Interlanguage prepositions : an analysis of French learners' productions in L2 English

Abeer Naser Eddine

▶ **To cite this version:**

Abeer Naser Eddine. Interlanguage prepositions : an analysis of French learners' productions in L2 English. Linguistics. Université de Grenoble, 2012. English. NNT : 2012GRENL014 . tel-01057881

HAL Id: tel-01057881

https://theses.hal.science/tel-01057881

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UNIVERSITÉ DE GRENOBLE

THÈSE

Pour obtenir le grade de

DOCTEUR DE L'UNIVERSITÉ DE GRENOBLE

Spécialité : **Sciences du Langage : didactique et linguistique**

Arrêté ministériel : 7 août 2006

Présentée par

Abeer NASER EDDINE

Thèse dirigée par **John OSBORNE**

préparée au sein du **Laboratoire Langages, Littératures, Sociétés**

dans **l'École Doctorale Langues, littératures et sciences humaines**

La préposition dans l'interlangue : étude des productions en L2 anglais d'apprenants francophones

Thèse soutenue publiquement le 27 janvier 2012
devant le jury composé de :

M. Jean-Claude BERTIN
PR, Université du Havre (Rapporteur)
Mme Nicole DÉCURÉ
PR, Université de Toulouse 3 (Rapporteur)
Mme Natalie KUBLER
PR, Université Paris Diderot (Présidente du jury)
M. John OSBORNE
PR, Université de Savoie (Membre)

ACKNOWLEDGEMENTS

First and foremost, I would like to thank my research advisor, Professor John Osborne. It has been an honor and a pleasure to work under his mentorship. I appreciate his methodical instruction, inspiring ideas and consistent encouragement, which altogether made my Phd experience productive and stimulating.

My sincere thanks go to the committee members, Professor Jean-Claude Bertin (Université du Havre) and Professor Nicole Décuré (Université de Toulouse 3), for their valuable contributions and practical suggestions. I would also like to thank Professor Natalie Kubler (Université Paris Diderot) who has accepted to review my thesis.

My special thanks go to the PAROLE team (Université de Savoie) whose laborious coding of the oral corpus enabled me to pin down points of particular interest to my research as regards the conceptualisation of motion events.
I would like to extend my thanks to Fabienne Chabert, the librarian, for her warm reception and helpful suggestions.

I would also like to thank my colleagues at the Service des Langues (Université Joseph Fourier (UJF), Grenoble) for their support all through my teaching experience, hence gained a broader insight into L2 learning difficulties. I would like to dedicate a special acknowledgement to Elizabeth Anne and Virginia Gardner for assisting in coding the learner corpus, which gave more credibility to the findings of my thesis.
I am equally grateful to all evaluation participants from UJF for contributing to my research goals.

I am greatly thankful to my dearest Dany Besset for her invaluable support during the moments when it was most necessary. Needless to say, thanks a million for the cheerful advice and generous hospitality!

My regards go also to all my friends in Grenoble with whom I spent unforgettable moments during the ups and downs of thesis writing.

I am blessed with the most caring parents, Noha and Rafik, who are very special and dear to me. They have always helped me to channel my energy in a positive and productive way. I so much thank my siblings, Moodi, Hanan and Safaa, whose encouragement and motivation have nourished me, especially during times of stress.

“All that I am or ever hope to be, I owe to my angel Mother.” *Abraham Lincoln (1809-1865)*

RESUME DE LA THESE EN FRANCAIS

Le principal objectif de cette thèse est d'étudier l'incidence des erreurs prépositionnelles sur l'intelligibilité de productions en L2 anglais par des apprenants francophones. Après un résumé des caractéristiques sémantiques et morpho-syntaxiques des prépositions en anglais et en français, nous abordons les questions liées à l'acquisition d'une langue seconde en général et à l'acquisition des prépositions en particulier, afin d' identifier les facteurs qui peuvent rendre leur acquisition problématique en L2. Nous proposons également des solutions pédagogiques pour améliorer l'apprentissage des prépositions en anglais. Afin de mesurer l'intelligibilité, nous analysons un corpus de productions orales et écrites contenant des emplois erronés, répartis entre erreurs lexciales et erreurs lexico-grammaticales (additions, omissions ou substitutions). Les résultats de cette analyse permettent de voir dans quelle mesure les erreurs prépositionnelles affectent l'intelligibilité du message.

Mots clés : prépositions anglaises, prépositions françaises, propriétés sémantiques, caractéristiques morpho-syntaxiques, acquisition d'une langue seconde, didactique des langues, analyse de corpus, annotation des erreurs

ABSTRACT

Interlanguage prepositions: an analysis of French learners' productions in L2 English

The main objective of our thesis paper is to examine the intelligibility of erroneous prepositional uses produced by French learners of English. We begin with an overview of the semantico-syntactic properties of English and French prepositions. Then we give an account of second language acquisition theories, and we highlight the acquisition of English prepositions by listing a number of reasons that are likely to make them problematic for L2 learners. We also propose certain effective pedagogical approaches to teaching English prepositions/particles. To measure intelligibility, we assess an oral and a written corpus containing L2 erroneous constructions. Our error tagset is divided into lexical and lexico-grammatical errors (addition, omission and substitution). The results of our corpus analysis allow us to observe the extent to which erroneous spatial prepositions may affect the intelligibility of the transferred message.

Keywords: English prepositions, French prepositions, semantic properties, morpho-syntactic properties, second language acquisition, language pedagogy, corpus analysis, error annotation

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ABBREVIATIONS

A2 (Common European Framework of Reference- Waystage)

B1 (Common European Framework of Reference- Threshold- Intermediate level)

B2 (Common European Framework of Reference- Independent User (upper intermediate))

C2 (Common European Framework of Reference- Proficient User)

CAE (Computer-Aided Error analysis)

CHILDES (CHIld Language Data Exchange System)

CL (Cognitive Linguistics)

DIALANG (DIAgnostic LANGuage testing)

e.g. (for example)

EA (Error Analysis)

EFL (English as a Foreign Language): unlike L2 is being learnt solely in class

ESL (English as a Second Language)

ESOL (English for Speakers of Other Languages)

F/M (Female/Male)

IELTS (International English Language Testing System)

IL (interlanguage): the version of the TL used or known by the learner

LLS (Languages, Literature, and Human Sciences)

L1 (first language)

L2 (second language)

L3 (third language)

max. (maximum)

min. (minutes)

NL (Native Language)

NLP (Natural Language Processing)

no. (number)

PAROLE (corpus PARallèle Oral en Langue Etrangère)

SL (Source Language)

SLA (Second Language Acquisition)

TL (Target Language)

vs. (versus)

XNPR (lexico-grammatical error of a noun followed by wrong preposition)

XVPR (lexico-grammatical error of a verb followed by wrong preposition)

Symbols used are:

The asterisk * signals error

The question mark ? preceding a word indicates linguistic strangeness or hesitation

The slash / indicates an alternative

The two inverted commas “ ” are used for citation

The quotation marks ' ' indicate that words are mine or illustrate an example

The brackets [ ] indicate change in word initials and the dots inside […] indicate that words are missing

Bold type is used if it appears in a citation

Italic type is used for emphasis or for highlighting an example

INTRODUCTION

Research objective(s)

This research tries to find out:

- if a native English speaker – who knows no French – would be able to understand written constructions containing preposition mistakes that are produced by French learners of English; and
- if (non-)intelligibility of preposition errors is related to error taxonomy (substitution, omission, and addition).

Problematic point(s)

Spatial prepositions, mainly those expressing motion events, are characterised, inter alia, by their multiple-meanings that vary with contextual use and prepositional phrase attachment. Complexity is linked to the involvement of four central conceptual elements: Figure, Ground, Path, and Manner. Hence, the acquisition and production of this particular preposition type presents language learning difficulties to French learners due to typological differences between English and French.

Goal

This study does not concern the complexity of English prepositions nor their multiple senses and uses. It essentially examines learners' 'manipulation' of the English language and their production of prepositional mistakes.

Our corpus analysis raises the following points:

- can the nature of the topic (i.e. its technical nature and newness to the learner) play a role in generating erroneous prepositions? If so, what type of 'new' combinations are formed? And are new non-intelligible verb + preposition combinations more frequent in motion events?
- can lexical errors be less intelligible than preposition errors?

Based on the analysis of written and oral productions by (French) learners

of English, this research aims at providing a qualitative assessment of the intelligibility or non-intelligibility of certain erroneous prepositional uses in an attempt to answer a broad question: Do wrong spatial prepositions impede comprehension?

Hypothesis

English prepositions are a persistent problematic point in grammar that intrigues both scholars and L2 learners, yet erroneous prepositional occurrences are not essentially responsible for the non-intelligibility of the intended message.

Synopsis

To confirm our hypothesis, we begin our discussion with an overview of the semantico-syntactic properties of English prepositions (Chapter I) and an overall contrastive analysis of English and French prepositions (Chapter II). We proceed with an account of language learning difficulties and the acquisition of spatial prepositions by French learners of English (Chapter III). We also discuss the use of prepositions in English teaching materials (English vs. French publishers) and we propose some pedagogical approaches to teaching English prepositions/particles (Chapter IV). Lastly, we discuss the significance of errors and corpus analysis in SLA and we examine the (non-)intelligibility of erroneous prepositions produced by French learners of English (Chapter V).

The main points introduced in each chapter are as follows:

In **Chapter I**, we give an overall account of the multi-functions, semantic properties, formation, occurrence, kinds, syntactic description and nature of English prepositions. English prepositions are known for their **multi-functions**, that is, the same lexical item can be used as a simple preposition, a compound preposition, a noun, an adverb, an adjective, a prefix, as part of a phrasal verb construction, a collocation, a saying, and an idiomatic (metaphoric) prepositional phrase.

Since language is construed differently by different linguistic approaches, differing views have emerged in terms of the **central meaning** that characterises each preposition. To begin with, the structuralist approach views language as a fixed system that is not affected by exterior factors (Bloomfield, 1933). The fundamental sense of a preposition is the expression of some type of relation in the clause, where spatial meaning is basic (Pottier, 1962). According to Vandeloise (2006), spatial uses of prepositions are the basic and determining source from which all other types of prepositions derive. Advocates of the cognitive linguistics approach consider the knowledge of real world force dynamics a determining factor in our choice of prepositions (Tyler and Evans, 2003). For Coventry and Guijarro-Fuentes (2008), geometric relations, dynamic-kinematic relations, and objects in "standard" situations are necessary for the comprehension of spatial terms and spatial scenes.

The general rule for **preposition formation** is by prefixing it to a noun *beside=be+side* or to an adjective *along=a+long*. Moreover, there are phrase prepositions which are groups of words that are treated as a single preposition (e.g. *in accordance with*). There are also participial prepositions which are present participles of verbs used without any noun or pronoun being attached to them (e.g. *A discussion concerning first aid*). Further, prepositions can be compounded with verbs (e.g. *overtake*), adverbs (e.g. *there in*), adjectives (e.g. *outstanding*) or conjunctions (e.g. *where in*).

English prepositions often occur in **final positions** in relative clauses (e.g. *A true friend whom I am proud of*), and with interrogative pronouns, adverbs, and adjectives whether independent or conjunctive (e.g. *What is he waiting for?*).

Regarding their main **syntactic characteristics**, English prepositions (simple, compound, complex) often follow the verb (e.g. *grouped with/next to/in view of*) or are placed before a noun (e.g. *He is sitting at the table in the corner*)

to show in what relation the noun stands with regard to the other nouns and verbs in the same sentence. They also introduce prepositional phrases (e.g. *The cottage looks on the river*), and they follow verbs forming together phrasal verbs (e.g. *Look up a word in the dictionary*).

Other types of prepositions include:

- intransitive and transitive verb particle constructions that involve intransitive (e.g. *tidy up*), transitive (e.g. *ask for*) and/or ditransitive (e.g. *My son jumped from one room to another)* prepositions.
- preposition stranding i.e. after its complement has been moved away by the speaker: Wh-questions (e.g. *Which part do you want some butter on?*), pseudopassives (e.g. *The red button was clicked on*), and relative clauses (e.g. *These are the camps (that) I have been telling you about*).
- pied-piping i.e. the preposition appears in clause-initial position (e.g. *Of crickets John is afraid*).

Nonetheless, as is the case with French prepositions, the question of the **nature of English prepositions** remains unresolved. Arguments vary as to classifying them into functional and/or lexical: Supporters of the first view hold that they are closed class items with a limited possibility for new members (Kortmann and König, 1992). Chomsky (1981), too, denies the lexical character of prepositions since a lexical item is traditionally linked to one syntactic category. Cadiot (1997) argues that some prepositions are colorless, that is, they are added to the phrase due to syntactic requirements without contributing to its meaning. However, supporters of the second view hold that they are semantically rich, thus they belong to the four major lexical categories along with nouns, verbs and adjectives, but they do not belong to determiners, inflection and Case assignment (Jackendoff, 1973). Prepositions that add a salient meaning to the phrase, hence are essential, are known as colorful (Cadiot, 1997).

In short, simple prepositions (one item) are referred to as colorless, empty,

weak, abstract, grammatical, and functional whereas complex prepositions (simple preposition + noun (+ simple preposition) or noun + simple preposition) are referred to as colored, full, strong, concrete, and lexical. The former belongs to a closed class whereas the latter is likely to accept new members. That is why we might talk about a subcategory since complex prepositions are perceived as prepositional locutions and, as such, they can range from the more lexical to the more grammatical (Gaatone, 2001).

One criterion for determining the degree of lexicality and/or grammaticality of the preposition is looking at the meaning of the whole unit. Units which are more lexical (e.g. *in search of*) have a more precise meaning even by isolating them from the prepositions around them and, at the same time, cannot be disconnected (**in, for example, search of*). Units which are said to be more grammatical are more general and vague, and can belong to several syntactic classes (adverb, adjective, conjunction, etc.). On the other hand, etymologically, simple prepositions like *for, but, near* were originally complex in nature.

In Chapter II, we show to what extent English and French prepositions share similar functions or properties and the distinct aspects that characterise each in terms of meaning, formation, position and occurrence. Keeping in mind that prepositional systems across languages vary considerably, and that this cross-linguistic diversity grows as we move from core, physical senses into the metaphorical extensions of prepositions, we outline below main points of similarity and difference between English and French prepositions in general, and the use of spatial prepositions in particular.

Some **basic similarities** are as follows:

- French and English prepositions link nouns, pronouns and phrases to other words in a sentence. The word or phrase that the preposition introduces is called the object of the preposition, e.g. *avant le coucher du soleil* (before sunset).

- English and French translation equivalents are to some extent similar in meaning while they are nonidentical in form *by* (par)*, towards* (vers), etc. Further, the possibility of expressing the same or slightly the same meaning using two different prepositions exists in both languages, e.g. *mettre de l'argent au/dans le coffre* (to put something in/inside a box).

- In French, as in English, a preposition can express different relations and can have different thematic roles. For example, the preposition *en* can denote place, manner, means, matter, concomitant actions, and duration.

- In French too, in addition to simple prepositions (*en, malgré*), there are quite a large number of compounds that play the role of a preposition where the head word can be a noun (*sur le côté de*), an adjective (*proche de*), or a gerundive (*se rapportant à*).

Like English prepositions, French prepositions have multi-functions. This is to say, they can occur as adverbs, participles, and subordinate conjunctions.

Some **basic differences** are as follows:

- English has both prepositions and particles (e.g. *I want to go up, I want to give up smoking)*, but French does not to the extent that associations of this type **sortir dehors/monter en haut* are perceived redundant.

- In English structures, prepositions and determiners are not repeated. However, French is more likely to repeat simple prepositions especially in fixed expressions (e.g. *On peut aller à Londres en avion ou en train*).

- In French, prepositions can sometimes be optional in certain occurrences while they are obligatory in English. For instance, zero prepositions are common in constructions like *Il habite rue Verdun/une maison/un*

appartement.

- The infinitive form is the base form to which is added an infinitive ending of a verb, if there is one. Present-day English uses the preposition *to* + verb form – the infinitive ending of Old English having disappeared, while, in French, it is a single word with one of three endings (-er/-ir/-re). Infinitives are formed with a zero preposition i.e. the infinitive form of the verb occurs after a verb without being linked with a preposition, for example *Je veux télécharger un fichier.* (I want to download/upload a document)

- The nominalisation of the verb in English takes two forms when followed by a preposition: gerund (e.g. *Smoking kills/Fumer tue*) and infinitive (e.g. *To walk is life's greatest pleasure/Marcher c'est un grand bonheur*). As an exception to the rule, we note that almost all French prepositions except *en* which takes the present participle (e.g. *en parlant*) are followed by an infinitive (e.g. *de/pour/sans dire)*.

- While English, and other Germanic languages, use compound nouns e.g. *mailbox,* French, and other Romance languages, incorporate the preposition *à* into two nouns (e.g. *boîte aux lettres*)*,* a noun and an infinitive (e.g. *machine à écrire*) or it places it before a noun either non-preceded (e.g. *le compte à rebours*) or preceded by an article (e.g. *le voleur à la tire*). In simple terms, French has a different way of forming compound nouns.

With respect to spatial prepositions, meaning correspondence between English and French locative prepositions is not absolute because “these two languages do not always conceptualise the objects involved in a scene in the same way”, and this explains the difference in the way that each language expresses a spatial relation, Japkowicz and Wiebe (1991: 153) state. In their discussion of a system of translation of locative prepositions between English

and French, they conclude that the ideal meanings of the locative prepositions they studied are the same in both languages, yet the correspondence between them may seem arbitrary. In *Our professor is on the bus/Notre professeur est dans le bus*, English conceptualises the bus as a surface that can support entities, by highlighting only its bottom platform (a relation expressed by the preposition *on*), while French conceptualises the bus as a volume that can contain entities, by highlighting its bottom surface, its sides, and its roof altogether (a relation expressed by the preposition *dans*). This means that locative prepositions carry a lexical meaning, and objects given a particular situation in a language impose certain restrictions on the choice of these prepositions.

We discuss further the conceptualisation of motion events in English and French in section II.2.: In English, verbs encode the manner of motion and satellites encode the path of motion or spatial relations while in French spatial information is expressed in the verb root. Besides, French-speaking children rely more on prepositional use whereas both English-speaking adults and children rely on verbal satellites and/or particles (Hickmann, 2007). More precisely, English conflates motion *to come/to enter* and manner *to walk/to dive* in the verb. However, in French, verbs of motion describe the path of motion (without change of place) while manner (including change of place) can be added by a prepositional phrase, a gerund or an adverb. There are two hypotheses in this respect: the strong version is that English is satellite-framed and French is verb framed (Slobin, 1985; Talmy, 1988, 2000). The weaker version also ascertains that English is satellite-framed, but questions the identity of motion verbs in French (Kopecka, 2006). If the first hypothesis is true, then this could explain the difficulty of SLA as it impacts the learner's spatial acquisition and expression, rendering motion verbs (prepositional verbs, phrasal verbs, and/or verb + particle) problematic.

Nonetheless, English and French structure space in the same way

irrespective of the lexical items. In English though the spatial preposition following a motion verb contributes to the precision of meaning, thus enabling speakers to encode motion and path components within one mental processing unit. In section II.2., we will explain further how learners construe an image and describe it in words in addition to the mechanism they employ. We will also know more about the impact of L1 on the perception of L2 linguistic forms.

In **Chapter III**, we list a number of reasons that are likely to influence the positive or negative acquisition of English prepositions by L2 learners like L1 transfer, interlanguage development, fossilization, overgeneralisation, limited exposure, form dissimilarity, and English as a lingua franca. Before developing these points, we give an overview of the development of the **learners' language system** by referring to various SLA theories, for instance Selinker (1972) who lists five processes “central” to L2 learning: language transfer, transfer of training, strategies of second language learning, strategies of second language communication, and overgeneralisation of TL linguistic material; Richards and Sampson (1974) to whom the learner's language is the result of social, psychological and linguistic interactions; Corder (1981) who considers experience, current data together with learner's language acquisition strategies; Krashen (1988) who differentiates between “learning” and “acquisition”; and others.

In order to better understand the SLA process, we discuss language **learning and communication strategies** that contribute to the development of the language system, for instance, discourse process, cognitive process, message abandonment strategies, and achievement strategies. We also discuss whether L2 learners generate their communication strategies differently from monolinguals, and the strategies employed in written vs. oral production.

Then, we discuss L2 learners' **acquisition and use of (spatial) prepositions:** “[I]n their spatial meanings, prepositions do not match up well

from language to language" Celce-Murcia and Larsen-Freeman (1999: 401). On the other hand, in terms of the use of verb + preposition/particle construction, French learners are more likely to recognise and retain form-meaning patterns with "concrete attributes" unless the abstract patterns share "concrete similarity" (Goldberg and Casenhiser, 2007).

Systems of spatial prepositions vary significantly between languages, so **spatial perception** differs between children and adult language learners. Bowerman (1993) provides experimental evidence that children learn to shape the world around them in accordance with the spatial metaphors in the language they are learning. As for non-native speakers, Bowerman claims that adults' perception of spatial relations is influenced and shaped by their mother language because children start learning the "cleavages" of their language (i.e. specification) at a very early age, and those get encoded in a semantic categorisation scheme particular to each language.

Psycho-linguistic schools differ in the way they view SLA processing and progress. For instance, the Construction Grammar and phraseological approaches to language (Ellis, N.C. 1996; Pawley and Syder, 1983; and Sinclair, 1991) imply that much of communication makes use of fixed expressions. According to Long (1990), who introduced the concept of "focus on form in SLA", the developmental patterns of SLA suggest that L1 cognition transfers to that of the L2, sometimes facilitating L2 development, sometimes interfering with it. According to Universal Grammar, all languages share a basic deep grammar and all language learners have the ability to access this grammar innately without conscious teaching (White, 2003).

Frequency of exposure according to different studies (Saragi et al. 1978; Jenkins and Dixon, 1983; Herman et al. 1987) is an important element in the learning process, but more research is needed to define the question of incidental learning.

The prototypical and salient senses of prepositions increase the likeliness of their learnability by L2 learners, i.e. plausible frequency of exposure is likely to have a beneficial effect on preposition learning. We also argue that **non-analogous** prepositions in English and French in terms of **form**, in addition to other factors like polysemy, idiomaticity and multi-functionality, could be an additional reason for confusion and errors.

Language specificity and the perceived degree of similarity between L1 and L2 will strongly influence the extent of language transfer (Kellerman, 1979). “Language distance” relates not only to actual but also to “perceived distance”. Corder (1978) proposes that the amount of transfer is determined by the perceived distance between L1 and L2. Thus, similarities and differences between L1 and L2 are seen as part of the variables for learners' decision-making.

A central characteristic of SLA is **fossilization**, a phenomenon first proposed by Selinker (1972), yet interpreted and defined distinctly by a number of linguists thereafter. Many of these views will be presented in order to establish a clearer understanding of how this aspect might affect the acquisition of prepositions and what its causal factors are. For instance, some (like Selinker and Lamendella, 1978; Hyltenstam, 1988; Han and Selinker, 1999) define it as “a permanent cessation of IL learning”. For Han (2003, 2004), fossilization occurs “locally”, yet for Ellis, R. (1994), it refers to an overall cessation of learning.

Two main conclusions emerge: First, had the age of the learner and the amount of instruction one receives in the TL been of no significance on one's performance (Selinker, 1972), this could mean that preposition errors are justified, even inevitable and persistent, not necessarily due to their complexity, but due to factors characteristic of the language learner himself who is far from attaining native-like proficiency. Second, learners stabilise and development ceases no matter the explanation they receive and/or the number of exposures

they have. Prepositions could be in essence responsible for this cessation due to their polysemy, and so native-like proficiency in L2 is not easily achieved.

We also believe that the use of **English as a linguafranca** might have an influence on learning prepositions. We suggest that the need to learn a language quickly for communication purposes may indirectly motivate learners to pay more attention to fluency, hence neglecting language competence and accuracy. This is likely to induce ill-formed prepositional occurrences and, eventually, contribute to fossilization. In other words, the insufficiency of the learning conditions could stimulate a cessation of interlanguage learning.

We then highlight **basic difficulties that impede learners from mastering** the different uses and senses of English prepositions, for instance, the complex multi-roles that English prepositions occupy increase learners' perceived difficulty of mastery and performance throughout the learning process even until advanced levels of learning proficiency. Moreover, there is no particular rule for teaching all prepositions, and even worse, it is almost impossible to memorize all usages since there are always new situations and contexts where one has to choose the appropriate preposition. On the other hand, learners are likely to use their cognitive and inherent knowledge upon the production of L2, so they apply their acquired linguistic and cultural knowledge and rules to other language(s).

Finally, we suggest that **certain preposition types are more problematic than others**. We list preposition-related topics that computational linguistics have so far been concerned with like studying the arbitrariness of prepositions as a whole, their frequency of use, lexical description, semantic input or conceptual and syntactic structure.

We argue that the prepositions of time could be the least troublesome for L2 learners in terms of comprehension and perhaps use for a number of reasons, chief of which, they are structured in a way that they designate a specific/non-specific moment in time (like days, dates, months, years, seasons, etc.) and have

specific or 'uniform' uses that do not change with situational context. On the other hand, prepositions of motion are perhaps the most problematic being an open-class in the sense that they are constrained by the preceding verb.

In **Chapter IV**, we show different opinions as to the context in which the multi-uses and functions of prepositions ought to be presented in **English manuals and textbooks** for maximizing L2 learning outcomes. For instance, certain prepositions should not be taught in isolation but rather in relation to their occurrence with other words (Celce-Murcia and Larsen-Freeman, 1999). Besides, graphologically highlighting a grammatical feature that constitutes a difficulty for learners could turn their attention to its use (Ellis, R. 1999). Others (like Goldberg and Casenhiser, 2007) insist on the importance of providing learners with “targeted input that includes ample prototypical instances early in training”. Moreover, Langacker (2008) points out that the learning of specific forms is obviously necessary in cases of irregularity or limited productivity. On the other hand, there are indecisive opinions as to using or not translation exercises from SL into TL. Proponents (Fries, 1945; Ellis, R. 1997; Widdowson, 2003) regard this approach as a natural language facilitator and learning strategy. Yet, opponents (Howatt, 2004) argue for the exclusion of L1 and are in favour of focusing on spoken language.

A comparison of twenty **ESL books used in France** (English vs. French publishers) in lower secondary and higher secondary classes shows that neither prepositions nor prepositional verbs and phrasal verbs are drilled into the learners in either English- or French-published manuals. Nevertheless, while the former (English publishers) give an explanatory account of certain prepositional uses and co-occurrences, the latter give preference to other grammatical notions (like tense and aspect), almost ignoring prepositions i.e. avoiding explicit instruction.

Finally, we propose four **pedagogical approaches to teaching prepositions/**

particles. They can be summarised as follows:

- Use of collocational and concordance data: This should be adapted to the various stages of second language learning as it provides learners with productive and analytical insight into the lexical and semantic properties of L2. We do not claim that collocational knowledge presents no challenges for non-native speakers, but it might be a helpful approach to teaching noun + preposition and adjective + preposition collocates. Tracking the developmental patterns of the knowledge and use of L2 collocations is important to assess the effectiveness of this approach. In this respect, concordance (web- or paper-based) is suggested as a pedagogical tool which can help learners observe and explore collocational use in context.

- Explanation derived from cognitive linguistic approaches: This is appropriate at B1 level and above where learners are expected to have been already exposed to the central meaning of spatial English prepositions. It gives a clear account of the semantics of their extended meanings showing that these various senses are not accidental but organised around a central sense.

- Task-based language teaching: This is quite appropriate at all levels. It is a learner-centered approach that gives space for language discovery and production away from rule-based teaching and form-centered activities. A task is a simulation and/or replication of real life scenarios that encourage language knowledge through achieving a clearly defined communicative outcome.

- Motion pictures and iconic gestures: They should accompany the learning process due to their positive influence on meaning retention. They are particularly helpful for teaching English prepositions and particles with dynamic meaning (involving movement). Pictorials, in general, should be accurate and real i.e. less schematic and dependent on mental imagery.

In **Chapter V**, we discuss the advantages of learner corpus analysis in general, and advances in SLA research on prepositions in particular. L2 errors, whether “overt” or “covert” (Corder, 1981), are key elements in corpus analysis. We examine their causes (interlingual/intralingual) from the point of view of various linguists like Selinker (1972), Richards, J.C. (1974), Corder (1981), and Wilkins (1996). In other words, we examine their **occurrence and significance**: discovering how language is learnt and processed; assessing learners' progress as designed by the syllabus and language teaching; and experimenting with the language in order to develop a better understanding and sustainable mastery.

Having discussed the occurrence and significance of L2 errors, we move to **error-annotated learner corpora**: a definition of a corpus and a review of its earliest scope of experimentation, objectives, and forms. We basically centre our discussion on advances in error-tagging, manual and automatic, and the advantages and disadvantages of each.

We start our corpus analysis with an overview of its basic features, task description (oral and written), choice of the tasks and data collection. We also illustrate the choice of error typology and codification system which are adapted to answer our research question i.e. the (non-)intelligibility of preposition errors, mainly in terms of those expressing motion versus static events.

In the **oral corpus**, we compare L1 and L2 productions in terms of the linguistic means used in describing motion events, more particularly the erroneous use of L2 prepositions and action verbs. We study the impact of dual typological framework (English as satellite-framed vs. French as verb-framed) on structuring motion dimensions.

In the **written corpus**, and with the assistance of two native-speaker human raters, we code L2 constructions produced by French learners of English in terms of the notion of intelligibility of static and motion events containing lexico-

grammatical and lexical errors. The (non-)intelligibility of these constructions are judged by 56 native-speaker informants who replied to an online questionnaire designed for this purpose. The findings allow us to figure out the extent to which preposition errors can be misleading, and if error taxonomy (substitution, addition and omission) plays a role in reducing comprehensibility.

In sum, our analysis of the oral corpus revealed that lacking lexical knowledge, the subjects rely heavily on prepositions in transferring their ideas and verbally depicting motion scenes. Lexis, but not prepositions, impede L2 learners from communicating a message or an idea in spontaneous speech. On the other hand, analysis of the written corpus revealed that erroneous prepositions expressing motion events are susceptible to various interpretations, hence are less intelligible than those expressing static events. On the whole, the lack of lexical knowledge or wrong lexical choice rather than erroneous prepositions affects intelligibility. Therefore, preposition errors can be intelligible.

Chapter I: ENGLISH PREPOSITIONS

In this chapter, we define English prepositions in terms of their function and nature. We give an overview of their different kinds (simple and derived), meaning, formation, position and how they fit into the syntax of the language. Further, we present different stands that label them into lexical and/or functional items.

I.1. What is a preposition?

Many papers and studies have attempted to define English prepositions, and we cannot begin our discussion without identifying the overall role of this part of speech or word class. It is not surprising that researchers have long attempted to figure out and continue to discuss the relation between a preposition and the other sentential constituents, its meaning, use and form (Fillmore, 1968; Lakoff, 1987; Brugman, 1988; Taylor, 1993; Dirven, 1993; Lindstromberg, 1996; O'Dowd, 1998). It is only by understanding the behaviour and role of prepositions that one can provide a fairly clear account of their properties as well as produce useful ESL teaching material.

Traditionally, there is a distinction between ESL and EFL. The former – commonly used in the US – refers to learners from all over the world learning English in the US and staying there, where as the latter – commonly used in the UK – refers to Europeans spending some time in the UK (language classes) then returning home. Whether there is a difference or not between them, the inconsistency in terms of the use of both terms in our thesis is also due to the sources we referred to (i.e. books, articles, etc.) and the terms they themselves used.

Here, we will not attempt a detailed analysis of these questions as this research neither argues the complex nature of English prepositions nor their distinct lexico-grammatical properties. At the same time, it would be impossible to

jump ahead to the main aim of our research without giving a global presentation of their sentential and semantic role:

> "In the most general terms, a preposition expresses a relation between two entities, one being that represented by the prepositional complement, the other by another part of the sentence. The prepositional complement is characteristically a noun phrase, a nominal wh-clause, or a nominal -ing clause." (Quirk et al. 1985: 657)

Quirk and Greenbaum (2000) give an overview of the role, function and developmental use of (a) preposition(s) in a construction. They also differentiate between monosyllabic simple prepositions and polysyllabic prepositions when it comes to stress patterns. According to them, the former type is normally unstressed while the latter is normally stressed. Moreover, they mention informal types of prepositional omission when expressing time as in *He will arrive (on) Monday*, and duration as in *He worked (for) two years*. On the other hand, there are other instances where prepositions are omitted in L2 productions. L2 learners, even highly proficient learners, are likely to produce "null-prep" (null-preposition) in interrogatives and relative clauses regardless of their mother language (Klein, 1993), as in:

A: *Who did he give his password?*

B: *The one he gave his password is still unknown.*

English prepositions are known for their multi-functions, that is, the same lexical item (e.g. *out)* can be used as a simple preposition (e.g. *He ran out the door*), a compound preposition (e.g. *He is now out of danger*), a noun (e.g. *He was desperately looking for an out*), an adverb (e.g. *The light went out*), an adjective (e.g. *The book should be out before the end of the month*), a particle – phrasal verb construction (e.g. *As events turned out, we were right to have decided to leave early*), a prefix (e.g. *He will outlive his neighbours*), a collocation (e.g. *out of breath*), and a saying (e.g. *The truth will out sooner or later*).

Moreover, an idiomatic (metaphoric) prepositional phrase starts with a preposition or consists of a verb followed by a preposition, but unlike an ordinary prepositional phrase, it forms an expression with a non-literal or idiomatic meaning whose original motivation is lost to most speakers of the language (e.g. *by hook or by crook*). The meaning of a prepositional idiom is jointly determined by the verb and the preposition that follows it. A single verb can yield multiple meanings depending on the preposition that is attached to it. Take, for example, the verb *break:*

break away (1): to leave or to escape from someone who is holding you

break away (2): to stop being part of a group because you begin to disagree with them

break down (1): If a machine or vehicle breaks down, it stops working

break down (2): If a system, relationship or discussion breaks down, it fails because there is a problem or disagreement.

break somebody in: If you break someone in, you train them to do a new job or activity

break something in: to wear new shoes or use new equipment for short periods to make them more comfortable

The term 'prepositional use' will be repeatedly used throughout the course of this paper. By prepositional use, we mean collocations, chunks and idioms containing prepositions:

- preposition + noun: *at risk, on time*
- noun + preposition: *overview of, absorption of, an increase in*
- adjective + preposition: *associated with, responsible for*
- verb + preposition: *worry about, suffer from, get rid of*
- chunk containing preposition: *on my own, in the long run, in contact with*
- idiom containing phrasal verb: *clear up your act, hang out*

In this section, we introduced English prepositions as a part of speech i.e. their general function and use in the language. We will now go over their

semantic properties and how their multi-senses are formed, by reviewing some of the literature on this subject.

I.1.1. Semantic aspects of English prepositions

Is there a central meaning that characterises each preposition, such that its various senses are linked to a primary meaning?

Since language is construed differently by different approaches, differing views have emerged in this respect. To begin with, the structuralist approach views language as a fixed system that is not affected by exterior factors. That is, everything is systematic, having to do with geometric measurements and configurations. Bloomfield (1933: 271) develops his own version of structural linguistics. He frames parts of speech into morphological classes, and he names four types of word classes (class 1: nouns, class 2: verbs, class 3: adjectives, class 4: adverbs) while considering the other parts of speech (including prepositions) as form-functional words meant to help the classes of words function accordingly. Besides, he claims that “linguistic study must always start from the phonetic form and not from the meaning” (ibid. 162). For Bloomfield, prepositions are not defined in terms of their correspondence with different aspects of the practical world, but merely by their positions in syntax, that is why it is possible to describe their meanings. And according to his description of “endocentric” and “exocentric” compounds or constructions, prepositions are free linguistic forms that determine exocentric constructions because none of their constituent parts can replace the whole group in a broader structure (e.g. *to the movies*). Neither the component preposition nor the noun phrase may substitute for the whole prepositional phrase. Here is a thorough explanation cited from Bloomfield (ibid. 194):

> “Every syntactic construction shows us (two or sometimes more) free forms combined in a phrase which we may call the 'resultant' phrase. The resultant phrase may belong to a form class other than that of any constituent. For instance, 'John ran' is neither a nominative expression nor a finite verb expression (like 'ran'). Therefore we say that the English actor-actor construction is 'exocentric': the resultant phrase belongs to the form class of no immediate constituent. On the other hand, the resultant phrase may belong to the same form-class as one (or more) of the constituents. For example, 'poor John' is a proper noun expression, and so is the constituent 'John'; the forms 'John' and 'poor John' have, on the whole, the same functions. Accordingly, we say that the English character-substance construction (as in 'poor John', 'fresh milk', and the like) is an 'endocentric construction'.”

In the context of structural linguistics too, Pottier (1962) introduces a comprehensive theory of the semantics underlying prepositions that clearly rejects the concept of empty prepositions, for instance, *à* and *de* (first claimed by Vendryes, 1921). Pottier finds that the fundamental sense of a preposition is the expression of some type of relation in the clause, and suggests that prepositions, adverbs and subordinators share a common linguistic nature. They are variants of the same “relational morpheme” that possess a unitary sense in each particular language, where spatial meaning is basic.

On the other hand, according to Vandeloise (2006), spatial uses of prepositions are the basic and determining source from which all other types of prepositions derive. More precisely, if spatial uses are not regarded as abstract entities that are detached from physical life, then they are the sources from which “the whole distribution of prepositions flows. […] If space is considered as a component of our concrete external experience, I believe that spatial uses of many prepositions play a determining role in accounting for their total distribution” (ibid. 139). In this sense, Vandeloise traces the development and evolution of the different types of prepositions (motion, time, etc.) to the fact that space is an essential factor that marks the distribution and/or use of many of them. Similarly, in French, prepositions of time and spatial prepositions are said to share

common characteristics:

> “Espace et temps apparaissent ainsi comme des domaines possédant chacun sa structure, même s'il existe des analogies […]. L'analogie entre les deux domaines explique qu'une même préposition peut fonctionner comme expression du temps et de l'espace, tout en conservant les propriétés compatibles avec les deux domaines […].” Melis (2003: 73)

At the end of his article, Vandeloise (2006) attempts to reply to a question he first raised as to the existence of the so-called “spatial prepositions”:

> “In conclusion, there may be two different answers to the question in the title of this article: “Are there spatial prepositions?” Relative to the development of language, I believe that localism may be true and that space plays an important role in the evolution of “spatial prepositions” as it does in the evolution of thought (Cassirer 1953). However, the conceptualization of space involved in language is not a static topological or geometric representation, but rather a dynamic representation linked to the use if space that host our daily experience in the world. Nonetheless, for adults who use a developed language and for writers who exploit its richness, the priority of spatial notions in language may be completely lost and further abstract concepts may play a prominent role.” (ibid. 153)

Prepositions are usually linked with “topological values”. For instance, the prepositions *in* and *between* signal inclusion; *on* and *at* signal contact and support; *near* and *by* signal proximity; and so forth. Cadiot et al. (2006: 188) find that “although these values are fundamental, they are insufficient to express the grammatical “motif” of any preposition – except by tangling up these typological values from the start with others which are expressed jointly and specifically for each preposition”. Therefore, these values (proximity, inclusion, contact, support, etc.) should not be the only means for classifying prepositions and grouping them into strict and narrow uses or semantic categories.

Advocates of the cognitive linguistics approach consider the knowledge of real world force dynamics a determining factor in our choice of prepositions, and

this in its turn allows “the creation and interpretation of an utterance” (Tyler and Evans, 2003: 57). Moreover, spatial language differs across languages quite radically, thus providing a real semantic challenge for second language learners. From the point of view of cognitive linguistics, it is not always possible to define all spatial representations and uses due to the polyvalence of prepositions.

For a better understanding of spatial language three aspects are to be considered: geometric relations, dynamic-kinematic relations, and objects in “standard” situations. For Coventry and Guijarro-Fuentes (2008), these elements together are necessary for the comprehension of spatial terms and spatial scenes within the functional geometric framework. Once the learner is able to identify the above points, a clearer definition of the spatial scene becomes possible in terms of the located object and its relation with the reference object and the surrounding environment (like containment, support, protection, semi-control or full control). In addition, spatial items differ with object type, whether it is static, dynamic or having specific geometric qualities and functions.

In this section, we listed contrasting views of linguistic schools that differ in their explanation of how English prepositions derive their multiple senses. We will now discuss a less controversial aspect that concerns their formation and position in a construction.

I.1.2. Formation and position of English prepositions

How are prepositions formed and how do they occur in a structure?
Rowe and Webb (2000) find that prepositions are mainly formed by prefixing a preposition to a noun (e.g. *beside= be+side, inside=in+side*) or to an adjective (e.g. *along=a+long, below=be+low*). For this reason, they are called compound prepositions; other examples are: *about, above, across, amidst, among, amongst, around, before, behind, beneath, between, beyond, outside,*

underneath, within, without, etc. (see Appendix I) Moreover, there are phrase prepositions which are groups of words that are treated as a single preposition like *in accordance with, in addition to, in case of, for the sake of, in reference to,* etc. (see Appendix I) In this same category, there are also participial prepositions which are present participles of verbs used without any noun or pronoun being attached to them like *concerning, considering, notwithstanding, regarding* (e.g. *A discussion concerning first aid*, i.e. about, relating to, with reference to first aid). Prepositions can also be compounded with verbs (e.g. *overtake, outnumber, understand*), adverbs (e.g. *therein, thereby*), adjectives (e.g. *outstanding*) or conjunctions (e.g. *wherein, whereupon*).

As for the position of prepositions in English, Rowe and Webb (2000) state that they often take final positions:

- in relative clauses (e.g. *A true friend whom I am proud of*), and
- with interrogative pronouns, adverbs, and adjectives whether independent or conjunctive (e.g. *What is he waiting for?*).

Avoiding placing the preposition last renders the sentence “stilted” or awkward. In this respect, a famous statement is attributed to Sir Winston Churchill in which he expresses his objection to not keeping the preposition at the end of a sentence: “This is the sort of English up with which I cannot put!” This quote appears in *The American Heritage Book of English Usage: A Practical And Authoritative Guide To Contemporary English* (1996: 27). Yet, there are many controversies as to whether this was said by Churchill himself or not, or if it was ever said at all. Not only this, but the authors add: “In fact, English syntax not only allows but sometimes even requires final placement of the preposition, as in *We have much to be thankful for* or *That depends on what you believe in*” (ibid. 372).

Swan and Walter (1997) note that verbs are usually followed by prepositions in the passive form (e.g. *She was brought up by her grandparents*),

and prepositions occur after infinitives (e.g. *His painful experience is difficult to talk about*). Besides, there are instances of language variation where either/both prepositional uses is/are accepted:

Take your elbows off (of) the desk.

Throw it out (of) the window.

