder and you should be able to see the heel of your straight upper leg* [C9Y 403], *Joe continued to look over his shoulder to where the figure in the distance had become a mere speck* [CFY 112]. The occurrences of *Look over there!* are quite numerous as well. The egocentric system centred on the body that governs the prepositions in English [DEANE 2005 : 247] might be a clue, with each verb reference being framed by « the line of sight » (*see*) or « lateral orientation of the torso, as well as to the direction of (potential) movement or bodily interaction » (*look*).

mobile. Consequently, the above mentioned forms are forms (i) which the human eye can perceive and (ii) which are not necessarily stative. It is indisputable that stability does not exist in space, even if the human mind is not aware of the phenomenon.

Visibility changes the way spatial relations are established. I said previously that the eye is a special medium of the perception of space, and the analysis of my utterances shows that B must interact with the eye that perceives it whenever a spatial relation has to be established between A and B. Furthermore, the preposition *over* is used whenever the referent of B meets certain semantic features. Accordingly, each spatial relation is first and foremost established because B has all or some of the semantic features described above (surface, thickness, sides, angles, mobility), which delimit its outline and will be perceived strictly speaking. Interestingly, sides and angles do correspond to the contrasted forms favoured<sup>27</sup> by the brain.

### III. *Dynamic perception*

It has been said that the referent of B can distinctly<sup>28</sup> be mobile (as can the referent of A, especially when human animate). The utterances formed with the noun phrase *shoulder(s)*, which can be one of the referents of B, clearly illustrate this type of relation. In the examples where a spatial relation needs to be established between A and B by means of the preposition *over*, it can be noted that the shoulder occurs:

- 1) first as a natural limit:
  - a) to a position on the body:

(32) Bernie's at the other end of the bar, usual drying-up towel over his shoulder. He turns and comes towards us. [SWIFT : 10]

(33) He comes in, that first time, with his coat draped over his shoulders and his shades tucked in his top pocket and I can see he don't have to slum it. [166]

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<sup>27</sup> In (21) : *Beyond the hills in the background lies the Soviet Union*, the NP *background* neutralizes those semantic features in the prepositional phrase. *Beyond* seems to favour other features, in particular the surface and the line. A thorough analysis would be necessary.

<sup>28</sup> It is always mobile imperceptibly.

(34) He says, 'Sound up high enough for you?' I nod and he waddles off, tea-towel over his shoulder, like he does when he knows conversation's not what's required. [258]

b) or to a movement of the body:

(35) Toto leaned over his shoulder, ran his finger down the scrolled pages until he reached first one highlighted name, than another. [KENT : 246]

2) secondly as a horizontal limit to sight:

(36) She gazed at the pomegranate-red bouffant hair of the woman in front of her in the queue; over her shoulder she could see herself reflected in a mirror behind the counter, her own coiffure sleek and muted and tasteful. [118]

(37) She had turned her matted head convulsively this way and that, looking over her shoulder as they left the village and peering down each slope as they wound down to Levanto. [263]

c) finally as a metaphorical limit to the perception of a voice/sound:

(38) 'Turn off the light', he said over his shoulder in a low, calm, voice. 'It's very annoying.' [HELLER : 389]

(39) The woman tutted exasperatedly and with impatience she called something over her shoulder. [KENT : 264]

(40) Her square face darkened with hostility, she shook a tea towel at Ania and shouted over her shoulder, back into the house. [207]

These occurrences show that perception can be equated with a gesture, whether visual or vocal. When a gestural factor exists, the sequences *A over B* take on a dynamic value. Indeed, the structure of the utterances formed with a verb of speech (such as *say*, *call* or *shout*) is similar to that of utterances using a verb of sight (*see*, *look*), namely: *V over his/her shoulder(s)*. In this respect, there may be reasons to believe that these verbs share the semantic feature of perception.<sup>29</sup> Two interpretations coexist semantically. As far as verbs of sight are concerned, the shoulders happen to delimit the line of vision the observer's sight is subject to. It is as if the same delimitation was applied to sound with the verb of speech. Hence, the expression means that the speaker addresses someone indirectly, not seeing them.

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<sup>29</sup> Verbs of sight and verbs of speech belong to the broader class of verbs of perception.

Accordingly, those utterances reveal that voice and sight seem to obey the same constraints<sup>30</sup> and, linguistically, that the preposition *over* can be used in both cases in order to express a unique kind of relation to space. The use of one of the fundamental perceptive senses<sup>31</sup> (namely sight) in those utterances dealing either directly (*see, look, etc.*) or indirectly (*say, shout, etc.*) with space shows that the observer does take part in the construction of their own space.

This dynamic factor has previously been mentioned as part of the meaning of the verbs (not denoting perception) used in the sequences V *over* NP. The question arises as to whether this element is recurrent.