Unquestionably, mastering the use of prepositions in L2 is a painstaking effort that can sometimes be confusing even for native speakers of English themselves who exhibit variable performance in the choice of prepositions for expressing a particular meaning (Celce-Murcia and Larsen-Freeman, 1999).

In the following section, we will discuss basic syntactic properties of spatial prepositions in English, and we explain the difference between a preposition and a particle/satellite.

I.1.3. Syntactic characteristics of English prepositions

Like verbs, prepositions select various kinds of complements. We will first give an overview of the syntactic characteristics of prepositions, then we will develop each point further below: A preposition often follows a verb (e.g. *replaced with, rely on*) or is placed before a noun (e.g. *He is sitting at the table in the corner*) to show in what relation the noun stands with regard to the other nouns and verbs in the same sentence. The pronoun that follows a preposition (the reference object) is in *oblique case* and is governed by the preposition. Prepositions also introduce prepositional phrases (e.g. *Look at me*). A prepositional phrase is a group of words containing a preposition, an object of the preposition, and any modifiers of the object.

Syntactically, prepositions are grouped into three types:

- simple prepositions like *in, on, from, to*;
- compound prepositions like *away from, next to, along with*; and
- complex prepositions that is a simple preposition preceded by a word from

another category, such as an adverb, adjective, or conjunction (e.g. *due to, capable of, except for*) or is made up of a set of preposition words which start with and act like a preposition (e.g. *in comparison to, in the light of, in view of*).

Prepositions also follow verbs forming together phrasal verbs. A word that looks like a preposition but is part of a phrasal verb is often called a "particle" or a "satellite" (e.g. *to put off the meeting*). By definition, a preposition has a prepositional object (e.g. *The cottage looks on the river*), so it forms a constituent with its noun phrase object, hence is more closely bound to its object than an adverb or a particle. Besides, prepositional phrases can be fronted whereas the noun phrases that happen to follow adverbs or particles cannot.

> "Prepositions are distinguished from particles, adpreps and particle prefixes (i.e., bound spatial particles as in *overflow, overhead, underspend*, etc.) by the notion of iconicity. That is, prepositions mediate a linguistic relationship in which the element in focus is coded by a form that precedes the preposition, while the non-focal element is coded by a form that follows the preposition." Tyler and Evans (2003: 62)

As for the spatial particles, they represent a "closed class of lexemes" which are not liable for development. "They have this status because, in their spatial-physical uses, spatial particles operate within a stable, self-contained conceptual domain" (Tyler and Evans, 2003: 107). In other words, life always brings change or new concepts and, as a result, new lexemes are created, yet the basic principles of earth (like gravity) and human physiology will not undergo development.

In general, intransitive and transitive verb particle constructions involve *intransitive, transitive* and/or *ditransitive prepositions*:

Intransitive prepositions occur as:

- components of larger multiword expressions (mainly verb particle constructions like *tidy up, look up, run in*, etc.). Post-verbal particles

behave just like ordinary prepositional phrases (e.g. *He jumped into the water*). Jackendoff (1973) also provides another supporting argument for this intransitive prepositional treatment saying that unaccusative verbs like *race* and *stood* can trigger locative inversion as in:

Into the farmyard raced the neighbours.

On the rock stood two prairie dogs.

- predicates:

  The party is over!

  Prices are up!

- prenominal modifiers in constructions that constitute a directional phrase using *with* and a definite noun phrase as in:

  To the mall with your friends!

  Onto the plane with your boarding pass!

Prepositional phrases can be intensified by the word *right* (i.e. completely) or *straight* (i.e. directly) as in:

The vehicle ran right out of fuel.

I will get straight to the point.

In some cases, intransitive prepositions (or particles) can occur between the verb and its object, but adverbs cannot, for instance:

He will bring down his wooden box.

**He will bring downstairs his wooden box.*

Transitive prepositions:

The semantics of transitive prepositions can be determined largely by the semantics of the head noun they govern (e.g. *from memory, out of order, in poverty*) or their governing verb (e.g. *ask for, speak about)*. They select for noun

phrase complements to form prepositional phrases. A manner adverb can generally be inserted between the verb and the transitive preposition: *Communicate easily with Nokia phones!* (but not **Turn quickly off the light!*)

Ditransitive prepositions:

These prepositions (like *from, down,* and *into*) require noun phrase and prepositional phrase complements that behave as a single unit (Jackendoff 1973):

My son jumped [from (one room)(to another)].

A group of tourists drove [down (the French Riviera) (until Saint Tropez)].

A child stumbled [into (Buckingham Palace) (from behind the guards)].

The bracketed sequence [preposition (noun phrase) (prepositional phrase)] forms a strong unit that can function as a constituent for purposes of focus:

[From (one room)(to another)] jumped my son.

[Down (the French Riviera) (until Saint Tropez)] drove a group of tourists.

[Into (Buckingham Palace) (from behind the guards)] stumbled a child.

However, the (noun phrase) + (prepositional phrase) sequence cannot function as a constituent without the preposition:

**(One room)(to another) jumped my son.*

**(The French Riviera) (until Saint Tropez) drove a group of tourists.*

**(Buckingham Palace) (from behind the guards) stumbled the lost child.*

Passive formation:

Another type of preposition is known as pseudopassive. Let us briefly define the ordinary passive form of a verb, then we will move to the pseudopassive: Passive constructions have a range of uses. The canonical use is to map a clause with a direct object to a corresponding clause where the direct object becomes the grammatical subject (i.e. subject and agent are no longer conflated) as in:

Active voice: *He circulated the message*.

Passive voice: *The message was circulated*.

In the passive voice, the object *the message* is promoted to the subject position.

Similarly, with a pseudopassive, the subject in the passive voice corresponds to the object of a preposition in the related active structure as in:

Active voice: *We have been dealing with four companies.*

Passive voice: *Four companies have been dealt with.*

This is an example of a stranded preposition as a result of passive formation, noting that long passives are quite rare, for example: *?Four companies have been dealt with by us*.

The pseudopassive is, however, much more restricted than the ordinary passive which applies quite systematically to all transitive verbs, with a handful of lexical exceptions. There are various constraints that can determine the (un-)acceptability of a verb + prepositional phrase combination like context, usage and frequency effects, in addition to syntactic, semantic, lexical, and pragmatic idiosyncrasies. Other factors could be cohesion between the verb and the stranded preposition or the role prominence of the passive subject. Yet, these accounts do not provide full answers as to the criteria of a well-formed and acceptable prepositional passive, especially in the case of idiomatic direct objects and phrasal verbs:

They made up for their absence./Their absence was made up for.

He put up with his fiancée./His fiancée was put up with.

While some would agree to the grammaticality of the above constructions, others would rule them out. Depending on the syntactic function of the prepositional phrase, Huddleston and Pullum (2002: 1433) divide prepositional passives into two types: one in which the prepositional phrase is a complement whose prepositional head is idiomatically selected by the verb (e.g. *The tree was looked after by John*), and the other in which the preposition is not part of a verbal idiom (e.g. *The tree was sat under by John*), hence, presenting pragmatic constraints.

Preposition stranding:

As can be seen, in prepositional phrases, the preposition usually precedes its complement, but when this is not the case (i.e. the preposition is separated), it is referred to as “preposition stranding”. The preposition is stranded after its complement has been moved away by the speaker. This can be found in three types of constructions (Wh-questions, pseudopassives, and relative clauses):

Which part do you want some butter on?

The red button was clicked on.

These are the camps (that) I have been telling you about.

Despite the fact that English has a comparatively “rigid” word order, preposition stranding is a common phenomenon. Here, too, we do not want to discuss the (un-)grammaticality of such type of a construction, but we suggest that it could be an additional reason for L2 language learning difficulty, especially as French disallows stranded constructions of any of the above kinds. Stowell (1982) attributes the availability of preposition stranding in English to the availability of transitive verb-particle constructions. Therefore, the absence of this property in a learner's L1 grammar confuses learners and makes them produce passives with null prepositions. Their native-like mechanism prohibits prepositions from assigning Case to their complements i.e. “reanalysis”. Reanalysis is an operation that creates a complex verb out of a verb and a preposition. Nonetheless, L2 learners accept and/or produce null prepositions regardless of L1 or the beginning stage of L2 acquisition, Klein (1993) postulates. She adds that though they gradually discontinue accepting and/or producing null prepositions as their language proficiency increases, highly proficient learners would still omit required prepositions.

According to Stowell (1982), since the verb-particle construction in English is formed of a verb + particle (e.g. *I look after the plants*), it is possible to reanalyse the verb and the prepositional head of the following prepositional

phrase. Thus, the transitive verb-particle construction – which is not a feature of the French language – is one of the prerequisites for preposition stranding. Consequently, preposition stranding is not permitted in French. In contrast, Law (1998) argues that the lack of preposition stranding in French can be attributed to an independent morphological property that is specific to Romance languages. He posits that the preposition sometimes conflates with the following determiner into a suppletive form (P+D suppletive form) as in:

Jean a parlé <u>du</u> sujet le plus difficile.
Jean has talked about-the subject the most difficult
Jean talked about the most difficult subject.

According to Law's parametric system, the French language permits Determiner-to-Preposition incorporation, and this constitutes a sufficient condition for obligatory pied-piping of prepositions. Therefore, the lack of preposition stranding in French is connected to the existence of suppletive forms of prepositions and determiners.

In English, both verb + prepositional phrase (e.g. *He wakes after his father.*) and verb + particle constructions (e.g. *He takes after his father.*) have a similar linear order. The distinction, however, is that although prepositions and particles can be stranded in interrogatives (e.g. *Which college did he graduate from?/Whose plan did he vote down?*) and relative clauses (e.g. *The college he graduated from is King's College./The plan which he voted down is the Capitalist's.*), only prepositional phrases license pied-piping (e.g. *After whom does he wake?/*After whom does he take?*). L2 errors, mainly the omission of preposition, are common because French learners of English cannot differentiate between a preposition and a particle, remembering that French is a verb-framed language (Talmy, 1985). (see Chapter II, section II.2.)

Huddleston and Pullum (2002: 627) account for the occurrence of preposition stranding and pied-piping in English: In preposed, interrogative,

exclamative and wh-relative clauses, the preposition can either be stranded i.e. appears without an adjacent noun phrase complement, or pied-piped i.e. appears in clause-initial position:

- stranded prepositions:

  Preposing: *(Crickets) John is afraid of*.

  Interrogative: *(What) is he listening to?*

  Exclamative: *(What nice music) he is listening to!*

  Wh-relative: *I like the music ((which) he is listening to).*

- pied-piped prepositions:

  Preposing: *(Of crickets) John is afraid*.

  Interrogative: *(To what) is he listening?*

  Exclamative: *(To what nice music) he is listening!*

  Wh-relative: *I like the music ((to which) he is listening).*

In sum, both preposition stranding and pied-piping are possible, but one may be more common than the other whereas, in French, only the latter is possible (e.g. *De quelle chanson avez-vous parlé ?*)

This section pointed out basic syntactic properties of English prepositions/particles (intransitive, transitive and/or ditransitive prepositions, passive formation, and preposition stranding). We will now discuss a debatable point that concerns the nature of prepositions: lexical and/or functional.

I.2. Prepositions: lexical or functional in nature

In this section, we show that linguists are in disagreement about the nature of prepositions. There is no decisive answer in terms of their classification into lexical and/or functional items because of their polysemy. The many labels assigned like colorful/colorless, empty/full, semantically rich/syntactic prepositions, etc. explain this lack of consistency.

Is the syntactic category of English prepositions a homogeneous or a heterogeneous class? Linguistic items are either classified into: lexical (rich in semantic content) or functional (playing a grammatical role). While the classification of verbs, nouns and adjectives into lexical items, and affixes, auxiliaries and particles into functional items is not controversial, the status of other items (like the prepositional domain) remains unclear or not fully justified. Yet, a preposition makes a greater semantic contribution to the construction it appears in than the particular noun or verb, etc. (Langacker, 1987: 18).

Theories of syntax are in disagreement about the categorisation of prepositions into functional or lexical. Supporters of the first view hold that they are closed class items with a limited possibility for new members, a characteristic of functional, but not lexical categories (Kortmann and König, 1992). Quirk et al. (1985: 665-671) state that a comprehensive list of items could amount to 180-190, including simple and complex prepositions. Chomsky (1981: 48) denies the lexical character of prepositions, and defines them as a non-lexical category since a lexical item is traditionally linked to one syntactic category (Chomsky, 1965: 84). However, supporters of the second view (since Jackendoff, 1973) hold that prepositions belong to the four major lexical categories along with nouns, verbs and adjectives, but they do not belong to the same category as determiners, inflection and Case assignment.

On the other hand, others (like Littlefield, 2003) would go further in their classification and distinguish between semantically rich prepositions (lexical prepositions) and syntactic prepositions (functional prepositions). In this context, too, Cadiot (1997) distinguishes between colorless and/or colorful prepositions. The former are added to the phrase due to syntactic requirements without contributing to its meaning, while the latter are essential as they add a salient meaning to it. In French, too, there is a distinction between two types of prepositions: “des prépositions vides, qui sont de simples outils syntaxiques et

des prépositions pleines, qui, outre l'indication du rapport syntaxique, ont un sens propre" (Dubois et al. 1973: 390). As early as 1921, Vendryes was the pioneer who described certain prepositions as "vides", notably the preposition *de.* A more comprehensive explanation is provided by Melis (2003: 84) who says that in order to define an empty preposition (préposition vide), we have to trace the characteristics that distinguish it from a full preposition (préposition pleine). To this end, he recalls four definitions:

> "Une préposition est vide si son apparition est conditionnée par la syntaxe et uniquement par celle-ci; elle est vide si son interprétation peut être entièrement déduite des données contextuelles; elle est enfin vide si son sens est très abstrait et général ou si elle dispose d'une telle multitude d'acceptions que celles-ci ne se laissent plus unifier, ni saisir par une représentation d'ensemble."

Melis (2003: 90) disagrees that a preposition introducing a complement carries empty meaning: "Il n'y a guère d'évidence en faveur de l'existence de prépositions vides, au sens fort du terme, en français". For instance, concerning the preposition *de*, Melis (2003) establishes three points confirming that it always carries meaning whether:

- it occurs to signal initial position of the moving entity (e.g. *venir de*) or expresses a cause (e.g. *trembler de peur*) or "un rapport de partition" (e.g. *discuter de*); or
- it occurs in a "contexte adnominal" (e.g. *une tasse de café*); or
- when it is omitted from a construction (e.g. *le quartier Montmartre*).

Melis (2003) adds that the importance of *de* may vary between essential and minimal, hence, it is not an empty preposition, especially as lexical items cannot by themselves indicate the implied meaning. Other items are indispensable for communicating the meaning of an utterance. "The information supplied by the syntactic configuration and individual lexical items, even when highly specified, cannot account for the interpretation normally assigned to this seemingly most straightforward of [the examples shown above]" (Tyler and

Evans, 2003: 14).

Another view is that of Brøndal (1948) whose classification of parts of speech was based on four fundamental universal logical concepts (substance, relation, quantity, quality). The logical concept of relation defines the word class of prepositions. This is to say, the function of a preposition is to express a pure relation (symmetry, connection, transitivity, variability, plurality, generality) irrespective of objects or situations. Besides, they are called “false prepositions” if they occur in the function of an adverb, adjective or otherwise. “[L]a seule fonction des prépositions véritables est d'établir un rapport, et dans cette mesure, une liaison, par ex. entre deux termes (mots ou propositions)... [L]a relation doit être entendue comme étant de nature purement logique et point necessairement syntaxique” (ibid. 50). Therefore, prepositions are conceived as having a unique and a very abstract sense even though their different syntactic uses are also recognised. For Brøndal, prepositions, like other parts of speech (e.g. adverbs, conjunctions) are separate word classes, each one is determined by a different logical combination irrespective of any other semantic considerations:

> “Les prépositions expriment donc des relations pures sans égards directs à des objets [...] ou à des situations [...]. Elles ne sont donc à aucun point de vue, pas même au plus abstrait, locales ou spatiales. Elles n'ont en elles-mêmes rien à faire avec l'espace, ni donc avec le mouvement ou le repos.” (ibid. 89)

Others posit that prepositions are grammatical morphemes as can be seen in the following definition: “A term used in the grammatical classification of words, referring to the set of items which typically precede noun phrases (often single nouns or pronouns), to form a single constituent of structure” (Crystal, 1994: 275).

Furthermore, some simply distinguish between “simple” and “complex” prepositions irrespective of their functional, lexical or grammatical nature. Crystal

(1994: 312) defines a preposition as follows:

> "An item that typically precedes a noun phrase to form a single constituent of structure – a prepositional phrase or prepositional group – often used as an adverbial. […] Constructions of the type *in accordance with* are sometimes called complex prepositions, because they can be analysed as a sequence of two prepositions surrounding a noun, the whole construction then being used with a following noun phrase: in accordance with your instructions."

Leech (2006: 90) also says:

> "A word which typically comes in front of a noun phrase, for example *of, in, with* in *of milk, in the building, with all the good intentions I had at the beginning of the year*. […] In addition, there are quite a few complex prepositions which are written as more than one word: *away from, instead of, in front of, by means of* and so on. The meanings of prepositions are very varied, but two important categories are those of place and time relations: *at the airport, in the summer* and so on."

A complex preposition is a frequent type of multiword expressions usually formed of a preposition, a noun, and another preposition. Other terms have been used interchangeably like "phrasal prepositions", "quasi-prepositions" or "preposition-like word formations" that occur in many different languages, thereby showing nearly uniform properties. Likewise, in French, prepositions are divided into simple (e.g. *sur, dans, pour*) and complex (e.g. *en face de, au milieu de)*. While simple prepositions (one item) are referred to as colorless, empty, weak, abstract, grammatical, and functional, complex prepositions (simple preposition + noun (+ simple preposition) or noun + simple preposition) are referred to as colored, full, strong, concrete, and lexical. The former belongs to a closed class whereas the latter is likely to accept new members.

Gaatone (2001: 26) illustrates further that simple prepositions (e.g. *of, in, on, at, by, above, under, about*, etc.) are syntactic link words devoid of semantic content whereas complex prepositions (e.g. *in front of, instead of,* etc.) are relational words. Yet, the complex preposition category is not well-defined. That is why we might talk about a subcategory since complex prepositions are

perceived as prepositional locutions and, as such, they can range from the more lexical to the more grammatical.

One criterion for determining the degree of lexicality and/or grammaticality of the preposition is looking at the meaning of the whole unit. Units which are more lexical (e.g. *in search of*) have a more precise meaning even by isolating them from the prepositions around them and, at the same time, cannot be disconnected (**in, for example, search of*). Units which are said to be more grammatical are more general and vague and can belong to several syntactic classes (adverb, adjective, conjunction, etc.). On the other hand, etymologically, simple prepositions (like *for, but, near*) were originally complex in nature.

Clearly, prepositions are not a homogeneous category, which accounts for their complexity. Homogeneous word classes do not seem to really occur (Taylor, 1993). As Gaatone (2001: 23) puts it: “la notion même de ‘préposition’ reste aussi controversée que jamais”. Nonetheless, identifying the nature of prepositions is possible by examining the linguistic developmental patterns in children's speech for marking the differences in the production of functional and lexical categories. Empirical studies have shown that early children’s linguistic production is characterised by a heavy use of lexical elements while functional elements follow later (Radford, 1990), so errors are more likely to appear in the latter category. This leads to the following generalisation in terms of preposition use and errors: lexical prepositions appear in a child's speech before the functional ones, and the susceptibility of errors rather concerns the functional prepositions.

The same question recurs: Which prepositions are lexical and which ones are functional, thus, carry less semantic content? Linguistic theories propose different explanations, and this confirms again that prepositions cannot be homogenous. For example, in comparison to the prepositions *in, to,* and *on*, *of* is considered by many (like Lyons, 1986; Chomsky and Lasnik, 1995) to be a functional item with little or no semantic content, being uninterpretable using

gestures or body language. Lindstromberg (1998: 195) says that unlike the other prepositions, it no longer has any concrete, literal sense. It can be used to express a wide range of meanings (like possession, quantity of, property of, part of, type of, form, source, content, etc.). Consequently, no one definition can capture all of its disparate meanings.

Another approach, as explained below, does not see lexical and functional features as opposed to one another, but as representing two different semantic and syntactic dimensions. (Prepositional) adverbs, particles, semi-lexical prepositions, and functional prepositions are assigned [+/-Lexical, +/- Functional] features:

[+Lexical]: if an item contributes descriptive, referential content to the sentence

[-Lexical]: if an item contributes semantic content, but at a more non-conceptual, non-referential level

[+Functional]: if a prepositional element is a case-assigner that joins the sentence together

[-Functional]: if a prepositional element is not a case-assigner

In conclusion, distinguishing between lexical and functional prepositions or uses of prepositions on the basis of the semantic content is problematic because the notion of semantic content is graded. On the other hand, syntactic approaches deal with semantics as a subsidiary component to syntax whereby semantic features of a lexical entry play the function of selectional restriction in syntax. Thus, variation in meaning is linked to the content but not to the item itself. Lexical prepositions are not determined by the governing word(s). They are selected for their meaning, so they cannot be replaced with another preposition despite being grammatically valid because this changes the meaning of the whole utterance, i.e. *at the gate* is not the same as *outside the gate*. On the contrary, a functional preposition carries less semantic information. It is determined by the governor, most often by a verb (e.g. *He succeeds in Maths.*), but sometimes by an adjective (e.g. *He is good at Maths.*), or a noun (e.g. *his*

competence in Maths.).

In reference to our learner corpus, the erroneous use of the preposition *of* has been assessed by native speakers as *perfectly clear but needs rephrasing (see Appendix IV):*

**The increase of the gasoline price*

**Lead poisoning of children*

**He suffers of chronic pain in lungs*

**A rise of temperature can kill germs*

In these examples, the preposition *of* is syntactic because it lacks heavy semantic content, especially as its erroneous employability does not alter meaning. In other words, a preposition is considered functional if it assigns Case but adds no thematic properties to the structure.

Unlike grammaticalised items (like *modal verbs* and the verbs *have* and *go*) that are desemanticised because of an extreme generalisation or the loss of (part of) their meaning, prepositions are not all desemanticised as they assign Case structurally. The former process affects both the form and the meaning of an item as it consists in the increase of the range of a morpheme advancing from a lexical to a grammatical status and/or from a less grammatical to a more grammatical status. However, this is not the case with the latter because not all prepositional occurrences are completely devoid of their semantic features, hence they do not undergo semantic bleeching.

Therefore, the distinction is not clear cut especially as it would be pointless to claim that all prepositions merely convey a grammatical function and carry no specific lexical meaning. As Lewis (1993: 34) claims: “Language consists of grammaticalised lexis, not lexicalised grammar”. Prepositions are a perfect example as can be seen in the following verb + preposition combinations (*look + up*):

(i) Look both ways up the road to make sure there are no approaching

vehicles.

(ii) His financial situation will start to look up in 2012.

(iii) I look technical terms up in the dictionary but they are still unclear.

A preposition generally establishes a relation between the elements of the sentence. In sentence (i) above, *up* indicates direction. Yet we notice that even when used as a particle i.e. it combines with a verb to form a phrasal verb as in sentences (ii) and (iii) where *look up* means respectively *to improve* and *to search for something*, it is not totally devoid of meaning so it has some semantic contribution that it is making to the whole.

There is a problem with a unified approach to prepositions, and this is what makes them bewildering for L2 learners or pedagogically in general. We conclude that prepositions are lexical items that become grammaticalised when combined with verbs to form phrasal verbs, so they lose some of their semantico-syntactic properties. Prepositions in essence modify nouns and verbs as they can not stand alone to express meaning, so they are usually inseparable from their complement. Particles (originally prepositions) are central to the formation of phrasal verbs which in their turn can be transitive (e.g. *We will put off the meeting*) or intransitive (e.g. *My car broke down*), hence they undergo metaphorical extension i.e. a shift from a concrete to a more abstract meaning, remembering that their various senses are not accidental but organised around a central sense (Evans and Tyler: 1999, 2004a).

Chapter II: ENGLISH vs. FRENCH PREPOSITIONS

In this chapter, we define French prepositions and we look at basic similarities and differences between English and French prepositions in terms of meaning, formation, position and occurrence. We also discuss the conceptualisation of motion events in these two typologically different languages i.e. satellite-framed vs. verb-framed, pointing out that they semantically express quasi-similar spatial relations, but are syntactically different.

II.1. The usefulness of a contrastive approach to languages: preposition use

> "Language comparison is of great interest in a theoretical as well as an applied perspective. It reveals what is general and what is language specific and is therefore important both for the understanding of language in general and for the study of the individual languages compared." (Johansson and Hofland, 1994: 25)

Contrastive linguistic analysis is the comparison and contrast of the linguistic systems of two or more languages in order to outline dissimilarities in particular, and similarities, in general between them. It reveals facts about language universals, and translation and language learning problems. This is to say, we can predict many of the difficulties learners are likely to encounter and reconsider the usefulness of teaching materials which are fundamental to curriculum development. Lado (1957: 2) states that "the teacher who has made a comparison of the foreign language with the native language of the students will know better what the real problems are and provide for teaching them". He goes on to suggest that learning is more complicated when the two languages are different (ibid. 58), especially as learners tend to apply the rules they already know when producing utterances in the second language they are learning, thus, generating errors. This is known as "negative transfer". On the other hand, L1

may facilitate the development process of L2 learning. Corder (1981: 101) emphasizes that positive transfer helps learners to progress more rapidly along the universal route when L1 is similar to L2: “Where the mother tongue is formally similar to the target language, the learner will pass more rapidly along the developmental continuum (or some parts of it) than where it differs”.

Language transfer – which can be deliberate – is according to Dulay et al. (1982: 101) “the automatic, uncontrolled, and subconscious use of past learned behaviors in the attempt to produce new responses”.

Consequently, in our analysis of similarities and differences between the subsystems of prepositions in terms of their uses, function and meanings, we hypothesize that the elements of likeness help L2 learners to learn and use English prepositions more easily and correctly where the rules of both languages are relatively the same whereas differences incite difficulties and errors since learners try to apply their mother tongue rules in the production of L2.

Keeping in mind that prepositional systems across languages vary considerably, and that this cross-linguistic diversity grows as we move from core, physical senses into the metaphorical extensions of prepositions, we outline below main points of similarity and difference between English and French prepositions in general, and the use of spatial prepositions in particular.

Broadly speaking, many analogous nouns in different languages (like English and French) can only be used with particular prepositions (Japkowicz and Wiebe, 1991). Each language conceptualises nouns differently and each allows different propositions. Locative prepositions are determined by their complements. For instance, in English, we say *on the bus*, but in French, *dans l’autobus*: English conceptualises the bus as a surface that can support entities, by highlighting only its bottom platform, while French conceptualises the bus as a volume that can contain entities, by highlighting its bottom surface, its sides, and

its roof altogether. More exactly, English distinguishes two slightly different conceptualisations: motion (means of transportation: *on the bus*) and static (localising the trajector: *in the bus*).

There are divergences among grammarians as to the exact number of prepositions in English. Some (like Hayden, 1956: 171-176; Seidl, 1978: 81-100) claim that there are 57 prepositions while others (like Klammer et al. 2004) list 60 simple prepositions.

As for spatial prepositions in French, Melis (2003: 55) says that they are by far more numerous than others: “Il est communément admis que les prépositions les plus fréquentes et les plus typiques sont avant tout des prépositions de lieu et de nombreux auteurs posent en outre que leurs autres emplois sont, d'une manière ou d'une autre, liés à leur emploi locatif”. Vandeloise (2008: 3) calls the French prepositions *à*, *sur* and *dans* and the English prepositions *at, on* and *in* “*basic* because they are among the most frequently used spatial prepositions and, particularly for *on* and *in,* among the first prepositions learned by children”.

Before discussing the role and function of a preposition in French, we cite some definitions of the term, noting that they are also applicable to English prepositions:

> “Ce terme désigne une classe de mots ou de locutions invariables (à, de, par, pour, sur, à cause de, avant de, etc.), ou particules, qui ont une fonction grammaticale et qui, comme c’est le cas en latin et en grec, se trouvent en général (dans les langues classiques d’Europe), juste avant le nom ou le syntagme nominal auxquels ils confèrent l’autonomie fonctionnelle. Dans beaucoup d’autres langues, des particules ayant des fonctions grammaticales semblables à celles des propositions (sic) latines, grecques ou françaises se trouvent après le nom; c’est pourquoi on les appelle postpositions […].” (*Dictionnaire de la linguistique*, 1993: 269)

> “La préposition est un mot invariable qui a pour rôle de relier un constituant de la phrase à un autre constituant ou à la phrase toute entière, en indiquant éventuellement un rapport spatio-temporel. Le mot ou le groupe de mots ainsi reliés sont appelés «régime»; les prépositions traduisent donc des relations grammaticales et spatio-temporelles.” (Dubois et al. 1973: 390)

French and English prepositions link nouns, pronouns and phrases to other words in a sentence. The word or phrase that the preposition introduces is called the object of the preposition (e.g. *chez moi, à 30 ans, avant le coucher du soleil*).

Projective prepositions (like *above/below, in front of/behind, to the right of/to the left of*) fall under the category of spatial prepositions. According to Vandeloise (2006: 142), they “have a more important function than sheer description: the localization of a target by referring to a landmark”. He adds: “In English as in French, projective prepositions can localize both mobile and immobile targets”.

The dog is behind the box.
Le chien est derrière la boîte.

The key is behind the box.
La clé se trouve derrière la boîte.

It might be also useful to make a distinction between a “locution prépositive” and a “locution prépositionnelle”, taking account of the many definitions that sometimes render the distinction between them vague. In simple terms, as in English, the former is a locution containing a preposition that stands alone just like a “préposition simple” (e.g. *près de* (by), *à côté de* (next to), *se rapportant à* (with respect to)) while the latter is a locution containing a preposition but is not considered a preposition because it does not function as a preposition (e.g. *au contraire* (on the contrary)*, être en colère* (to be in a rage)).

Nonetheless, the notion “locution” itself is very fuzzy in French. It is a catch-all term that needs to be identified as it permits “des descriptions très hétérogènes si elle n’est pas définie avec précision”, says Gross (1996: 70). Gaatone (1981: 49) defines the term “locution” as a “groupe de deux mots ou plus, ressenti intuitivement comme équivalent à un mot unique”. In a previous paper, Gaatone (1976: 19) accounts for the function of a “locution prépositive”: “l’équivalence (au moins approximative) sur le plan sémantique avec une préposition simple, l’existence d’une relation entre les termes reliés par le groupe en question (nécessité absolue d’une complémentation de ce groupe) [et] le caractère syntaxiquement figé de l’ensemble”.

II.1.1. Basic similarities between English and French prepositions

English and French prepositions share certain morpho-syntactic features, and they establish a relation between two words. The functions of prepositions in both languages are very similar as they stand before a noun or pronoun, and express position, direction, etc. (Worth-Stylianou, 1994). English and French translation equivalents are to some extent similar in meaning while they are nonidentical in form (e.g. *by* (par), *with* (avec), *between* (entre), *before* (avant), *after* (après), *towards* (vers)).

The change of construction, mainly the choice of the preposition causes a change in meaning. This is evident in both English and French, for example:

a. *monter sur un cheval* (get on a horse)

b. *monter à cheval* (ride a horse)

c. *monter un cheval* (ride a horse)

Sentence (a) refers to someone being placed on the back of a horse while sentence (b) shows that the person is more in control. The first refers to the placement while the second to the act. This is as far as meaning is concerned, but as regards the structure, there are few differences (see sentence (c)).

Likewise, both languages use similar forms to express containment and placement:

être à l'université (to be at the university)

être dans l'université (to be in the university)

The possibility of expressing the same or 'slightly' the same meaning using two different prepositions exists in both languages like:

mettre de l'argent au/dans le coffre

taper un texte à/sur l'ordinateur

je vois mon patron à la gare/dans la gare

une tasse à thé/une tasse de thé

Although they refer to the same reference object, prepositions are non-interchangeable. For instance, the spatial particles of orientation (like *to/for, over/above, in front of/before*) can be used interchangeably only in certain situations, so they seem to act as near synonyms or “variants”, while appearing to be quite distinct in other contexts.

The three main preposition categories in both languages are spatial prepositions, prepositions of time and prepositions of movement. Others also involve cause, goal, manner, matter, possession, relation, separation, opposition, distribution, etc. In French, as in English, a preposition can express different relations and can have different thematic roles. For example, the preposition *en* can denote place (e.g. *Il part en Espagne.*), manner (e.g. *Il marche en boitant.*), means (e.g. *Il part en train.*), matter (e.g. *un pull en coton*), concomitant actions (e.g. *Il travaille en chantant.*), and duration (e.g. *Il finit en une semaine.*).

“La structure en interposition” is a common trait between English and French, e.g. *oeil pour oeil* (an eye for an eye), *mot à mot* (word for word). “Quel que soit le mode d'intégration dans la phrase, la structure en interposition est, du point de vue syntagmatique, un seul constituant [...]” (Melis, 2003: 22).

In French too, in addition to simple prepositions (e.g. *en, malgré, outre, parmi*), there is quite a large number of compounds that play the role of a preposition where the head word can be a noun as in *sur le côté de*, an adjective *proche de*, or a gerund *se rapportant à*.

Most compound prepositions end with *de* or *à*, remembering that, unlike invariable English prepositions, they contract with the definite articles *le* and *les* as follows:

- de + le = du
  Le restaurant est à proximité du métro.

- de + les = des
  On a reçu tous vos courriers à l'exception des articles qui nécessitent une signature.

- à + le = au
  Il faut davantage se prémunir contre le feu grâce au détecteur de fumé.

- à + les = aux
  Faire face aux défis mondiaux !

There are different compounds that contain prepositions like compound adverbs (e.g. *tout à fait*), compound nouns (e.g. *sac à dos*), compound verbs (e.g. *avoir besoin de, être en train de*), and compounded conjunctions (e.g. *pour que*).

The object of a preposition can be:

- a noun: *La poule est arrivée avant l'œuf !*
- an adverb: *Vous devez me répondre avant demain.*
- an adjective: *J'ai trouvé quelque chose d'intéressant !*
- a noun phrase containing a clause: *On a honte de ce qu'il va dire !*

Like English prepositions, French prepositions are lexical items with multi-functions. This is to say, they can occur as adverbs, participles or subordinates:

- adverbs: A preposition becomes an adverb when it is not followed by a complement, remembering that the final *de* disappears in a compound preposition:

  après

  adverb: *Il me l'a dit après*.

  He told me about it afterwards.

  preposition: *Il me l'a dit après le repas.*

  He told me about it after lunch.

  In English, *after* can also be used as an adjective: He told me about it in *after* years.

  à propos de

  adverb: *Le courrier est arrivé à propos.*

  The post arrived at the right moment.

  preposition: *Une discussion à propos de tout et de rien !*

  A discussion about everything and nothing!

- participles: Present and past participles act as prepositions while the original participial function continues to exist as in:

  Suivant la loi de probabilité décrite par le tableau...

  According to the law of probability...

  Le musée est ouvert tous les jours, excepté lundi.

  The museum is open daily except Monday(s).

- subordinate conjunctions: A preposition that functions as a subordinate

conjunction will have both a subject and a verb following it, forming a subordinate clause:

Comme la nuit tombait sur Paris

As night fell over Paris

French prepositions, too, are polysemous, thus have multisenses. A simple and straightforward example is the preposition *sur* which occurs in three contexts: contact, surface and support (Vandeloise, 2000):

Le point est sur la ligne. (contact)

La mouche est sur le plafond. (surface)

Le drapeau est sur un mât. (support)

Cannesson and Saint-Dizier (2002) developed a Lexical Conceptual Structure (LCS)-based formal description of the semantics of 170 French prepositions. Based on their corpus, they propose an organization of preposition senses into families "where basic usages as well as metaphorical ones are identified and contrasted". They state: "Although prepositions have some idiosyncratic usages (probably much less in French than in English), most senses are relatively generic and can be characterized using relatively consensual and high-level ontology labels". They take the preposition *par* as an example stating that six senses can be quite easily identified and characterized as follows:

- proportion or distribution: *Il gagne 1500 euros par mois.* (He earns 1500 euros per month.)
- causality: *Par mauvais temps, je ne sors pas.* (In bad weather I don't go out)
- origin: *Je le sais par des amis.* (I know it from friends.)
- via: *Je passe par ce chemin.* (I go via this path.)
- tool or means: *Je voyage par le train* (I travel by train.)
- approximation of a value: *Nous marchons par 3500m d'altitude.* (We hike at an altitude of 3500m.).

In sum, the English and the French systems are not regulated by completely independent and unrelated principles. The correspondence between the basic spatial prepositions in both languages appears in the strong, but not absolute, parallelism that is often established between the French prepositions *à*, *sur* and *dans* and the English prepositions *at, on* and *in*. In this respect, comparing French to English prepositions, but not the reverse, does not suffice because “English prepositions are viewed through a prism that might bias their analysis. A comparison going from English to French could lead to different conclusions” (Vandeloise, 2008: 19).

II.1.2. Basic differences between English and French prepositions

In this section, we list the major differences that distinguish English and French prepositions with respect to formation (repetition, zero preposition, infinitive/gerund, compound nouns, possession), multi-functions and semantic content.

In French, it is usually the preposition that determines the nature of the complement that follows it: “c'est bien la préposition qui sélectionne [...]” (Melis, 2003: 18). French prepositions can be dissociated from words they are attached to and their place in a sentence is liable to change, but this is not the case with English phrasal verbs. “Le français diffère profondément de langues comme l'anglais dans lesquelles existe le phénomène des verbes à particules: stand up, look for, etc.” (ibid. 29). As for prepositional verbs or verb + satellite constructions, “languages like English have verbal compounds (verb-particle constructions) that integrate prepositions (compositionally or as collocations) while others, like Romance languages, rather have the preposition as PP head in prepositional phrases or possibly incorporate the preposition in the verb” (Saint-Dizier, 2005: 26).

In English structures, prepositions and determiners are not repeated. This is a more general characteristic of the possibility for omitting certain kinds of grammatical items after a coordinating conjunction. However, French is more likely to repeat simple prepositions especially in fixed expressions. By doing so, each element of the complement is emphasized as in:

Pour une raison ou pour une autre
For one reason or another

Regardez l'emission en ligne sans téléchargement et sans inscription.
Watch the show online without installation or registration.

Besides, repetition of *de* is necessary in prepositions compounded with it:

Il n'y a pas de mal à changer d'idée avant de signer ou d'accepter un contrat.

Repetition of prepositions *de, à* and *en* before nouns is obligatory in French:

Je suis fière de mon pays et de son président.
I am proud of my country and its president.

Bonne année à tous et à toutes !
Happy new year everybody!

On peut aller à Londres en avion ou en train.
We can go to London by plane or train.

Before nouns, repetition of other prepositions is also frequent like *sans*, *sur*, *sous,* and *dans* which are sometimes not repeated with objects that mean practically the same thing:

Je cherche des recettes de gateau sans gluten et sans lactose.
I am looking for cake glutten- and lactose-free recipes.

Le Tour de France ne voyage pas sans ses partenaires et ses fournisseurs.
The Tour de France cannot be launched without its partnerships and suppliers.

Furthermore, the absence of a relativizer is more frequent in English than in French:

This is the man I want you to stay with.
This is the man I want you to talk to.

In French, prepositions can sometimes be optional in certain occurrences while they are obligatory in English. For instance, zero prepositions are common in constructions like:

Il habite rue Verdun/une maison/un appartement.
Ils habitent la rue Verdun.

In English, especially American English, the preposition *to* can be omitted, so the verb is used monotransitively (e.g. *I sent my son a letter* instead of *I sent a letter to my son.*). Replacing a prepositional structure with a noun phrase does not mean that both (with and without prepositions) have identical meaning as in *On s'est croisé au matin/le matin*. It is not easy to differentiate between 'analogous' meanings or senses because prepositions do not form “un système d'oppositions simple et fermé” (Melis, 2003: 99). In order to determine if a sense is distinct or not, a preposition “must contain additional meaning” and “there must be instances of the sense that are context independent” (Tyler and Evans, 2003: 42-3). On the other hand, in French, there is a “new fashion” of using nouns as prepositions: “En français actuel, un nombre assez important de nouvelles prépositions se forme à partir de noms [...]” (Melis, 2003: 123). They are often in initial positions (e.g. *Question shopping, je préfère Paris à Londres.*), but they can also occur otherwise. For Melis, “cette évolution rend la préposition introductrice redondante et elle peut être écartée”. Hence, this fashion might not

survive over the long term.

As a general rule in French, when a verb follows a preposition (usually but not solely *de, à*, *sans*, and *pour*), the verb is used in its infinitive form as in:

A vous de choisir les événements à venir.

Il parle sans réfléchir.

Pour convaincre, rien de tel que d'être crédible et fiable.

From a contrastive viewpoint, the nominalisation of the verb in English takes two forms when followed by a preposition: gerund (e.g. *Smoking kills* (Fumer tue)) and infinitive (e.g. *To walk is life's greatest pleasure* (Marcher est un grand bonheur)). As an exception to the rule, we note that almost all French prepositions except *en* which takes the present participle (e.g. *en parlant, en lisant, en partant*) are followed by an infinitive.

The infinitive form:

It is the base form to which is added an infinitive ending of a verb, if there is one. Present-day English uses the preposition *to* + verb form (e.g. *to apply/beg/catch/distinguish*) – the infinitive ending of Old English having disappeared, while, in French, it is a single word with one of three endings (-er/-ir/-re). Infinitives are formed with a zero preposition i.e. the infinitive form of the verb occurs after a verb without being linked with a preposition:

Je veux télécharger un fichier.

I want to upload/download a document.

The French infinitive is quite often used where in English one would use two possible constructions: the present participle (-ing form) and the *to* + verb form.

Ils préfèrent regarder un film ce soir.

They prefer watching/to watch a film this evening.

As for prepositional phrases in French, they can be replaced with the pronouns *lui* and *leur*:

J'achète une voiture à ma soeur.
Je lui achète une voiture.

While English, and other Germanic languages, use compound nouns (e.g. *mailbox, typewriter, the countdown, the pickpocket*), French, and other Romance languages, incorporate the preposition *à* into two nouns (e.g. *boîte aux lettres*), a noun and an infinitive (e.g. *machine à écrire*) or it places it before a noun either non-preceded (e.g. *le compte à rebours*) or preceded by an article (e.g. *le voleur à la tire*). In simple terms, French has a different way of forming compound nouns.

Similarly, while English uses a compound noun containing or not a preposition (e.g. *a crêpe with jam, a vegetable soup*) to describe an ingredient or the characteristic feature of the first noun, French places the preposition *à* between two nouns (e.g. *une crêpe à la confiture, un potage aux légumes*). This is to be differentiated from the structure *noun + de + noun* where the preposition *de* is invariable:

une miche de pain
a loaf of bread

une foule de gens
a crowd of people

un pot de confiture
a jar of jam

English has both 'noun of noun' and 'noun noun' constructions, generally with different meaning: *jar of jam* (basically with jam in the jar) versus *jam jar* (can be an empty jar or a jar with anything other than jam inside). Similarly, *bottle of wine* vs. *wine bottle*, *glass of milk* versus *milk glass*, *vase of flowers* vs. *flower vase*, etc.

The French preposition *de* is also used to signal the material something is made out of, a meaning expressed in a compound noun in English as follows:

un chapeau de paille
a straw hat

une statue de marbre
a marble statue

In general, while in English compound nouns are made of two nouns acting as a unit, in French, the preposition *de* combines the two nouns (noun + *de* + noun):

un bonhomme de neige (a snowman)
une boule de neige (a snowball)
des cadeaux de Noël (Christmas gifts)

There are also cases where *de* is followed by a definite article (le, la, les, l'), so it will be contracted (*de* + *le*, *de* +*les*):

le lever du soleil (the sunrise)
le coût de la vie (the cost of living)
la salle des urgences (the emergency room)
l'Armée de l'Air (the Air Force)

The preposition *de* can have non-prepositional uses in French:

- an article and quantifier (e.g. *donner des conseils/un tas de problèmes*)
- an element that relates an adjective and a noun by 'prédication' (e.g. *il y avait plusieurs élèves d'absents*)

Another distinction is that while English uses the preposition *with* for describing a distinguishing physical feature in someone, French uses the following combination '*à* + definite article + part of the body' as follows:

I saw the man with the iron mask.
J'ai vu l'homme au masque de fer.

I saw the woman with the short hair.
J'ai vu la femme aux cheveux courts.

I saw the girl with the guitar.
J'ai vu la fille à la guitare.

Likewise, while English uses the preposition *with* for describing the means with which something is done, French uses '*de* + noun' structure as follows:

to do something with one's own hands
faire quelque chose de ses propres mains

to see something with one's own eyes
voir quelque chose de ses propres yeux

to write with the right/left hand
écrire de la main droite/gauche

Interestingly, one of the roles that the preposition *à* plays when it occurs in a sentence is that it introduces 'un complément de moyen' (e.g. *écrire au stylobille*) unless the preceding verb embodies this notion (e.g. *utiliser un couteau*). This is to say, “les verbes dont le signifié inclut la notion de «moyen» se construisent directement avec leur complément instrumental (utiliser un couteau), tandis que ceux dont le sens ne suppose pas intrinsèquement ce sème se construisent indirectement (se servir d'un verre)” (Lavieu, 2004: 244). Moreover, Lavieu (2004) poses a question to which she finds no answer: What is the difference between *à* and *avec* in a construction like *planter un arbuste à la pelle/avec une pelle?* nor does she find the reason for using *par* and *en* in, for example, *régler par carte bleue/en espèces*. She says: “on ne sait pas ce qu'implique la différence entre *régler par carte bleue* et *régler en espèces* : dans les deux cas, il s'agit bien d'un complément de moyen (on parle ailleurs de *moyen de paiement*)

mais rien n'indique pourquoi le premier se construit avec *par* tandis que l'autre se construit avec *en*" (ibid. 244). There is a similar alternation in English (e.g. *to pay by cheque/in cash*).

Cadiot (1991), while talking about symmetrical verbs, says that verbs followed by *à* indicate inequity: the two notions do not have a reciprocal relation nor do they share similar characteristics. Thus, certain characteristics in (b) are attributed to (a) as in: *Comparer une maison à un chateau. / Compare a house to a castle.*

(a) (b)

However, *avec* is used when (a) and (b) share certain characteristics or if they fall under the same category, that is, they are not opposed notions as in:

Associer le courage avec la prudence. / Combine courage with wisdom.

(a) (b)

We also note that English and French do not express possession similarly. In addition to the verb + preposition construction *être à/appartenir à* (belong to), French expresses possession with:

- *à* after a possessive adjective + noun: it stresses the pronoun for emphasis or clarification of ownership:

  C'est ma voiture à moi.
  This is my car.

  C'est un ami à moi.
  He is a friend of mine.

- *de* preceding a noun:

  Je vais acheter la voiture de mon voisin.
  I am going to buy my neighbour's car.

J'aime toutes les chansons de Johnny Halliday !
I love all Johnny Halliday's songs!

With respect to spatial prepositions, meaning correspondence between English and French locative prepositions is not absolute because “these two languages do not always conceptualise the objects involved in a scene in the same way”, and this explains the difference in the way that each language expresses a spatial relation, Japkowicz and Wiebe (1991: 153) state. In their discussion of a system of translation of locative prepositions between English and French, they conclude that the ideal meanings of the locative prepositions they studied are the same in both languages (sentence (a) below), yet the correspondence between them may seem arbitrary (sentence (b) below). They concentrate on the translation of the three prepositions *in*, *on*, and *at* into French (dans, sur, à) in the context of simple sentences:

a- *The glass is on the table.*
Le verre est sur la table.

b- *Our professor is on the bus.*
Notre professeur est dans le bus.

Japkowicz and Wiebe (1991: 154) suggest: “While in the most representative uses of locative prepositions, there is a direct correspondence between English and French ('in' corresponding to 'dans', 'on' to 'sur', and 'at' to 'à'), in many cases, this correspondence does not hold”. They base their argument on:

- Herskovits' (1986) concept of the “ideal meaning” of a locative preposition which is inspired by Rosch's (1977) prototype theory. “*Protoypical* or *ideal meanings are* geometrical relations between the *located object,* the object whose location is being specified in the sentence, and the *reference object,* the object indicating the location of the located object”.

- Grimaud's (1988) contribution to the conceptualisation of objects in English versus French which is inspired by Lakoff and Johnson (1980) and Lakoff (1987) that takes into account the human biological perception and experience of the object or idea specified in the sentence. This is to say, objects have several properties (or aspects) and different languages might not choose to highlight and hide the same properties (or aspects) of a given object in a given situation.

In sentence (b) above, for example, while English conceptualises the bus as a surface that can support entities, by highlighting only its bottom platform (a relation expressed by the preposition *on*), French conceptualises the bus as a volume that can contain entities, by highlighting its bottom surface, its sides, and its roof altogether (a relation expressed by the preposition *dans).* While this interpretation seems logical to a linguist who takes into consideration the mental representation of objects with respect to different situations and language conceptualisations, it is not obvious to an L2 learner who is unable to synthesize the spatial relation of TL similarly because of unfamiliarity with its properties. This not only explains the difference in translation between English and French prepositions, but also the reason for some L2 errors. This also means that locative prepositions carry a lexical meaning, and objects given a particular situation in a language impose certain restrictions on the choice of these prepositions. “The appropriateness of a preposition for expressing a certain relation is determined by its ideal meanings” (Japkowicz and Wiebe, 1991: 155).

For translation purposes, the TL preposition should correspond to its SL counterpart while retaining the TL conceptual representation. More precisely, the reason why sentence (b) is translated into *Notre professeur est dans le bus* but not *Notre professeur est sur le bus* is because in the former, the professor is riding the bus while, in the latter, he is located on the roof of the bus. And this also applies to more abstract arguments. For instance, the prepositions *before* and *after* can express priority and are translated into *avant* and *après*

respectively in French. They can also be used to express ranking, but are not translated similarly: *before* (devant) and *after* (derrière).

"Even between two closely related languages such as English and French, locative prepositions of even simple sentences do not seem to be translated from one language to the other in a clearly systematic and coherent way" (Japkowicz and Wiebe, 1991: 122).

Apart from the lexical content, the reason for this functional disparity is that unlike English prepositions, French prepositions change their form depending on the number and the gender of the proper noun that follows. Besides, the choice of a preposition depends on the initials of nouns (a consonant or a vowel) and whether the noun it modifies is a country, a city, a region or a province, an island, a continent, etc. (Calvez, 2005: 177). This is to say, the choice of the French preposition varies in terms of the geographical place. For instance, the English preposition of direction *to* has five corresponding variants in French: *à*/*au*/*aux*/*à la*/*en* which can also be used as equivalents to the preposition of location or position *in.* In addition, four other variants (*dans le*/*la*/*l'*/*les*) can also be used as equivalents to *in.*

Surely, the lack of congruence between the two languages may cause confusion in SLA. While French expresses both dynamic and static functions in one preposition, English uses two different forms to distinguish between these functions. Evans and Tyler (1999: 15) address the "parallel mismatch" that is found between English and French taking the preposition *in* as an example: "The spatial relation described by the English preposition *in*, corresponds to at least three distinct prepositions in French, namely *dans*, *sous* and *sur* [...]". The meaning of the preposition changes with the changing context.

As for the description of motion events in French, we take the prepositions *sur* and *contre* as an example: "When the shock is deliberate or when the landmark is not likely to overpower the target, the French preposition *sur* is

preferred to the preposition *contre"* (Vandeloise, 2006: 146).

Both prepositions are translated by *at* in English:

*L'enfant jette des pierres sur (*contre) le chat.*
The child throws stones at the cat.

*L'enfant jette des pierres contre (*sur) le mur.*
The child throws stones at the wall.

Furthermore, *contre* cannot be used with intransitive verbs of motion or of manner of motion:

**L'enfant va contre le mur.*
The child goes up against the wall.

**L'enfant marche contre le mur.*
The child walks up against the wall.

Le forcené court contre le mur.
The madman runs up against the wall.

"This may be explained because verbs of motion describe the will of the mover and one does not move deliberately into an obstacle, except in the case of a madman" (Vandeloise, 2006: 146). He also implies that "the French preposition *contre,* like English *against*, has also symmetrical and asymmetrical static uses" (ibid. 147).

The pear is against the basket. (a symmetrical static exchange of energy since there is action and reaction between the pear and the basket)
The broom is against the wall. (an asymmetrical static/dynamic exchange since the wall overpowers the potential movement of the broom)

Therefore, the semantic content of French prepositions in general, and

spatial prepositions in particular, are quasi-similar but not identical to those of their English counterparts. Differences are more noticeable at the syntactic level, basically in terms of the formation of infinitives and gerunds, present/past participle, and compound nouns.
In the following section, we will see how each language conceptualises and expresses motion events.

II.2. Are motion events conceptualised similarly in both English and French?

To some extent, English and French share a great deal of lexical likeness, yet differ morpho-syntactically. And, when it comes to the expression of dynamic spatial relations involving motion, each language has its particularities. Both languages provide two types of lexical items to describe the motion of an entity with respect to a certain location: motion verbs (e.g. *to lift, to spin, to go*) and spatial prepositions (e.g. *up, round, towards*) . The term 'entity' “subsumes anything we might have occasion to refer to for analytic purposes: things, relations, boundaries, points on a scale, and so on” (Langacker, 1991: 21).

Motion implies the movement or displacement of an entity (Figure) through space (or Ground) i.e. an agent undergoing a change of spatial location from a source through a path to a goal. Talmy (1983: 232) characterises the notion of Ground and Figure as follows:

> “The Figure is a moving or conceptually movable object whose site, path, or orientation is conceived as a variable the particular value of which is the salient issue. The Ground is a reference object (itself having a stationary setting within a reference frame) with respect to which the Figure’s site, path, or orientation receives characterisation.”

Thus, the domain of physical motion provides four central conceptual elements

for potential encoding in language:

Figure: moving agent or entity (e.g. *a worm*)

Ground: an explicit feature of the physical environment serving as a source, medium or goal (e.g. *a cliff*)

Path: directionality followed by the Figure (e.g. *upwards*)

Manner: way in which the Figure achieves motion (e.g. *wriggling*)

When they are transitive, motion verbs are used directly with a reference location (e.g. *to sweep the floor*) and when they are intransitive, they are followed by a spatial preposition (e.g. *to jump over the stream*). French motion verbs are mostly intransitive (Asher and Sablayrolles, 1994), and the interaction between motion verbs and spatial prepositions gives a clue about the way speakers mentally represent spatio-temporal aspects of a motion situation. In other words, the choice of a verb and/or a preposition reveals one's mental cognitive representation. Natural languages convey the meanings of spatio-temporal change.

Speakers of typologically different languages conceptualise motion events in different ways, especially in an on-spot production (“Thinking for speaking” theory proposed by Slobin, 1996) including differences in spontaneous gestures. For instance, speakers of verb-framed languages use pure rotation or pure trajectory gestures to express manner only or path only. Speech and gestures are systematically organised in relation to one another (McNeill, 1992). Hence, languages vary typologically in terms of how they map lexical and syntactic elements onto semantic domains, notably in the expression of motion events (Talmy, 1985; Slobin, 1996). This could influence English and French speakers to organise their thinking and represent motion differently i.e. their conceptualisation processes are not alike.

Berman and Slobin (1994) elicited speech of children and adults in their first volume of “frog story” studies conducted on native speakers of different

languages (English and German (satellite-framed), and Spanish, Hebrew and Turkish (verb-framed)). Language-specific patterns suggest that the native language directs one's attention, while speaking, to particular ways of mapping and packaging information.

> "We began the study with an expectation that there was a basic set of semantic notions that all children would try to express by some means or other, whether or not grammatically marked in their language. [...] Before our data had taught us to attend to the quite different ways in which frog stories are told from language to language, we expected that German- and Hebrew-learning children would attempt to compensate for the lack of grammaticized aspect, that Spanish-learning children would attempt to elaborate the details of locative trajectories, and so forth. We were repeatedly surprised to discover how closely learners stick to the set of distinctions that they have been given by their language." (ibid. 641)

A prominent discrepancy was in the expression of motion events in children. Speakers of verb-framed languages used fewer manner verbs though they are available in their languages. According to Slobin (2000: 113), speakers of a verb-framed language lack "habitual attention to manner". Besides, speakers of a verb-framed language tend to use more path conflated verbs than manner conflated verbs. Adults' use of manner of motion verbs appears to provide a good sample of the overall narrative style of a language.

Berman and Slobin (1994) state that speakers of a satellite language devote a great amount of narrative attention to details of path and manner of movement compared to speakers of a verb-framed language. Therefore, their psycholinguistic readiness to express a number of path components in a single clause engenders a "narrative habit" of path elaboration. On the other hand, speakers of the latter group tend to give more attention to the description of scene setting (the physical environment in which motion events take place), leaving it to the listener/reader to infer path components.

“English expresses path motions (movement into, out of, etc.) in a constituent which is a 'satellite' to the main verb (e.g., a particle or preposition)”, Coventry and Guijarro-Fuentes (2008) say. Hickmann (2007) specifies that, in English, verbs encode the manner of motion and satellites encode the path of motion or spatial relations while in French spatial information is expressed in the verb root. Besides, the findings of her studies revealed that French-speaking children rely more on prepositional use whereas both English-speaking adults and children rely on verbal satellites and/or particles.

For Talmy (1985), a language can either be verb-framed or satellite-framed, but never both. This dual typological framework depends on how motion dimensions are structured in language. He defines the notion of “satellite” as “a grammatical category of any constituent other than nominal complement that is in sister relation to the verb root. The satellite, [...] can be either a bound affix or a free word, [...]” (Talmy, 1991: 486).

s'envoler (fly away)
s'écouler (flow out)
s'enfuir (run away)

More precisely, English conflates motion (e.g. *to come/to enter*) and manner (e.g. *to walk/to dive*) in the verb. However, in French, verbs of motion describe the path of motion (without change of place) while manner (including change of place) can be added by a prepositional phrase, a gerund or an adverb. The largest class is the verbs of manner of motion (Levin, 1993: 264). For example, a set of contrasts (*jump, leap, bound, spring, skip, gambol, hop*) corresponds to a limited number of equivalent French verbs (*bondir, sauter, sautiller*) which does not distinguish between the manners of motion encoded in English. Satellite-framed languages are, therefore, richer in types of manner verbs than verb-framed languages.

According to Talmy's (1991) structural typology, path is the defining conceptual

element of motion (the core schema) while manner constitutes a supporting piece of information.

> "Since the figural entity of any particular framing event is generally set by context and since the activating process [the motion] generally has either of only two values, the portion of the framing event that most determines its particular character and distinguishes it from other framing events is the schematic pattern of association with selected ground elements into which the figural entity enters. Accordingly, either the relating function alone or this together with the particular selection of involved ground elements can be considered the schematic core of the framing event [...] the relating function that associates the figural entity with the ground elements among which the transition takes place constitutes the *path*. The core schema here will then be either the path alone or the path together with its ground locations." (ibid. 483)

Talmy's typology has been criticised because it is particularly designed to characterise lexicalisation patterns, so it cannot account for discourse structures because language use is determined by more than lexicalisation patterns (Slobin, 2004).

While English is largely known as satellite-framed, there is a controversial opinion as to the identity of motion verbs in French. Some hypothesize that they are satellite-framed, too: "[...] contrary to its widely claimed tendency to be a verb-framed language that expresses Path of motion in the verb, French can also express Path in a prefix revealing a satellite-framed pattern attributed to Germanic and Slavic languages" (Kopecka, 2006: 83). A purely structural typology is not sufficient as a reliable index of motion lexicalisation in French because it is more complex in its treatment of motion encoding than assumed so far. This complexity is partly due to the quantitative variability of means available to lexicalise motion events, as well as to the qualitative variability of those means in terms of acceptability.

If the first hypothesis is true (i.e. English is satellite and French is verb-framed), then this could explain the difficulty of SLA as it impacts the learner's

spatial acquisition and expression, rendering motion verbs (prepositional verbs, phrasal verbs, and/or verb + particle) problematic. Consequently, L2 learners either resort to word-for-word translation or they insert an unnecessary preposition (particle) hoping it would describe the meaning of the target motion situation while being unaware that erroneous use could alter meaning. Language acquisition in its early stages is characterised by the inability to attain more than one goal at a point or the inability to target all aspects at once. As far as spatial prepositions are concerned, Coventry and Guijarro-Fuentes (2008), in their analysis of a study conducted on 60 adults who had learned English as L2, conclude that "extra-geometric variables in L2 may be focused upon later in acquisition, and that this aspect of spatial language is particularly hard to master".

Let us consider the use of the prepositions *in* (expressing position) and *into* (expressing direction) by French learners: In the findings of our corpus analysis, we notice that while depicting a dynamic relation, almost all learners use *in* where *into* is required (see examples in section V.4.6., page 259). What is the reason for this replacement? "In contrast to English, which marks the contrast between a target *in* a container and a target *into* it, French uses *dans* in both cases" (Vandeloise, 2006: 142).

A more complex structure, known as motion verb complex, is verb + spatial preposition 1 + spatial preposition 2 (e.g. *to go out onto the balcony* (sortir sur le balcon)). The interaction of the verb with the preposition(s) results in new properties that neither belong to the verb nor to the preposition(s). Hence, meaning (displacement from initial to final location) is implied in one unit (one verbal clause). Thus, both items are necessary for message/idea completion.

English and French structure space in the same way irrespective of the lexical items. In English though the spatial preposition following a motion verb contributes to the precision of meaning, thus enabling speakers to encode motion

and path components within one mental processing unit. This is probably the reason why French learners of English have difficulties in describing motion events.

How do learners construe an image and describe it in words? What mechanism do they employ? According to Coventry and Guijarro-Fuentes (2008), “the goal of the language learner is [...] to bind linguistic and perceptual information (e.g. visual routines) together in order to map language onto meaningful events”. Our experience and knowledge of the world, the surrounding objects and the way in which they react and interact make us form visual categories or spatial scenes (an abstract representation of a recurring real world spatio-physical configuration mediated by human conceptual processing (Tyler and Evans, 2003: 50)). Hence, one relates new situations to stored visual memory of space. Since spatial particles can code for orientation, speakers extend meanings via correlations in experience to represent distinct and conventional meanings.

In terms of the semantics of dynamic spatial relations, the use of prepositions differs according to the relation between the moving entity and the reference point. We distinguish between path of motion (a passage towards the interior, the exterior, the top or the bottom), path of localisation (the initial or final position of the moving entity), and path of trajectory (whether it is incorporated with the reference point or not).

It has been noted that English and French are typologically different, that is why the packaging of motion events, basically in terms of manner and path components, is different in each language. This leads us to the hypothesis that speakers conceptualise the spatial scene differently.

What we are more interested in are the conceptual processes of French learners in the production of L2. It seems that they have difficulty adapting to a

new typology: (i) being distinct and (ii) being themselves unacquainted with L2 lexicalisation patterns (meaning and form). Their linguistic representation is influenced by the use of the same narrative strategies as in L1, so translation does not always prove successful because of the lack of semantic conformity between L1 and L2.

Therefore, to describe a motion situation effectively in TL, learners should be aware of its different aspects, but if they do not share the same perception of the world, it will be difficult to express identical meaning. The English verb *clamber* (meaning to climb, move, or get in or out of something in an awkward and laborious way, typically using both hands and feet), for instance, can only be translated into *grimper* in French, the closest possible but not identical meaning! On the other hand, the French verb *escalader* is translated into *climb/clamber on a cliff*, so the difference in meaning might be difficult to render in English, and this does not necessarily mean that one language is richer than another. In other words, there is no one-to-one correspondence between English and French verb meanings.

Not surprisingly, speakers of a verb-framed language who conceive motion events differently cannot elaborate mental imagery the same way speakers of a satellite language would. They lack both the mechanism and the tools and, above all, the conceptualisation. English conflates manner and motion in the main verb whereas French conflates path and motion in the main verb. Hence, French learners may face a double challenge: acquiring manner verbs of motion which do not exist in L1 as well as the corresponding spatial satellite for expressing path motions which altogether form a verbal clause.

We do not posit that learning a second language which is typologically different from the learner’s L1 changes a learner's habitual attention to the different aspects of a motion event. On the other hand, we cannot deny that language shapes one's thought by forcing us to pay more attention to certain

aspects of an event due to the need to encode the implied meaning in linguistic forms. At the same time, we do not want to question if learners can or cannot be trained to do this. “As a general caveat, it should be remembered that typological characterizations often reflect tendencies rather than absolute differences between language” (Berman and Slobin, 1994: 118).

It is commonly expected that learners who stay longer in the target language environment tend to be more proficient in that language. The greater the discrepancies between the mother language and the second language, the more one encounters difficulty in producing native-like utterances.

To show that human cognition is not determined by languages and that despite their differences, speakers perceive the world similarly, Berlin and Kay (1969) suggest the theory of universal color perception, yet they do not claim that this invalidates all claims for linguistic relativity. Different languages do not differ in the way they view colors, despite some color terms being present in some languages, and absent in others.

An opposing view represented by the Universal Grammar approach treats language as a separate module in the mind, independent of other aspects of general cognition (Mitchell and Myles, 2004), thus causing no change in the speaker's way of thinking. This approach has been elaborated by Jackendoff (2002) who speculates that thought and concepts do not depend on language despite the fact that some concepts might be easier to access in certain languages more than others. Meaning is invariable despite the variant linguistic forms. Berman and Slobin (1994: 624) conclude that “if a linguistic form is highly accessible, its functional development may be accelerated”.

Does L1 shape the perception of L2 linguistic forms? What are its effects on non-linguistic cognition? To what extent can learners deviate from the L1 norm and mirror the L2 norm? There is no one straightforward answer to these

questions because the structure of language is still far from understood despite decades of research by a whole community of linguists. For Slobin (1996), online organisation of the flow of information and attention to the particular details differ depending on the language one speaks. Moreover, Choi and Bowerman (1991) argue that children do not map spatial verbs directly to nonlinguistic spatial concepts, rather they are guided by the semantic organisation of their language, suggesting that spatial relations are learned through language. Choi et al. (1999) suggest that young children are more flexible in comprehending different spatial relations, but adults become less sensitive to those spatial relations that are not systematically encoded in their native language, thus confirming the power of language to shape thought.

Therefore, our attention to certain aspects of a situation seems to be influenced by the structures of our first language, and some of our non-linguistic concepts (e.g. spatial concepts) are probably learned through language. Describing human language and cognition is hard especially as “each individual language [has its own fashion] in shaping its own world of expression, while at the same time representing but one variant of a familiar and universally human pattern” (Berman and Slobin, 1994: 641).

Motion events are not always expressed similarly in L1 and L2, but the question is: Is the difference at the linguistic level (i.e. L2 learners learn the linguistic forms to express a motion event without necessarily any difference at the cognitive conceptual level) or at the cognitive conceptual level (i.e. L2 learners become aware of the information that is not needed in their L1 but needed in L2)?

Evidently, L2 has some effect on the way learners describe motion events, yet the complexities of human languages and thinking leave this question unanswered because studies – that do not usually consider language proficiency – have so far been based on linguistic and curricular (but not non-linguistic)

tasks, so it is unclear whether such an effect is at the linguistic or conceptual level.

Berman and Slobin (1994: 640) propose, however, that “frequent use of forms directs attention to their functions, perhaps even making those functions (semantic and discursive) especially salient on the conceptual level. That is, by accessing a form frequently, one is also directed to the conceptual content expressed by that form”.

Chapter III: LANGUAGE ACQUISITION AND PREPOSITIONS

In this chapter, we give a brief account of L2 acquisition and language learning strategies, in general, and the acquisition of prepositions, in particular. We highlight different factors that enhance or impede mastery of prepositions by French learners of English like spatial perception, language specificity, fossilization, and English as a linguafranca. We also attempt a classification of the most problematic type(s) of English prepositions.

III.1. Language acquisition

Learners' language systems are in continuous development and their performance is a means of testing their knowledge of the TL structure, so learners are seen as investigators who test out hypotheses. Corder (1981) suggests three key factors that form together the learner's hypotheses and comprise what he refers to as the learner's “interlanguage background” where the learner's errors are evidence of this interlanguage system and are themselves systematic, unlike mistakes which are unsystematic deviations. These three factors are:

- the experience that the learner brings to L2 language learning;
- the current data to which the learner is exposed; and
- the learner's language acquisition strategies.

Distinguishing between acquisition and learning is important notably in the context of L2. For instance, Krashen (1988) underestimates the “learned system” compared to the “acquired system” which he claims is the product of a subconscious process similar to that undergone by children as they acquire L1: Acquisition requires meaningful interaction in the target language – natural communication – in which speakers are concerned not with the form of their utterances but with the messages they are conveying and understanding.

Learning is a conscious process, usually linked to in-class instruction, so it requires effort and attention whereas acquisition is incidental demanding no or little conscious effort as is the case with children who progress and increase their mastery of their mother language without the conscious intention of discovering the structural rules of the language.

Despite this distinction, whether learned or acquired, language – like sciences – requires dexterity and knowledge regardless of its source. Undoubtedly, mastering its various components naturally and/or subconsciously would be quite demanding. For instance, consider the polysemy of prepositions and the countless phrasal verbs, not to mention the idiomatic expressions containing phrasal verbs! For a definition of polysemy, we refer to Lakoff (1987: 416-419): when a linguistic form, not only words, has a range of distinct meanings and senses.

According to Richards and Sampson (1974), the learner's language may vary according to the following seven factors, which are all the result of social, psychological and linguistic interactions that accompany the natural process of language learning:

- language transfer and the prominence of L1 interference in L2 utterances;
- intralingual interference and generalisations or rules derived by the learner based on partial exposure to L1;
- sociolinguistic situation and setting in which L2 is learnt and the tendency for simplification based on communication needs;
- modality of exposure to the target language and the modality of production;
- the possible impact of age on the sequential acquisition of language(s);
- lack of stability of the learners' approximative systems due to the continuous development of L2 knowledge; and
- the inherent difficulty of learning, understanding and producing certain forms which are inexistent in L1 (phonological, syntactic or semantic)

irrespective of the learner's background.

"[G]iven motivation, it is inevitable that a human being will learn a second language if he is exposed to the language data" (Corder, 1981: 8). This is to say, motivation is an essential element in the acquisition of language irrespective of one's ends (passion for the language(s), work, studies, tourism, etc.). Krashen (1988: 23) links personality with language acquisition and production: "Personality factors are interrelated with motivational factors. […] Traits relating to self-confidence (lack of anxiety, outgoing personality, self-esteem) are thus predicted to relate to second language acquisition". Learners' needs, which are usually difficult to quantify, are also to be taken into account in SLA. "Psychologists have related the types of language learning achieved to the role of the language in relation to the learner's needs and perceptions" (Richards and Sampson, 1974: 7).

Selinker (1972) lists five processes, which he hypothesizes are "central" to L2 learning and are all responsible for the reappearance of fossilized items in learners' utterances, and they are as follows:

- language transfer: carrying over L1 rules and items into L2 and maintaining fossilization in interlanguage productive performance irrespective of one's age or the amount of instruction received in the target language. For example, in French, the pronoun *il* is used with animate and inanimate objects, so learners tend to use *he* in English to mean man, animals and things. The difference between L1 and L2 is thus a main reason for learners' errors, leading to fossilization. Transfer of L1 rules can be positive or negative: While positive transfer (i.e. similarities between L1 and L2) enhances SLA, negative transfer (i.e. differences between L1 and L2) slows it down and engenders learning difficulties.

- transfer of training: carrying over identifiable items in training procedure (teaching method or textbooks) into L2 despite later awareness of their

faultiness. Selinker refers to a subconscious strategy of L2 learning called "cue copying". He takes as an example Serbo-Croation speakers who, at all levels of English proficiency, have difficulty distinguishing between the pronouns *he* and *she* because their instruction materials almost always present drills with *he* and never with *she*. This is to say, learners use the "copy the cue" strategy.

- strategies of second language learning: these are particular strategies, which are "probably culturally-bound". They are created to facilitate the comprehension, retention, use or production of language items and rules, remembering that "little is known in psychology about what constitutes a strategy, and a viable definition of it does not seem possible at present. Even less is known about strategies which learners of a second language use in their attempt to master a TL and express meanings in it" (Selinker, 1972: 41).

  According to Sims (1989), inappropriate or misapplied learning strategies could lead to the fossilization of certain phonological, morphological, syntactic, lexical, psycholinguistic, or socio-cultural features. Besides, the repeated use of unsuccessful strategies could inhibit a learner's progress. On the other hand, the appropriate application of learning strategies helps process the TL input and therefore improves L2 learning quality.

- strategies of second language communication: fossilization resulting from particular strategies employed by L2 learners while communicating with native speakers. When a learner encounters difficulties in expression, he/she skillfully employs particular communication strategies or strategic planning, like reducing the message or paraphrasing, to maintain the communication. Yet, this could sometimes be at the expense of language progress because such successful use of communication strategies will prevent acquisition (Ellis, R. 2002).

- overgeneralisation of TL linguistic material: If the fossilized items, rules, and subsystems are a result of a clear overgeneralisation of TL rules and semantic features, then we are dealing with the overgeneralisation of TL linguistic material i.e. learners apply 'learned' rules to new situations and forms where there are exceptions, for instance, **in the noon* (in reference to *in the morning*/ *evening*/ *afternoon*).

On the other hand, it is hard to be sure when a language learner is resorting to overgeneralisation, strategy of second language learning or strategy of second language communication, so these three processes cannot be easily distinguished in practical terms. In the absence of timely instruction and correction, learners unconsciously continue to make the same errors and to extend them to new TL forms, hence errors are stabilised, and may later become fossilized. Selinker (1972: 41) attributes the reappearance of interlanguage errors to psychological factors connected with “anxiety, shifting attention, and second language performance on subject matter which is new to the learner”.

III.1.1. Language learning and communication strategies

In his definition of language learning strategies, Rubin (1987: 22) states that they “are strategies which contribute to the development of the language system which the learner constructs and affect learning directly”.

According to Oxford (1992/1993: 18), they are

> “specific actions, behaviours, steps, or techniques that students (often intentionally) use to improve their progress in developing L2 skills. These strategies can facilitate the internalization, storage, retrieval, or use of the new language. Strategies are tools for the self-directed involvement necessary for developing communicative ability.”

In his paper “Interlanguage”, Selinker (1972) was the first scholar to evoke the notion of communication strategy in his classification of certain errors produced by L2 learners. For him, the interlanguage in L2 learners’ speech productions is and should be considered acceptable, being an attempt to express oneself orally without necessarily a good command of the target language system.

Language learning strategies fall into subdivisions like cognitive, metacognitive, memory, compensational, affective, social and communication strategies. What interests us the most here is the latter in which learners' use of language is “self-directed” and intentional, aiming at communicating in L2 regardless of any/all difficulties (Bialystok, 1990). According to Cohen (1990), only conscious strategies are language learning strategies. Faerch and Kasper (1983: 36) describe communication strategies as being “potentially conscious plans for solving what to an individual presents itself as a problem in reaching a particular communicative goal”. Ellis, R. (1994: 396) distinguishes between two types of communication strategies: (i) strategies used in communication as a discourse process (a two-way interaction so as to achieve the communicative goals through conversation maintenance and a clear exchange of the intended meaning), and (ii) strategies used as a cognitive process (expressing what is going on in the speaker's mind so as to carry on and “retain the communicative intent”).

Nonetheless, the cognitive process involves different communication strategies and tactics that L2 users come up with or rely on to make themselves understood and to maintain clear speech. That is why they usually prioritise the content (message), but not the form (sentence structure). Achieving continuity and spontaneity of speech is then the learners' main concern to the detriment of many other elements, mainly grammar and pronunciation. They may shorten their speech so as to avoid mistakes, lexical obstacles or any possible

ambiguities.

In this respect, Corder (1983), for example, talks about message abandonment strategies, i.e. saying little or nothing about a topic that one does not know much about. Communicative strategies also depend on the speaker's and the interlocutor's language knowledge about the discourse topic, remembering that both L1 and L2 speakers use strategies. Yet, they are less apparent in native speakers while some others are simply unaware of the strategies they use (ibid. 15).

Faerch and Kasper (1983) talk about achievement strategies, i.e. deploying linguistic and non-linguistic forms in order to be understood. The learner may appeal for assistance in face-to-face conversation, yet in unpaired conversation like public speaking, he relies more on body language and interlingual transfer. L2 learners “consciously” and/or “unconsciously” set plans in their minds – with varying degrees from one learner to another – when they anticipate or confront linguistic problems. And the degree of strategy use is influenced by a number of factors like motivation, gender, age and cultural background. Consequently, if problems appear in “the planning stage”, they may change their communicative goal and avoid developing the topic (formal reduction strategy) and if they arise in “the execution stage”, they may simply stop in mid-utterance and give up talking (functional reduction strategy).

Irrespective of the strategy(ies) used, the learner's primary goal is better communication in L1 or L2. Gestures, miming, rephrasing oneself, interlanguage interference or conscious use of L1 terms, asking for clarification, reassurance or assistance, repetition, chunking, pausing for reflection, resuming and then halting a conversation are cognitive and/or interactive strategies that can together diminish one's verbal-linguistic problems at the moment of speaking.

Undoubtedly, similar or supplementary strategies are used in written

contexts, but the task is far less demanding, mainly because the alloted time leaves room for reflection, correction, and substitution. Hesitation and confusion here are not noticeable as there is no instantaneous evaluation by the hearer, and the element of “challenge” or “stress” is less evident. Despite linguistic difficulties or insufficiency in linguistic competence, ideas flow with fewer constraints, but not necessarily with more correctness. Most important here is that blockage is less humiliating and the stress overload of pronunciation is absent.

In oral production, however, when learners are exposed to new situations or contexts and they fail to transmit certain ideas or to explain what is going on in their minds, body language automatically substitutes for words. Acting out and miming are then forms of human communication for clarifying one's thoughts. Though cognitive learning is rather concerned with emotions than with motor movement, learners create or make deliberate or unconscious use of past actions in other similar contexts.

Generally, L2 learners tend to gesture more than monolinguals (Pika et al. 2006) to assure speech delivery, mainly in improvised discourse. Others (like Alibali et al. 2000) associate the use of gestures with the difficulty of the task. On the other hand, monolinguals use more gestures/body language while conversing with a non-native speaker, especially if the latter does not have a good command of L2. The objective of a successful communication in any language is, thus, making use of all “modalities” – speech, voice, gestures, smell, touch, etc. This is what semiotics is all about; the “totality” of these actions and composite emotions allow for the transmission of the reported message.

Learners tend to deploy non-linguistic forms in instances of hesitation or failure to use the correct preposition and/or particle for indicating direction, movement, position, etc. For this, language communication strategies can be responsible for the reappearance of fossilized items in L2 learners' utterances. In

the following sections (sections III.2. to III.8.), we will shed light on the acquisition of prepositions and certain interrelated factors that are likely to give rise to learning difficulties.

III.2. Acquiring prepositions

"Prepositions are generally troublesome to the learners for whom English is a foreign/second language" (Celce-Murcia and Larsen-Freeman, 1999: 401). Even advanced language learners experience difficulty with prepositions, especially their non-spatial uses (Lindstromberg, 1998; Celce-Murcia and Larsen Freeman, 1999).

Generally, confusion in prepositional choice is one of the most salient language learning problems. Particularly, many L2 learners and teachers have difficulty acquiring and teaching the usages of English prepositions. Celce-Murcia and Larsen-Freeman (1999: 401) note that "in their spatial meanings, prepositions do not match up well from language to language". For example, a construction like *the longest river in the world* corresponds to *la plus longue rivière du monde* in French.

On the other hand, in terms of the use of verb + preposition/particle construction, Celce-Murcia and Larsen-Freeman (1999: 434) suggest that native speakers of English may prefer a two-word verb like *put off* to its Latinate counterpart *postpone* because the former is considered less formal, although they cite evidence from Cornell (1985) that two-word verbs are "not absent from formal discourse" in English. French learners, however, are more likely to recognise and retain form-meaning patterns with "concrete attributes".

"One factor that has been shown to encourage the learning of abstract categories is shared concrete similarity", Goldberg and Casenhiser (2007) say.

This could explain the fact that learners have a greater tendency to acquire and use synonyms of phrasal verbs. Thus, we consider phrasal verbs the “abstract categories” that do not usually signify explicit meaning especially when they stand on their own, unincorporated into a text. We assume that it will be easier for learners to retain and use a verb formed of one item (e.g. *to perform*) than a verb formed of two or more items (carry something out) in order to avoid any possible confusion with other formations of the same verb like *carry on/over/*etc. Yet learners are not aware that these forms are not always interchangeable. For instance, sentence (a) cannot be used interchangeably with (b), where another verb (sentence (c)) is more equivalent:

a. *They carried out a survey.*

b. *?They performed a survey.*

c. *They conducted a survey.*

This applies to prepositions in general. The more prepositional categories have concrete representations, the more they are comprehensible. For instance, sentence (a) below is easier to understand compared to (b):

a . *This is me with the woolly hat on*. (physically in contact with and supported by a part of the body)

b. *The drinks are on me*. (paid for by someone)

Moreover, characterising the semantics of prepositions constitutes another problematic point. This is notably the case with quasi-similar pairs like *above/over, below/under, to/for* which can sometimes be used interchangeably, yet can have different indications in other instances depending on the relation between entities as can be seen in these examples:

A display of fireworks above Paris. (in extended space over and not touching)

We saw flames over Paris. (extending directly upward from the city)

Despite recognised difficulties associated with learning and teaching

prepositions, there is not one and only one approach that provides adequate clues towards facilitating their comprehension by L2 learners. How many learners have not questioned: Is it more correct to say: *Save the document into/onto the computer*? Or why is it that we say: *at/on the weekend(s)* but not **in the weekends*? And why do Americans say: *contact me at this number*, but the British say: *contact me on this number*? (The latter example is taken from the *Cambridge Advanced Learner's Dictionary*). Variations in the use of prepositions are not always explicable as is the case in the aforementioned examples.

III.3. Spatial perception

Research on the acquisition of English as L1 ascertains that prepositions appear quite early in children's language (Brown, R. 1973). At the same time, systems of spatial prepositions vary significantly between languages. Yet, according to Bowerman (1993), there is a link between general cognition involving spatial relationships and language. For her, spatial cognition refers to the knowledge of the space either as a continuous and homogeneous entity or as discrete spatial categories such as location, direction, distance and depth of objects. She also postulates that children learning L1 are biased in terms of the organisation of their semantic space. In this context, Choi and Bowerman (2001) provide experimental evidence that children learn to shape the world around them in accordance with the spatial metaphors in the language they are learning. As an example, English and Korean children at the age of 20-22 months and older differ in many ways in how they conceptualise spatial orientation and spatial relations between objects. Amongst the differences are that:

- English-speaking children distinguish between concepts like “support and contact” vs. “containment”, yet this distinction does not appear in Korean spatial terms.
- Korean children distinguish between spatial concepts like “tight fit” and “loose fit/no fit”, i.e. they would use the same term to describe the act of

putting a lego onto a stack of legos and *putting a book into its sleeve* (tight fit), and they would use different terms to describe the act of *putting a lego onto a stack of legos* and *putting a book onto a desk* (loose fit). Yet, English-speaking children do not make this distinction as it is not widely found in the English preposition system.

As for adult non-native speakers, Bowerman (1993) claims that their perception of spatial relations is influenced and shaped by their mother language because children start learning the “cleavages” of their language at a very early age, and those get encoded in a semantic categorisation scheme particular to each language. According to Lakoff and Johnson (1980), such a well-established cognitive system would have some influence on the new language the speaker is learning. For this, a non-native speaker tends to express an abstract relationship between two entities in concrete terms, hence, using a spatial preposition. The following example *We have some problems in our English* used by Celce-Murcia and Larsen-Freeman (1999: 263), in which the spatial preposition *in* is used instead of *with*, exemplifies an abstract relationship *in/with regard to*, so L2 learners tend to process the relationship between *problems* and *English* as spatial and, as such, abstract concepts are thought of in concrete terms.

Moreover, Ijaz's research on lexical acquisition (1986) shows that advanced L2 learners of English configure their conceptual understanding of the semantic space underlying spatial prepositions in English differently from those of native speakers. Yet, according to her analysis, the judgments of native and non-native speakers were similar in regard to the prototypical meanings of spatial prepositions, so the findings of her study are consistent with Kellerman's (1979) who states that spatial relationships may be more prototypical than abstract ones based on the findings of his experiment with Dutch speakers of English. However, the differences, Ijaz observes, were more striking in regard to the use of spatial prepositions in contexts involving non-central meanings: “noncentral members of semantic categories were classified differently across languages,

whereas typical members were not." She shows that German and Urdu speakers tend to overuse the preposition *on* in contexts involving motional, similar meaning (expressed by *onto, upon)* although both languages have direct equivalents for prepositions in similar contexts. Therefore, she stipulates that "the use of 'on' in these contexts [...] appears to have been the result of a simplification strategy" (ibid. 438). This "simplification strategy" is based on Kellerman's (1979) idea of "prototypicality" which posits that the non-central meanings would be less transferable from L1 into L2. In this context, too, Coleman and Kay (1981) imply that the "prototypicality principle" underlies the meaning structure of polysemous words and that category membership of instances can be determined by the judgment of language users, so learners are "decision-makers".