This is the reason why I suggest that the dynamics in question expresses a kind of “perceptive calculation” by the observer, which shows through the internal aspect of verb units. In my corpus occur such verbs as *hover, hold, stand, came, pass, run, fall, slid, travel, go, step, bend, lean, put*, which I have described as illustrating the semantic values of position, trajectory, passage, covering (with or without contact). Could these semantic values correspond to the result of the calculation made by the observer when establishing the spatial relation? In that case the values of (i) passage, (ii) covering or position and (iii) trajectory denoted by the preposition would respectively indicate (i) an accomplishment, (ii) an achievement (both verbal happenings implying an end-point) and (iii) an activity (not implying an end-point; notably when are concerned occurrences where no explicit stopping point is identified for the trajectory, as in (9): *He travelled over hills and dales*). Therefore, the various semantic values of the sequences A *over* B pertain to aspectual rather than spatial notions, whereas the preposition deals with limitation. The aspectual notions in question can even be assigned to nouns such as *telephone* in the following example, where the addressee acts as the end-point of the event occurrence<sup>32</sup>:

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<sup>30</sup> I thank one of my reviewers for underlining that the similarity in question is due to sound waves and light waves following a trajectory from one point to the other. In other words, to a physical law, which is an argument in support of my analysis.

<sup>31</sup> It is an established fact today that what enables human beings to be in constant interaction with their surroundings is the information that reaches the brain by means of their senses.

<sup>32</sup> Brugman [1988 : 19] treats these examples as pertaining to the *Conduit Metaphor* principle which conceptualizes verbal communication (presenting both participants as the boundaries of the physical space existing between them) as well as the time span denoted by the event.

(41) 'Drinks before lunch next Sunday', came the inexorable voice over the telephone. [BROOKNER : 57]

It seems therefore that the preposition *over* favours any context relating to the body, according to the study of a number of idiomatic expressions<sup>33</sup> which shows that the same kind of reference (to the body or to a part of the body) is used: *body, lady, arms, ass, face, eye, tooth, head, knee, fist, shoulder*. Consequently, *over* does encode egocentric spatial relations [DEANE 2005 : 247]. A third componential analysis of the 16 lexical items already analysed in my corpus shows that 14 name a part of the body, among which 12 are upper body parts:

**Table 3a (8 lexical items): Analysis of the body parts involved**

<i>Lexical item</i> ----- <i>Feature</i>	body	figure	head	hair	forehead	face	eyes	ears
non animate	-	-	-	-	-	-	-	-
matter	-	-	-	-	-	-	-	-
human animate	+	+	+	+	+	+	+	+
mobile	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
immobile	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
form	-	-	-	-	-	-	-	-
body	+	+	-	-	-	-	-	-
body part	-	-	+	+	+	+	+	+
face	-	-	-	+	+	+	+	+
end ; tip	-	-	+	+	-	-	-	+
upper part	+	+	+	+	+	+	+	+
lower part	+	+	-	-	-	-	-	-
external organ	-	-	-	-	-	-	+	+
Internal organ	-	-	-	-	-	-	-	-
sense	-	-	-	-	-	-	+	+
sight	-	-	-	-	-	+	+	-
hearing	-	-	-	-	-	+	-	+
smell	-	-	-	-	-	+	-	-
touch	-	-	-	-	-	-	-	-
taste	-	-	-	-	-	+	-	-

**Table 3b (8 lexical items): Analysis of the body parts involved**

<sup>33</sup> It is noteworthy that the verb *look* and the noun *shoulder* stand for A and B in one of those idiomatic expressions: *to be looking over one's shoulder*.

<i>Lexical item</i> ----- <i>Feature</i>	mouth	neck	shoulder (s)	arms	fingers	legs	ankles	feet
non animate	-	-	-	-	-	-	-	-
matter	-	-	-	-	-	-	-	-
human animate	+	+	+	+	+	+	+	+
mobile	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
immobile	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
form	-	-	-	-	-	-	-	-
body	-	-	-	-	-	-	-	-
body part	+	+	+	+	+	+	+	+
face	+	-	-	-	-	-	-	-
end ; tip	-	-	+	+	+	-	-	+
upper part	+	-	+	+	+	-	-	-
lower part	-	+	-	-	-	+	+	+
external organ	+	-	+	-	-	-	-	-
Internal organ	-	-	-	-	-	-	-	-
sense	+	-	-	-	+	-	-	-
sight	-	-	-	-	-	-	-	-
hearing	-	-	-	-	-	-	-	-
smell	-	-	-	-	-	-	-	-
touch	-	-	+	+	+	-	-	+
taste	+	-	-	-	-	-	-	-

**Table C: Synthesis of Table 3** (+ is for the presence of the selected feature, - is for the absence of the selected feature; the figure in brackets stands for the number of + or of - when the feature can be both present or absent)