A recent contrastive corpus-based study of French/English acquisition of prepositions by Kochan et al. (2008) has observed the emergence and development of prepositions in children at the ages of 1 to 3 years in spontaneous dialogue. Their quantitative observations of emerging prepositions show that French and English children's first uses and production of prepositions are not alike: English children use more spatial prepositions than French children, who mainly use functional prepositions. And while French children use prepositions as tools to justify actions and disambiguate intentions, English children use "free preposition-like morphemes that do not always have a prepositional syntactic function in child speech and could well belong to the category of verbal particles" (ibid. 147), for instance, using *up* and *down* as verb-like (Kochan et al. 2008: 145) and holophrastic (a term used by Tomasello, 1992) prepositions such as:

a- An English-speaking child wants to go upstairs:
Child: yy (cries) /ap/
Adult: Can you use your words please?
Child: *Up*,
Adult: Up?

Child: *Up*,
Adult: Up. Oh gotta go / we'll go up later.

b- French-speaking child trying to get onto a sofa:
Child: Aide [?] *monter*,
Adult: Tu veux pas le livre avec toutes les photos là?

However, since there is no clear agreement on the nature of prepositions i.e. lexical or functional or both, and which ones are colorful and which ones are empty (see section I.2.), it would be pointless to firmly ascribe the (difficulties associated with the) acquisition and production of English prepositions in L2 to their semantic and/or grammatical properties.

What factors determine the acquisition of (spatial) prepositions: cognitive or linguistic? Many are the elements involved in this two-fold question. We indicate some of them which will be further developed in this section: frequency of use and exposure to L2, analogous forms and functions, incidental learning, etc.

Spatial meanings in almost all languages share universal concepts which are expressed in each (e.g. notions such as containment, attachment, superadjacency, subadjacency, and proximity). Therefore, language use and relative likeness between the thematic role and function of prepositions provides some good grounds, but not solid enough, for the acquisition of prepositions, which is slowed down by factors like language specificity and typological differences (e.g. satellite-framed versus verb-framed). Confusion arises the more we abandon the core meanings associated with each preposition and we encounter abstract uses, especially when certain occurrences are untranslatable.

Moreover, form similarity and lexical proximity (nouns, verbs, adjectives, etc.) which are either partly or fully analogous in both languages (e.g. *création* (creation), *créer* (create), *créatif*/*ive* (creative)) facilitate the acquisition of TL

words. Hence, we argue that non-analogous prepositions in English and French in terms of form, in addition to other factors like polysemy, idiomaticity and multi-functionality, could be an additional reason for confusion and errors. L2 learners are, thus, lost between non-comparable forms and non-compatible meanings, especially in the case of rare prepositional uses. In other words, a locational preposition like *under* as in *under (the) law* (selon la loi) not occurring frequently in context does not give easy clues for comprehension.

Spatial prepositions are highly frequent within both spoken and written language (Carter and McCarthy, 1997), so this could increase learners' chances of familiarising themselves with different senses and occurrences. Yet, learners are also aware that there is not one rule to understand their (non-salient) meanings and uses which range from the concrete to the abstract, from the frequent to the less frequent and from the functional to the metaphoric and idiomatic.

Is there a relationship between the acquisition of polysemous senses of a preposition and frequency? Can we suggest that the more learners are exposed to the sense of an item and to its contextual use, the more they are likely to learn it? In his analysis of the interrelation between “transferability judgments” of native Dutch speakers learning English and “coreness” of meaning, Kellerman (1986) explains that the subjects were more likely to judge a word transferable to English when they perceived the usage to be prototypical. In particular, he links similarity of a word in usage to its prototypical sense and frequency of occurrence in everyday speech. These are key factors in learners’ transferability judgments as far as polysemous words are concerned.

Frequency of use or exposure raises another question: Is indirect learning through context or learning through direct teaching more influential in first language acquisition? What about second language acquisition? Indirect learning through reading has been the focus of many studies because of its assumed

influence on vocabulary learning during first language acquisition. For instance, Nagy et al. (1987: 261) asked their subjects in grades 3, 5, and 7 to read 1000-word narrative and expository reader selections containing fifteen different repeated words. They claim: “Our results demonstrate beyond a reasonable doubt that incidental learning of word meanings does take place during normal reading”. Herman et al. (1987) too found that learners acquire more words incidentally after they have asked subjects in grade 8 to read an original or a revised version of a science textbook excerpt. They also suggested that a word needs to be encountered twenty times to be learned. Yet, Saragi et al. (1978), who required their L2 subjects to read a novel and informed them that they would be tested on its content, argue that for a word to be learned incidentally it needs to be encountered six times or more. Hence, estimates differ in this respect.
Apart from learning through reading, Milton and Meara (1995), whose longitudinal study included 53 ERASMUS subjects, propose that in a second language environment learners could acquire round 2500 words a year, of which a large percentage is learned incidentally. Hence, the acquisition of a native-like vocabulary size in L2 adult learners is achievable.

On the other hand, Jenkins and Dixon (1983: 243) say that only a small percentage of words is generally acknowledged to be learned via direct instruction: Direct vocabulary instruction seems to require a lot of time and energy. The investigations reported above agree that frequency of exposure is an important element in the learning process, but more research is needed to define the question of incidental learning.

In second language acquisition, reading is also said to result in vocabulary acquisition, with a variation in effectiveness between L1 and L2. In this respect, Krashen (1989) forms the “input hypothesis” which claims that “comprehensible input” may result in L2 acquisition where the focus is on the message but not on the structure. In Krashen's view, L2 learners can acquire the rules of the language (morphology) rapidly and enjoyably if we give the brain the same

conditions as those which helped them acquire the rules of their L1.

We hypothesize that if frequency of usage through input, i.e. reading and listening, is more likely to enhance vocabulary acquisition through emphasis on the message but not on the form, this could be at the expense of the acquisition of prepositions, which are said to have lexical but also grammatical properties. Yet, their prototypical and salient senses increase the likeliness of their learnability by L2 learners, i.e. plausible frequency of exposure is likely to have a beneficial effect on preposition learning.

Psycho-linguistic schools differ in the way they view SLA processing and progress. For instance, the Construction Grammar and phraseological approaches to language (Ellis, N.C. 1996; Pawley and Syder, 1983; and Sinclair, 1991) imply that much of communication makes use of fixed expressions memorised as “formulaic chunks” and that the phrase is the basic level of language representation where form and meaning come together with greatest reliability.

According to Long (1990), the developmental patterns of SLA suggest that L1 cognition transfers to that of the L2, sometimes facilitating L2 development, sometimes interfering with it. Besides, implicit learning is not sufficient for successful SLA and focus on form improves rate and ultimate L2 attainment. Language development is gradual and learners construct their system of L2 representation over considerable periods of time and language usage. Therefore, understanding the structure and the functioning of the prepositional system within the L2 language system is indispensable, or else one would not be able to interpret and configure the lexicographic representation of prepositional semantics.

According to Universal Grammar, all languages share a basic deep grammar and all language learners have the ability to access this grammar

innately without conscious teaching (White, 2003). Chomsky (1981) introduced the “Principles and Parameters” theory which postulates that Universal Grammar consists of a set of universal principles and a small set of parameters that are unique to human language. In other words, language-universal rules are referred to as “principles” and they require no language experience while language-specific rules are called “parameters” and they do require language input or primary linguistic data for their setting.

For this, when humans learn a second language, they either consciously or subconsciously change its rules, so they form an interlanguage grammar, and the mistakes they make are not random as they are rule-governed according to Universal Grammar. Hence, learners are accessing Universal Grammar to “reset” the parameters of their L1, according to White (2003: 16):

> “L2 learners are indeed assumed to have access to principles and parameters of UG (Universal Grammar). However, initially at least, access would be via the L1 grammar with the possibility of subsequent grammar restructuring and parameter resetting in the light of exposure to L2 input.”

Within the Principles and Parameters theory, the lexicon (the mental dictionary of lexical items or words with their linguistic properties) is divided into lexical category words (e.g. nouns, verbs, adjectives) and functional category words and forms (e.g. determiners, tense and aspect). Where do prepositions stand? Which category do they fit in?

This point raises controversy (see Chapter I, section I.2.) among linguists. Chomsky (1981: 48) denies the lexical character of prepositions. They are more like functional category words in that they comprise a closed class (Kortmann and König, 1992) that is in the range of 50 prepositions in total, with little or no tendency to coin new ones, and more particularly, they do not frequently accept derivational affixes (e.g. *-ing, -able, -ish*). On the other hand, for others, prepositions are regarded as a fourth lexical category (Jackendoff, 1973)

because of their intrinsic semantic content that makes an important contribution to sentence meaning (Langacker, 1987).

It can be seen, then, that prepositions do not conform to all of the typical features of items in either the lexical or functional categories. This has led some researchers (like Littlefield, 2005) to suggest that the category of prepositions ought to be divided according to the relative proportion of a preposition's lexical and functional features. This is to say, semantically rich prepositions ought to be classified as lexical, and others that serve primarily syntactic roles as functional.

Whether prepositions have lexical (contribute semantic content) and/or functional (merely assign case) properties, their forms, roles and senses are not necessarily the same in English as in French. The two languages differ in the way they represent spatial orientation and spatial relation. English verbs encode the manner of motion and satellites (prepositions or particles) encode the path of motion, but in French spatial information is expressed in the verb root. Besides, English prepositions express a contrast between a positional/locative meaning and a directional meaning using contrasting pairs (e.g. *at/to, in/into, on/onto*) while French prepositions may express both meanings using the same preposition (e.g. *à, en, dans, sur*). Even though language learners are accessing Universal Grammar while learning L2 (White, 2003), they are at the same time extending some L1 rules to the second language, a phenomenon known as "learning transfer" (Selinker, 1969, 1972).

The notion of "transfer", which is conceived of as negative with simplistic connotations, has been rejected by some scholars like Corder (1983), Faerch and Kasper (1986) , Kellerman (1986), and Sharwood-Smith (1986) who suggested other terms like "crosslinguistic influence":

- Corder (1983) rejects the term "transfer" which, he claims, belongs to the school of Behaviourist Learning Theory, so he uses instead "Mother Tongue Influence".

- According to Faerch and Kasper (1986: 58), crosslinguistic influence is most salient at the lexical level:

  "Content words are likely to be experienced as the semantically most important elements of an utterance and are often consciously chosen rather than automatically activated. Hence the language user will usually be aware of lexical gaps and initiate attended problem solving. Strategic transfer is theoretically possible at linguistic levels other than the lexical, but unambiguous examples are few in the literature on communication strategies."

- In Kellerman's model of crosslinguistic influence, there are three interacting factors in the determination of language transfer: a learner's psychotypology, how a learner organizes his or her NL; perception of NL-TL distance; and actual knowledge of the TL.

- Sharwood-Smith (1986) suggests the label "crosslinguistic influence" to indicate the potential influence of L3 on L2 and/or L2 on L1.

Moreover, with time and exposure, learners might gradually restructure their interlanguage grammars. The amount of exposure to L2, which is not similar to the amount that native speakers have, as well as age can in their turn be determining factors in SLA as they may cause lack of accessibility to Universal Grammar. That is, the ultimate attainment level in SLA is determined to a great extent by the age of first exposure to L2 (Birdsong and Molis, 2001: 235). It is argued that there is a lack of linearity and great variability in L2 attainment (Johnson and Newport, 1989). Learners exposed to the language in adulthood show, on average, a lowered level of performance in many aspects of the language, though individual variation also increases with age. Younger L2 learners, however, are more likely to become native-like speakers, so we hypothesize that language acquisition is blocked by age. It is necessary to take into account the possible effects of "maturational constraints" in order to

determine what can be expected from the learners' output. According to Hyltenstam and Abrahamsson's (2003: 567) findings, on average, the ultimate attainment of learners who begin at a very early age is native-like, and those who begin at a later age will continue to encounter difficulties and can hardly reach native-like proficiency. This could be attributed to various types of changes that happen at a certain age such as those related to identity, motivation, cognition, input and formal training.

On the other hand, others claim that in an institutional learning context, older learners are faster and young learners are better in terms of native-like acquisition and ultimate achievement. For instance, for Steinberg (1993: 215),

> "adult learners are more successful than younger learners because they know how to be students and have sufficient maturity to meet the rigours of a formal learning environment, where concentration, attention and even the ability to sit still for a long time, all play a role in learning."

Krashen (1987: 43-44) says:

> "It is not simply the case that "younger is better"; children are superior to adults only in the long run. […] Thus despite the simpler input directed at the younger children, it is likely that older acquirers actually get more comprehended input, and this may be the key factor in their faster initial progress."

Learning prepositions does not end with the end of one's studies. Kreidler (1966: 120) writes: "Anybody who has taught advanced foreign learners of English is aware that these abstract, chaotic functions of the prepositions remain as a stumbling block long after mastery of essentials has been achieved". It is a continuous learning process that becomes reinforced and habitual with frequency and compatibility of use, for instance, *in* generally indicates *containment*, *on* indicates *superadjacency,* etc. One applies one's own experiences with the spatio-physical world to construct similar phrases in similar situations and events.

For example, using *off* to mean 'so as to be removed or separated from' e.g. *They are knocking 50 euros off the price*, or to mean 'to be absent from' e.g. *I took a couple of days off work.*

This is to say, older learners are more likely to understand the structure and use of prepositions than young learners, who with time and frequency of use can achieve full mastery of prepositions.

III.4. Language specificity

Each language has its own set of rules. Besides, the mismatch as well as the inconsistency between English and other languages render certain aspects of L2 learning (like prepositions) sometimes problematic (Celce-Murcia and Larsen-Freeman, 1999), and may lead to language transfer. Therefore, “language distance” relates not only to actual but also to “perceived distance”. Corder (1978) proposes that the amount of transfer is determined by the perceived distance between L1 and L2. Kellerman (1979) also indicates that the perceived degree of similarity between L1 and L2 will strongly influence the extent of transfer. He argues that L2 learners' psychotypology (i.e. the learner’s perception of the TL and of its relation with and distance from one's L1) is not fixed, but is revised as they obtain more information about L1. In other words, “experience affects the provisional typology the learner is building up. This means that at any given moment certain NL (native language) features will be available for transfer to the given TL, and others will not be” (ibid. 49).

On the basis of the perceived distance, learners decide whether to go ahead and transfer those items that they perceive to be prototypical and potentially transferable. Thus, similarities and differences between L1 and L2 are seen as part of the variables for learners' decision-making. In Kellerman’s view, the degree of the predictable areas of transfer depends on both the perceived

distance between L1 and L2 as well as the organisation of L1 by the learner himself. Yet, the individuality of each learner also plays a role because each has his own knowledge and/or perception about languages which may vary or change during the learning process and with the acquisition of more forms and functions of L1. According to Corder (1978: 75), “interlanguage, particularly in its earliest developmental stages, frequently manifests various characteristics of the learner’s native language. However not all learners show consistent evidence of transfer from the native language and certainly not to the same degree across learners”.

In this respect, Rutherford (1982: 90) says: “If perceived distance is small [...] the learner will more readily transfer [...] but if perceived distance is large [...] the learner will be less inclined to transfer”. Kellerman (1978) also indicates that “perceived uniqueness” of certain expressions or elements in L1 can also impact transferability. That is, the more non-salient a cognate is in L1, the more it is perceived as “language specific” (as opposed to language neutral aspects), and the less likely it will be “transferable” to L2.

In their description of “cognitive dimensions of language transfer”, Faerch and Kasper (1986: 52-3) refer to “goal formation” and the “planning phase in communication”:

> “If the language user’s repertoire does not contain an item needed for the realization of a particular goal, she invokes a special class of procedures in order to solve such problems. These procedures have been termed communication strategies […]. One of the functions of L1 transfer is as a communication strategy in strategic planning.”

Thus, learners resort to a “strategy” to cope with insufficient knowledge in the TL. Yet, it is often difficult, even impossible, to know whether it is the influence of interlanguage transfer or overgeneralisation, or both, on SLA (Selinker et al. 1975).

In brief, English prepositions have always been a source of great difficulty for EFL/ESL learners regardless of their mother tongue. One of the common strategies learners use is relating the prepositional system of the target language and their native language, hence difficulties arise when they are unable to find prepositional equivalents in either language (SL or TL). We assume that not only would the production of an appropriate usage be tricky if either language lacks a prepositional counterpart, but the comprehension of the meaning of a preposition non-existent in one of the languages (rather the TL) contributes to further complexity. For instance, the English prepositions *into* and *onto* have no one-to-one counterparts in French, and the same applies to the French prepositions *voici* and *voilà*:

voici/voilà six semaines (six weeks ago)

voici/voilà bientôt six semaines qu'il travaille avec nous (he has been working with us for nearly six weeks)

Moreover, another reason for difficulties in SLA is that certain prepositions have quasi-similar meanings that can hardly be distinguished by a language learner, like *beneath/below/under/underneath/down*. Last but not least, using one preposition to express different or 'opposing' senses adds confusion to the learners' reasoning, for example *à* can indicate both direction and location/position in French, whereas in English each sense can be expressed using one or more preposition: *to* (direction) and *at*/*in*/*on* (location/position). For instance, the following French construction *A table* can imply two meanings:

A table: inviting someone to sit at the table

A (la) table: being seated at the table

It is possible that in addition to non-translatability between L1 and L2 and to polysemy in meaning and function, formal dissimilarity of English and French prepositions (e.g. *above/au-dessus, below/au-dessous*) could be another reason

for belated L2 acquisition, especially as the learning process goes from form to meaning but not the inverse.

Though it is still unclear how the complex process of lexical learning takes place, some suggest that it involves a number of different stages. For instance, based on an analysis done by Brown and Payne (1994), Hatch and Brown (1995: 373) present a model of essential steps involved in vocabulary acquisition:

- having sources for encountering new words;
- getting a clear image of words, either visual or auditory or both, for the forms of new words;
- learning the meaning of words;
- making strong memory connections between the forms and meanings of words; and using the words.

If form is an initial stage in language acquisition i.e. it precedes meaning, L2 learners presumably face difficulties retaining and associating the form of certain English prepositions with their meaning(s). In other words, learners first encounter the orthography (through reading) and/or the sound (through listening) of a preposition, then they discover its meaning and try to make strong memory connections between form and meaning for future use. At the same time, form-meaning retention does not necessarily mean successful contextual reproduction.

III.5. Fossilization

The notion of “fossilization” has been widely recognised as a central characteristic of SLA, as linguists and language learners have been aware that full native-like competence is rarely achieved. This phenomenon was first proposed by Selinker (1972: 51) who defined it as a “mechanism” that “underlies surface linguistic material which speakers will tend to keep in their IL productive

performance, no matter what the age of the learner or the amount of instruction he receives in the TL". This is to say, "fossilizable linguistic phenomena are linguistic items, rules, and sub-systems which speakers of a particular L1 tend to keep in their IL relative to a particular TL, no matter what the age of the learner or amount of explanation and instruction he receives in the TL" (ibid. 37). Selinker and Lamendella (1978: 187) redefined this phenomenon as "a permanent cessation of IL learning before the learner has attained TL norms at all levels of linguistic structure and in all discourse domains in spite of the learner's positive ability, opportunity, and motivation to learn and acculturate into target society".

As for the difficulty of possessing true native-like proficiency, Selinker (1996) states that fossilization is the process whereby the learner creates a cessation of interlanguage learning, thus stopping the interlanguage from developing, it is hypothesized, in a permanent way. The argument is that very few learners will ever speak a second language in such a way that s/he is indistinguishable from native speakers of that language.

In 1993, Selinker had distinguished between "individual fossilization" and "group fossilization". The former is the "persistence of an individual learner's IL development" while the latter is "the plateau in the diachronic development of a community language".

Individual fossilization involves "error reappearance" and "competence fossilization", i.e. instability and regression of language performance. Error reappearance concerns the inappropriate IL of low proficiency language learners that is thought to have been corrected, but continues to appear regularly. As for language competence fossilization, it concerns the repeated errors of high proficiency language learners who have been learning L2 for a long time, so it refers to the plateau in the development of L2 learners' phonological, grammatical, lexical and pragmatic competence. Hence, the pervasiveness of competence fossilization in a community ensues group fossilization.

Hyltenstam (1988: 68) differentiates between L1 and L2 acquisition, holding that

> "fossilization -according to observations- is a process that may occur in the second language acquisition context as opposed to first language acquisition. It covers features of the second language learner's interlanguage that deviate from the native speaker norm and are not developing any further, or deviant features which -although seemingly left behind- re-emerge in the learner's speech under certain conditions. Thus, the learner has stopped learning or has reverted to earlier stages of acquisition."

For Ellis, R. (1994: 353) fossilization refers to an overall cessation of learning. He considers that "the term has been used to label the process by which non-target forms become fixed in interlanguage", and he adds (ibid. 409): "In practice, however, fossilization has been used to refer to persistent errors". Brown, H.D. (1994: 180-1) proposes another perspective arguing that "adults who achieve nonlinguistic means of coping in the foreign culture will pass through Stage 3 (of acculturation) and into stage 4 (adaptation/ assimilation) with an undue number of fossilized forms of language, never achieving mastery".

Unlike Han and Selinker (1999) who consider fossilization as a stabilized form that "has no chance of changing for any one of a number of reasons", Brown, H.D. (1994: 217) borrows a scientific term "cryogenation" i.e. a reversible condition, to describe it, basing his argumentation on Vigil and Oller's (1976) who see it as a "factor of positive and negative affective and cognitive feedback". In other words, fossilization may be overcome if the learner is given the necessary positive affective feedback, meant to encourage further attempts at communication, together with neutral or negative cognitive feedback which, he states, would encourage learners to "try again", to restate, to reformulate or to draw a different hypothesis about a rule.

In contrast to Ellis, R., Han (2003, 2004) claims that fossilization occurs "locally" i.e. only in parts of the IL system as opposed to "globally" i.e. the entire IL system. Thus, fossilization only impacts certain linguistic features in certain

subsystems of the learner's interlanguage while other linguistic features in the same subsystems are successfully acquired or continue to evolve. Moreover, Han (2003: 99) analyses fossilization on both cognitive and empirical levels:

- On the cognitive level: it involves those cognitive processes, or underlying mechanisms that produce permanently stabilized IL forms.
- On the empirical level: it involves those stabilized IL forms that remain in learner speech or writing over time, no matter what the input or what the learner does.

Therefore, L2 acquisition varies among learners who “achieve very different degrees of language mastery. Few, it seems, achieve native-like proficiency. Some stop (or, to use Selinker’s 1972 term, “fossilize”) at a very elementary level. Others come between the two extremes” (Bley-Vroman, 1989: 8).

In this respect, too, Hyltenstam and Abrahamsson (2001: 164) emphasize that the “ultimate attainment of individual L2 learners varies enormously in its approximation to native-like proficiency, although some individuals may reach very high levels of proficiency and in some cases even pass as native speakers”.

According to Selinker (1972), items, rules and sub-systems in IL performance are fossilizable in terms of five central processes: language transfer, transfer of training, strategies of second language learning, strategies of second language communication, and overgeneralisation of TL linguistic material. He also states that combinations of the five processes produce entirely fossilized IL competence.

In conclusion, and as can be seen above, the notion of fossilization has no uniform definition. Almost all researchers seem to agree though, as Han (2004: 23) says, that it “involves premature cessation of development in defiance of optimal learning conditions” and that “fossilizable structures are persistent over time, against any environmental influences, including consistent natural exposure

to the target language and pedagogic interventions".

Complete mastery of L2 requires the attainability of "all levels of linguistic structure and in all discourse domains" (Selinker and Lamendella, 1978: 373), yet this point of (non-)attainability and of success/failure rate is highly controversial. Some (like Tarone, 1994) go so far as to suggest that fossilization is inevitable. She characterises it as "permanent stabilization" that may represent an ultimate stage in and outcome of L2 learning. She points out (ibid. 1715): "A central characteristic of any interlanguage is that it fossilizes - that is, it ceases to develop at some point short of full identity with the target language".

In brief, it is important to note that the various theoretical and empirical attempts have resulted more in conceptual diversity than uniformity, remembering that most researchers recognize fossilization as a central characteristic of SLA.
This conceptual diversity results from controversies over the following points, namely whether:

- fossilization is global or local;
- stabilization and fossilization are synonymous;
- L2 ultimate attainment is inseparable from fossilization; and
- fossilization is a product or a process.

Therefore, because there is disagreement on what "fossilization" is, it is difficult to identify what aspects of the target language are candidates for fossilization, notably as far as prepositions are concerned. In other words, the absence of decisive answers leaves the question of erroneous preposition uses, and the difficulty of acquiring prepositions in general, debatable.

Had the age of the learner and the amount of instruction one receives in the TL been of no significance on one's performance (Selinker, 1972: 37), this could mean that preposition errors are probable, even inevitable and persistent, not necessarily due to their complexity, but due to factors characteristic of the

language learner himself who is far from attaining native-like proficiency. In their description of the Critical Period Hypothesis, Johnson and Newport (1989: 61) argue that in some domains competence “reaches its peak during a 'Critical Period', which may be relatively early in life, and then declines when this period is over”.

If an individual learner's interlanguage stops from developing at a certain period of time, then possibly neither the number of exposures nor teaching approaches can prevent the reappearance of fossilized items in learners' utterances. At the same time, one questions why certain learners successfully attain a native-like grammar while others create a permanent cessation of IL learning?

> Theoretically, “[it] has long been noted that foreign language learners reach a certain stage of learning – a stage short of success – and that learners then permanently stabilise at this stage. Development ceases, and even serious conscious efforts to change are often fruitless. Brief changes are sometimes observed, but they do not ‘take’: The learner backslides to the stable state.” (Bley-Vroman, 1989: 46-47)

Nonetheless, Bley-Vroman (1989: 49) proceeds: “Few adults are completely successful; many fail miserably, and many achieve very high level of proficiency, given enough time, input, effort and given the right attitude, motivation and learning environment”.

Fossilization of erroneous prepositions is, therefore, a process as well as a product. This cause-effect relationship is due to the cognitive mechanism which over a certain period of time causes fossilizations to persist in a learner's IL (Han, 1998).

However, if fossilization is not viewed as some sort of “terminal illness” since it could be reversed (Brown, H.D. 1994: 217), this indicates that native-like achievement is possible, and prepositions are learnable despite the temporary

stage of “getting stuck” at lower levels of language proficiency. Yet, studies reveal that prepositions are generally troublesome to the learners for whom English is a foreign/second language and this continues until advanced levels of language learning. That is to say, learners stabilise and development ceases no matter the explanations they receive and/or the number of exposures they have. Prepositions could be in essence candidates for this cessation due to their polysemy, and so native-like proficiency in L2 is not easily achieved.

III.6. English as a linguafranca: What about prepositions?

A further factor that might have an influence on learning prepositions is the use of English as a lingua franca, which is a by-product of globalization and the wide use of English as a means of communication in almost all fields.

“English enjoys a position in the world well beyond that which might be expected by the number of its native speakers” (Goodman and Graddol, 1996: 197). This growing demand necessitates an overall comprehension and use of English, nonetheless such an expansion imposes significant changes in the language. Thus, “the so-called center countries (e.g. the United Kingdom and the United States) will no longer be able to set the trends” (Braine, 2005). Interestingly, Jenkins (2007) refers to the learners’ attitudes towards English as a lingua franca and links between their accent, attitudes and the need to establish their cultural identity considering the countless social consequences this underlies. Undeniably, this global status of English threatens its identity given the 'mutations' it is undergoing. “The use of English is thus far from uniform across the world” (Goodman and Graddol, 1996: 197).

In their observation of world Englishes, Kachru and Nelson (1996) state that English has “acquired both a range and a depth unparalleled in human history” and that it has “developed a number of varieties in its diaspora”, something that

raises another question, that of standardisation. According to them, these varieties can be represented in three Circles: The “Inner Circle”, the “Outer Circle” and the “Expanding Circle”. France could fall into the third category (Expanding Circle) where learning and using English is for particular ends. Thus, this relentless shift renders English “pluricentric”. In the commercial field, for instance, the need for communication in English is inseparably linked to the need for following-up on the latest findings, techniques and inventions that arise all over the world.

English as an international language continues to snowball even in areas where native-English speakers do not exist. As early as 1982, Kachru suggested that “for the first time a natural language has attained the status of an international (universal) language, essentially for cross-cultural communication”. For example, we point to the use of English as a lingua franca being popular nowadays in European countries, i.e. English used by Europeans as a means of communication among themselves and with others. For example, a French and a Polish speaker would use English as the medium of their communication and it is the same for a Swede and a Spaniard.

According to the 2006 Special Eurobarometer survey – European Commission:

> “English remains the most widely spoken foreign language throughout Europe. 38% of EU citizens state that they have sufficient skills in English to have a conversation. In 19 out of 29 countries polled, English is the most widely known language apart from the mother tongue [...].”

In this sense, we suggest that the need to learn a language quickly for communication purposes may indirectly motivate learners to pay more attention to fluency, hence neglecting language competence and accuracy. This is likely to induce ill-formed prepositional occurrences and, eventually, contribute to fossilization.

In other words, the 'insufficiency' of the learning conditions could stimulate a cessation of interlanguage learning. For example, joining an intensive course in one's country of residence, most often in the context of meaning-based instruction, is not as methodical as school learning. Another source of learning could be another linguafranca adult speaker who does not necessarily master the TL fully. Erasmus students from different European countries frequently use English as a linguafranca at university and in professional exchanges.

We believe that the use of English as a linguafranca in similar contexts does not provide learners with adequate explanation of common erroneous usages nor does it allow sufficient exposure to the language. Thus, it is true that L2 learners are exposed to the TL, which is rather “English as an International language” but not the English one would hear from native-English speakers, and they do not usually receive negative feedback. That is why message-focused communication is thought to be at the expense of appropriate prepositional use, and this may create IL fossilization, especially in cases where learners/speakers are not aware of their errors nor are they made aware of them.

In this respect, we recall Valette (1991) who made a distinction between “street” learners, who have “picked up” the language, and “school” learners, who have “studied” the language. According to her study, fossilization often occurs among “street” learners who have had extensive opportunity to communicate successfully albeit with inaccurate lexical and syntactic patterns. As a result, their errors have become systematized and are almost impossible to eradicate.

Therefore, in the absence of form-focused instruction, some areas of L2 learners’ IL appear to be at least stagnant if not necessarily fossilized. Moreover, while certain L2 structures can be candidates for fossilization, others are not (Higgs and Clifford, 1982).

III.7. Basic difficulties impeding mastery of English prepositions

The complex multi-roles that English prepositions occupy increase learners' perceived difficulty of mastery and performance throughout the learning process even until advanced levels of learning proficiency. This could either be a supplementary factor – less commonly – that motivates learners for understanding the language system or discourages them – more commonly – to further discover it due to its vast, non-compositional uses.

Prepositional systems across languages vary considerably. Prepositions combine with other parts of speech to express new meanings which depend on context and the speaker's intended meaning (e.g. *in/outside/in front of/opposite the bank*). Besides, the choice of a preposition is constrained by its object (e.g. *in July, at dawn, on campus*).

We also distinguish prepositional phrase adjuncts from arguments as in *She sits on her divan in the evening*. In this example, two prepositional phrases modify the verb, one (on her divan) is required by the subcategorization frame of the verb *sit* being locational, and the other (in the evening) is an optional descriptor of the time at which the action is performed. Despite their attachment to the verb, each prepositional phrase marks a different relationship: the first is an argument and the second is an adjunct.

Moreover, prepositions are used to mark the arguments of a predicate, so they can take the form of an adjective (e.g. *He is grateful to her*), a noun (e.g. *We need a change of government*) or a nominalisation (e.g. *People's consumption of sugary drinks is high*). Not only this, but the choice of the preposition as an argument marker depends on the verb.

In this context, Levin (1993) comprehensively studied the phenomenon of verb argument alternations and classified over 3,000 verbs according to which

alternations they participate in i.e. verbs are grouped into classes according to semantic and syntactic properties. This shows that a verb's syntactic alternations (verb + particle or verb + preposition) are related to its semantics, and that semantically-related verbs will share the same alternations. In other words, verbs are grouped into classes according to semantic and syntactic properties (like *increase/decrease/diminish*), based on the assumption that the syntactic behaviour of verbs is semantically defined. As Levin (1993: 11) explains:

> "If the syntactic properties of a verb indeed follow in large part from its meaning, then it should be possible to identify general principles that derive the behavior of a verb from its meaning. Given such principles, the meaning of a verb will clearly have a place in its lexical entry, but it is possible that the entry will need to contain little more. And since a word's meaning is necessarily idiosyncratic, the inclusion of a word's meaning in its lexical entry conforms to Bloomfield's characterization of the lexicon as a locus of idiosyncrasy."

Levin (1993: 12) adds:

> "Taking this approach seriously requires a re-evaluation of previous assumptions concerning the contents of lexical entries, since it suggests that they may contain less information than has sometimes been proposed. Specifically, if there are indeed correlations between verb meaning and verb behavior, some properties that might have been included in lexical entries because they were thought to be idiosyncratic could turn out on further examination to be predictable from verb meaning and could be eliminated from a verb's lexical entry."

Furthermore, phrasal verbs constitute a double difficulty to French learners. In addition to the lack of equivalents in their L1 which is a verb-framed language, phrasal verbs are often followed by prepositions and their meaning is non-compositional, as in:

to ask someone out on a date (i.e. invite on a date)

to ask someone over for dinner (i.e. invite to one's home)

On the other hand, difficulties increase as we move from core, physical senses of prepositions into the metaphoric extensions of prepositional meaning,

remembering that prepositional metaphor is hugely important for the purposes of our understanding the structure of language (Lakoff, 1987). Hence, prepositions act as extensional devices of metaphors that can range from simple to complex:

a heart of stone
birds of a feather
to have an ace up one's sleeve
to chill to the bone
to pull the wool over someone's eye

We assume that analogies with L1, where applicable, will be a clue for better comprehension, retention and reuse, for example:

to be the apple of someone's eye
la prunelle de ses yeux

armed to the teeth
armé jusqu'aux dents

Another reason for difficulty is idiomaticity whose main realms of usage depend on prepositions. Knowing idioms and using them in the proper context is a matter of practice and time. Like metaphors, idiomatic expressions (containing prepositions) “pose a challenge to our understanding of grammar and lexis that has not yet been fully met” (Fellbaum et al. 2006: 349). Difficulties understanding and reproducing prepositional idioms and/or phrasal verbs arise from the choice of the specific preposition in each expression which does not always follow a clear logic, hence, they are much more vulnerable to misuse than ordinary prepositional phrases. Hence, frequency of use could be the only way of learning their non-literal meanings and reusing them in appropriate context. Consider the different meanings of the verb *turn* when paired with *over,* remembering that the list does not end here:

- *to turn something over* (1): to use or allow something to be used for a different purpose

Grants are being offered to farmers who agree to turn over their land to woodland and forests.

- *to turn something over* (2): to think about something for a period of time
  His father had been turning the idea over in his mind for some time.

- *to turn something over to somebody*: to give something to someone in authority or someone who has a legal right to it, or to give someone legal responsibility for something
  They turned the videos over to the police.
  All documents are to be turned over to the court.

- *to turn somebody over to somebody*: to take a criminal to the police or other authority
  He was working here illegally and was terrified that his boss would turn him over to the police.

Prepositional idioms and metaphors are problematic because of the heterogeneity of the class and the non-correspondence of the overall meaning with the combined meaning of the component parts.

Meaning interpretation of such non-compositional constructions is particularly difficult to decipher being language- (and sometimes culture-) specific:

to fall head over heels
out on a limb
drive somebody up the wall

Furthermore, another equally important problem is that bilingual (but also monolingual) dictionaries are mostly inadequate, inaccurate, misleading and containing mismatched examples (Lindstromberg, 1998, 2001). In this context, too, Low (1988: 141-2) argues that a number of dictionaries ignore metaphoric

patterning in entries for *up*, supporting his criticism with specific reference to Oxford Advanced Learner's Dictionary/OALD (1977). Besides, Boers and Demecheller (1998: 202) note that OALD does not give necessary explanatory information for understanding a key metaphorical use of *beyond* and *behind*. It is indisputable that organising a "prepositional dictionary" requires studious care and attention.

In addition to idioms and metaphors, collocations (see Chapter IV, section IV.2.1.) pose another learning difficulty to L2 learners (Bahns and Eldaw, 1993), thus leading to errors which could be due to the neglect of conscious teaching in the ESL classroom. These multiword items which behave as single words are fixed expressions whose lexical nature is described by Fillmore et al. (1988: 501) as "phenomena larger than words, which are like words in that they have to be learned separately as individual facts about pieces of the language, but which also have grammatical structure [and] interact in important ways with the rest of the language". They are unique formulations in which prepositions possess highly idiosyncratic collocational properties, hence prepositions are obligatory for each formulation both from a lexical and a grammatical point of view.

Words often show a tendency to co-occur with items of a particular grammatical type (e.g. *in the meantime*/**by the meantime)*. Or, for example, *the microscope* tends to come to the immediate right of the preposition *under* (*under the microscope*).

Besides, one of the most characteristic types of collocation is phrasal and prepositional verb collocations (e.g. *to help oneself to*). These strings of words or regular pairings need to be learned, especially as there is often no connection between the phrasal meaning and the usual meanings of the component words (e.g. *have a go at somebody*: to criticise someone; *have somebody up*: take someone to court for a trial; *have in for somebody*: to want to harm someone) due to metaphoric extension. Nevertheless, collocations or chunks containing

prepositions are neither sufficiently frequent to be learned implicitly nor is the number of exposures sufficiently certain for ensuring effective learning and achieving a stable representation of a collocation.

In brief, the principal reasons why English prepositions can be so tricky for French learners are as follows:

- Polysemous nature of prepositions: there is no particular rule for teaching all prepositions, and even worse, it is almost impossible to memorize all usages since there are always new situations and contexts where one has to choose the 'appropriate' preposition.

- Literal translation from SL to TL: Learners are likely to use their cognitive and inherent knowledge upon the production of L2, so they apply their acquired linguistic and cultural knowledge and rules to (an)other language(s).

We believe that learning by rote is inevitable but ought not to be the only approach in the EFL/ESL classroom. We should not ignore the fact that memorization is part of the learning process and it applies to almost all scientific fields that necessitate memorizing a theory, a definition, a rule, a function, etc.

III.8. What type of preposition is most problematic to French learners of English?

Despite the utility of computational linguistics and natural language processing, there is no empirical data or quantitative analysis that rates the extent to which each type of preposition (spatial, time, movement, manner, etc.) poses difficulties to second language learners. Generally, the more frequent an error is, the more problematic this area of learning will be. Schachter and Celcé Murcia (1983) say that error analysis usually reports the absolute frequency, but

not the relative frequency (the proportion of errors to the number of words generated in each production and in each task). Yet, this is no longer the case nowadays with the technological advances in the 1990s. Despite this, no light is shed on the above point either because it is difficult to categorise prepositions or they are of no significance for the language research!

Most research focuses on a subset of prepositions or merely addresses the arbitrariness of prepositions as a whole, their frequency of use, lexical description, semantic input or conceptual and syntactic structure. Nonetheless, many prepositions are used to describe both spatial and temporal relationships (Clark, 1973; Bennett, 1975; Lindstromberg, 1998), thus resulting in space-time parallelism. Some stipulate that the relational structure of temporal concepts is derived from the relational structure of the corresponding spatial concepts through a process of alignment and projection. In other words, time is associated with a locational setting and, at the same time, spatial meanings extend to take on analogous temporal meanings. Perhaps, one of the most interesting views that supports the concept “Time is Space metaphor” is expressed by Lakoff and Johnson (1999: 166):

> “Try to think about time without any [...] metaphors [...]. Try to think about time without motion and space […]. We have found that we cannot think (much less talk) about time without those metaphors. That leads us to believe that we conceptualize time using those metaphors and that such a metaphorical conceptualization of time is constitutive, at least in significant part, of our concept of time.”

Amongst the different prepositional uses (time, place, position, movement, direction, comparison, reason, way, amount, means and agent), prepositions of time (showing when an event occurs in relation to another event and where one thing is in relation to another) could be the least troublesome for L2 learners in terms of comprehension and perhaps use:

- being structured in a way that they designate a specific/non-specific

moment in time (like days, dates, months, years, seasons, etc.) and have specific or 'uniform' uses that do not change with situational context;

- they often occur as phrases (preposition + noun or preposition + noun phrase) in such a way that the following noun restricts the choice of the preposition i.e. they are preceded by a verb but not 'controlled' by it;
- they are limited to a small set of prepositions, mainly, *in, on, at, to, for, since, by, after, before, near, towards;*
- they are easier to master once one understands the semantic rules associated with them and thus can differentiate between well-/ill-formed sentences.

On the other hand, prepositions of motion are perhaps the most problematic being an open-class in the sense that they are constrained by the preceding verb. Not to mention the troublesome prepositional verbs and idiomatic expressions containing prepositions that constitute even greater learning problems, especially when the L1 learner's language is verb-framed.

Due to their multi-senses, types and functions, there is no one approach or direct method for learning prepositional use. And because comprehension should precede production from the viewpoint of vocabulary acquisition (Nattinger, 1988: 62), one's speaking ability is viewed as naturally emerging from exposure to reading and listening input. For this reason, the contents selected by instructors ought not be arbitrary and biased, taking the following points into account:

- Learning by rote is inevitably one way of retaining preposition uses, but should not be the only teaching approach in ESL/EFL classroom;

- Translation exercises might draw learners' attention notably to the differences that exist between L1 and L2;

- L2 learners should be aware of the fact that word for word translation is

not always successful and not all French prepositions have English equivalents and vice versa;

- Regular contact with L2 through readings, listening, production and rectification (usually in class), and communication (usually in public) might increase one's awareness of 'appropriate' use;

- Learners very rarely reflect upon the collocational properties of prepositions. They usually learn meaning and use individually (Flowerdew, 1999). Undoubtedly, achieving native-like competence in English requires good knowledge of collocations and collocational transfer seems to be the major cause of poor L2 proficiency.

Chapter IV: PREPOSITIONS FROM A PEDAGOGICAL PERSPECTIVE

In this chapter, we show different opinions as to the context in which the multi-uses and functions of prepositions ought to be presented in English manuals and textbooks, for maximizing L2 learning outcomes. We also compare the use of preposition exercises in twenty ESL books (English vs. French publishers) used in France with the aim of highlighting basic differences. Further, we propose four pedagogical approaches to teaching prepositions and/or particles: the use of collocational and concordance data, an explanation derived from Cognitive linguistics, task-based language teaching, and motion pictures and iconic gestures.

IV.1. English manuals and textbooks

To explain which preposition(s) to use in which situation (motion, spatial, temporal, etc.) could require a large portion of, or even a whole separate ESL/EFL book. Nonetheless, there is no consistency as to what to include in such a book (rules, explanations, exercises (sentences or texts), drills) and, more particularly, how to present prepositions: Are they to be presented in separate lessons and classified in terms of type or to be incorporated into the lessons without being highlighted? And should manuals simply focus on “linguistic distance” i.e. dissimilarities between L1 and L2?

According to Tyler and Evans (2004a), the varying meanings of prepositions are presented rather arbitrarily in textbooks. Despite the difficulty they present to second language learners, the systematic relations between the multiple uses remain unexplained in many textbooks. The varying meanings are introduced “as an unorganized list of unrelated meanings that are accidentally coded by the same phonological form” (ibid. 257).

Manuals should facilitate learning by avoiding exhaustive repertory of 'all' patterns and co-occurrences of prepositions, for example, the occurrence of adjective + preposition constructions and prepositional phrases (e.g. preposition of time/place + noun) or, more confusingly, listing the various meanings of verb + preposition/particle co-occurrences (common and obsolete) as in dictionaries. At the same time, Celce-Murcia and Larsen-Freeman (1999) hold that certain prepositions should not be taught in isolation but rather in relation to their occurrence with other words.

Graphologically highlighting a grammatical feature that constitutes a difficulty for learners could turn their attention to its use. For instance, Ellis, R. (1999: 68) evokes the notion of “enriched input” – that had been suggested by others like Sharwood-Smith (1986) *input enhancement* – i.e. “contriving input that contains numerous exemplars of a grammatical feature known to be problematic to learners”. More specifically, Ellis explains: “It can take the form of oral/written texts that learners simply listen to or read, or written texts in which the target structure has been graphologically highlighted in some way (e.g., through the use of underlining or bold print), or oral/written texts with follow up activities that focus attention on the target structure”.

From a constructionist perspective and while summarising the findings of studies carried out on both children and adults learning a second language, Goldberg and Casenhiser (2007) insist on the importance of providing learners with “targeted input that includes ample prototypical instances early in training”. In other words, learners need to be trained in class on the different occurrences of a novel construction. At the same time, this should not be done extensively as it “could lead to excessive boredom”. Given this, the representation of prepositions in separate lessons may not only cause boredom but also confusion because it introduces learners to a sizable number of new uses and senses unless their mother language and the target language share linguistic likeness i.e. form-meaning similarity.

One questions to what extent learners would be able to understand the relations between entities and, hence differentiate between their various senses and uses. At the cognitive level, considering the amount of the new input and its presentation in textbooks, would learners be able to store these senses and uses correctly over a long period of time?

While citing evidence from Muñoz (2003), DeKeyser (2006: 2) puts forward in a research synthesis published online by the American Educational Research Association: “A young child tends to absorb a language through massive amounts of input and exposure, while explicit learning, involving rules and systematic practice, plays an important role for adolescents and adults”.

If we apply the above to the acquisition of prepositions, we suppose that the more the younger L2 learners are exposed (rather incidentally) to prepositional co-occurrences, the more likely they are to master their various uses. Therefore, contextual use, but not direct teaching (explanation and drills), would be more effective at this stage. As for adult learners, considering the above hypothesis, their preferred medium of learning would be direct teaching through rules. And this could explain why this area of learning is problematic to adult learners since there are not many rules to help in choosing which prepositions to use correctly (Swan, 1988).

As for incidental learning of word meanings, some researchers estimate that they need to be encountered at least six times (Saragi et al. 1978) over spaced intervals or even twenty times (Herman et al. 1987) to be learnt. Yet, learning prepositions is more complex since what is to be learnt is not just form and meaning. In the absence of multiple exposures and usage in proper context, especially if the proposed prepositional constructions are presented in isolation i.e. exercises that vary between gap-filling and multiple choices without any reference to a text, learners can hardly establish network connection either in

terms of meaning, form or context unless they train themselves to memorise the prepositional collocations or if these collocations recur in readings.

Langacker (2008) points out that the learning of specific forms is obviously necessary in cases of irregularity or limited productivity. While considering cognitive grammar and the usage-based approach, he says that in certain “complex morphological paradigms” memorisation becomes a necessity and then students start familiarising themselves with their contextual usage thanks to practice and frequency.

Generalisations and categorisation of prepositions in terms of semantic or referential similarity are possible but not absolute because prepositions are far from being analogous. Nonetheless, prepositional verbs and phrasal verbs can hardly be classified into patterns. For example, we cannot suggest that a verb followed by the preposition *for* or the preposition *after* can always indicate a particular 'typical' meaning. And here comes the difficulty of explaining the reason why a construction like *to care for someone* is not the same as *to look for someone* but is synonymous to *to look after someone*.

In Langacker's view (2008), “[w]ith proper instruction, the learning of a usage is […] a matter of grasping the semantic 'spin' it imposes, a far more natural and enjoyable process than sheer memorization. The pedagogical challenge is then to determine the optimal means of leading students to this understanding”.

As for the incorporation of L1 into L2 learning and teaching, arguments differ in this respect: Proponents regard this approach as a natural language facilitator and learning strategy, and they argue that the target language should be “carefully compared with a parallel description of the native language of the learner” (Fries, 1945: 9). In his view, “[o]nly with sound materials based upon an adequate descriptive analysis of both the language to be studied and the native

language of the student [...] can an adult make the maximum progress toward the satisfactory mastery of a foreign language" (ibid. 5). For Ellis, R. (1997: 51), too, "in some cases, the learner's L1 can facilitate L2 acquisition". Widdowson (2003: 153) says that "explicit reference to the L1 would assist the learner in making the input comprehensible. Furthermore, such explicit reference would have the additional advantage of making formal features of the second language meaningful and noticeable at the same time". He adds (ibid. 154): "[T]he very subject we teach is, by definition, bilingual. How then can you teach a bilingual subject by means of a monolingual pedagogy?". Moreover, based on Prabhu's (1987: 60) observation, translation can be used as the last strategy in classroom teaching: "Although tasks were presented and carried out in the target language, the use of the learner's mother tongue in the classroom was neither disallowed nor excluded. The teacher normally used it only for an occasional glossing of words or for some complex procedural instructions, for example: Leave the rest of the page blank in your notebooks and go on to the next page, for the next question".

On the other hand, opponents argue for the exclusion of L1 and are in favour of focusing on spoken language. They advocate the Reform Movement whose aim was to develop new language teaching principles and which was characterized by "a) a growing distrust in the notion that words in different languages could be equivalent in meaning, b) dissatisfaction with translation-based teaching strategies […] and c) the influence of contemporary theories of psychology which stressed the importance of direct associations between words in the new language and their referents" (Howatt, 2004: 313).

Inconsistencies in translation are a core issue in ESL teaching/learning, especially as far as prepositions are concerned. We assume that learning a target language cannot be attained without any reference to the learner's L1, at least, from the learner's perspective. It would be helpful to highlight common and typical uses and to draw the learner's attention to chief differences in form and

meaning between L1 and L2, especially where literal translation can alter meaning and lead to unintelligibility. For instance, erroneous word-for-word translation in (a) sentences is less pronounced than in (b), indicating that not all preposition errors are perceived equally erroneous:

a.

**walk under the sunlight* (walk in the sunlight)

L1: marcher sous le soleil

**Mary is married with John.* (married to)

L1: mariée avec

**She has worked as a hostess since eight years.* (for eight years)

L1: depuis 8 ans

b.

**The key is on the door.* (in the door)

L1: La clé est sur la porte.

**borrow something to someone* (borrow something from someone)

L1: emprunter quelque chose à quelqu'un.

In this respect, we also argue that the question of (non-)intelligibility is relative, but certain erroneous prepositions cause confusion when they imply totally distinct meaning relations, taking into account that different languages may shape semantic space in different ways.

Second language learners, like native speakers, require time along with practice in order for them to master “the conventional range of usage” of the different constructions present in language. As Langacker (2008) puts it, this will come about only gradually through long-term practice with the language, but the same is true of its learning by native speakers.

ESL books used in France: English vs. French publishers

We present now a comparison of English manuals (French and English publishers) that have been used in secondary education in France over the last 20 years. In this overview, we are basically interested in observing how (or if) prepositions are introduced in these manuals: Are prepositions presented or not in separate lessons or are they incorporated into the lessons?

We compared ten manuals – published in France – used in first and second secondary classes (see Appendix II):

Bridges (Nathan)
Broad Ways (Nathan)
Connections (Delagrave)
Crossroads (Hatier)
Projects (Didier)
The New Pick and Choose (Hachette)
Tracks Plus (Hachette)
Voices (Bordas)
Wide Open (Hachette)
XL Anglais (Didier)

According to our observation, both lower secondary and higher secondary manuals do not present prepositions in separate lessons nor do they point out any of their distinct functions and uses, except for *Tracks Plus* which separately introduces phrasal verbs and prepositions in general. In *The New Pick and Choose* (lower secondary manual), only the prepositions of time *since* and *for* are incorporated into one of the lessons in addition to phrasal verbs and prepositional verbs and, in *Connections* (higher secondary manual), prepositions are displayed in conjunction with other grammatical units, but they are not explained in any detail. Hence almost all manuals do not mention the functional and lexical properties of prepositions nor do they highlight language-specific variations

between L1 and L2.

Explanation in some lower-secondary manuals like *Tracks Plus* (Technological Section), *Voices* (Technological Section) and *XL Anglais* is limited to brief remarks respectively on: few comparative meanings of prepositions (SL and TL) at the end of the book; the use of the preposition *for* (pendant) for expressing duration; and the use of *to* to mean 'in order' in addition to *verb + to + verb* constructions, and the difference between certain prepositions like *in* and *within,* etc. As for the higher secondary manuals, a very short list (one page-long) of prepositions of time and place and their counterparts in French is displayed at the end of *Tracks Plus.*

With respect to the types of exercises in the above manuals, some do not include any prepositional exercises while others simply allot one exercise or two involving gap-filling, crossing out wrong answers, matching, marking the difference between a preposition and an adverbial particle and translation exercises.

In all of the ten manuals, prepositions are neither graphologically highlighted nor are common prepositional collocations or erroneous uses emphasized. In short, learners' exposure to prepositions is 'implicit', yet we are unsure if teaching stresses or not certain areas that are likely to cause difficulty to French learners, and confusion or incomprehensibility if literally translated into the TL.

We also examined ten manuals from British publishers used at the intermediate level (see Appendix III):

Changes (Cambridge)
Cutting Edge (Longman)
English File (Oxford)
English Grammar in Use (Cambridge)
English Vocabulary in Use (Cambridge)

Look Ahead (Longman)
New English File (Oxford)
Oxford Practice Grammar (Oxford)
Reward (Macmillan Heinemann)
True To Life (Cambridge)

Generally, temporal and spatial prepositions are introduced separately or incorporated into the lessons, and often illustrated with a brief explanation in addition to exercises and visual aid (maps, pictures). In addition, some manuals (like *English Grammar in Use, English Vocabulary in Use, Look Ahead,* and *Oxford practice Gramma*r) present adjective + preposition, preposition + noun, and verb + preposition constructions, while almost all introduce phrasal verbs at the upper-intermediate, but also intermediate level.

As in French-published manuals, exercises include filling gaps, matching, and crossing out wrong uses and correcting them. However, they are more varied, including for instance, give the meaning of, write, rephrase or complete sentences (on your own), and replace a number of words with a prepositional phrase (*English Vocabulary in Use, Look Ahead, Oxford practice Grammar)* in addition to locating objects and indicating direction.

In conclusion, neither prepositions nor prepositional verbs and phrasal verbs are drilled into the learners in either English- or French-published manuals. Nevertheless, while the former give an explanatory account of certain prepositional uses and co-occurrences, the latter give preference to other grammatical notions (like tense and aspect), almost ignoring prepositions i.e. avoiding explicit instruction.

IV.2. Pedagogical approaches to teaching prepositions/particles

'Is there a straightforward method for teaching/learning English prepositions?' is a perennial question that has worried a great many educators and learners. It is indisputable though that probably more than one in-class teaching approach and language acquisition material should be employed for a better explanation and understanding of prepositional occurrences, due to their different types (temporal, spatial, motion, etc.), multiple meanings, and syntactic configuration.

In this research, we do not attempt to assess the effectiveness of common language teaching approaches nor do we recommend a single linguistic model with regard to teaching the use and meaning of prepositions. An approach that could be successful for explaining prepositions of motion might not be equally effective for teaching prepositions of time and date, and so forth. We do though suggest certain principles and implications for teaching prepositions/particles in verb+particle constructions, in general, and those used in static and motion events in particular. In this respect, we assume that the integration of the four principles below allows for a better visualisation of the semantics of English prepositions and the correlation between their form-meaning patterns. We give an overview of their usefulness in the language classroom in terms of their type, also taking into account the learner's level of language proficiency.

Below we give a brief summary of each principle followed by an explanatory account of their usefulness and prospective limitations:

- Use of collocational and concordance data: This should be adapted to the various stages of second language learning as it provides learners with productive and analytical insight into the lexical and semantic properties of L2. We do not claim that collocational knowledge presents no challenges for non-native speakers, but it might be a helpful approach to teaching noun + preposition and adjective + preposition collocates. Tracking the

developmental patterns of the knowledge and use of L2 collocations is important to assess the effectiveness of this approach. In this respect, concordance (web- or paper-based) is suggested as a pedagogical tool which can help learners observe and explore collocational use in context.

- Explanation based on cognitive linguistics (CL): This is appropriate at B1 level and above where learners are expected to have been already exposed to the central meaning of spatial English prepositions. It gives a clear account of the semantics of their extended meanings showing that these various senses are not accidental but organised around a central sense.

- Task-based language teaching (TBLT): This is quite appropriate at all levels. It is a learner-centered approach that gives space for language discovery and production away from rule-based teaching and form-centered activities. A task is a simulation and/or replication of real life scenarios that encourage language knowledge through achieving a clearly defined communicative outcome.

- Motion pictures and iconic gestures: They should accompany the learning process due to their positive influence on meaning retention (see section IV.2.4.). They are particularly helpful for teaching English prepositions and particles with dynamic meaning (involving movement). Pictorials, in general, should be accurate and real i.e. less schematic and dependent on mental imagery.

IV.2.1. Use of collocational and concordance data

In its broad sense, and in the absence of an agreed definition, a "collocation" is any set of words that commonly and repeatedly co-occur, typically

forming a component of a clause, wherein individual members participate in a semantic relation. This term was first introduced to the discipline of linguistics by the British linguist Firth (1957) as indicated by Carter and McCarthy (1988: 32) who in turn simply define it as “how words typically occur with one another”. Later, Nattinger and De Carrico (1992: 21) give a more general definition: collocations are “strings of words that seem to have certain 'mutual expectancy', or a greater-than-chance likelihood that they will co-occur in any text”.

Impressively, corpus linguists nowadays have ways of calculating the “strength” of collocations, for instance the use of software programs (like MonoConc, Wordsmith, Xaira) that make it possible to identify or extract collocations, or terms, from a text or corpus. Collocation programs use statistical analyses (like t-score, log-likelihood, mutual information scores) and frequency information in order to present a list of candidate collocations for inspection.

Literature on collocations distinguishes prepositional collocations that are referred to as “grammatical collocations” (Benson, 1985; Benson et al. 1997) or colligations (Firth, 1957) that often consist of a dominant element and a preposition as follows:

- adjective + preposition (e.g. *ashamed of himself*)
- verb + preposition (e.g. *to suffer from asthma*)
- noun + preposition (e.g. *his admiration for his country*)
- preposition + noun (e.g. *by mistake, in cash*)

Nattinger and De Carrico (1992: 8) also term such phrases as lexico-grammatical units. Words co-occur with particular lexical items and are governed by grammatical principles leaving no chance for alternative prepositions. For instance, we say *at his expense* but not **on his expense* and *to an extent* but not **for an extent*. Like prepositions, collocations are difficult to define and are characterized, too, by their arbitrariness due to (i) their double function i.e. in a verb-particle construction, the particle can sometimes be a preposition or an

adverb while some units can function as a conjunction, too; and (ii) the morphological complexity of component parts.

Unfortunately, in the case of prepositions, there are few studies illustrating how to carry out effective collocation instruction in classroom setting. Another difficulty that is associated with grammatical collocations is that they are largely idiomatic, i.e. they function as single units both semantically and lexically. As revealed by corpus studies, collocations generally constitute an important part of idiomaticity (Nesselhauf, 2005).

Since this research notably concerns prepositions, we have limited the above introductory definition to collocations containing prepositions (for a broader definition, see Howarth, 1998b; Benson et al. 1997). In addition to these two references, the BBI Combinatory Dictionary of English, which comprises 90,000 English collocations (British English and American English) with a workbook useful for teachers and learners, attempts to give only “essential grammatical and lexical recurrent word combinations, often called collocations”. It presents a functional approach to word combinations. In Figure 1 below is the typology (underlined are the types of word combinations that are included in the dictionary):

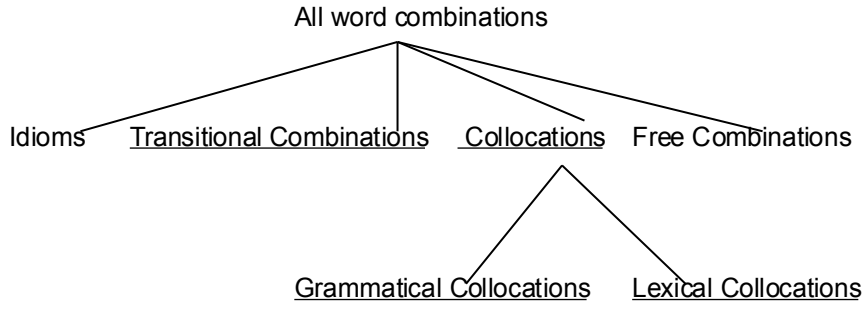

Figure 1. *Typology of word combinations (adapted from BBI)*

Besides, we are mainly interested in the pedagogy of collocational

prepositions. In other words, we propose this approach as a potential remedy for learners' weaknesses in this particular learning area and as an alternative to teaching lexical items in isolation (prepositions, verbs, adjectives, nouns, etc.). These word associations “permit people to know what kind of words they can expect to find together” (Nattinger, 1988: 70). As such, their co-occurrence patterns are more fixed compared to lexical patterns, which are more unpredictable.

In view of the frequency of prepositional mistakes, teachers should develop new teaching approaches and strategies that can lessen this learning difficulty. Collocation knowledge has been undervalued in classroom instruction and is usually avoided by L2 learners due to its unpredictability. While collocational knowledge in general is a prerequisite for the native speaker to produce natural and fluent language discourse (McCarthy, 1990; Ellis, 1996, 2001), it is equally important for the second language learner as it increases his communication skills. Lewis (1997: 33) says that it gives learners “the ability to say more of what they want to say with the limited language resources at their disposal”. In a previous publication, Lewis (1993) draws attention to the systematic re-examination of the effectiveness of collocations in ESL/EFL education, providing practical exemplifications of his ideas. He argues that lexical phrases allow for a better comprehension of and reflection about the forms and meanings of L2. However, his approach has certain flaws, particularly because it emphasises vocabulary learning to the detriment of grammar. Later, Lewis (2001: 27) states: “Collocation will become so central to everyday teaching that we will wonder whatever took up so much of our time before”.

In a study of German advanced EFL learners, Bahns and Eldaw (1993) stress the importance of teaching collocations and their influence on the accuracy and proficiency of learners. They realised that learners' productive competency of collocations does not “expand in parallel with their knowledge of general vocabulary” and this “may be partly due to the fact that collocations have

been largely neglected in EFL instruction" (ibid. 108). According to them, part of EFL teaching should be based on ready-made chunks and how they vary in meaning depending on contextual use. Possessing lexical and grammatical knowledge does not always suffice. Poor EFL productions, even at early stages of learning, are due to wrong collocations which are highly influenced by L1. It is thus a major problem to be addressed in reference to and in correlation with L1. In this sense, translation tasks including prepositional use could highlight the salient structural and meaning differences in both languages (e.g. *at/on the weekend* (pendant le week-end), *be up to something* (avoir une idée derrière la tête), *burst into tears* (fondre en larmes), *burst into flames* (s'enflammer)). Yet translation should not be the only teaching method nor should structures be taught in isolation. 'To what extent can this be effective?', one might ask. Raising awareness among learners is surely of help, but it does not guarantee correct production and use. Yet, continuous reference to differences between L1 and L2 in addition to practice makes learners conscious of word combination. Here, we recall Firth's (1957) famous statement "you shall judge a word by the company it keeps", i.e. knowing words does not suffice without knowing the proper co-text with which a lexical item can be used.

However, the collocational approach (Sinclair, 1987; Nattinger and De Carrico, 1992) underestimates the extent to which prepositional semantics is systematic and straightforward. It thus compels second language learners to do too much item-by-item learning. Some grammarians also claim that prepositions are largely to be learnt narrow context by narrow context, often phrase by phrase.

Many other scholars in different language-related domains have also emphasised that studying English collocations is advantageous, for instance, scholars in the field of L2 vocabulary acquisition (Bahns and Eldaw, 1993; Howarth, 1998a, 1998b), EFL/ESL curriculum design (Richards and Rogers, 2001), and lexicography (Benson et al. 1986, 1997). To date, empirical studies

have mainly focused on assessing learners' knowledge of lexical collocations in L2, error analysis, and studying the developmental patterns and the correlation between collocations and general language proficiency.

It is true that scholars have advocated the necessity of lexical collocations (restricted combinations: verb + noun, noun + noun, adjective + noun, adverb + verb) in second language acquisition, hence “developing learners' proficiency with words and word combinations” (Lewis, 1993: 95). Yet this can be extended to include grammatical collocations, too, with the aim of familiarising learners with prepositional occurrences. James (1998: 152), for instance, emphasises the necessity of teaching collocations – generally – at all levels since “adherence to the collocational conventions of a foreign language contributes greatly to one's idiomaticity and nativelikeness, and not doing so announces one's foreignness”. Lewis (1997), too, claims that proficiency in a language is a matter of acquiring “fixed or semi-fixed prefabricated items”. He says later (2000: 8): “We now recognise that much of our ‘vocabulary’ consists of prefabricated chunks of different kinds. The single most important kind of chunk is collocation. Self-evidently, then, teaching collocation should be a top priority in every language course”.

In this context, we note that grammatical collocation patterns are generally less probabilistic and more fixed (Carter, 1992). Teaching lexical collocations is in essence for vocabulary learning; it can be most useful in terminological contexts and in specialised areas of study like law, business, marketing. Carter also states that pedagogical treatments of collocations, at least, would be seriously lacking if grammatical patterning were not included alongside lexical patterning. Still we have to acknowledge that despite the usefulness of teaching prepositional collocations to learners so as to become acquainted with the native-speaker use of language, this does not completely solve the problem of collocational polysemy and unpredictability. However, it can be particularly more practical for teaching prepositions co-occurring with nouns or adjectives, thus promoting

language proficiency and reducing mistakes. It is “clearly impossible to teach all (or even most) of the collocations in a language” (Nesselhauf, 2003: 238).

As adverbial particles have the same form as prepositions, many students tend to translate the prepositions of English phrasal verbs literally into TL and vice versa, hence altering the whole structure including meaning. For example, *I don't know why he turned on me* cannot be translated into *il se tourna sur moi* while the embedded meaning is 'changer son comportement envers moi' in a way 'to attack or criticize someone suddenly and unexpectedly'.

In addition to altering meaning, students most often generate syntactic mistakes by confusing transitive with intransitive phrasal verbs. They quite often turn to word-for-word translation when direct equivalents are missing in the target language. This is common among French students who are not acquainted with similar forms and cannot understand which combination co-occurs and why. Being unable to find any logic behind their construction, even advanced language learners face learning difficulties (Bahns, 1993) and “make inappropriate or unacceptable collocations” (McCarthy, 1990: 13). In addition to not being aware of the existence of paired or multi-word units as single lexical items, they are sometimes unaware of the collocational divergences between the source/target language.

Though criticised by many, some hypothesize that similarities between L1 and L2 will probably (but not always) facilitate learning while differences hamper it, resulting in errors in the latter (Corder, 1981) and producing challenges for L2 learners (Wolter, 2006). Olsen (1999) links the errors generated in L2 productions to the learner's tendency to generalize from previous knowledge of rules or from misconceptions of certain syntactic and semantic patterns in the target language. Interestingly, too, many researchers (like Vainikka and Young-Scholten, 1996) argue that the lexical transfer of L1 is more omnipresent than the transfer of L1 grammar in the target language. And it is this lexical influence of L1

– it is not the only factor – which causes collocation difficulties among learners (Epstein et al. 1996). To what extent is this applicable to French learners? Unfortunately, this area of research remains unexplored despite quasi-similar morpho-syntactic properties between English and French. No published study on explicit teaching of collocational differences/similarities between both languages supports or rejects this hypothesis, probably because of the novelty of collocation instruction in ESL/EFL. Here, we recall Nesselhauf (2003: 240) who asserts that "an L1-based approach to the teaching of collocations seems highly desirable".

In the absence of (contrastive) collocation instruction materials and a clear mechanism of collocation acquisition, there is more focus on web-based English/French collocation extraction from text corpora and translation. For instance, one of the modern approaches to automatic extraction of translation equivalents describes a program named Champollion "which, given a pair of parallel corpora in two different languages and a list of collocations in one of them, automatically produces their translations" (Smadja et al. 1996: 1). In their paper, the authors stress the importance of developing a method for translating collocations being "opaque" and "domain-dependent". They add that "a quick look at a bilingual dictionary, even for two widely studied languages such as English and French, shows that correspondences between collocations in two languages are largely unexplored" (ibid. 34). Thus, another flaw is the unavailability of a handy bilingual collocation dictionary. The translation of multi-word expressions which are mostly idiomatic in nature is unsatisfactory despite the acknowledged difficulties that collocation constitutes for L2 learners (Leed and Nakhimovsky, 1979).

Teaching a second language necessitates mastery of intralingual collocations. For example, in English, we say: *I ran out of ink/gasoline/money*, but in French: *Je n'ai plus de...* Teachers, by and large, either explain the meaning of collocations in a decontextualised fashion or only upon contextual occurrence, but rarely build on them to enlarge the learner's lexicon. Having said

that does not mean that learning disparate collocations is an easy task for second language learners. Some linguists (like Wolter, 2006) would go to the extent that this is more difficult than learning grammatical rules.

Additionally, the classroom and course books are not the only source of knowledge. Collocations are faster acquired naturalistically the more frequently they occur in a written or oral context. For instance, some support the view that collocations can be learnt incidentally through “message-focused activities” such as extensive reading (Ellis and Sinclair, 1996; Nation, 2001). Taiwo (2001: 371) also insists on the importance of reading and specifies that learners are more likely to acquire new collocations if they have previously read them: “Teachers should also encourage their pupils to read a lot of literature written in English, since collocations are better acquired through reading, and chances that ESL learners cannot combine words correctly without having previously read them are very high”. However, an opposing view which supports intentional learning through “form-focused activities” encourages memorisation notably of non-congruent collocations, i.e. those that have no translation equivalents in L1 (Bahns and Eldaw, 1993; Nesselhauf, 2003, 2005).

Learning grammatical collocations should not only be receptive, based on multiple-choice or simply contextual explanation. Productive knowledge of collocations is important as it reinforces acquired lexico-grammatical units and prompts proper use in future context. In this sense, translation into English and gap-filling are possible, but should not be the sole practice tasks. The principle is to test students' knowledge and to enhance their linguistic skills, but not to exhaust them or bore them by lengthy tasks and uncommon co-occurrences. Besides, these tasks are to be integrated into lessons but not only presented as part of a grammar activity. Bahns and Eldaw (1993) suggest that teachers should focus on collocations that cannot “at all or not easily be paraphrased”. After all, collocational proficiency is one of the things that differentiates native and non-native speakers (Van Der Wouden, 1997; Ellis, 2001; Nation, 2001). And above

all, we should not forget the time factor. For, “knowledge of collocation is based on years of experiences of masses of data. [...] Statements about collocation, namely typical patterns of co-occurrence of words, can never be absolute” (McCarthy, 1990: 15).

Why should the large number of paired syntactic categories (containing prepositions) be problematic in SLA? Aren't they learnable in any way? And are we supposed to teach/learn them all? If we are to support the traditional view that knowing a language necessitates knowing its grammatical rules and individual lexical items, this means that we are marginalising the learner's needs. We believe that relevant teaching strategies should facilitate language acquisition in line with the learner's language level and educational goals. A bottom-up approach should accompany the different stages of learning. Language is not grammar or lexis nor is it accurate syntax. For instance, learners at school have particular needs from language, mainly, being able to understand and produce certain patterns in relation to the spatio-physical world. Similarly, at advanced levels, they need to elaborate their knowledge so as to express more complex conceptual domains that correspond with their professional objectives. Yet, at all stages, the human mind is better equipped for memorizing than for creative processing. Studies (Pawley and Syder, 1983; Nesselhauf, 2005) have shown that the use of ready-made multi-word expressions reduces the processing effort and thus plays a major role in language production and comprehension. In the field of applied linguistics, too, Carter (1992: 59) states that “language production consists of piecing together such ready-made 'pre-fabricated' units appropriate to a situation and that lexical acquisition may involve the learning of complete collocational chunks of language”.

What is the role of a collocation program and (online) concordance?

Nowadays, learners, at very young ages, resort to e-learning, mainly to websites for word or text translation, but very often, they do not know which websites to consult, so they end up learning and using erroneous collocates. For

example, referring to the forums/blogs in the popular English-French/French-English on-line dictionary http://www.wordreference.com can supply false knowledge. Learners should be provided with reliable references that present authentic texts and examples of typical usage in natural contexts (TV broadcasts, radio, newspapers and books).

Concordancers isolate frequent L2 patterns using a format called KeyWord-In-Context (KWIC), thus allowing language learners to easily focus on the main item of study which will be highlighted in bold type or in a distinct color. Learners become aware of other language items that collocate with the item they are researching. As Johns (1991: 1,3) posits “the language learner is essentially a research worker whose learning needs to be driven by access to linguistic data” so as “to recover the rule from the examples”. This is what he terms data-driven learning (DDL) or “student-initiated research”. The DDL approach is essentially a new form of grammatical consciousness-raising (Rutherford, 1987), hence, drawing the learner's attention specifically to the formal properties of the TL and casting aside the extensive teaching of rules. Subsequently, learners should be trained how to make productive search, use and selection of appropriate collocations. Relating meaning-form co-occurrences, learners will then be able to make sense of these 'pre-constructed' units and use them correctly when needed. They can explore linguistic patterns through working with contextualised language samples without being passive learners. A corpus allows a quick access to multitudes of authentic examples, so they can draw inferences instead of applying rules and doing multiple-choice exercises. This enhances critical thinking and autonomy through analysis, observation, interpretation, and reasoning. This does not mean that concordancers present no limitations whatsoever especially as regards the complexity and the size of language data generated in a corpus. The following sites include a wide array of on-line samples from different registers and language domains:

British National Corpus (BNC)

http://www.natcorp.ox.ac.uk/

Corpus of Contemporary American English (COCA)
http://corpus.byu.edu/coca/
Virtual Language Center Web Concordancer (VLC)
http://vlc.polyu.edu.hk/

However, problems associated with DDL can be made easier with the help of the instructor who can sift through the massive data by suggesting a moderate-size corpus related to learners' needs and specialty. A user-friendly interface with simple-to-follow instructions are necessary for computer novices. Tribble (1997) advocates the use of mini-corpus as a good learning tool for identifying high frequency lexis in a specialised domain as well as increasing awareness of collocation and colligation, and exploring structural and discourse organisation in a particular domain. If this is recommended at the word or phrase level and syntactically in general, there is no reason that it would not be equally effective and productive in terms of the use of prepositional collocations and phrasal verbs, remembering that prepositions are considered grammaticalised lexis in this paper as discussed earlier (see section I.2.). In addition to familiarising their subjects with the created mini-corpus through (a) demonstration session(s), instructors should also acquaint them with reading strategies to better identify prepositional occurrences or combinations. Learners will be aware that certain forms (here prepositions) change meaning depending on the company they keep.

Words and expressions can be used to mean differently in different domains. That is why, a dictionary does not often provide technical and scientific terms with the company they keep which is not always of help for L2 learners. In other words, a definition or an explanation could be followed or not by a contextualised example or a fragmented sentence i.e. not occurring with the preposition(s) a words usually combine with, for example, the computer-related terms and word combinations below that we looked up in Longman Dictionary of Contemporary English and Cambridge Dictionaries Online:

to boot (up)
stand by
drag a file
install/download/upload a file
plug (into a power outlet)
write a file (onto a disk/DVD)
set up a file

In simple terms, a language learner consults a dictionary to better understand the sentential use of certain words or combinations, but the search results do not often remove ambiguity.

A dictionary lists the parts of speech and occurrences of an entry word (for e.g. *over* occurring as a preposition, noun, adjective, prefix, part of a compound noun, verb + preposition/particle, adjective + preposition, etc.) whereas a concordancer can give a more precise and rapid search output. Dictionaries can as such demotivate language learners but a specialised micro corpus can facilitate one's search and comprehension of a particular word occurrence especially as it narrows down the references provided to relevant collocates recurrent in one's field of study. Developing a system that provides keywords-in-context with the possibility of statistically highlighting high frequency words that occur before or after the keyword enables learners to identify collocations common in a scientific or technical register, hence illustrates meaning. In addition to better comprehension of prepositional collocations and verb + preposition combinations, a corpus encourages learners to become aware of various grammatical and structural aspects of L2. Incorporating concordancers into the language classroom as a learning tool that accompanies different language skills enhances English proficiency in general.

This approach makes French learners realize that in order for a string of words to be meaningful – especially in terms of English language which is rich in verb + particle(s) combinations, it has to be regarded as one whole instead of forms in

isolation. With practice, they will notice that adding, omitting or using a preposition/particle faultily may change the whole sense of an utterance, hence this could raise awareness and reduce transferability of collocational patterns.

Therefore, teaching collocations of prepositions and concordance in context and asking students to reproduce them in writing help them acquire their different forms and meanings. Learners can consult online corpora and/or use concordance printouts to observe the collocational tendencies and syntactic patterns of single prepositions and phrasal verbs. Using concordance data, they may “develop inductive strategies that will help them to become better language learners outside the classroom” (Johns, 1991: 31).

Using concordance (web-based or paper practice) in teaching collocations has only been recently recognised in SLA – though timidly – with the revolutionary introduction of computers in the early 1990s. Carter (1992: 181-2) says that “computers can supply helpful information at all levels (stylistic, syntactic, collocational and semantic)”. He adds: “computer corpora give obvious utility to learners to know the most frequent words and, in pragmatic uses, where there are preferred patterns rather than absolute rules, to know the most frequent collocational and stylistic patterns”.

Batstone (1995), too, finds that data-driven learning enables learners to explore specific aspects of L2 through multiple exposures in multiple contexts. Besides, DDL promotes creativity and self-discovery learning. Yet, very few published longitudinal studies have investigated the utility (or not) of collocation knowledge on L2 learners' progress or on language acquisition, in general. Most research though focuses on lexical collocates, mainly verb-noun and noun-verb collocations. A study conducted by Chan and Liou (2005) analysed the influence of using web-based concordancing on Chinese students' learning of English verb-noun collocations. The findings revealed that learners made significant improvement immediately after the online practice but regressed later. Yet, the

final performance was still better than students' entry level. Learners with different prior collocation knowledge were found to be not equally receptive to the practice effects.

Similarly, a study conducted by Cobb (1999) analysed the influence of using concordancers on contextual word learning. The subjects were Arab students learning English for Academic Purposes. They were divided into two groups: control and treatment groups. Unlike the former who were given a list of new words and who consulted a dictionary to learn them, the latter used a simplified concordancer and created their own dictionaries. According to periodic quizzes and pre-/post-tests, both groups retained the word definitions, but the former failed to maintain them in the long-term nor could they transfer their knowledge to the comprehension of novel texts, whereas the latter (using a concordancer) achieved short- and long-term retention, and could use the words in new contexts.

In summary, while in use for the last 20 years at the university level, the DDL approach is not widely experimentally studied at lower educational levels. In her study of 12 DDL papers, Chambers (2007: 5) wonders: “it is worth asking why there are not more large-scale quantitative studies” in the field, arguing that corpus consultation by learners appears to be increasing in higher education.

For this reason, the DDL approach has to be assimilated and welcomed by teachers first in order to be well-introduced to second language learners. The main argument against this approach is that it is just too difficult for most students (Willis et al. 1995: 67), notably for beginners. Yet, it could be a productive and practical application of pedagogic grammar as far as English prepositional collocates and phrasal verbs are concerned. Bearing in mind that every new approach is marked with some degree of difficulty and abandonment, pedagogues should give the DDL approach a try in order to test its efficiency.

French Collocation

In order to have a better understanding of how French learners of English interpret collocations in general, we have to have a quick view at the structure of French collocations: Do L1 and L2 have the same definition and categorisation of collocations (lexical and grammatical)?

In French linguistics, too, there is no generally accepted definition of the term collocation which is also viewed as a pre-constructed lexical unit. “Mot composé, locution, idiotisme, expression idiomatique, phraséologisme, cliché, proverbe, dicton, etc., autant de termes, souvent mal définis, pour décrire l’extrême variété des expressions figées et consacrées par l’usage” (Misri, 1987: 74).

More critically, French collocations do not seem to have a fixed place in linguistic study i.e. there are no complete and comprehensive criteria of classification of their different categories. In their typology of French collocations, scholars usually refer to English publications and resources for citations and definitions (like Halliday, 1966; Benson, 1985; Lewis, 2000). Yet, for example, they cite F. de Saussure who names collocations as “locutions toutes faites” and describes them as arbitrary and pre-fabricated chunks of language; Tutin and Grossmann (2002) who give an overview and a definition of regular and irregular French collocations; and Gross (1996) who talks about fixed French combinations and their properties (critères du figement). French collocations are usually divided into: verbal, adjectival and adverbial. Prepositional collocates, however, are not given any particular importance in linguistics studies.

The very few available publications on collocations simply give a lexicographic description of restricted combinations (e.g. noun+noun; noun+adjective). For instance, a number of studies on the “expressions figées” have been conducted by LADL (Laboratoire d’Automatique Documentaire et de Linguistique) and CERIL (Centre d’Etudes et de Recherches en Informatique et

Linguistique).

Furthermore, dictionaries do not all present similar categories of word combinations. Laurens (1999) analysed collocation treatment in six pedagogic dictionaries addressed to native French speakers and L2 learners of French (Micro-Robert, le Robert Junior, le Petit Robert, le Lexis Larousse, le Kontextwörterbuch Französisch-Deutsch and le Dictionnaire d'apprentissage du français des affaires). She found that they differ greatly in terms of the total number of collocations they comprise, their type and presentation (noting that she only considered noun + adjective; noun + noun; noun + verb).

Here are the collocation types presented by Hausmann (1989):

- noun + adjective: *célibataire endurci* (confirmed bachelor)
- noun (subject) + verb: *la colère s'apaise* (the anger wears off)
- verb + noun (object): *tenir un journal* (to keep a diary)
- verb + adverb: *exiger énergiquement* (to insist firmly on sth)
- adverb + adjective: *gravement malade* (critically ill)
- noun + (prep.) + noun: *marché du travail* (labour market)
- verb + prep. + noun (Hausmann, 1999): *rougir de honte* (to blush)

In French, compound nouns are the most common types of collocations. They have been extensively studied by linguists and, unlike other categories which are all referred to as "des locutions", they are given a name "les noms composés". The relation between the different component parts of verb collocations have also been considerably studied semantically, syntactically and pragmatically.

L2 learners of French, like L2 English learners, face the same kind of difficulty in acquiring collocations: "Les unités polylexicales, et les collocations en particulier, posent souvent problème aux apprenants sur le plan réceptif, mais davantage encore sur le plan productif" (Binon and Verlinde, 2003: 32). At an

early stage, learners can neither recognise nor produce these pre-constructed units. De Cock (2003), for instance, stipulates that French learners of English (i) underuse a number of non-congruent multi-word units which have no equivalent forms in French; (ii) overuse a limited number of frequent English collocations; and (iii) they misuse some English collocations that are partially congruent in French.

Therefore, there exist collocational dissimilarities even between European languages such as English and French (Mitchell, 1975). For example, at the word level, there are some restrictions between L1 and L2 in such a way that one word takes a variety of different forms in French.

From a pedagogical perspective, is the study of collocations in general and grammatical collocations in particular emphasised in second language acquisition? “Il faut introduire les collocations dès le début de l’apprentissage” (Binon and Verlinde, 2003: 36).

As in English, collocation knowledge is emphasised basically for teaching lexis (vocabulary or terminologies). Nonetheless, in French too, neither the acquisition nor the study of “grammatical collocation knowledge” has been so far a subject of interest for scholars and educators in SLA. However, generally, collocations are recognised as common in scientific and everyday language use (Mel'čuk, 1993). They are thus recommended for learning French as a second language notably at graduate university levels, i.e. in academic writing, but are not as widely recognised (and valued) as they are in learning English as a second language (Cavalla, 2009). On the other hand, collocation competence is one of the requirements for foreign learners to obtain the C2 level: “Peut participer sans effort à toute conversation ou discussion avec un bon usage d'expressions familières ou idiomatiques” (Conseil de l'Europe, 2000: 27). Binon and Verlinde (2003: 31) state that “la connaissance d’un nombre (élevé) de mots isolés ne suffit pas pour bien communiquer”. They add: “La maîtrise des unités

polylexicales, et surtout des collocations, constitue la clef de voûte de l'enseignement et de l'apprentissage d'une langue étrangère ou seconde, surtout dès le niveau intermédiaire".

In summary, we conclude that teaching prepositions and phrasal verbs in isolation (see Chapter IV, section IV.1.) is not always successful. Thus, in an attempt to reduce difficulties and mistakes, a new teaching approach is necessary.

Unlike conventional teaching methods that advocate teaching lexical units or isolated linguistic structures (teaching prepositions in separate lessons: prepositions of time/movement/place, etc. and prepositional verbs), the above approach recommends collocation acquisition.

Since collocations are polysemous, teaching should basically highlight:

- common phrases that differ structurally/semantically/cross-culturally from L1: *put the key in the door* (mettre la clef sous la porte); *to walk in the sun* (marcher sous le soleil),
- exceptions to the rules in L2: *Travel by plane/bus/bicycle/car/ferry/lorry/train*, yet *Go on foot* (à pied). We say: *He is on the bus/train*, but *He is in the car,*
- confusing occurrences that might pose difficulties to learners due to partial congruence with L1: *be responsible for* (to have control over something or someone and the duty of taking care of it or them) and *be responsible to* (to be controlled by someone or something),
- social lubricators that facilitate interpersonal interaction: *it's up to you to decide, at my expense, beyond doubt, arrive on time/ahead of time/in time to do something,* etc*.,*
- formulaic expressions or phrases with certain rhetorical or pragmatic functions in spoken/written contexts (introducing a topic, giving and requesting information, expressing opinion, illustrating, emphasising, contrasting, hypothesizing, concluding): *In response to your letter/email,*

etc.; *it's out of the question; on the spot; be overwhelmed with/by despair/grief/surprise/joy,* etc.,

- collocations or phrases that have no equivalence in L1 (non-congruent collocations), noting that L2 learners have a tendency to transfer directly translatable collocations (Bahns, 1993),
- opening phrases and connectors: *with respect to your point, with regard to what you said, as for me, on the whole, with the exception of,* etc.,
- common idiomatic expressions that are useful in everyday communication or situational context: *a means to an end; it's getting on my nerves; scratch beneath the surface*, etc.,
- combinations with more than one meaning association (context dependent).