<i>Lexical item</i> ----- <i>Feature</i>	Total (+)	Total (-)	Ratio (+/-)
inanimate	0	16	->+
matter	0	16	->+
human animate	16	0	+>-
mobile	16	0 (16)	+>-
immobile	16	0 (16)	+>-
form	0	16	->+
body	2	14	->+
body part	14	2	+>-
face	6	10	->+
end; tip	7	9	->+
upper part	12	4	+>-
lower part	6	10	->+
external organ	4	12	->+



internal organ	0	16	- > +
sense	4	12	- > +
sight	2	14	- > +
hearing	2	14	- > +
smell	1	15	- > +
touch	4	12	- > +
taste	2	14	- > +

The linguistic analysis reveals that the sequences A *over* B denoting a spatial relation obey a perceptive criterion as is shown by the reference frequently made to the body or to a body part.<sup>34</sup> When not human, the referents of B happen to share common semantic features pertaining to surfaces, lines, and angles which are as many natural limits to that dynamic perception when they are met by the observer's eyes, because they correspond to forms preferably selected by the brain.

The final question is whether a similar "viewpoint" operates with the remaining English prepositions that are used to establish space relations. *In*, *on*, *above* and *beyond* have been dealt with in the paper. *Under* and *below* can be mentioned as well. The issue does call for further research, but a brief survey of the contexts when these prepositions denote position for instance mainly shows two things. On the one hand, that they unsurprisingly introduce entities with semantic features (angles, lines or sides) which favour their selection "at first sight" in space, such as *bed*, *drawer*, *table*, *desk*, *stool*, *chair*, *rain*, *field*, *cottage*, *world*, *village*, *park*, *box*, *bathroom*, *window*, *gate*, *umbrella*, *cathedral*, *Iran*, *Cheshire*, etc. [LAPAIRE & ROTGÉ 1991 : 94; QUIRK 1995 : 674-676; GILBERT 2006 : 297-298; FLUCHA 2007 : 29-42]. On the other hand, that distinctive reference to body parts can also be made. In the case of *in*, B most preferably refers to inner body parts (*heart*, *mind*, *lungs*, *leg*) or body parts that, as if three-dimensional, can hold something (*hand*, *arm*). However, B can refer to articles of clothing, which hide the body: *uniform*, *pockets* [QUIRK 1995 : 675]. Similarly, when the body happens to be referred to with *under*, either the whole body [686] or one's arm(s)/hand(s) [FLUCHA 2007 : 38] are denoted. The body parts selected with *below* tend to be lower body parts (*knees*). As for *on*, it locates the whole body (*back*), upper (*arm*, *cheek*, *head*, *elbow*) and lower body parts (*foot*, *knees*). Therefore, the linguistic establishment of spatial relations with prepositions seems to have to do with various body parts. As if these prepositions let show different types of interaction, namely sight and touch (*hand*, *arm*), between our body and the

<sup>34</sup> The reference to a body part is common to A and B.

environment. In other words, as if each was devoted to a type of space: personal, peripersonal or extrapersonal [DEANE 2005 : 247].

### *Conclusion*

*Over* exhibits properties combining visual limits and motion, which seems to be a sign for perceptive calculations governing the linguistic establishment of spatial relations. The preposition appears to prioritize the expression of the observer's visual assessment of their own relation to the surrounding entities. Therefore, the geometrical patterns and the various degrees of measure, place, position, height, passage<sup>35</sup> or judgement may not reveal the meaning of the preposition, or the interpretation of the speaker, but they may convey the final stage of perceptive calculations which, subsequently, operate aspectually or pragmatically in the utterance.

Consequently, I argue that the preposition is the linguistic marker of the mapping of a specific space: the observer's.<sup>36</sup> This means that the entities referred to establish another type of space relation either when not observed or observed by someone else (which is another way of saying that the semantics of *over* depends on the context). Hence, the semantics of *A over B* is only valid at the very instant of its perception by the observer-cum-speaker which shows, in the case of *over*, in the preposition favouring human referents of B. The specific space *over* constructs is visually delimited and mainly governed by upper body parts, as may be rendered by the traditional value of verticality assigned to the preposition. More generally, the linguistic analysis demonstrates that the system of English prepositions seems not only to encode space relations egocentrically [DEANE 2005], but also allocentrically (by reference to the external world), as shown both by the body parts and the semantic features selected in the referents of A and B.

### *References*

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<sup>35</sup> According to Kreitzer [1997 : 302], prepositions do not refer to distances, sizes or forms, but they denote topological relations.

<sup>36</sup> « C'est par rapport à notre corps que nous situons les objets extérieurs, et les seules relations spatiales de ces objets que nous puissions nous représenter, ce sont leurs relations avec notre corps » [POINCARÉ 1908 : 55] ('We locate the external objects in relation to our body, and those objects' only spatial relations that we can figure are their relations to our body.')

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