Lastly, it is worth noting that teaching should neglect “passive idioms and dead metaphors” (Hill, 2000) nor should it be based on excessive idiomatism as this would pose an additional learning problem.

IV.2.2. Cognitive linguistics

Traditional accounts (Chomsky, 1981: 24) have long assumed the semantics of English prepositions as highly arbitrary. Cognitive linguists, on the other hand, stipulate that it is fundamentally systematic. To begin with, amongst the many cognitive linguists who view a great deal of systematicity in the semantics of English prepositions are Lakoff (1987), Brugman (1988), Dirven (1993), and Kreitzer (1997). Tyler and Evans (2004a: 260), too, point to the “usefulness to language teaching of taking a CL approach”. They add that cognitive linguistics “provides a unified, accessible account of how many grammatical constructions and lexical items work, and how varying uses of these forms are systematically related to one another”.

Teaching English prepositions based on CL approaches aims to show the systematic relations and the semantic extension they propose. This approach is said to be “usage-based” as it allows the “amalgamation” of cognition (mental representation) and linguistic structure (lexical items) without ignoring the context in which lexical items and grammatical constructions occur. Cognitive linguists hold that syntax and morphology are meaningful and governed by many of the same cognitive principles as lexis. Yet, L2 teaching methods do not usually highlight the differences in the uses and meanings of prepositions. This renders their use unpredictable and complicated. Amongst the few other researchers who have emphasized the usefulness of CL approaches in the acquisition of English prepositions are Boers and Demecheller (1998), Littlemore (2001), Schmied (2003), and Cho (2010).

Cognitive linguists (Lakoff, 1987; Langacker, 1987; Dirven, 1993; Goldberg, 1996; Lindstromberg, 1998; Tyler and Evans, 2003) claim that space is the prototypical sense of prepositions and this basic category extends to involve more abstract representations, known as metaphorical or idiomatic extensions.

Dirven (1993: 76) says:

> The extensions of meaning of a preposition from physical space via time into more abstract domains do not occur in any haphazard way but follow a path of gradually increasing abstractions, whereby the link with each prior meaning remains obvious and may account for most, if not all, co-occurrence restrictions between trajector and landmark.”

This polysemous network, i.e. the multi-senses and uses of prepositions, is highly structured and far from being chaotic. This network reflects the learner's own experiences with the external spatio-physical world.

The spatial aspect of prepositions is considered by many cognitive linguists to be the most representative of their multisenses. For instance, Dirven (1993: 73-97) characterises the “spatial conceptualisations” of twelve prepositions and

sets of various relationships saying that the “basis of it all is the conceptualisation of physical space”. According to him, the “chains of meaning” are structured from physical into “mental space”, i.e. from spatial domains via the domain of time to the metaphorical extensions of the structures then to the more abstract domains like state, manner or means, circumstance and cause or reason.

Langacker (1987: 217) distinguishes between a “landmark” and a “trajector” in talking about the unequal internal structure of relational predications and conceptualisations due to the “salience” of its participants. More clearly, in these relational predications, one of the participants is the “figure” and the other salient participants or “secondary figures” are the “landmarks”. As for the role of the landmarks, “they are naturally viewed (in prototypical instances) as providing points of reference for locating the trajector”. After the formation of a prepositional phrase, the preposition is encoded differently from when it was standing alone; for it does not carry the same “semantic pole” as when used in a prepositional phrase. However, the meaning integration of the trajector and the landmark is possible due to correspondences between them, specified schematically by respective elaboration sites (e-sites).

By way of illustration, following CL conceptualisation of meaning, let us consider this example: *lead oxide found on the ground*. The relational elaborations can be explained as follows: the landmark *on the ground* restricts the choice of the trajector *lead oxide* to entities capable of interacting with the relation *on the ground.* The specifications of the e-site of the prepositional phrase o*n the ground* make it less possible to say, for example, *natural gas found on the ground*, unless the nominal *gas* departs from its prototypical meaning. Yet, it would be acceptable to say *natural gas found in/under the ground* due to the characteristics of *natural gas*.

Another way of justifying the use of the preposition *on* here is considering the qualities of the scene i.e. the relation between the landmark and the trajector.

By qualities, we mean the specifications in the structures of the objects which define the way they can interact to create meaning like a solid (flat) surface and a granular colorful toxic substance. In Cognitive Grammar framework, such specifications represent the qualities which allow the type of organisation encoded in *lead oxide found on the floor* which has a physical and spatial but not conceptual dimension. Yet, mainly, in the cases of enclosure or containment, it is said that complex language expressions are “motivated by conceptual rather than physical enclosure”.

In their approach to the semantics of English prepositions, Evans and Tyler (2001a, 2003, 2004a, 2004b) say that concepts encoded by prepositions are “image-schematic in nature”. They also indicate that a preposition “encodes an abstract mental idealization of a spatial relation, derived from more specific spatial scenes. This forms the primary meaning component of a semantic network” (Evans and Tyler, 1999: 1). In their study of some aspects of the lexicalisation patterns exhibited by the preposition of enclosure *in* and the prepositions of verticality *over*, *above*, *under* and *below,* they argue that “the idealized spatial relation also encodes a functional element, which derives from the way spatial relations are salient and relevant for human function and interaction with the physical environment” (ibid. 1). Moreover, “the additional senses in the semantic network have been extended in systematic, constrained ways” (ibid. 1). In other words, prepositional meanings are structured from spatial to abstract domains in ways that are logical and consistent.

In the language classroom, the CL approach allows for discovering and categorising meaning in relation to the prototypical meaning and the prototypical schemas of prepositions. Thus, learners become more conscious of and confident about the choice of prepositions. The CL approach to prepositions proposes a systematic account that facilitates their comprehension and use. It illustrates how understanding of prepositional meanings can be presented to second language learners with a minimum of grammatical explanation. Besides,

by “following a few basic assumptions about the nature of language and applying a highly constrained set of cognitive principles” (Tyler and Evans, 2004a: 260), learners can have a clearer picture of the semantics of English prepositions. As for these “basic assumptions”, they can be summarised as follows:

(i) the principled polysemy network,

(ii) the non-propositional conceptualisations of spatial scenes,

(iii) language radically underdetermines the interpretation of utterances.

The first assumption holds that the seemingly unrelated multiple meanings associated with each preposition all emerge from and go round a central sense, thus forming organised semantic networks. To support this view, cognitive linguists (Langacker, 1987, 1991, 1992; Taylor, 1995) state that the mental lexicon, unlike a dictionary, forms chains of related word-meaning associations but not phonological forms with disparate connections. And, as humans use language primarily for communicative purposes, then lexical items occur in sentential but not isolated modes to indicate one established meaning. New meanings or inferences, however, can be understood from the situated and/or contextual use of the lexical form. Repetition across a number of similar contexts results in additional or extended senses, that is, in natural categories represented in a principled polysemous network.

As for the second basic assumption, cognitive linguists argue that the external physical-social world shapes humans' conceptual structure. Concepts deriving from human interaction with the real world, such as the spatial relations coded by prepositions, are “better represented as being more schematic in nature, often crucially involving sensory-motor imagery, rather than as linguistic propositions or semantic feature bundles” (Tyler and Evans, 2004a: 262). Humans create mental representations of their recurring sensory-motor experiences with the external world. These conceptualisations involve spatial scenes, or highly abstract, schematic generalizations established in memory in response to observing or experiencing physical entities in a number of similar

events or similar spatial relationships.

The third basic assumption concerns the interpretation of an utterance which is said to be richer than the content implied in the lexical form and the syntactic structure, due to personal input and interpretation, background knowledge and experience with the real world (Langacker, 1987).

Cognitive linguists (Taylor, 1993; Langacker, 2001) claim that the practical pedagogical benefits are partly evident, notably, for enhancing teaching away from formal approaches to second/foreign language acquisition. They acknowledge that language is influenced by human cognition and perception, and that language develops and changes through human interaction with and experiences in the world. Meaning is central to cognitive grammar which is concerned with modeling the language system rather than the nature of the mind itself. Learning a foreign language involves learning its forms as well as learning the conceptual structures associated with these forms. For this, grammatical instruction should provide an explanatory account of the semantics of prepositions instead of simply indicating that a particular element belongs to a given formal category or that a certain construction is well or ill-formed. In essence, promoting learner's insight means reducing the perceived arbitrariness of the foreign language system; emphasising certain features; and neglecting others.

The CL approach has the potential to provide other pedagogical benefits for learners. On one hand, the multiple meanings associated with a preposition form a "principled polysemy network" organized around a central meaning rather than a list of unrelated meanings. The multiple meanings are represented as being schematic in nature. On the other hand, the principled nature of the polysemous network would seem to provide a solid foundation for the learners from which to infer the meanings of unfamiliar uses of some prepositions when they are encountered in context.

The CL approach offers a more explanatory account of the multiple interpretations assigned to prepositions and also illustrates how this understanding of their meanings can be presented to second language learners with a minimum of technical jargon and grammatical explanation. For example, explaining prepositions of direction or motion (*through, to, into*, etc.) based on the source-path-goal schema can provide more coherent, insightful explanations of their various meanings: “while *to* codes for orientation and goal, but not path and motion, *through* codes for path, but not goal, orientation and motion” (Tyler and Evans, 2004c: 249). In addition to sentential context and background knowledge, Lakoff and Johnson (1999: 33) attribute topological inferences (path can be expanded, diminished or deformed) to the source-path-goal schema.

In addition to the cognitive interpretation, other factors too can help illustrate the interpretation of English prepositions like context, background knowledge, and pragmatic inferences. For Tyler and Evans (2004c), prepositions of motion carry a “functional element” in addition to the spatio-geometric properties.

Unlike Brugman and Lakoff (1988), Tyler and Evans (2004c: 248) give sentential context a significant role in portraying meaning: “Clearly, our interpretation of the conceptual spatial relation denoted by a preposition such as *in* is in part constrained by sentential context, that is, by the characteristics of the actions or entities which are designated”. This is to say that “the meaning assigned to the preposition is 'distributed' across the sentence”. Vandeloise (1991, 1994), on the other hand, adds functional factors (like gravity, force, pressure, trajectory) to the spatio-geometric configuration encoded by a preposition/spatial particle for a “full specification” of spatial uses.

Since the current research does not concern the characteristics nor the meaning representations of prepositions, we will not delve into the study of the multiple prototypical senses and their graphic representations. For an ample

explanatory account of their semantic network (extended meanings beyond the proto-type) and detailed visual rubrics, refer to Langacker (1987, 1992); Vandeloise (1994); and Tyler and Evans (2001, 2003, 2004a, 2004b, 2004c).

We will now develop further the advantages of taking a CL approach for explaining prepositional uses to L2 learners. To this end, we will provide a pedagogical explanation of certain erroneous prepositional uses within the framework of our corpus (lead poisoning). More precisely, we will illustrate (1) why they are erroneous and (2) what a better alternative could be taking into account the above “CL basic assumptions”. On the other hand, knowing that the same scene affords several distinct ways of being viewed and interpreted, we cannot rule out various possible prepositional uses and only consider one correct preposition.

Let us have a look at the following examples which are not necessarily translation mistakes but are lexically 'incorrect' (i.e. wrong preposition):

(a) **Lead oxide is sprayed on the air.* (in the air)

(b) **Lead oxide is sprayed with the air.* (in the air)

(c) **Lead oxide is spread with the air.* (through/into the air)

(d) **Lead oxide spreads on the floors of houses, beds,...* (spreads over)

First and foremost, the above sentences bear slightly different conceptual meaning. Considering Langacker's principle (1987) that prepositions code for conceptual spatial relations between two entities, the trajector (in focus) and the landmark (background), we assume that the listener here has the same inferences with respect to the four sentences. For the trajector (lead oxide) and the landmark (air/floor) are subject to real-world force dynamics (Talmy, 1988, 2000).

Firstly, we consider erroneous prepositional usage:

Bearing in mind the properties of the trajector (granular colorful toxic substance)

and the landmark (invisible gaseous substance surrounding the earth) in the first three sentences, what kind of relational elaborations do they allow?

In sentence (a), since the landmark restricts the choice of the trajector, the specification of the latter is a substance that diffuses and spreads in the space, but not *on* a particular zone or an area in the space. This substance must be liquid or solid, or a liquid containing solid droplets in order to be sprayed. Besides, air does not have the quality of physical support like a solid surface with which elements can be in physical contact.

Similarly, the same applies to sentence (b) where the trajector cannot solely accompany the landmark, remembering also that the use of *with* in *sprayed with* implies *going in the same direction as the other entity*. Yet, it is emitted into the air, so the meaning implied is embodiment. However, it would be both semantically and lexically correct to say: lead oxide is *sprayed with* other toxic substances in the air. As can be seen, we cannot consider the preposition irrespective of the other lexical items (e.g. verb) and/or entities (trajector and landmark) in a construction. Thus, a preposition is partly responsible for determining meaning, but does not alone govern the core meaning of a sentence.

In sentence (c), the verb *spread* does not necessarily mean that either entity should have liquid characteristics. And having explored the meaning integration of the trajector and landmark, we rule out the possibility of *spread with* here as it also implies 'accompanied by something', yet lead oxide is spread via this medium (air), so it would be more correct to say: *spread through/into the air*.

Sentence (d) presents another landmark (floors of houses and beds) that share more or less the same characteristics though they differ in shape and form. What concerns our explanation with respect to the trajector is that both have a flat surface that allows objects or elements to be dispersed or stretched.

However, if we consider the above specifications of lead oxide, we note that lead oxide particles are not liable to changing their surface area, length or width. That's why, *spread on the floors/beds* is inappropriate. This structure suggests opening out something (like a piece of cloth) so as to extend it at full length or applying something (like butter) on a surface so as to cover it. Instead, *spread over* signifies extension and/or dispersion, thus, covering a wider area without necessarily any consistency. Remembering that *over* here is used as an adverbial and when it occurs alone (not followed by a verb), as in *the toys all over the place*, it also indicates dispersion over a wide area (the meaning that *on* does not imply). How do we infer this meaning? Considering the characteristics of the trajector, we can assume that it does not usually stick to a single point in the space, and the extended meaning of *over* is 'coverage'. In other words, humans add personal knowledge to lexical forms, thus, adding meaning to what is not indicated linguistically. This is what Cognitive Linguistics terms “inferencing”, thus, adding new meaning to a preposition which then becomes familiar the more it is used in similar other situations. Additionally, we stress that the verb *spread* imposes restrictions on the choice of the adverbial/preposition, and this aspect should not be ignored while considering semantic and syntactic configurations. Hence, the information is distributed across the sentence, and the preposition or the spatial particle associated with the verb is not solely responsible for encoding motion.

> A greater appreciation of the role of sentential context in meaning construction suggests, then, that *over* does not have, and indeed no English preposition has, a ‘movement’ sense associated with it. Nevertheless, certain prepositions, such as *over*, do seem more likely to participate in ‘movement’ readings than other prepositions, such as on.” (Evans and Tyler, 2004c: 255)

Secondly, let us apply the basic CL assumptions on the aforementioned explanation of the erroneous constructions for evaluating their pedagogical benefits:

The explanation shows that the various meanings associated with the prepositions *on, with* and *in* form a principled polysemy network, each organized around a central sense, rather than a list of unrelated meanings. Knowing the core meaning of a preposition and its basic extended senses lessens prepositional ambiguity and, consequently, prepositional mistakes. In addition, another CL insight into the semantics of English prepositions is the non-propositional nature of spatial scenes. We have seen that sentences cannot be constructed from a purely linguistic point of view; the external world does interfere and influence sentence-construction. If we are unaware of certain facts about the given entities (here, *lead oxide* and *air/floor*), we cannot guarantee correct choice of lexical forms (preposition, verb, etc.). Learners should have knowledge or experience of the external physical-social world that help them create mental representations of recurring or new experiences. The third CL assumption complements the previous idea that humans' visual, sensory-motor experience enriches their interpretation of on-going discourse and generates more content than that implied in syntactic configuration. For this, humans, unlike dictionaries, have the ability to create “gestalt-like” conceptualisations, particularly, of spatio-physical events or situations.

For a gradual in-class explanation of how the proto-scene (central sense) and the extended senses can be taught, refer to Tyler and Evans (2004a). Their practical ideas are motivated by the above cognitive linguistics principles and Winke and Kim's (2002) “small, quasi-experimental classroom intervention”. In brief, in their interpretation of the preposition *over,* they indicate: Start by showing several pictures illustrating the central use of *over* then use a flip book which shows, for example, *a cat jumping over a wall* to explain the three points involved in the scene (initial point, act of jumping and completion). They then connect this whole concept to other occurrences of *over,* thus adding to it a new sense “transfer of physical objects” until the completion of an act which involves an obstacle. After that, they give other examples which denote “transfer” in general.

In summary, the cognitive linguistics approach opts for a clearer analysis of the use of spatial prepositions, maintaining that it provides a number of benefits for L2 learners with the purpose of increasing comprehension and reducing rote learning, thus, minimising the arbitrariness of distinct meanings and occurrences. Nonetheless, while a CL approach to understanding the preposition system might be promising, it can be at the same time abstract, especially for language learners. For this, it is recommended at B1 level and above where learners are expected to have been already exposed to the central meaning of spatial English prepositions. In other words, a CL-based explanation of prepositional uses and senses ought not to be adopted as the sole instructive pedagogical method.

It has been emphasised that learners' own experiences with the spatio-physical world influence their visualisation and inferencing of prepositional uses and their extended senses. Besides, meaning representations are viewed as schematised conceptualisations of events or scenes which are systematically connected to form polysemy networks but not extensive fragments of unrelated meanings as usually presented in a dictionary.

Nonetheless, when prepositions combine with verbs in verb-particle constructions, their interpretation is undoubtedly more demanding and less structured due to their polysemous and idiosyncratic nature. It would be tedious to outline and explain all occurrences. In order to better illustrate this idea, let us consider the following erroneous examples from our learner corpora (canning process):

(e) *A selection is made to put out the non-interesting parts of vegetables.*

(f) *Labels are put in cans so that they can be ready for distribution.*

Before making any commentaries, let us see the various senses of the above phrasal verbs (New Oxford American Dictionary):

put something out: **1** extinguish something that is burning • turn off a light. **2** lay something out ready for use **3** issue or broadcast something **4**

dislocate a joint **5** (of a company) allocate work to a contractor or freelancer to be done off the premises. **6** (of an engine or motor) produce a particular amount of power

put something in/into: **1** present or submit something formally **2** devote time or effort to something **3** invest money or resources in.

There is no convergence between the meanings as defined in the NOAD and the erroneous usages above, so the above constructions can be confusing to a native English listener. Why? The learners here tried to express meaning descriptively (to paraphrase) taking advantage of background knowledge of force dynamics to convey the intended message. In (e), for instance, connecting the verb *put* (cause something to move from its proper place) with *out* to mean take away the unwanted or unnecessary parts of vegetables; and in (f), connecting the verb put with *in* to mean attaching labels to cans. As the native speaker already has in his lexicon meanings associated with *put something out/into/in*, he will probably get confused, though the context is likely to remove ambiguity.

What interests us here is to briefly highlight the following:

- how learners employ lexical forms for expressing meaning; and
- if they succeed despite mistakes in prepositions (and/or particles in phrasal verb constructions).

Learners have their own strategies for acquiring, storing, and processing information (see Chapter III, section III.1.1.). These personalised approaches help them access language, build up their mental lexicon and communicate. Richards et al. (1998: 444) define strategies as “procedures used in learning and thinking, which serve as a way of reaching a goal. In language learning, learning strategies and communication strategies which language learners make use of in learning and using a language”.

Based on the above, we note that learners are unaware of the specific senses associated with these phrasal verbs, but they combined verbs with spatial particles – consciously or unconsciously – to create meaning. First, the verb *put* is chosen as it indicates motion, that is, moving something from one point to another. Although lexically, the word *put* means placing an object in a particular position on a particular surface, this object has to be lifted from an initial point in order to be placed elsewhere i.e. subject to force dynamics like gravity (Vandeloise, 1991).

Cognitive linguists say that one makes use of one's knowledge of the external world to create and interpret new meanings. The use of particles by L2 learner is meant to clarify the designated meaning so as to remove conceptual ambiguities. However, in the erroneous sentences we have discussed above, this resulted in semantic and syntactic mistakes that did not greatly affect comprehension, probably because of the listener's inferencing, i.e. background knowledge and context (see Chapter V, section V.6.1.).

If we consider the choice of the particles *out/in* in examples (e) and (f) above from a semantic point of view, we notice the following:

- *out* implies motion with the result that something is taken away (meaning quite relevant to the concept)
- *in* implies something that is enclosed (meaning is irrelevant to the concept)

Learners use language to communicate, and when unable to find an exact word/term, they use a general expression to convey meaning without necessarily abandoning the overall sense or the intended meaning. This is known as “semantic avoidance” (Corder, 1983; Faerch and Kasper, 1983).

To conclude, the long lists of verb-particle constructions and their polysemous nature add to the difficulty of understanding their syntax and

teaching them to second language learners. The few “basic assumptions” explained earlier from a Cognitive Linguistics point of view, as proposed by Tyler and Evans (2001, 2003, 2004a, 2004b, 2004c), concern the semantics of English prepositions, and more precisely the multiple senses associated with it. The CL approach, on the other hand, also assumes that the abstract senses of verb-particle constructions are systematic and did not develop at random, and their meanings, too, go from the concrete to the abstract.

One way of deciphering the polysemy structures of the spatial senses of prepositions (and particles in phrasal verb constructions) has been proposed by the “prototype theory” which derives its principled explanation from cognitive linguistics (image-schema transformations (Lakoff, 1987); and trajector/landmark in relation to the spatio-physical world (Langacker, 1987)).

The prototype theory, first introduced by Eleanor Rosch in the mid 1970's, stresses the importance of having insights into the conceptual metaphor mapping strategies for understanding the internal structure of prototypical categories. Geeraerts (2006: 144) also stresses “the importance of metaphor and metonymy as the basis of [...] flexibility” which allows developing a model for dealing with the polysemous properties of lexical items. The locative domain, according to cognitive linguistics, is said to be the source for a large variety of semantic extensions to non-locative domains through metaphor and metonymy. However, we should admit that the semantic structure of prototypical categories “cannot be defined by means of a single set of criterial attributes” due to their “clustered and overlapping meanings” and the variable “degrees of category membership” (Geeraerts, 1997: 11). In other words, “[t]he links are sometimes defined by shared properties, but frequently they are defined not by shared properties, but by transforms or by metaphors” (Lakoff, 1987: 435).

Teaching should particularly highlight and facilitate comprehension of unfamiliar prepositions i.e. where there is no one-to-one equivalence between

the SL and the TL due to cross-cultural variation. In this respect, Boers and Demecheleer (1998: 197) say: “Even closely related languages show differences with respect to the spatial distinctions that are conventionally deemed relevant”. As an illustration, they indicate that the prepositions *behind/derrière* and *beyond/au delà* do not code similar spatial configuration in English and French, especially in the way they metaphorically structure abstract domains, and this may be the cause of L1 interference in learners' productions. It should be noted that “[e]ven though a given L1 preposition may have an equivalent L2 counterpart as far as its prototypical, concrete spatial sense is concerned, its usage may differ markedly from that of the L2 counterpart when it comes to the less prototypical, more abstract senses” (Cho, 2010: 260). For this, “tracing the conceptual links between the different senses of a polysemous item may help us anticipate comprehension problems” (ibid. 203). For example, the senses of lateness and low achievement expressed in *behind* (e.g. *The train is one hour behind/My son is behind his classmates*) are absent from the corresponding preposition *derrière* in French (and are replaced with *en retard*: *Le train est en retard d'une heure/Mon fils est en retard par rapport à ses camarades de classe*). That's why learners' attention should be drawn to the spatial sense behind its use “by means of an appropriate sequence of examples with graded levels of abstraction”, i.e. suggesting examples that go from the least abstract meaning to the more abstract.

Moreover, “motivating metaphorical extensions may help us present the semantics of a polysemous item in a way that facilitates comprehension” (Cho, 2010: 203). For example, *beyond* expresses a figurative sense that is absent in French i.e. it incorporates motion (e.g. *He walked beyond the yard into the forest*). In the absence of one-to-one equivalence in L1, it would be useful while explaining the spatial sense of a preposition to hint at its metaphorical extension as well as its opposite metaphor.

The main point that concerns us in this respect is: what pedagogical

implications can we draw from the prototype theory? In the first place, this perspective aims to sensitize L2 learners to the role of metaphors and figurative-related meanings in the extension of prepositional/particle multi-senses. Being conscious that they are “central to the use of language” (Low, 1988: 125), learners would activate their conceptual system, i.e. make use of past experiences with L2 and try to develop new meaning chains upon encountering a new structure. Yet, it is not always simple to dissociate their L1 conceptual system. Secondly, this approach reminds learners of the indirect relation that exists between the central/prototypical locative meaning and extended senses of prepositions. Nonetheless, the more abstract nature of the figurative relations is more likely to cause difficulty for learners; hence, unable to find any link between the senses, learners resort to rote memorisation.

IV.2.3. Task-based language teaching

Education, like intellectual skills, has to accompany and adapt to the rapidly evolving changes in life (new theories, complex queries, technological advances and learners' needs). Some learners might be less interested in paper work, classical teaching and routinised exercises. The teacher should keep in mind learners' versatile skills; for, while some might be good with words or are good speakers, others might have visual-auditory acuity or manual dexterity, or might enjoy pictorial literacy, etc. This is to say, finding the right balance incites the learner to be an active participant in the learning process and, eventually, better digest and use the given material.

The organisation and planning of the curriculum should serve and develop skills of practical evidence and use in real life situations. Consequently, adapting the teaching method to the learner's needs is necessary (learner-centered approach), which is not the case in form-focused teaching.

The feasibility of task-based learning in language pedagogy and in language acquisition research has come to light in the past 30 years (Ellis, R. 2005). It is being further studied by practitioners who believe that it enhances learners' holistic language ability (one skill or more). Clear evidence of this increasing interest is the increasing quantity of research in classroom language acquisition (Ellis, R. 2003, 2005; Van den Branden, 2006). Besides, textbook/course designers have also been recently advocating TBLT (Leaver and Willis, 2004) in addition to drafting methodological guides (Nunan, 2004; Willis and Willis, 2007). Not only this, but TBLT has become a popular theme for discussion and feedback exchange in international conferences on second/foreign language teaching. While the reliability and positive effect of TBLT on the development of L2 production and comprehension has been widely-discussed, there is disagreement whether focus should be on meaning or form or on both.

With respect to the benefits of taking a TBLT approach to teaching prepositions, it has been so far recommended for teaching prepositions of location and place. We believe that it provides a suitable medium of instruction where emphasis is on communication and content-based learning. In the main, a task is “an activity in which meaning is primary” (Skehan, 1996) and grammar rules are induced from “positive evidence” or from exposure to the input. More generally, it is an activity “where the target language is used by the learner for a communicative purpose (goal) in order to achieve an outcome” (Willis, J. 1996: 23).

In essence, task-based instruction is a simulation and replication of real life scenarios (Willis, D. 1990) that indirectly enhance L2 learners' comprehension of the native or near-native language, with the aim of enabling them to succeed in attaining needed lifetime performance objectives (Robinson and Ross, 1996; Norris, et al. 1998; Long, 1999). Linguistic knowledge (here, prepositions) can be explored through encountering forms (but not overtly stressing them) i.e. away

from traditional lectures and grammatical rules.

The task-based approach makes it possible to apply the knowledge one already has by using and expressing it in L2 while focusing less on mistakes. In other words, “giving learners tasks to do, rather than language items to learn; [...] learners' interlanguage system is stretched and encouraged to develop” (Foster, 1999: 69). The meaning-focused approach (Prabhu, 1987; Nunan, 1989) does not give primary importance to error correction as much as it stresses maintaining communication. That is why errors may persist despite positive evidence. Hence, an extreme view to pure meaning-focused teaching is likely to be inefficient.

One questions, however, how does task-based instruction 'raise awareness' of prepositional use? Taking account of the communicative goal and dimensions of a “task”, we believe that this approach can provide suitable grounds for learners to use and produce prepositions in real context i.e. no explicit language rules, language learning drills, traditional grammar exercises (gap-filling, multiple-choice) or rote memorisation. Pre-tasks allow learners to explore then use collocational prepositions or phraseology likely to be required during the task, so they become subconsciously aware of the forms while engaging in the subject in question as well as through frequency and repetition which make possible the retention of language patterns and, hopefully, their integration into their speech at other later instances. Grammar thus becomes a means to an end, but not an end in itself. Commonly, overexercising grammar burdens and bores the learner. Language learning should not be based totally on decontextualised examples. Learners should be able to understand/produce comprehensible language in real or quasi-real situations (description, orientation, argumentation, confirmation, comparison, negotiation, etc.). Long (1985: 89) gives the following comprehensive definition of a task:

> A task is “a piece of work undertaken for oneself or for others, freely or for some reward. Thus, examples of tasks include painting a fence, dressing a child, filling out a form, buying a pair of shoes, making an airline reservation, borrowing a library book, taking a driving test, typing a letter, weighing a patient, sorting letters, taking a hotel reservation, writing a cheque, finding a street destination, and helping someone across a road. In other words, by 'task' is meant the hundred and one things people do in everyday life, at work, at play, and in between. 'Tasks' are the things people will tell you they do if you ask them and they are not applied linguists.”

Therefore, the task-based approach allows for authentic language use (interactional and situational) as well as immediate in-class negative feedback (implicit or explicit error correction); hence, its convenience for covert acquisition of verb-particle constructions and prepositional occurrences. It involves designation of place, time, events, actions, directions; taking role; and requesting and giving information. That is, it is not a matter of creating a dialogue or taking part in it as much as it signifies achieving a clearly defined communicative outcome. Being multi-faceted, this approach can be creatively applied for different purposes and with different syllabus types, learner levels and skills. These skills ought to improve slowly with increased use, discovery and the indirect guidance of the teacher (Long, 1988).

Tasks can be receptive or productive, simple or complex, yet quite challenging, thus, stimulating natural acquisition processes. Robinson (2003), while differentiating between child and adult language development, studies the effects of task complexity on production and learning, and concludes that

> “increasing the cognitive demands of L2 tasks will in general [...] lead to [...] greater attention to output, and depth of processing of input, with the consequences of (a) speeding development through stages of interlanguage (Mackey, 1999; Perdue, 1993a) and of (b) increasing the likelihood of attending to, and noticing aspects of input presented to learners during task activities (Schmidt, 1995, 2001), and retaining these for subsequent use.”

This is to say, increasing the functional/conceptual complexity of tasks positively affects L2 accuracy of production and it draws the learner's attention to the ways in which L1 and L2 may differentially “grammaticize conceptual notions” (Talmy, 2000).

Tasks usually undergo a three-stage-process though there is no agreement amongst practising professionals on the names of these stages as will be seen hereafter:

- Introducing the theme and familiarising oneself with the subject matter and mitigating the difficulties inherent in the text/video/audio/etc. in question (elicitation techniques, brainstorming, posing questions, explaining necessary communication techniques, providing background knowledge, examples, highlighting useful words or patterns).

- Having understood the overall theme, task planning takes place (dividing work among the group(s) and practice), remembering that the teacher is a moderator who comments/corrects where necessary.

- Production, analysis and/or feedback. The teacher's role is to supervise and assess performance and to develop the necessary techniques that help learners gain certain skills needed for a certain activity. Giving authority and liberty of choice and expression to learners increases their self-esteem. Learners become more involved and responsible for what is happening in class. In short, this encourages participation for the sake of active learning but not judgement. Active learning makes “students the investigators or discoverers of facts about language rather than just recipients of information” (Harmer, 1995: 337).

Willis, J. (1996) suggests her own task implementation model which does not differ greatly from the above, but it puts more focus on form. It involves pre-task (introduction to topic and task), task-cycle (task, planning and report), and

language focus (analysis and practice).

As they experiment with the language, learners discover language structure away from the abstract set of grammar rules. Learners are expected to decode the language heard or read and to re-construct and elaborate the original idea using simple and clear language patterns. The aim is that through task performance, interaction, and focus on meaning without marginalising form, learners' language ability will develop. On the other hand, Swain (1991) indicates that despite L2 learners' progress after as much as 12 years of classroom immersion, their productive skills remain “far from native-like, particularly with respect to grammatical competence”.

Long (1998: 54) distinguishes between “focus on form” and “form-focused instruction” saying that

> “[t]he latter is an umbrella term widely used to refer to any pedagogical technique […]. It includes focus on form procedures, but also all the activities used for focus on forms, such as exercises written specifically to teach a grammatical structure and used proactively, i.e., at moments the teacher, not the learner, has decided will be appropriate for learning the new item.”

He proceeds with his comparison: “Focus on form refers only to those form-focused activities that arise during, and embedded in, meaning-based lessons; they are not scheduled in advance [...], but occur incidentally as a function of the interaction of learners with the subject matter or tasks [...]”.

In teaching prepositions and spatial particles, it is form-focused instruction that has traditionally been the medium of instruction where acquisition is not accidental, but pre-scheduled overtly in a grammatical syllabus and in teaching settings.

It is true that task-based language instruction is meant to be meaning-

focused, but how does it differ from form-focused instruction? Being a non-grammar-based approach, TBLT renders the language learner a 'user' and (grammar) learning thus becomes incidental. Learners' attention is shifted to linguistic code features through communicative tasks or context exposure instead of being presented in pre-determined models in the syllabus. Learners' difficulties are rather dealt with upon experiencing comprehension or production problems. SLA is not a process of accumulating entities (Rutherford, 1987). Achieving automaticity is only possible with a systematic and repeated creative use of the language rules in a context of authentic communication. By automaticity, we mean a more efficient, more accurate and more stable performance of L2 language learners (Segalowitz, 2003).

Skehan (2003), however, suggests a more consistent model which is in favour of merging both form and meaning-focused tasks: pre-task (consciousness-raising, planning); during task (manipulation of attention and extended task procedure); and post-task (altering of attention, reflection and consolidation).

Irrespective of the approach (focus on form and/or on meaning), many question the degree of accuracy of learners' productions – oral and written – in a TBLT context. Before answering this question, we note that there are some variations in measuring or defining 'accuracy'. The generalised measure though is the percentage of error-free clauses (Skehan and Foster, 1999; Yuan and Ellis, 2003). In a larger sense, accuracy is “concerned with a learner's capacity to handle whatever level of interlanguage complexity s/he has currently attained” (Skehan, 1996: 46). For Ellis, R. (2003: 117), for instance, it is the number of self-corrections, percentage of error-free clauses, target-like use of verb tenses, articles, vocabulary, plurals, negation, ratio of definite to indefinite articles. In this respect, some studies linked accuracy with pre-task planning. They found that the planning time was a positive factor in certain tasks as it leads to more accurate speech in terms of generalized measures of accuracy, mainly the percentage of error-free clauses (Skehan and Foster, 1999). Nonetheless, some

studies did not observe any link between planning time and accuracy (Crookes, 1989; Yuan and Ellis, 2003). As we can see, the above definitions of accuracy do not specifically mention prepositional errors. Besides, no published study – to our knowledge – has observed accuracy of L2 productions in terms of prepositional use. Consequently, we cannot assume that TBLT pre-task planning results in significantly fewer prepositional mistakes.

Yet, there is no systematic study or further analysis that assures the success of TBLT outside the classroom setting taking into account learners' in-class high degree of motivation to achieve the intended goal/outcome. In any case, Skehan (1996) claims that “teaching does not and cannot determine the way that the learner’s language will develop”. This depends on the developmental stage of the learner's interlanguage itself. Equally important, too, is that “[l]earners often go through a developmental sequence which does not go directly to the target form, but involves a number of errors on the way” (ibid. 18).

Having said this, we do not attempt to deny the importance of errors, especially prepositional ones, but we are trying to justify the prospects of taking a TBLT approach to teaching prepositions and spatial particles. Most important would be (i) giving learners a chance to use particular structures in realistic, but well-designed tasks and carefully controlled situations without explicit grammar rules and, at the same time, (ii) fostering learning through negative feedback, where necessary. Learners thus become aware of the role they are playing, the setting, the topic, and the purpose of the interaction.

IV.2.4. Motion pictures and iconic gestures

Since the present research basically concerns prepositions that depict static and motion events, we limit our discussion to techniques of use in this particular area: actual imagery, motion pictures and iconic gestures.

Picture-text combinations have long been employed to describe the meaning and use of prepositions of location (*under, in, at, on,* etc.) and/or illustrate textual information. In some instances, pictorial literacy is indispensable, since textual information remains lacking without the information contained in the picture and vice versa (Molitor et al. 1989). Not only this, but cognitive linguistics pedagogy bases its description and analysis of the prototype meaning of a preposition/particle and its extended senses on pictorials (schematic drawings and pictures). Concepts are more likely to be retained if they are encountered pictorially instead of in words (Nelson et al. 1976). So, the domain of visual perception is helpful for elucidating literal, but also more effectively figurative uses of words or expressions. However, this depends on many variables, chief of which are their "highly imageability" and their combination with (rather than as a substitute for) verbal (or propositional) explanations (Boers et al. 2008).

Furthermore, Boers et al. (2008: 190) say that "[t]here are some grounds for caution when it comes to predicting the success of image-based pedagogy in general and the use of pictorials in particular". There are two reasons behind their argument:

- pictures may sometimes fail to aid learners in comprehension and, at the same time, not all expressions are suited for pictorial elucidation (Hupka, 2003); and
- pictures do not necessarily "guarantee" that learners will recall the precise form of lexical units for active usage.

In order to defend the above view, we can say that pictorials may be relatively more effective in describing static prepositions than prepositions of direction (*through, into, past, across*, etc.). The lexical composition of the latter incorporates motion, and this meaning cannot be entirely conveyed in inanimate pictures that sometimes fail to trigger the association between the image and the lexical item or expression. Consequently, they can be a source of confusion to the learner (Fodor, 1981; Schnotz and Grzondziel, 1996) instead of being a

complementary source of knowledge.

For Talmy (2000: 25), the motion event “is analyzed as having four components: besides Figure and Ground, there are Path and Motion. The Path [...] is the path followed or site occupied by the Figure object with respect to the Ground object. The component of Motion [...] refers to the presence *per se* of motion or locatedness in the event”. Talmy also identified two properties (manner and cause) that carry additional semantic information about the movement. Therefore, in a pedagogical context, pictorials cannot lend themselves to clearly depicting motion events to L2 learners as they fail to combine these components all together with the stretch of time.

On one hand, pictorials may fail to convey dynamic relations between entities and, on the other, they are not construed equally by all observers, especially those who are not inclined to think in mental imagery. Besides, the novelty of a lexical form and/or meaning due to cross-cultural and interlingual variation adds to the complexity of pictorial literacy.

Despite their assumed illustrative purpose, the role of pictorials in language learning remains questionable. It is still unclear whether they serve for (i) clarifying the meaning of lexical units or patterns, (ii) retaining their form, or (iii) recollecting them for active production. This is so because of learners' varying cognitive style profiles. While some are “high imagers” whose preferred medium is thinking in mental pictures, others are “low imagers” whose medium is thinking in words or verbalisation. In any case, Boers et al. (2008: 193) state that “there is some evidence to suggest a degree of consistency in the way one prefers to process incoming information”. Each person seems to decode and store information uniformly and similarly all the time.

Unlike low imagers, high imagers would predictably have a better access to CL imagery-based analysis, and consequently have a better understanding of

lexical form-meaning relations. Additionally, high imagers are more liable to retain figurative expressions; for, they can associate “dead or frozen idioms” with mental imagery (Boers and Littlemore, 2000). For a better elucidation and retention of meaning rather than form, and irrespective of the degree of cognitive involvement (i.e. thinking in mental imagery), Boers et al. (2008: 204) argue that using pictures in combination with verbal explanations is “indeed a worthwhile technique, at least for the purpose of enhancing the recall (or recognition) of the meanings of idioms”. Interestingly, they add, low imagers, too, can benefit from CL pedagogy if they are given “extra stimuli [...] such as the addition of an actual picture to strengthen the stimulus of verbal explanations meant to call up a mental image” (ibid. 206). This is to say, the use of real pictures works equally well for learners who are inclined to think in words. In order to be more effective, pictorial elucidation has to be “less schematic and thus more concrete than is common practice in CL” (ibid. 199).

Taking into account the persistent ambiguities associated with pictures portraying prepositions of direction, dictionaries and textbook designers need to reconsider whether to include them or not, and which ones have effective characteristics. A picture is meant to be a pedagogical support to aid learners in comprehension. Obviously, content-unrelated or imprecise pictures may hinder comprehension. For example, pictures involving multiple relations (*in front of, next to, beside*) can be confusing. Textbooks usually indicate a single prepositional use per picture/situation, ignoring other possibilities. Inference may vary from one person to another especially when spatial relations are decontextualised.

With the available technologies, it is possible to replace inanimate drawings of prototype scenes and schematic drawings (geometric shapes) with real animate/motion pictures that show the relation between entities and components involved in the movement. Generally, learners are more likely to grasp visual images, especially those depicting habitual events in real life situations (bus stop,

office, etc.) i.e. the subject matter of the pictures should correspond to one's experience with the real world. In addition to supplying authentic materials, a video or animation can best exemplify motion events i.e. motion verbs + satellites (preposition/particle). This can also be complemented with gestural education or miming.

Speakers, not only second language learners but also native speakers, use gestures for a more effective communication (Nicoladis and Genesee, 1996). Not only this, but iconic gestures are usually used to depict visual information about an object or action being referred to, notably specifying the direction or manner of an action, or the viewpoint from which it is described (McNeill, 1992). Mimes and gestures are complementary to and almost inseparable from speech. Interestingly, too, interlocutors or viewers do pay heed to the information conveyed in gesture, even when it contradicts the information conveyed by speech (Cassell et al. 1999). If so, then why should we ignore this aspect that could be a useful aid for teaching English prepositions/particles with dynamic meaning in ESL/EFL, especially as English is a satellite-framed language. Thus, research should further investigate their suitability for clarifying the meaning and use of prepositions of direction and movement, specifically for illustrating processes and procedures in general, and the function of objects and systems (instruments, machines, etc.) in particular.

Chapter V: LEARNER ERRORS AND CORPUS ANALYSIS

In this chapter, we examine the significance of L2 errors, error annotation and error analysis in SLA research and how advances in computer learner corpora allow the detection of the types and sources of preposition errors. We start our corpus analysis with an overview of its basic features and task description (oral and written). We illustrate the choice of error typology and codification system which are adapted to answer our research question i.e. the (non-)intelligibility of preposition errors, mainly in terms of those expressing motion versus static events. We end this chapter with the results of a questionnaire designed for this purpose.

V.1. Errors: their occurrence and significance

In talking about the significance of learners' errors, Corder (1981: 5-6) presents two schools of thoughts: one which attributes errors to the inadequacy of the teaching techniques and the other which implies that errors are inevitable since we live in an imperfect world. “[I]f teaching and learning were maximally efficient, errors would not occur” (ibid. 65).

He also differentiates between systematic (errors of competence) and unsystematic errors (errors of performance or mistakes due to memory lapses, tiredness, etc.) that both normally occur in L1 and L2, by children as well as by adults. Yet, this does not mean that the same learning strategies are employed in and by both.

James (1998: 1) simply defines an error as an “unsuccessful bit of language”. It is produced due to lack of knowledge of the target language structures and lexis. “The learners’ errors are a register of their current perspective of the target language”. Unlike a mistake, an error cannot be

identified or corrected by an L2 learner even when his attention is drawn to it.

Since there is not always a clear dividing line between an error and a mistake, we will discuss the reasons for and the significance of learners' errors in general:

- to the linguist: for discovering how language is learnt and processed;
- to the teacher: for assessing learners' progress as designed by the syllabus and language teaching; and
- to the learner: for experimenting with the language in order to develop a better understanding and sustainable mastery.

In addition to ignorance, there are two main causes for ESL learners' errors:

- interlingual i.e. resulting from L1 interference,
- intralingual i.e. resulting from L2 interference.

Interlingual interferences as explained by Corder (1981) are L1 habits that interfere or prevent the learner from acquiring L2 patterns, systems and rules. Intralingual interference, on the other hand, is the interference and application of L2 rules and patterns to new situations, thus, leading to erroneous productions. According to Richards (1971b: 174), intralingual errors “are those which reflect the general characteristics of rule learning, such as a faulty generalization, incomplete application of rules, and failure to learn conditions under which rules apply”. Overgeneralisation of TL form and structure is, thus, a manifestation of intralingual interference. Richards (1974: 6) indicates that learners “try to derive the rules behind the data to which they have been exposed, and may develop hypotheses that correspond neither to the mother tongue nor to the target language”. Richard's taxonomy of L2 errors is classified into inter-lingual and intra-lingual.

With regard to prepositional collocations, we assume that interlingual errors are due to the interference of L1 collocational patterns into L2 settings while intra-

lingual errors reflect the arbitrary and unpredictable nature of English collocations as well as the learners' lack of adequate knowledge of L2 collocations.

Adopting a formal taxonomy for the classification of preposition errors allows for a descriptive analysis of their nature without considering the possible causes of the errors. Corder (1981) makes a distinction between two erroneous types of utterances:

- overtly erroneous: refers to those utterances that would be marked by a native speaker as ungrammatical or unacceptable;
- covertly erroneous: refers to those grammatical utterances that are not appropriate in the context or to those that have failed to communicate to the reader the particular meaning intended by the learner.

“Only sentences which are both acceptable and appropriate may be error-free” (ibid. 41).

According to Wilkins (1996), errors are employed by learners as a device for learning, and error analysis is a good tool for tracing learners' difficulties and designing remedial curricula. Errors could be attributable to the teacher, especially non-native speakers whose “own command of the TL is often a cause for grave concern” (James, 1998: 191). “Not all teachers are native or near-native speakers of the target language. Many speak some form of interlanguage!”

To define “interlanguage”, we cite Corder (1981: 75): the term – first introduced by Selinker in 1969 – suggests that “the learner's language will show systematic features both of the target language and of other languages he may know, most obviously of his mother tongue”.

Selinker (1972: 35) says that the utterances produced by L2 learners are not identical to what L1 speakers would say to express the same meaning:

> “One would be completely justified in hypothesizing, perhaps even compelled to hypothesize, the existence of a separate linguistic system based on the observable output which results from a learner’s attempted production of a target language norm. This linguistic system we will call ‘interlanguage’.”

Richards, J.C. (1974) differentiates between learning English as a second language (closer to a local English school course) and as a foreign language (bringing a sample of American or British life into the classroom). EFL learners, which is usually the case in France, are introduced to the life, culture, and habits of English speaking countries in the limited time available in the school course. “These different learning goals influence the nature of the learner's interlanguage. [...] Limitations are rather *individual* reflecting personal differences in motivation, perseverance, aptitude and so on” (ibid. 87-88).

The language teaching approach could be another reason for interlingual interferences when it ignores (particular) learning needs and fails to remedy persistent problems. For instance, according to the Communicative Language Teaching approach (Nunan, 1989), the more formal the language setting is, the less successful the learning of a second language will be with “a shift of emphasis in teaching away from a preoccupation with the grammar of the target language towards a concern with communication in the target language” (Corder, 1981: 78). Inspired by Chomsky's (1965) distinction between linguistic competence (ideal user’s knowledge of the rules of his language) and performance (actual realization of this knowledge in linguistic communication), Hymes (1971) proposes his own theory of each i.e. an analogy between language form versus language function and use; and between grammaticality as a criterion versus acceptability as a criterion.

Hymes (1971) was the first to put forward the idea of communicative competence which is the knowledge that people have when they communicate i.e. the appropriateness or inappropriateness of an utterance within a situation.

He believes that both competence and performance can be important, but he also questions the link between language and other forms of communication: “Something possible within a formal system is grammatical, cultural, or, on occasion, communicative” (ibid. 66). For him, the ability to communicate entails more than a knowledge of syntax and semantics. Language is a social and cognitive phenomenon, and the use of language in a certain context in a natural way includes different kinds of structures. For this, the selection and grading process is not the same for grammatical units as it is in a structural syllabus, where the learner goes from simpler to more complex structures and grasps the grammatical system more easily. Hence, Hymes extends the notion of competence, restricted by Chomsky to the knowledge of grammar, to incorporate the pragmatic ability for language use.

In his research on Maori English, Benton (1966) says that errors could also be due to the limited exposure to English thus resulting in fossilized productions, and he gives as an example the overgeneralisations of preposition errors (like **going on the car, *eating on the table*).

Selinker (1972: 36), too, refers to fossilization and the regular behavioral reappearance or re-emergence of L1 patterns in the target language, noting that this mechanism is not limited to the phonetic level, and he gives as an example verb complementation in Indian English (*that* complement or verb + *that* used for all verbs which take sentential complement). “Fossilizable linguistic phenomena are linguistic items, rules, and subsystems which speakers of a particular NL will tend to keep in their IL relative to a particular TL, no matter what the age of the learner or amount of explanation and instruction he receives in the TL”.

According to Towell and Hawkins (1994), transfer seems to affect all linguistic levels: pronunciation, syntax, morphology, lexicon and discourse. Ellis, R. (1994: 7), too, says that this can best be seen in the foreign accent in the second language learners’ speech.

Transferability of collocations from L1 into L2 is an indication of cross-linguistic effect in the context of interlanguage acquisition.

The learner of a foreign language does not start learning a new language from a neutral point (Hwang, 1970: 26-9). He interprets the new phonological, morphological, syntactic and semantic patterns through those of his native language. Or as Richards (1971b: 6) puts it: “Previous learning may influence later learning”. And “although interference from a student’s first language is the major predictor of phonological errors, interference errors are only one of the types of errors found in the syntax, morphology and lexicon of student speech and writing in the target language” (Burt, 1975: 54).

On the other hand, errors are interesting for understanding the process of second language acquisition and analysing learners' difficulties and the evolution of their competency. Since errors are inevitable, EFL/ESL teachers should not only be familiar with common prepositional occurrences but should also know their causes in order to be able to provide remedial tasks and avoid “bad habits of language”. “Familiarity with the types of errors that are made by their students is a valuable guide to determine the sequence and emphasis of instruction” (Burt, 1975: 53).

Research on error analysis in second language acquisition has revealed that prepositions constitute one of the most frequent type and source of errors for learners of different L1 backgrounds (Abbott, 1980; Dagneaux et al. 1998; Izumi et al. 2004; Tetreault and Chodorow, 2008). In the Cambridge Learner Corpus, preposition errors are the second most frequent errors after content word choice (Nicholls, 2003). Difficulties arise from the diversity of prepositional uses and senses. According to Khampang (1974: 215), “English language teachers and researchers are well aware that English prepositional usage is one of the most difficult areas for students of EFL”.

In addition to interference, many other factors lead to erroneous prepositional usages and learning difficulties, for instance, the difference in number, meaning and usage of prepositions in L1 and L2. Idiomatic expressions containing prepositions are another obstacle.

In our corpus analysis, we aim at drawing a plausible conclusion about the (in-)significance of preposition errors from a semantic point of view. Since preposition errors are not always machine detectable, we did not opt for automatic error detection and tagging.

Explaining how and why the learner's ill-formed productions appear in the form they do may improve language teaching, but it does not tell much about an error's interference with understanding. While discussing the usefulness of explanation in error analysis, Corder (1981: 24) says: "We cannot make any principled use of his (the learner's) idiosyncratic sentences to improve teaching unless we understand how and why they occur". He then distinguishes between an idiosyncratic dialect (the learners' ill-formed output), a social dialect (native speakers' well-formed output), and an idiolect (the set of rules shared with one or more social dialect). Unlike the sentences of an idiolect, sentences of an idiosyncratic dialect are particular to an individual, hence the difficulty of interpretation by the native speaker of the target dialect.

In our explanatory section (see Chapter V, section V.4.5.), we refer to Corder's model for the recognition of an incorrect (idiosyncratic) construction by translating it into L1 (French), then re-translating L1 construction into L2 (English). The idiosyncratic sentence (ill-formed) and the reconstructed one (well-formed) have "by definition" the same meaning. "Every sentence is to be regarded as idiosyncratic until shown to be otherwise. […] If the 'normal' interpretation is acceptable in context, then that sentence is not for immediate purposes idiosyncratic" (ibid. 21). Therefore, contrastive analysis is indispensable to understand the learner's language "though there are other explanations than

language transfer".

V.1.1. Error-annotated learner corpora

> "A corpus is a collection of pieces of language that are selected and ordered according to explicit linguistic criteria in order to be used as a sample of the language. […] A computer corpus is a corpus which is encoded in a standardised and homogeneous way for open-ended retrieval tasks. Its constituent pieces of language are documented as to their origin and provenance." (Sinclair, 1996)

The introduction of computer learner corpora has given much credibility to SLA research since data can be more representative and varied, making possible automatic or semi-automatic linguistic analysis. Traditionally, however, didactic linguists have questioned the generalisation of SLA research whose scope of experimentation is usually narrow, being based on a limited number of subjects and learner data, making it relatively impossible to generalise results (Ellis, R. 1994: 670).

More plainly, Granger (2002: 4) defines corpus linguistics "as a linguistic methodology which is founded on the use of electronic collections of naturally occurring texts, viz. corpora". Corpora can uncover facts about language learning, namely, vis-à-vis frequency. In this respect, Granger says: "Frequency is an aspect of language of which we have very little intuitive awareness but one that plays a major part in many linguistic applications likely to occur".

The objectives of learner corpora are two-fold. One is general in scope and application and is usually attained in the long run: the pedagogical applications of error annotated corpora, and tracking learners' progress and/or persistent weaknesses with the aim of improving the learning and teaching of L1/L2. The other is narrower in scope, and is usually achieved more rapidly: the identification of a particular research theme like describing the overall interlanguage

characteristics at a particular stage or at different developmental stages; describing the differences in the use of certain syntactic, lexical and discoursal features between native and non-native speakers, and so forth.

Research initiatives and findings are modest and not going at the same pace. It is necessary to assess quantitative and qualitative data obtained from classroom practice so that we can confirm the impact of new practices, methodological changes, and error classification. We also note that we cannot generalise corpus findings and learner interlanguage to all aspects of ESL/EFL teaching.

As mentioned earlier, the compilation and analysis of learner corpora is useful for improving language teaching. Corpus data from classroom practice can serve for the design and development of learning tools, thus improving the quality of classroom activities. It can also reveal how different learners or groups of learners use second language in similar or different situations and their commonalities and particularities in expressing the language in question. In other words, a French learner of English does not construe language the same way as an Italian or others in terms of the morpho-semantic structure. By identifying the learning gaps, instructors can decide what content they should teach, thus focusing less on the target language and native-speaker-like production, and giving instead more concern to identifying learners' typical difficulties.

Corpus annotation takes different forms or levels, the most common of which are parts-of-speech or POS tags (De Haan, 1997; Aarts and Granger, 1998) and parsing (Oostdijk, 1991; Meunier, 1998; Meunier and de Mönnink, 2001). Other types of corpus annotation are discourse tagging (Stenström, 1984), prosody (O'Connor and Arnold, 1961), and semantic tagging.

Annotation is the additional linguistic information attached to a text, which is done by assigning special codes to words/phrases/clauses, known as “tagging”.

The codes are, therefore, called “tags”. Error tagging is also another level of computer-aided annotation technique. Dagneaux et al. (1998: 172) find that the advantages of manual error tagging over the text retrieval method is that it (i) highlights non-native language forms (e.g. **A complex but steady logistic process to produce lots of quantities in a few time/during few minutes*) and (ii) allows retrieval of zero-forms or failure to use a certain word, be it an article, a conjunction, a connector, etc. (e.g. **It was stated (x) no emulsifiers should be added*).

Text retrieval is a method for searching a document corpus for query items, words or sequences of words and collocates, thus allowing comparison between L1 and L2 corpora and drawing conclusions on lexis or grammar while a learner corpus may contain a very high rate of non-standard forms (spelling morphological errors) (Granger and Wynne, 1999).

V.1.2. Error Analysis: uses and applications

“Error analysis is both an ancient activity and at the same time a comparatively new one” (Corder, 1981: 51). As early as the 70s, error analysis (EA) witnessed the elaboration of a variety of error typologies with the aim of examining interlanguage in L2 learner corpora. Despite this, EA was the subject of criticism due to the context in which data was gathered, which gave little or no attention to task, learner or language variables. Some (like Abbott, 1980: 122; Dulay et al. 1982: 143) found that the taxonomies used were inadequate to explain errors, being characterised by subjectivity and the use of overlapping error categories. Additionally, Ellis, R. (1994: 49), emphasised “the importance of collecting well-defined samples of learner language so that clear statements can be made regarding what kinds of errors the learners produce and under what conditions”.

According to Dagneaux et al. (1998: 164), among the major limitations that traditional EA suffers from are the following: “it is based on heterogeneous learner data; its categories are fuzzy; it cannot cater for phenomena such as avoidance; it is restricted to what the learner cannot do; and it gives a static and product-oriented picture of L2 learning”. Yet, having mentioned these limitations, they do not want to undermine the validity of EA in general, but to argue for the necessity of finding “a new type of EA, which makes full use of advances in Computer Learner Corpus research”. “One possible direction”, they say, is “grounded in the fast growing field of computer learner corpus research” (ibid. 165).

With the flourishing of computer-aided error analysis (CAE) in the 90's, more elaborate error tagging systems and error tagset for annotation of errors in learner corpora have emerged (Dagneaux et al. 1998, Granger, 1999; Tono, 2000; Nicholls, 2003), consequently reducing subjectivity. Granger (2002: 18) says that error tagging systems are “specially designed to cater for the anomalous nature of learner language” and have become an essential component of CAE and corpus analysis. At the same time, she points out that a “foreign language teaching context usually involves some degree of 'artificiality' […]” (ibid. 8).

Computerised learner corpora handle massive data, and facilitate their collection, classification and analysis, something that was not possible in previous second language acquisition research. CAE can be used to generate comprehensive lists of specific error types (Dagneaux et al. 1998: 173), and results are, therefore, more reliable and refined.

According to Granger (1998: 6), computerization allows for manageability of data, and this means that learner corpora can be submitted to different types of automatic tools for corpus analysis (error annotation), thus widening the possibilities and systematisation of analysis. The notion of “systematisation”

implies that data are collected with respect to a number of criteria, allowing for more representative and valid generalisations (Granger, 2003: 465; Nesselhauf, 2004: 127; Nesselhauf, 2005: 40).

Despite this, corpus annotation is not made widely and freely accessible to the public. Consequently, “there is still a need for learner corpora that are publicly available and comparable across several native languages” (Granger et al. 2002: 109).

Quantitative studies of differences in preposition use between native and non-native speakers or between non-native speakers are unsatisfactory, and even poor, compared to other research topics like adverbial connectors, multiword units, direct questions, the progressive, tense morphology, etc., although comparisons in terms of the use of phrasal verbs have been rather more studied (Lam and Hung, 1998).

The increasing number of CAE studies of prepositions reveal that despite previous efforts in this area, difficulties are persistent in SLA. Possibly, current teaching approaches are inadequate and remedial teaching methods are necessary. Among the few learner studies that focused particularly on prepositions and that are based on computerised corpora are Schmied (2003) and Hoffmann (2004). The former chooses prepositions to illustrate a new way of presenting real language data and language rules in the same “grammar” in order to see how learners use both actively in their work to come to terms with these extremely polysemous forms of English. The latter offers a discussion of the methodological issues involved in using corpus data to study low-frequency complex prepositions like *in conformity with, in terms of, in front of*, etc.

Nonetheless, in CAE, too, prepositions pose many obstacles (Nicholls, 2003: 573). Computational linguistics cannot find, for example:

- instances of failure to use the preposition where it is needed; and

- instances where the preposition should have been chosen, but a wrong one is used instead.

Despite advances in computing technology and the possibility of computer-aided error analysis, we find manual annotation more accurate for obtaining qualitative data, taking account of the polysemous nature of prepositions and the multiplicity of collocations that contain prepositions. Automatic error analysis (via computer programs) is often post-edited by human analysts for more accuracy and validity.

Additionally, due to the limited database of learner language, we cannot account for all error typologies. In our corpora, we are basically interested in analyzing prepositional errors and evaluating the degree of their intelligibility. To this end, we examined errors in directional/static prepositions on one side and lexical errors on the other side. We have chosen these parameters in order to find which error typology causes more ambiguity to native speakers of English.

Since the intelligibility of an utterance cannot be measured in percentages or fractions of a number, we found it necessary to consider native-speakers' understanding of the overall sense of erroneous constructions. By erroneous constructions, we mean sentences or phrases containing prepositional errors and/or errors in word choice, grammar and word order. Native speakers were asked to assess the overall output (the whole sense) through an online questionnaire created for this purpose.

Our error tagset (see Chapter V, section V.4.2.) is helpful for measuring learners' intelligibility. As the corpora will be evaluated by native informants, we can deduce what kind of learners' outputs are intelligible, which ones are less intelligible and in what cases learners fail to convey the intended message properly.

Tracing prepositional errors is not always evident. Errors could range from obvious (e.g. **The child suffers of lead poisoning*) to less obvious (e.g. **Lead comes mainly from fumes from leaded gasoline*). Furthermore, since there are no rules that cover all their occurrences and uses, their correction is not always simple (e.g. **This report deals with a public health problem with lead in developing and developed countries*.). On the other hand, there are other types of errors which are considered stylistic errors rather than prepositional errors (e.g. **No aids were distributed for the villagers*).

According to Corder (1973: 275-7), error analysis has two facets: One is the psychological explanation of how errors occur in terms of the learner's strategies and the process of learning itself, and the other is the linguistic description of these errors. In addition to being time-consuming, categorizing learner errors entails a high degree of subjectivity. However, to avoid subjectivity and the different possible interpretations, since "it is impossible **not** to interpret" learner errors (Lüdeling et al. 2005), a multi-level model of annotation would be necessary i.e. including several alternative descriptions of errors but not a single one, given that providing a reasonable explanation behind the uncertainty of error type is always problematic (Milton and Chowdhury, 1994).

Milton and Chowdhury (1994) base their study on the Hong Kong University of Science and Technology (HKUST) Corpus of learner English, i.e. written essays and exam scripts produced by secondary school Chinese students sitting for the placement test to join HKUST. The purpose of their study is

> "[t]he creation of automatic grammar and writing tutorials that will address some of the most persistent difficulties non-native writers have in dealing with English syntax, lexis and semantics. [...] The large-scale analysis of interlanguage will provide information for the creation of pedagogical aids such as electronic composition and grammar tutorials directed to the needs of these students." (ibid. 129)

Since corpus analysts differ in the way they classify and tag errors

depending on research interests, it is difficult to talk about standardised error typologies and error annotation schemes (Tono, 2003: 801), a topical issue that has not been resolved despite current advances in Computer Error Analysis. And while no concrete criteria or established definition in research or pedagogy is available for the thorny issue of describing learners' errors (Darwin and Gray, 1999), it is indispensable to develop ways to facilitate reuse of corpus analysis tools.

For instance, as far as prepositions are concerned, Tanimura et al. (2004) examined preposition errors “which most often occur as collocation” (Tono, 2004), using NICT JLE corpus. The National Institute of Information and Communications Technology Japanese learners of English (formerly known as Standard Speaker Text corpus, Tono et al. 2001), NICT is a two-million word corpus of spoken academic English whose error system has been used for the development of automatic detection of learner errors. The NICT corpus contains 11 word-class (grammar, lexis, discourse, etc.) in addition to the three structural error taxonomies: omission, addition and misuse. On the other hand, the taxonomy of errors presented in the NICT JLE system is “monodimensional” as it is strictly limited to linguistic aspects of errors at two levels (Díaz-Negrillo and Fernández-Domínguez, 2006: 96):

- major categories, or POS categories (noun, verb, modal verb, adjective, adverb, preposition, article, pronoun, conjunction, relative pronoun, interrogative and others); and
- error categories (noun case, verb lexis, number of adjective, adverb inflection, complement of preposition, etc.).

“In order to explore the possibilities of the error-tagged corpus, further investigation into details is required” (Tono, 2004: 139). In this context, Tanimura et al. (2004) show how practical it would be to integrate NICT into other tools (like WordSmith) for a more detailed analysis of error annotated learner corpora, noting that the NICT system bases its error taxonomy only on linguistic

categories (including misordering of words). The authors add: “we have to be very familiar with how the error tagging system is constructed”, hence to include/exclude unnecessary tags in accordance with one's corpus analysis objectives (in their case, prepositions). As an example, they say that “errors with the tag <prp_cmp> have to be excluded in analyzing preposition errors. [For,] the tag <prp_cmp> does not mean prepositions are misused, but it means complements after prepositions are misused”. The results of their qualitative study show that the ratios of all error types (omission, addition, misuse) decrease as the proficiency levels of Japanese learners go up. They have observed that the ratios of omission errors, in particular, dramatically decrease between low and intermediate levels. Yet, compared to the other two types, omission errors remain high at all proficiency levels. As for the quantitative account, they posit a possible L1 transfer effect behind learners' errors. To this end, they examine the use of prepositions *to* and *in* by focusing only on two error taxonomies (addition and omission) since the third type (misuse) is “difficult to categorize”. However, they stipulate: “As a future direction in second language acquisition research, we need to develop an objective method to characterize L1 transfer” (Tono, 2004: 146). In other words, they envisage showing how possible L1 transfer effects can be analyzed using learner corpora, especially as the latter (learner corpora) allow 'infrequent' features of learner data to appear, which make them qualify as comprehensive collections of naturally occurring data.

In summary, and in the context of our thesis project, annotated corpora are appropriate for tracing the source of errors and the influence of error type on comprehension. Tagging errors automatically cannot fully respond to our research objective as it does not provide ample and accurate error analysis, mainly in terms of the semantic implications of prepositional errors. Certain structures allow more than one possible preposition/particle use depending on the context and the spatio-physical description of objects and their surrounding (the landmark and the trajector). Besides, prepositions do not fall completely to the syntactic nor to the semantic category of errors. They do not strictly belong to

a particular category due to their polysemy and non-conformity with other grammatical notions (parts of speech, tenses, etc.), and being neither typically functional nor lexical in nature.

V.2. An overview of our learner corpus: Task description and data collection

Summary

Based on the analysis of written and oral productions of scientific French university learners of English, this research aims at providing a qualitative assessment of the intelligibility or non-intelligibility of certain erroneous prepositional uses in an attempt to answer a broad question: Do wrong prepositions impede comprehension?

Objectives

This research tries to find out:

- if a native English speaker – who knows no French – would be able to understand written constructions containing preposition mistakes produced by French learners; and
- if (non-)intelligibility of preposition errors is related to error taxonomy (substitution, omission, and addition).

Goal

This study does not concern the complexity of English prepositions nor their multiple senses and uses. It essentially examines learners' 'manipulation' of the English language, thus, resulting in prepositional mistakes.

In this respect, the following points will be raised:

- can the nature of the topic (i.e. its technical nature and newness to the learner) play a role in generating erroneous prepositions? If so, what type of 'new' combinations are formed? And are new non-intelligible verb +

preposition combinations more frequent in motion events?

- can lexical errors be less intelligible than preposition errors?

Tasks

This study is based on the analysis of errors in two types of productions: spoken and written.

Spoken production

- Retelling a video (fridge, duration: 35 seconds): This video has been used by PAROLE team, in the LLS research group, Université de Savoie. The learner corpus has been tagged using CHILDES error tagging codes. Both native and non-native subjects watched this short video (mute), then gave an oral account ranging between 20-150 seconds each. In brief, this short video (see Appendix VI for pictures of macroevents), which involves motion events, features two/three persons trying to hoist a fridge up to their flat through a window. They almost succeed but a few seconds later, the fridge tumbles over and falls on a car.

In this task, we compare native and non-native speaker productions and we specifically examine the intelligibility of preposition – but not lexical – errors.

Two written productions

- Retelling a video on lead poisoning (duration: 3.12 minutes): See Appendix VII for instructions and script. In this task, all the subjects watched the video once, then had to write a free written production summarising the main theme in less than 20 minutes.
- Describing the food canning process as illustrated in an animated photo (see Appendix VIII for instructions and photo).

The photo is also available online (http://www.bonduelle.com/fr/nosactivites/process.html), noting that we have not requested permission for research use.

First, the instructions were distributed to the subjects who were all grouped together in one room for better organisation and for saving time. Then, the animated photo was displayed on an LCD screen, and the basic requirements were recapped to avoid misunderstanding like giving unnecessary (technical) details.

Choice of the tasks

We have chosen the above tasks in preference to commonly used gap filling, language proficiency tests or comprehension texts particularly because they allow:

- comparison between the use of prepositions with static and dynamic (eventive and procedural) meaning; and
- comparison between a technical topic and a general information topic, and potential complications at the level of preposition use.

Moreover, we believe that the selected tasks stimulate retelling. We are interested in learners' on-spot productions (oral and written) and how they manage to formulate meaningful statements, and more precisely if their incomprehensible statements are due to wrong preposition choice. We would also like to observe if audio/visual support contributes to a more precise language production.

Before deciding on the above tasks, we had to make sure of their adaptability to learners' general knowledge and language levels. Interestingly, the pre-tests showed that learners (7 participants per task) could cope well in both written tasks. We were clear that they should use simple language and retell in writing what they saw/heard to a nonexistent interlocutor despite possible language hindrances (like the inability to find one's words, listening difficulties, problems with tense and aspect, etc.).

Being their English teacher, I made it clear to the subjects that the main

objective was to convey the main theme, ignoring needless technical information. In other words, I am in principle interested in examining the way they cope with the language in similar contexts.

Preparation and requirements

- No particular prior practice or preparation like intensive drilling or illustration,
- No dictionaries were allowed,
- Instructions were provided simply for orientation purposes,
- The subjects were not informed about the main purpose of the study (observation of preposition use).

Written corpus subjects

All the subjects willingly participated in the written tasks without being paid or being obligated to do so. They replied to a request for participation and were informed that their contribution would not be graded but would be appreciated for research purposes, so they were personally motivated. The same subjects were grouped at two different intervals to participate in both written tasks (see Chapter V, section V.4.1.).

Below is supplementary information about the subjects' English proficiency:
In each written task, there are 25 French-speaking learners whose level of English proficiency ranges between B1 and B2. The learners' scores range between 12 to 15 over 20. These results are determined based on course work and a final examination designed according to IELTS tests (coursework (40%): an oral presentation, and a final examination (60%): listening and note-taking examination). Subjects share similar linguistic, sociocultural and educational backgrounds. They are Masters students majoring in pharmacy studies, and the medium of their studies is French. As for the English courses they take, it is English for scientific purposes, so it does not necessarily stress grammatical skills.

Each subject provided one written production. Their productions were then collected, and only erroneous constructions that belong to our error typology were computerised. Obviously, automated learner corpora allow for a more practical and methodological error analysis.

> "Once computerized, learner data can be submitted to a wide range of linguistic software tools – from the least sophisticated ones, which merely count and sort, to the most complex ones, which provide an automatic linguistic analysis, notably part-of-speech tagging and parsing." (Dagneaux et al. 1998: 165)

In short, this research examines erroneous uses of prepositions (including prepositional verbs) produced by native French speakers learning English in a non-English speaking country. It evaluates the impact of prepositional mistakes on the clarity of the disseminated message. It tries to find out if mistakes might hinder communication, and if the topic (familiar/unfamiliar) and/or lexical choice are major reasons for difficulties.

V.3. Oral corpus

V.3.1. Basic features characterising the oral corpus

In order for a learner corpus to be valid, and for its findings to be reproducible, its compilation and design considerations should involve the following variables: language-related, task-related and learner-related criteria.

Task	*Fridge*
Mode	spoken
Genre	Retelling task from a video
Style	description – monologue in the presence of an interviewer whose interventions are kept to a minimum
Topic	general

Table 1. *Language-related criteria*

	Support	*Elicitation*	*Time limitation*
Fridge	silent video	spontaneous	no time limitation

Table 2. *Task-related criteria*

Spoken Corpus Fridge						
Non-native speakers						
L2	no.	L1	Age	Sex	L2 proficiency	Motivation/attitude
English	25	French	18-24	F (21) M (4)	A2-C1 (level determined based on 3 DIALANG tests: listening comprehension, grammar and vocabulary)	Volunteers (paid a small sum for participation in more than one task)
Native Speakers						
no.		L1	Age	Sex	Motivation/attitude	
9		English	21	F (6) M (3)	Volunteers (thanked with small gifts)	

Table 3. *Learner-related criteria*

Transcribing an oral corpus

In the context of our study, we believe that transcribed orthographic forms do not strictly violate transcription conventions as this study does not concern speech or sound analysis (frequencies of words, number of utterances, overlapping utterances, ratio of morphemes, lemmatisation, etc.). In particular, we would like to see if instantaneous production and use of prepositions affects the flow of speech, and if self-repair accompanies on-spot production. In addition, we would like to see if motion events result in erroneous and/or 'unusual' prepositional constructions. If so, what are the most frequent error taxonomies: substitution, addition or omission? And what kind of new combinations are formed?

Moreover, we would like to compare L1 and L2 productions and the sentence structure they use to describe the track of the trajector (fridge) from its initial point A (street) to point B (window) and back to point A (street). What linguistic knowledge do they employ to describe the scene: simple lexis or particular register used only in the description of similar situations (like using *to hoist*... but not *to lift*... or *to bring up*). What details does each provide?

V.3.2. Error Typology: L2 productions and L1 productions

In this task, we transcribe utterances containing preposition errors excluding speech characteristics like high/low pitch, initial/silent/filled pauses, speech duration or pronunciation difficulties.

This is to say, we consider the segments that contain preposition errors but not complete utterances as produced by the subjects, nor a detailed annotation as suggested in the PAROLE manual (http://talkbank.org/BilingBank/PAROLE/PAROLE_manual.pdf). For example, the original transcription (a) below, which is very detailed, will be reformulated as can

be seen in (b), so only utterances with preposition errors are selected:

(a)

detailed annotation of the 'fridge' video, PAROLE corpus, Université de Savoie

*006: okay . [+ bch]
*006: <u:m # &=bouche # ahem # &=bouche> [#6_577] it's a: [/] <# &r uh #> [#5_208] a frigo↑@s [*] &=cherche:aide .
%err: frigo@s = fridge $LEX $CWFA
*INV: do [/] do the best you can .
*006: <uh: #> [#1_446] 0det [*] refri↑@n [*] ?
%err: 0det = a $MOR $DET; REfri@n = fridge $LEX $L1 $PHO
*006: <# um #> [#1_045] I [/] <I don't know> ["] .
*006: #0_279 <I don't know <what I> [/] #0_365 <what I> [/] <uh #> [#1_166] what I can do> ["] .
*006: #0_877 I [/] <I don't know the: [/] #0_575 the word> ["] .
*INV: # okay fridge ["] .
*006: a fridge ["] ?
*INV: mmhm .
*006: <&=bouche #> [#0_441] it's a fridge <# u:m # er # &=bouche #> [#14_826] +...
*006: the thing [*] it's [*] i:n the street↑ .
%err: thing = crane $LEX; it's = is $SYN $L1
*INV: mmhm .
*006: <uh: #> [#3_680] they want to: #17_408 +...
*006: I: &=rire !
*006: **&s they want to: [/] to <do <that &z> [/] um that the fridge <# u:h # u:h &=bouche #> [#21_343] go> [*] to [*] upstair(s)↑ [*] .**
%err: do that the fridge go = make the fridge go $SYN $CAUS; to = 0prep $MOR $PREP; upstair = upstairs $LEX $ADV

(b)

simplified transcription

**They want to do that the fridge go to upstairs.*

We also exclude morphological if the preposition is used correctly as in:

**Some mens at the window.*

Correction: Some men at the window.

Similarly, we do not cite L1 borrowing or lexis mistakes if they do not imply action, direction or movement (e.g. *What is a 'grue'?*).

We do not intend to violate the original production or modify the utterances. We just want to highlight the nature of prepositions generated in the description of a motion event and their comprehensibility despite their ungrammaticality. We therefore want to find out the extent to which the prepositional combination produced (prepositional phrases and prepositional verbs) corresponds to the action. Besides, we would like to see how L2 subjects translate motion events into words.

Here is an account of L2 utterances, mostly erroneous, followed by L1 productions (see Appendix XI):

L2 productions:

i- In the absence of lexical knowledge, the most frequent verb combination is *go/do + preposition* as in:

PAROLE 002A **the fridge is going up* (being lifted)

PAROLE 002A **the fridge go on a car in the street* (fell on)

PAROLE 006A **the fridge go to upstair* (goes upstairs)

PAROLE 010A **it don't want to go in the building* (fit through)

PAROLE 002A **he is doing with his hands big moves* (waving his arms)

ii- Utterances containing errors of substitution of preposition:

PAROLE 016A **the fridge fall into/falls to the car* (falls onto a car)

PAROLE 022A **it's somebody who is moving in a new apartment* (moving into)

PAROLE 016A **a fridge attached by a rope* (to)

PAROLE 029A **he crash on a car* (crashes onto a car)

iii- Utterances containing wrong prepositional uses (verb + preposition or

prepositional phrase) preceded by inappropriate lexis:

PAROLE 007A **two men are trying to catch him by a window* (hold... at a window)

PAROLE 009A **the fridge falls down on the road on a car* (it falls to the road)

PAROLE 010A **some people... try to take a refrigerator for their home* (move the refrigerator into their home)

PAROLE 010A **it don't want to go in the building* (does not fit through the window)

PAROLE 011A **he is trying to make the fridge come up in his house to/by the window* (go through a top-floor window)

PAROLE 008A **the fridge is climbing the air until the last stair (*is being lifted to the top floor)

iv- Incomprehensibility and lack of propositional content due to inappropriate lexical and prepositional choice:

PAROLE 004A **they are trying to pass the fridge over the window* (put it through)

PAROLE 017A **it is a person who want to pass a freezer by the window...* (to put a freezer through)

PAROLE 015A **the fridge calls in a car* (falls onto a car)

PAROLE 006A **they want to do that the fridge go to upstair* (to make the fridge go upstairs)

PAROLE 015A **two men try to climb a fridge in a building* (trying to hoist a fridge up to a building)

PAROLE 001A **they want to enter a fridge by the window* (to bring in... through)

v- Correct use of preposition but inappropriate lexis:

PAROLE 022A **the fridge does not pass through the window* (fit through)

PAROLE 021A **the fridge finally arrives at the window* (gets to)

vi- Expressing actions using inappropriate lexis which is not followed by a preposition:

PAROLE 023A **they want to receive the fridge* (to get hold of)

PAROLE 020A **they try to have a refrigerator reaching the window/to have the refrigerator going through the window* (to get a refrigerator up to the window/to make the refrigerator go through the window)

PAROLE 008A **he looks very furious because the car is off* (the car is wrecked)

PAROLE 012A **i see a fridge... fall down... and a car was bring (*a car was crushed)

PAROLE 024A **it's a fridge which is being lifted up to a window up on a building* (on the top floor of a building)

vii- L1 borrowing:

PAROLE 002A **so the fridge monter/tomber* (is being lifted)

PAROLE 013A **they want to faire passer the fridge by the window* (put the fridge through the window)

L1 productions:

The subjects described the scene quite similarly:

PAROLE N01A *there's a crane maneuvering a fridge up to a window... trying to get it in through the window of the/to the apartment... but the link broke and it fell on a car*

PAROLE N02A *people having to lift a fridge in through the window with a crane because I guess it can't fit through the door... and then it falls and lands on some guy's car*

PAROLE N03A *I saw something white being hoisted up to the top of a building with some men at the top waiting at the window with open arms to*

receive it... as they got their hands on it, it slipped out of the hold... and landed on a green car beneath it

PAROLE N10A *they were trying to get it in through the window... it fell and smushed the green car that was right below the window*

PAROLE N12A *they almost got it in... up to the window and they were reaching for it and then it fell... and of course there was a car right under the window...*

PAROLE N13A *trying to lift something up with a pulley system into a window... it won't fit up... they don't want to take it up the elevator... up the stairs*

PAROLE N14A *they were trying to move... a fridge into their new house or something and it couldn't go through the window, lost balance and tumbled over and fell onto the street onto a car.*

PAROLE N15A *it was about a crane hoisting a refrigerator up to... a higher storey on an apartment complex to people...*

V.3.3. Error analysis

What difficulties did the scene present to L2 speakers? And did they manage to complete the task successfully? In this section, we chiefly analyse the linguistic output (erroneous utterances) of L2 subjects, and we briefly discuss paralinguistic communication that accompanied speech production like word repetitions, pauses and hesitation though some argue (like Goldman-Eisler, 1968) that the analysis of speech pauses provides an external window upon the internal constructive processes of speech selection, planning and organisation.

Apart from the morpho-syntactic errors, we narrow our analysis to the semantic units used in describing motion events, more particularly the erroneous use of prepositions and action verbs. As can be seen above, errors are classified into two major categories: preposition errors and lexical errors (followed and/or not followed by a wrong preposition). Preposition errors are mostly errors of substitution. Instances of omission or addition of preposition were not observed. Lexical errors are not necessarily words used out of context, so conveying meaning is to an extent respected; however, productions are characterised by improper English structure. This is to say, the subjects could describe the environment of the situation (setting and scene) as well as the order of events that took place in the video.

Verb + preposition combinations describe the overall sense but not the movements involved in lifting the fridge up the window and its tumbling over a car.

For instance, let us observe the following examples:

**The fridge is climbing the air until.../climb a fridge in a building*: both involve action but they sound weird because an inanimate object cannot *climb.*

**catch/take/receive the fridge*: all indicate getting hold of something, but they are lexically inappropriate.

**enter/pass the fridge by the window*: all indicate getting the fridge through the window, yet they are inappropriate.

**come up/bring up/go up*: signal a rise but are lexically inappropriate.

Communication was either interrupted then restored in order to keep the flow of communication or was cut off midway. Unable to express themselves in L2, the subjects generated instant and/or delayed use of L1 words/structure. Unable to find the lexis that best describes the action, the subjects produce interrupted utterances marked by filled pauses which are said to increase with tasks that demand high levels of explicitness Goldman-Eisler (1968: 50-59).

The subjects were given instructions about the task, and since we can never be sure if they are trained in communication strategies, we assume that they used their innate strategic and discourse competence. In general, they maintained a good self-image, what is known as “face saving” i.e. “completing” the task to the best of their knowledge. Meaning replacement strategy was employed by using paraphrases, that is why productions are characterised by wordiness and lexical inappropriateness.

More precisely, lexical search resulted in:

- using all-purpose words (*thing, something*, etc.) for meaning replacement
- L1 borrowing (e.g. *monter/tomber/want to faire passer*)
- cutting the communication midway (e.g. *I don't know/I lack the vocabulary/I don't have the appropriate vocabulary*)
- message reduction

On the whole, to what extent did the subjects succeed in re-telling the video? Keeping in mind the subjects' various levels of proficiency in English, the erroneous productions we selected are characterised by weak propositional content either because of the lack of lexis or the use of improper lexis (e.g. *trying to take the fridge* instead of *to move the fridge*).

By comparison with lexical errors, wrong prepositional occurrences (e.g. using *for* instead of *to*) have less effect on the (non-)intelligibility of L2 productions.

Therefore, our analysis of the above utterances shows that the production of prepositions in spontaneous speech does not prevent L2 learners from task completion, i.e. describing motion situations. Yet, the rate of preposition errors is high compared to other types of errors (lexical and morpho-syntactic). Here is a list of the erroneous prepositions in L2 productions:

**attach something by a rope*

**catch something by the window*

**come up in a place*

**crash on*

**climb until a place*

**enter something by the window*

**fall to*

**fall down on*

**go on something*

**go to upstair*

**go in*

**pass something by the window*

**pass something over the window*

**take the fridge for their home*

**move in a place*

Lacking lexical knowledge, the subjects rely heavily on prepositions in transferring their ideas and verbally depicting motion scenes. This could be a problem-solving mechanism used in L2 communication to compensate for language-related difficulties that the speaker is aware of during the course of communication.

Preposition errors are mainly substitution errors (examples (ii) above, see page 205). Others are erroneous as a result of wrong lexical choice (examples (iii) and (iv), see page 206). Nonetheless, loose meaning and the inappropriateness of content is rather due to lexical search, inappropriate word choice and L1 borrowing (examples (iii) to (vii), see pages 206-207). What causes ambiguity is the use of prepositions that do not correspond with the preceding verb (e.g. **climb a fridge in a building/to enter a frigo by the window/catch the fridge by the window*). Inversely, this does not mean that all erroneous prepositions result in dubious meaning.

Self-repair and self-monitoring accompany the learners' on-the-spot production,

yet they are not very frequent in terms of preposition errors:

**the fridge falls down sur/on the car*

**the fridge is falling in/on the car*

**there are two persons in/at the window*

Levelt (1983), in his Perceptual Loop Theory, explains how speech is monitored and repaired based on a corpus of repairs generated in the spontaneous speech of adult speakers of Dutch. He stipulates that the speaker monitors his speech like he monitors others' speech. The three phases involved in self-repairs are:

- monitoring and interrupting speech when trouble is detected;
- hesitation and silent or filled pauses; and
- repairing disfluent speech.

In this theoretical model, the stage in which a message is monitored is called the “conceptualiser”. The speaker monitors, for example, the appropriateness of (a) word(s) in transferring the intended idea or message. Unsure of one's choice, one generates another idea or message.

“A record of natural speech will show numerous false starts, deviations from rules, changes of plan in mid-course, and so on” (Chomsky, 1965: 31). In our corpus, pauses, reformulation and repetition are very rarely linked to prepositional choice as in:

**he is trying to make the fridge come up in his house to/by the window*

**the fridge fall into/falls to the car*

In sum, motion events resulted in erroneous but not 'unusual' prepositional constructions, noting that substitution errors were the most frequent.

V.3.4. Motion verbs in the fridge task

We examine speakers' expression of motion events apart from

morphosyntactic patterns and paralinguistic factors (voice quality, gesture) in both English and French productions. We limit our observation to the lexicalisation patterns and pragmatic factors since there is no clear method of tracing conceptual processing in both languages.

Let us first have a look at Table 4, a granular breakdown of macro-/micro-events and elements involved in the silent video that the subjects watched:

Propositional Content : Fridge — Subject N°

Initial framing (presentation)

F1: it's a silly video / a stupid accident

Macro-event: (some men try to move a fridge and it falls on a car)

F2: framing: a removal

A: attributes	
men	two or three
fridge	big / heavy / American style
crane (instrument)	
building (location)	big / tall / white
window (target)	2nd/3rd/top floor
car	small / green

micro-events or statements	
E1	there are men in a building/flat/at a window
E2	they are trying to lift a fridge / a fridge is being lifted
E3	there is / with a crane/machine
E4	(they want to bring the fridge) into the flat
E5	(they try to bring it) through the window
E6	because it won't go through the door / up the stairs
E7	the fridge goes up
E8	the fridge reaches the window/the apartment
E9	they stretch out their arms
E10	they try to take/catch/pull the fridge
E11	the fridge won't go through the window upright
E12	they start to turn the fridge
E13	it's not properly attached
E14	the fridge slips out of the rope
E15	the fridge falls down (into the street)
E16	(it lands) on a car
E17	it squashes (the roof of) the car
E18	the car is ruined
E19	another man/the owner of the car runs up
E20	he's angry
E21	he's waving his arms
E22	he's shouting something

Final framing (conclusion)

F3: it was funny / silly / ridiculous

	frames	micro events	attri-butes
Totals			

Table 4. *Propositional content (reproduced from PAROLE corpus internal document)*

Our analysis of both oral productions has revealed the following: Native speakers of English relied heavily on transitive verbs incorporating manner and path in motion verbal clauses whereas French learners attempted to describe path but were unlucky with the choice of verbs (mostly inappropriate) and the choice of prepositions, basically replacing directional prepositions with positional prepositions.

By way of comparison, we quote extensively from Berman and Slobin (1994: 118-9) who proposed the following typological contrasts between the narratives of the languages they studied in the "Frog, where are you?" task:

> "Satellite-framed languages allow for detailed description of paths within a clause, because the syntax makes it possible to accumulate path satellites to a single verb, along with prepositional phrases that add further specification (e.g., *the deer threw them off over a cliff into the water*). […] The satellite-framed languages in our sample also tend towards greater specification of manner, probably because the lexicon provides a large collection of verbs that conflate manner with change of location (*crawl, swoop, tumble*, etc.), often conflating cause as well (*dump, hurl, shove*, etc.). In verb-framed languages, such elaboration is more of a "luxury," since path and manner are elaborated in separate expressions, which are generally optional, and which are less compact in form [e.g., 'exit flying (from the hole)' vs. 'fly out (of the hole)']. As a consequence of these differences, it seems—at least in our data—that English and German narrations are characterized by a great deal of dynamic path and manner description, while Spanish, Hebrew, and Turkish narrations are less elaborated in this regard, but are often more elaborated in description of locations of protagonists and objects and of endstates of motion."

In the frog short stories, the subjects are monolinguals belonging to two typological languages whereas our corpus subjects are bilinguals: native speakers of English (satellite language) and French learners of English (verb-framed language).

Speakers might or might not share the same perceptual domains – one of

the complexities and mysteries of language, but certainly the linguistic forms they use in the expression of motion situations are not alike. Besides, we recall that the proficiency level of L2 subjects varies, so they do not share the same linguistic competence as L1 subjects. The approach is not homogeneous because the comparison is between English produced by native speakers and constructions generated by L2 learners of English.

We basically examine two major components of motion events across the two languages: manner of motion and path of motion. Differences at the typological, linguistic and conceptual levels revealed the following:

L2 productions:

We cannot claim that our corpus subjects have a different cognitive system that resulted in the following erroneous interpretation of motion events. However, we attribute errors to the limited access to L2, i.e. insufficiency of lexis knowledge, especially as they have various levels of language proficiency. Our point is, therefore, analysing their productions without prior training to express similar motion situations in L2. Why are the produced motion situations erroneous? Is this because of the mismatch between the motion verb and the described action or the discrepancy between the verb and the spatial satellite that follows it?

We observed that errors are mostly in verbal clauses (not primarily particle errors) in addition to the replacement of a motion verb with a preposition to express the intended meaning (e.g. **he looks very furious because the car is off* (*of f* meaning 'wrecked'*).* Moreover, errors caused by substitution of the preposition are not numerous, for example:

**the fridge crashes on a car*

**the fridge falls to the car*

**a fridge attached by (a rope)*

L2 learners' use of motion verbs can be classified into two categories in terms of syntax and errors:

a. In addition to the inappropriate motion verb, positional prepositions are used instead of directional prepositions:

**the fridge go on a car in the street*

**it don't want to go in the building*

**it's somebody who is moving in a new apartment*

**to make the fridge come up in his house*

**to pass the fridge over the window*

**two men try to climb a fridge in a building*

b. Erroneous motion verbs used in the description of the events are not arbitrary! They are, however, uncommon in similar L1 situations. They might reflect L2 learners' cognition, but more importantly they show that French learners do not express distinct meanings or relations in similar situations:

**the fridge does not pass through the window*

**the fridge finally arrives at the window*

**the fridge is climbing the air until the last stair*

**we can see three persons trying to receive this fridge*

**they try to take the fridge but it fell*

**they try to have a refrigerator reaching the window*

**two men are trying to catch the fridge by a window*

**they want to enter a frigo by the window*

**they want to do that the fridge go to upstair*

**they try to put the fridge in their apartment*

However, if L2 learners attempted to express motion, and to be as close as possible to the target meaning, they could not express manner. On the other hand, they attempted to express path, though most often erroneously, and this confirms Talmy's proposition (1985) and Slobin's “Thinking for Speaking” Theory (1996) about speakers of verb-framed languages who tend to use path-conflated

verbs more than manner-conflated verbs.

L2 subjects gave as many details as possible – with variations from one subject to another – about the physical setting, so the basic elements of the scene are described despite the lack of the means to adequately describe the manner and path of motion:

- two/three men at the window of a two-storey building,
- a fridge connected to something to be raised,
- a car situated right under the window.

The productions convey the upward motion of the fridge by a certain force and also a causal event, that is, its immediate fall for some reason on a car that was underneath.

On the whole, most of the selected utterances expressing motion situations are erroneous because of the inappropriateness of the motion verbs themselves followed by wrong spatial satellites, but the overall account remains comprehensible. The verbs used describe the intended motion poorly but not contrastively (e.g.**the fridge falls down on the road on a car*). Other examples are verbal clauses *catch/take/receive the fridge* which are not far removed from *take hold of the fridge*, so they are inappropriate but not meaningless. Similarly, in the following examples **the fridge arriving at/to have the fridge reaching the window,* the entity's intended destination (landmark) is expressed. A main mistake though is the depiction of the fridge as an entity that can move voluntarily as if it were an animate object (a human) that knows its direction in space, for instance:

**the fridge is climbing the air until...*

**it don't want to go in the building*

And the same verbs are used to express the same motion situations when force is exerted by an external factor (the men):

**two men try to climb a fridge in a building*

**they want to do that the fridge go to upstair*

In addition, imprecision can best be seen in the path scheme (a fridge being brought in through a window) because of the wrong choice of both verbs and prepositions. The difficulty of describing this complex physical event is that it necessitates verb + preposition + prepositional phrase or, at least, a manner verb + prepositional phrase. The produced constructions are marked by L1 interference, that is why the path of motion is not correctly depicted:

**to pass a freezer by the window*

**to enter a frigo by the window*

**the fridge does not pass through the window*

Lexico-syntactic differences between the two typological languages, English and French, engender basic semantic variations in terms of the expression of motion events. In other words, we are not here simply talking about non-English constructions, but about imprecise dynamic spatial concepts because of wrong verb-preposition combinations.

Besides, we cannot be sure if L2 subjects' lack of narrative attention to details (Berman and Slobin, 1994) and lack of attention to manner (Slobin, 2000), which are both characteristic of satellite-languages, are linked to:

- lack of knowledge of manner verbs despite 7 years of English instruction as in **he is doing with his hands big moves* (waving);
- L1 influence in conceptualising motion events; and/or
- untranslatability and or incompatibility of SL motion verbs needed for the description of the fridge scene in L2.

L1 productions:

In L1 productions, motion + path and manner + path schemes are expressed in a verbal clause:

i. verb + spatial satellite followed by one or two prepositional phrase(s):

a crane (maneuvering a fridge up) (to a window)

to (lift a fridge in) (through the window)

being (hoisted up) (to the top of a building)

they almost (got it in) (up to the window)

it (landed on a green car) (beneath it)

trying to (get it in) (through the window) (to the apartment)

trying to (lift something up) (with a pulley system) (into a window)

(tumbled over) and (fell onto the street) (onto a car)

a crane (hoisting a refrigerator up) (to a higher storey) (on an apartment complex)

ii. verb + spatial satellite:

it can't fit through the door

it lands on some guy's car

it couldn't go through the window

it slipped out of the hold

take it up the stairs

trying to move a fridge into their new house

they got their hands on it

L1 subjects gave an elaborate description of the complex physical and causal motion events including the manner and path of motion. Path elaboration was possible because of the heavy use of spatial particles, thus adding further specification of visual images. However, the dynamic representations of path in L2 productions (**the fridge fall into/falls to the car/he crash on a car*) are poor compared with L1 detailed narration, yet the physical setting is well-interpreted.

In sum, our findings comply with Berman and Slobin's (1994) observations cited above. That is to say, speakers' habitual attention to motion events depends on language typologies, and this applies to erroneous spatial satellites and

prepositions, and motion verbs.

V.3.5. Comparison: L1 and L2 productions (fridge task)

Based on corpus analysis, lexical knowledge and constructions in L1 and L2 are distinct. We observed the following differences between the subjects in both productions: L1 subjects produced a similar story using much the same expressions in all versions. A complex physical event is interpreted as follows:

lift/hoist a fridge up to/into a building... through a window... with a crane...

Hence, motion situations are described using particular lexis that can only be employed in similar situations, for example:

to hoist: to lift something heavy, sometimes using ropes or a machine

to strap: to fasten something in position by fixing a narrow piece of leather or other strong material around it

Using uninterrupted sequences of events, L1 subjects generated a detailed descriptive interpretation of the scene by translating action into words, and verbally interpreting animate images. Their narrative segments portray visual images.

Unfamiliar with the video, but familiar with similar contexts and equipped with lexical knowledge, L1 subjects readily process spatio-visual aspects. Their productions are somehow lexically and semantically 'identical', including prepositional use.

Thanks to the heavy, clear use of prepositional chunks and prepositional verbs, spatial relations were conveyed in L1 productions:

there's a crane maneuvering a fridge up to a window... trying to get it in through the window to the apartment...

hoisted up to the top of a building with some men at the top waiting at the window with open arms to receive it... slipped out of the the hold...
they almost got it in.. up to the window
it tumbled over and fell onto the street onto a car

We assume that the more objective the description is (mostly pertaining to an (audio-)visual support), the more L1 subjects process language quite similarly when they depict spatio-physical relations with the world as if they share the same architecture of the mental lexicon.

Self-repairs and self-initiated corrections of one's own speech within the same speaking turn (Postma, 2000) are less common and almost nonexistent compared with L2 productions.

L2 productions are not as semantically clear as L1 productions because of the lack of lexical knowledge, remembering that the selected examples from L2 corpus are mostly a collection of erroneous structures. Speakers resorted to an "approximation strategy" i.e. using all-purpose verbs that express the 'meaning' of the target word, and this can best be exemplified in *go/do + preposition* constructions (e.g. **go on a car* for *fell onto*; **go in the building* for *fit through*; **doing with his hands* for *waving*).

Furthermore, L2 subjects tend to reduce the communicated message (e.g. *nothing more to say*) for topic avoidance because they do not know how to encode it, and they sometimes pause then give up (e.g. *I don't have the appropriate vocabulary*).

The avoidance strategy is basically linked with lexical and syntactic elements but not prepositional use. While the subjects requested elicitation of some target words (e.g. *how we say tomber/monter*), they did not appeal for further clarification of 'pertinent' prepositional use like *Do we say: through or by a*

window?, etc.

This corresponds to PAROLE corpus data (see Appendix X) in terms of the number of information units produced by each speaker, calculated using the coding sheet that we reproduced in Table 4 above (see section V.3.4., page 213). The data shows that the average number of information units produced by L1 subjects is slightly higher (8,67 average information units) compared to L2 subjects (7,24 average information units), remembering that some of the L2 speakers are quite weak. However, 13 of the L2 speakers (out of 35) produced more information units than the average for L1 speakers. On average, L2 speakers use more words (10,3 average words) to encode each information unit, which suggests that their speech is less 'efficient' than that of L1 speakers (8,12 average words).

Based on our analysis, we conclude that lexis, but not prepositions, impede L2 learners from communicating a message or an idea in spontaneous speech. Hence, lexical errors are more problematic than preposition errors which are often caused by wrong lexical choice. Besides, motion situations enhance the generation of erroneous prepositions which are on the whole intelligible.

In the following section, we analyse our written corpus maintaining the same methodology as in the oral corpus i.e. looking at the basic features that characterise the written corpus, error typology, coding, and analysis. We examine the difference between erroneous prepositions in static vs. motion events, chiefly in terms of their (non-)intelligibility by native speakers of English.

V.4. Written corpus

V.4.1. Basic features characterising the written corpus

According to Granger (2003: 467), the following features are indispensable for an error annotation system to be fully effective: consistency, informativeness, flexibility and reusability. This is why it is necessary to elaborate an error manual with detailed tagging guidelines, hence allowing adaptability of learner corpora analysis to other research projects and facilitating data retrieval.

The language-related, task-related and learner-related criteria characterising the written corpus are as follows:

Task	*Lead poisoning*	*Food canning process*
Mode	written	written
Genre	free production, coherent paragraph	free production, coherent paragraph
Style	paraphrasing, description	process description
Topic	general	technical

Table 5. *Language-related criteria*

	Support	*Elicitation*	*Time limitation*	*Length*	*Corpus words*	
					original productions	*selected constructions*
Lead poisoning	3 min. video	spontaneous	15-20min.	1 page max.	4000 words	700 words
Canning food	animated photo	spontaneous	15-20min.	1 page max.	5000 words	800 words

Table 6. Task-related criteria

Lead poisoning/Food canning process						
L2	no.	L1	Age	Sex	L2 proficiency	Motivation/attitude
English	25	French	19-22	F (16) M (9)	B1-B2 (level determined based on IELTS academic research skills module)	personal initiative

Table 7. *Learner-related criteria*

Both tasks 1 and 2 require no specific background knowledge to be comprehended: one is quite general (lead poisoning) and the other is a specialised subject area (food canning process).

Though the same subjects were examined in both tasks, we notice that they had less difficulty with task 1, probably because they are familiar with similar content. The subjects were able to summarise the main theme – as far as they could – without presenting false information except for confusing *pain in his legs* with *pain in his lungs*, a listening mistake but not a comprehension mistake. Remembering that the speaker in the video says: “I feel the pain in my legs after a short walk”.

The preposition mistakes generated in this task mostly have a stative meaning as the topic neither describes motion nor procedural events. Incomprehensible sentences were frequent basically due to lexical choice (e.g. *to insecure houses from lead*) but not to 'unusual' verb + preposition constructions. The subjects' attention while watching the video was mostly for grasping as many details as possible about the topic. A lot of lexical items used in the film report were reused by the subjects, most often followed by a wrong preposition. The mistakes, especially in prepositions, could have been avoided had the subjects paid more attention to sentence structure. Heedless of prepositional uses, L2 subjects are likely to retain words, particularly verbs, in

isolation. For certain individuals, prepositions are not vital aspects that affect communication.

In addition, L1 borrowing (e.g. *sain environment*) was also observed, but it remained at the word level. In general, there was no deviation from the original theme, so the subjects maintained a “good self-image” – an expression employed in oral production – leading to task accomplishment. Consequently, the video facilitates comprehension, but does not prevent preposition errors.

On the other hand, the difficulty in task 2 does not necessarily emanate from the technical terms themselves because the subjects were given the names of each phase involved in the canning process. They were requested to provide a coherent and logical description as can be seen in the animated photo (see Appendix VIII). Lacking the appropriate lexis for describing the action/movement involved in the process, they tended to form new prepositional verb constructions in order to be as detailed as possible (e.g. *the mixture is put down in cans*). This is referred to in communication as “meaning replacement strategy” which is frequent in instances of lexical difficulty. Subjects tried to express themselves using descriptive language, also known as “semantic avoidance” where the learner, being unable to find an exact word/term, uses a general expression to convey the meaning without abandoning the overall sense or the intended meaning (Corder, 1983; Faerch and Kasper, 1983).

Moreover, subjects resorted to L1 borrowing (e.g. *stockpile canette*s) and coinage (e.g. *cans are ordonned in boxes*). In addition, literal translation of phrases and clauses was more frequent here than in task 1 (e.g. *separated in function of their shape, put out the noninteresting parts of the vegetables*).

In this task, the subjects employed the “message abandonment strategy” in certain instances. This is to say, they skipped one phase or more, more likely due to lack of linguistic skills needed for expressing an idea. For this reason, we think

that an image can help illustrate an idea, but it does not necessarily guarantee task accomplishment. We borrowed the term “message abandonment” from Corder (1983) and Faerch and Kasper (1983), a term which is normally linked with oral production: skipping difficult words in an oral exchange or failing to explain a difficult word.

In terms of the nature of topics and its impact on language production as a whole, both tasks generated more or less similar types of mistakes including preposition mistakes which are mostly stative in task 1 and dynamic in task 2.

V.4.2. Error Typology: Error codes: categories and subcategories

Developing a well-structured error coding system is necessary as it allows quick, efficient and informative data retrieval. At the same time, we find it unnecessary to over-code all types of errors that do not match our research objectives.

We specifically want to figure out whether wrong preposition uses hinder comprehension, so we are interested in errors as produced by learners. Since we do not aim to view the collected data as what-is-to-be perfect English, we tried as much as possible not to alter the syntactic construction and, possibly, “semantic intention”. Thus, we were keen to correct errors without causing significant changes to learners' original productions. “One of the major problems in tagging, and therefore accounting for error, is that it is frequently not possible to be sure of either the student's syntactic or semantic intention” (Milton and Chowdhury, 1994: 138).

As for the frequency of errors, which does not concern our research objectives, we only considered one error occurrence per task. We are interested in the impact of learner's error on meaning, but not in the number of occurrences

per subject. Similarly, we are not interested in error distribution or source (L1, IL, L2) as much as we are interested in the impact of errors on the intelligibility of the whole structure.

Nonetheless, it will not be efficient to simply assess the intelligibility or non-intelligibility of the constructions without identifying the type of errors. We believe that dissociating meaning from form does not lead to a comprehensive analysis of prepositional uses.

We would like to note that error codes were not chosen haphazardly. A thorough examination of our learner corpora preceded coding and allowed us to observe the most frequent errors, based on which we have conceived our system. Here, we recall Sinclair (1991: 5) who recommends a thorough exploitation of the corpus before assigning tags to the raw data. Therefore, our error codes are not necessarily based on a pre-existing uniform codification system; they are designed to meet the objectives of our corpus analysis. They are partially inspired, however, by the coding system presented by the International Corpus of Learner English – Louvain (Dagneaux et al. 1998) for the following reasons:

- Dagneaux et al. (1998) used learner corpora to analyse the progress rate between intermediate and advanced level French-speaking university learners of English – which is the case in our research. Thus, we can build on their insights and research findings, especially in terms of identifying the nature and source of errors (i.e. error typology in general) in a written context.

- The compatibility of the Louvain tagset (Dagneaux et al. 1998; Granger et al. 2002) with our corpus objectives in general, remembering that their corpora are fully error tagged, unlike others which are partially tagged (like Standard Speaker Text corpus, Tono et al. 2001). The taxonomies of the

majority of learner corpora are based on linguistic categories of errors whereas the Louvain taxonomy combines both linguistic categories and target modification description of errors (containing tags to annotate omission, order, redundancy, etc.). In this context, Dagneaux et al. (1998: 172) say: “A fully error-tagged corpus provides access to all the errors of a given learner group, some expected, others totally unexpected”.

- Unlike the Cambridge International Corpus – a collection of English texts from newspapers, novels, magazines, TV and radio programmes, recordings of people's everyday conversations, etc. – and Cambridge Learner Corpus, which is error tagged but is a collection of exam scripts written by students taking Cambridge ESOL English exams around the world, the Louvain corpus is an annotation of learners' errors in a curricular context. In addition, the Cambridge error tagging system is not made available to the public, and it can only be used by authors and writers working for Cambridge University Press and by members of staff at Cambridge ESOL.

Having said that our error codes are inspired by Louvain does not mean we totally adopt it. The Louvain system contains seven major category codes: formal, grammatical, lexico-grammatical, lexical, register, word redundant/word missing/word order, and style. Each code is also followed by one or more subcodes providing further information on the type of error. Dagneaux et al. (1998: 166) tested the flexibility of their system (which was initially designed for L2 English) on a corpus of L2 French. They found that subcodes can be retained or removed depending on research interests: “The system is flexible: analysts can add or delete subcodes to fit their data”.

Our codification, however, involves two major categories: lexico-grammatical and lexical as follows:

The first major category, **lexico-grammatical errors** – the category code that interests us the most, involves prepositions dependent on nouns or verbs. This error category is subcoded into XNPR and XVPR as proposed by the Louvain error tagging system:

XNPR (lexico-grammatical error of a noun followed by wrong preposition)

XVPR (lexico-grammatical error of a verb followed by wrong preposition)

In addition to the above subcodes, we classify errors in terms of their constructed form (substitution/addition/omission) in order to give as much detail as possible for a qualitative assessment of the (non-)intelligibility of errors. Due to the limited number of errors (123 in total), we cannot claim a fully representative quantitative analysis though we attempt to present some comparative statistical inference (see Appendix IV). In this research, in order for an error to fulfill the criteria for a prepositional error if it is wrongly used in a construction, it should belong to one of the errors below:

- omission (e.g. **he explains us*),
- addition (e.g. **vegetables are checked before entering in the second stage*),
- substitution (e.g. **transported in the market*).

Errors of omission are described as “the absence of an item that must appear in a well-formed utterance” (Dulay et al. 1982: 154) while addition errors are “characterized by the presence of an item which must not appear in a well-formed utterance” (ibid. 156). By substitution or misuse type of error, we mean that a grammatical marker is used inappropriately.

In short, lexico-grammatical errors were subcoded into:

XNPR substitution,

XVPR substitution, omission, addition.

Consequently, errors that do not fall into the above categories and which were

limited to few occurrences were excluded like adjective + preposition and omission of a preposition dependent on a noun, as in:

**Gasoline and gas are responsible of elevated blood lead level.*

**This video deals with lead poisoning children.*

Unlike Corder (1981) and Richards, J.C. (1974) who classify L2 errors into interlingual and intralingual, the Louvain tagging system does not categorise errors in terms of their source “because of the high degree of subjectivity involved” except for the category of false friends “which groups lexical errors due to the presence of a formally similar word in the learner's L1” (Dagneaux et al. 1998: 166).

The second major category, **lexical errors** includes:

word order,
incomprehensible word(s),
false friends,
inappropriate word(s),
coinage/L1 borrowing.

Louvain's system distinguishes between lexical errors, word-level errors (word redundant/word missing/word order), and register errors. For the purpose of our study, and in order to facilitate data retrieval and comparable analysis of error types that influence intelligibility, we chose to include the following as separate codes in the lexical category: word order, word redundant (incomprehensible), false friends (Dagneaux et al. 1998: 166) to which we add two other codes: inappropriate word(s) (Milton and Chowdhury, 1994: 137) and coinage/L1 borrowing.

Another reason for including the above codes in one major category (Lexical error category) is the limited size of our learner corpus (a selection of 1500 words out of 9000 words in total) in which the majority of lexis errors are inappropriate

words.

At this stage, it would be useful to differentiate between “inappropriate words” and “incomprehensible words” by giving an example of each respectively:

**The report was produced in a Chinese province.*

**Labels are coped on cans.*

In the former, the use of *produced* is inappropriate because it does not collocate with *report* which is in this context a film, yet meaning would still be construed even if the sentence occurs in isolation. This is to say, it does to an extent make sense. However, in the latter, *coped* conveys no meaning here or, at least, results in a two-fold meaning. It makes no sense or causes ambiguity.

Moreover, in order to differentiate between the three error types *L1 borrowing*, *false friends* and *incomprehensible word(s)*, we note that all are lexical errors that can be meaningless to a native English speaker while the latter (incomprehensible words) are usually errors of unidentifiable source. For this, the raters could only codify an error as incomprehensible when it does not belong to the former subcodes and is, as such, ambiguous for one reason or another as in: **The solution is to ban the use of lead in gasoline and to insecure houses from lead.*

Having coded inappropriate and incomprehensible words, we avoided categorising stylistic errors to simplify error analysis at a later stage and limit our statistical data to the above two major error categories only (lexico-grammatical and lexical). For the same reason, errors in punctuation marks, particularly misuse/omission, have been excluded, as having little or no impact on comprehensibility.

Similarly, we ignore article errors (addition/misuse) if they do not affect intelligibility as in: *They add salt to conserve the vegetables for _ long time*. Here, the addition of the article *the* and the omission of the article *a* do not make the

overall sense ambiguous. We also ignore spelling mistakes that do not cause meaning ambiguity as in: *vegtables, seperated,* etc. The same applies to suffixes/prefixes (e.g. *noninteresting*) and grammatical inflections (e.g. omission of plural 's'). The other uncoded types of grammar errors are: agreement (e.g. **lead come from...*) and aspect errors (progressive: **Cans are stockpiled before be in the market*).

As can be seen, the grammar error category (verbs, adjectives, pronouns, nouns, adverbs, etc.) is ignored, which is not usually the case in corpus analysis. Yet, since they are not directly relevant to our study, they have not been coded. We prefer limiting our error category to the most problematic types of errors, primarily, preposition errors and, secondly, lexical errors by way of comparison. In this respect, Rastelli (2009: 58-59), who proposes “SLA tagging” as an alternative to error tagging, says that certain errors are “impossible” in the sense that they are unclassifiable and unpredictable:

> “Unclassifiable is a combination of a number of *per se* well-formed items, which a native-speaker perceives as being wrong as a whole, despite not knowing the precise rule being violated. Unpredictable is a combination of characters whose nature is not capturable by using a pre-fabricated, closed set of errors, no matter its size.”

SLA tagging, which is “concerned about the systematicity of learners' interlanguage (its rules), not about the distance between interlanguage and target language”, is adopted at the University of Pavia, Lombardy, Italy. Rastelli gives the following argumentation on the unreliability of error tagging:

> “a) it often fails to restrain the boundaries of errors and to detect the source of errors in a learner's mental representation; (b) it is often inconsistent and unreliable because it is subject to tagger's interpretations; (c) it upgrades surface phenomena to the rank of acquisitional facts.” (ibid. 58)

Unconcerned by natural language processing, we opted for a manual

coding system which serves our research interests (i.e. answering the question of intelligibility) and which helps us to categorise errors and, in the end, give a qualitative/quantitative explanatory account based on our analysis. Thus, it is highly important “to adopt a tagset which will provide useful indices for retrieval” (Milton and Chowhdury, 1994: 132). And as has been previously stated, automatic error analysers/detectors/tools cannot answer our research question since they cannot identify/retrieve incomprehensible items.

V.4.2.1. Adapting error coding to research needs

In the framework of our research, we have chosen to code errors in line with the problem-oriented approach (De Haan, 1991), which, unlike the previously mentioned types, is not concerned with tagging all words, sentences or intonations. Problem-oriented tagging is not an exhaustive annotation scheme. “It entails a procedure in which not all of the language material in the corpus is tagged, but only those parts that are relevant for the project”. And, for the purpose of our research, error coding notably concerns preposition errors (static and dynamic) and semantic errors (word level), but not morpho-syntactic errors (phrase grammar, clause grammar, subject-verb-agreement, tense, relative pronoun, etc.).

Granger (1999) emphasizes the importance of a learner corpus and an error tagset for corpus error annotation. Meunier (1998: 20), too, states that “the more refined the tagset the more refined the analysis”. Dagneaux et al. (1998: 164) say that error categories, for instance, “grammatical errors” and “lexical errors” are often “ill-defined”. And as an example of error types, they mention prepositional errors that “fall somewhere in between and it is usually impossible to know in which of the two categories they have been counted”. Therefore, in the absence of comprehensive error tagging tools, elaborating a clear tagging system is necessary, in respect of prepositional errors in L2. This guarantees

better analysis of data and reinforces the credibility of the results obtained.

The annotation system is indispensable to data analysis, and it is liable for modification depending on the target language in use and research goals. In the context of our research, it concerns a particular learner community (French-speaking learners of English) and a particular lexico-grammatical aspect (prepositions) with one specific goal: observing what effect prepositional errors have on intelligibility, if any. More precisely, we would like to observe if prepositional errors hinder comprehension.

For this purpose, identifying the sources of errors is a means to an end, but not an end itself. For example, interlanguage errors do not interest us themselves as an error type, but it is their impact on intelligibility that we are looking at, i.e. the extent to which sentences containing different kinds of errors can be comprehended (Khalil, 1985).

We are interested in errors occurring in a group of words and their influence on the meaning of the whole structure. For this reason, we did not tag correct instances (segments which are structurally and semantically acceptable) although, according to James (1998: 124), “corpora of errors” denote continuous stretches of discourse – erroneous and correct – but not isolated sentences or words.

In this respect, we find it useful to justify the reasons behind coding learner errors.
Being particularly interested in meaning, i.e. assessing the intelligibility of preposition errors:

- We find it impossible to include complete written productions (one text per subject per corpus) in a questionnaire. In the online template we have designed (see Appendix V), each erroneous sentence can be assessed separately, something that would not have been possible with complete

essays, especially as we need an individual (but not overall) assessment of each.

- We think that the context gives explanatory clues that can help to decipher the meaning of ambiguous constructions.
- We would like to see to what extent the generated errors are easily understood by native speakers and, as such, can be approved despite lexical or lexico-grammatical incorrectness. Intelligibility of erroneous preposition uses means that preposition errors are not necessarily a direct reason for disambiguating meaning despite L1 transfer.
- Our error taxonomies (substitution, omission, addition) allow us to see which type of preposition errors can be relatively intelligible and, at the same time, allow a comparison with lexical errors.

For all of the above reasons, we did not choose POS tagging which does not match our research goal. Unfortunately, we could neither build on existing research nor adopt a standardised error tagging format, since error analysis – as far as prepositions are concerned – is limited to a subset of prepositions or to error frequency and/or detection, but not to (non-)intelligibility.

For instance, Tetreault and Chodorow (2008) describe a methodology whose long-term goal is developing and evaluating an NLP error detection system that provides feedback to non-native English learners on 34 most frequent prepositions. This instructional tool distinguishes between three error typologies: “selection” (substitution), “extraneous” (addition), and “omitted” prepositions (omission) using thresholds to determine the “correctness” of the writer's preposition. That is, it takes into consideration minimising “false positives”. For example, **He is ashamed at his son's attitude* is flagged as an error, but *I started staying home in weekends* is not flagged as an error.

Izumi et al. (2003, 2004) also developed a model for classifying grammatical errors including – but not limited to – preposition errors. In 2005,

they attempted to overcome this “limitation”, and re-examined learner language in the NICT JLE Corpus by focusing on “intelligibility” and “naturalness”. Their error categories contained mainly grammatical errors but also lexical and discourse errors. As for prepositions, they tagged two types of errors: complement of preposition (e.g. **over the floor*) and dependent preposition (e.g. **he is good in English*). They stipulated that two points need to be considered in the new error annotation scheme for measuring learners’ communicative competence:

- finding what kind of errors can be “fatal” and prevent the entire output from being understood; and
- treating both obvious errors and expressions that are not errors but are unnatural at the same level.

In this research, our approach is opposite to the above. We believe that although their new tagset raises the notion of intelligibility of errors and proposes tools for measurement, it can be characterised by subjectivity and L2 influence. The person who did the corrections for Izumi et al. had lived in Japan for 14 years and was asked “to apply the corrections objectively considering whether or not each utterance was generally intelligible to native speakers” (Izumi et al. 2005: 77). This is to say, determining the correctness of productions by a native who understands Japanese is not sufficiently reliable due to L2 interference as we have sometimes noticed with the two human raters who coded our learner corpora. Judging intelligibility would better be done by native speakers who themselves have no knowledge of the target language. Error correction, though complementary to error annotation, is not a decisive element for measuring intelligibility. It “provides precisely the sort of negative evidence which is necessary to discovery of the correct concept or rule” (Corder, 1981: 25).

As for our corpus, we put a limited number of errors under the microscope. We would have preferred to multiply the number of errors belonging to the same taxonomies, yet this was not possible due to questionnaire time-length

restrictions. For future research, we recommend disseminating separate questionnaires, each containing an acceptable number of erroneous constructions and, then, collecting them for analysis and assessment.

Naturalness is obviously a criterion of language mastery, but it is not necessarily a requirement as long as productions are understandable. Errors are a clue for tracing the development of one's linguistic knowledge (target: the learner), and more interestingly, in our case, they help us find out if they interfere with and prevent understanding (target: the native speaker). Naturalness in L2 is not always attainable, even at advanced levels. For Corder (1981: 31),

> "whatever the surface form or apparent appropriateness of a learner's utterances, none are utterances in the target language. In other words, he is not speaking the target language at any time, but a language of his own, a unique idiolect, which no doubt shares many features of the target language."

On the other hand, in the context of International English (see section III.6.), abandoning native-speaker norms is legitimate. For instance, Jenkins (1998) argues that L2 learners are neither expected nor supposed to sound like native speakers.

This is why we find it both time-consuming and subjective to label utterances unacceptable if they are not native/near-native. And if intelligibility of output can only be assessed the closer it is to the mother tongue, this means that L2 productions are in part, or for the most part, incomprehensible.

Corder (1981) has alternatively approached intelligibility by discussing "interpretation" which is crucial to the whole methodology of error analysis. "The success of error analysis depends upon having adequate interpretations" (ibid. 44) while focusing on the performance of learners themselves i.e. the process of language acquisition, and not only on contrastive analysis.

Instead of predicting errors based on a comparison of the grammar of L1 and L2, analysis should go from the “deviant” sentence back to the mother tongue. And while it is not always possible to consult the learners for further interpretation of their utterance, form and context, our knowledge of their mother tongue helps us quite often predict the intended meaning. Having little or no knowledge of the target language, surely, increases the chances of misinterpretation.

Nonetheless, learners' errors have constituted the main subject of research interest with the aim of improving SLA, classifying error types and predicting their source through comparative studies between L2 and L1.

Error-tagged learner corpora have so far served as a tool for quantifying major error categories. For instance, Dagneaux et al. (1998: 169) tagged a 150,000-word-corpus of English written by French-speaking learners of intermediate and advanced levels, and presented statistical data of major error categories as can be seen in Figure 2 below:

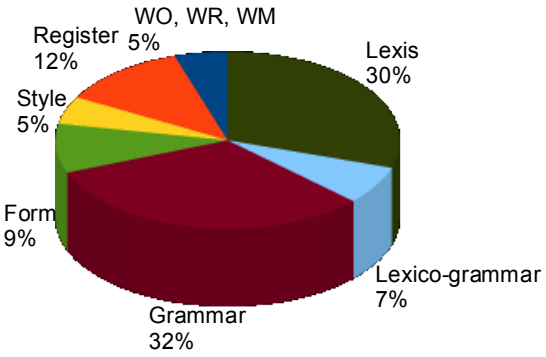

Figure 2. *Dagneaux et al. (1998) 163-174*

They then presented “a more detailed picture of each of these categories”,

i.e. each category contained subdivisions of errors in both corpora (intermediate and advanced). For example, grammar errors are classified into: verbs, adjectives, articles, pronouns, word class, nouns, adverbs. Verb errors are further subdivided into: auxiliary errors, tense errors, finite/non-finite errors, morphology errors, and so on.

Errors or erroneous constructions are, therefore, an indication of non-mastery of L2 irrespective of their intelligibility or non-intelligibility, whether in an oral or a written context. Their impact on comprehension is, thus, rarely assessed. L2 productions are usually viewed with a native-speaker model in mind in the sense that they ought to approximate near-nativeness in order for them be accepted.

In this research, we would like to have a closer look at the intelligibility of erroneous constructions to find out to what extent preposition errors can affect comprehension.
We are interested in semantic but not morphological errors. By a semantic error, we mean violating the rules of meaning of a natural language i.e. meaning is misunderstood or difficult to understand as in: **A blood test is necessary to conclude of a lead poisoning.*

Semantic errors are common among non-native speakers, especially when they transfer L1 collocations literally into L2 (e.g. **An exposition to lead is bad for health*). A native-English speaker who has little or no knowledge of French might not figure out the intended meaning and, so the speaker will not be intelligible. Consequently, even when errors can be identified, their correction is not always straightforward.

In order to analyse sentence meaning, we considered utterances which have the same propositional content but which do not necessarily express the same meaning. That is to say, utterances differ in linguistically encoded meaning:

Do these linguistically encoded differences affect the overall sense? Would the listener grasp a fairly clear idea of the proposition despite semantico-syntactic ambiguity? And, if he does, is it because he is considering the totality of an expression? By doing so, i.e. considering the whole but not parts, contextual inference is to some extent maintained.

Obviously, intelligibility or non-intelligibility of errors lends itself to a great deal of subjectivity, which accounts for the difficulty of quantifying the rate of the 'error' type. Different parameters can play a role in disambiguating meaning: the interlocutor's knowledge of speaker's L1 and/or the topic, the surface meaning and its relation with the context, etc.

If we put the interlocuter's interpretation aside, and we consider the produced utterance itself, we notice that ambiguity usually takes two possible forms. Milton and Chowdhury (1994: 132) describe them this way: “one where the meaning is not clear and another where the meaning is at least apparent, but where more than one reconstruction is possible”.

In order to analyse errors, erroneous constructions were coded by two human raters who are native speakers of English (for more details, see Chapter V, section V.4.3.).

To date, and for more reliability, neither automatic nor manual annotation is done without a human rater double-checking the system output or tagging learner corpora. This applies to grammar error detection including preposition/particle errors, which cannot be fully detected by a software/automatic model whose performance results are not precise, thus, increasing the rates of “false positives”, i.e. where there is no error. Only human annotation can spot similar instances. Yet, in this case, too, another problem arises which is subjectivity. For this reason, more than one rater are recommended or even required for verifying learner errors. “Some grammatical

errors, such as number disagreement between subject and verb, no doubt show very high reliability, but others, such as usage errors involving prepositions or determiners are likely to be much less reliable" (Tetreault and Chodorow, 2008: 866). This also applies to semantic errors which can be more confusing since error identification may differ from one person to another.

Paradoxically, a human rater is necessary for error analysis as much as the variability between raters is inevitable. Manual coding makes possible a thorougher codification of open error categories, but reliability between raters is not always guaranteed. Besides, the involvement of multiple raters in error detection, classification and correction can be disadvantageous too, being time consuming and costly.

With respect to prepositions, Tetreault and Chodorow (2008: 869) stipulate that "two highly trained raters can produce very different judgments". In their study, they trained two native English speakers with prior NLP annotation experience to annotate preposition errors in ESL text and suggest the preposition that best fits the context including instances of false positives.

Raters assign error codes and/or correct errors manually because of the inconsistency of automatic methods in data analysis. Since not all error types lend themselves to automatic retrieval (like preposition errors), manual coding is needed for disambiguation. For example, in The Cambridge Learner Corpus, the software takes into account the problem of "indeterminacy of some error types" or the rates of recall, yet the "corpus has also been manually coded by just two coders, with one coder overseeing the work of the second, thus keeping to a minimum any problems with consistency of tagging" (Nicholls, 2003: 572).

In the end, "although machines are useful in advancing and verifying the work of the linguist, there remains much core work which only the linguist is competent to carry out (conception, understanding and organisation), and such

work is also essentially manual in nature" (Cardey and Greenfield, 2002: 246). See Appendix IX: Measuring coders' rating of L2 errors.

V.4.3. Human raters

In addition to our own corpus annotation, two human raters coded learner corpus errors. In order not to influence them, they were not shown our annotated sample. The raters verified our learner corpus and coded errors as follows:
Before showing them the erroneous sentences, we told them that their task consists in detecting errors that comply with a limited set of error codes. We first explained our error categories and defined each subcode by showing them examples of each. The examples did not belong to our corpus as follows:

Error Categories/examples

LEXICO-GRAMMATICAL	examples	correction
XNPR, substitution	The boiling point *for* water is 100°.	of
XVPR, substitution	He *go in* Spain yearly.	goes to
XVPR, omission	He moved Spain recently.	moved to Spain
XVPR, addition	He *visits to* Spain in holiday.	visits Spain in the holiday
LEXICAL	examples	correction
coinage/L1 borrowing	He *resumed* the article in a page.	summarised
incomprehensible word(s)	He *stutters* in Spanish better than English.	speaks!
inappropriate word(s)	I can *manipulate* the computer when it's dead.	fix
false-friends	I am *actually* enrolled at DLST.	at present
word order	Monitoring *control quality* diminishes fraud.	quality control

Raters were then given a list of sentences arranged in alphabetic order – as can be seen below – the same way they were included in the disseminated questionnaire:

error code	erroneous constructions	Coder's correction
	A blood test is necessary toconclude of a lead poisoning.	
	A boy aged of nine years old living in a village is ill.	
	A small boy is diagnosed lung cancer.	
	A solution at short termcould include removing old water pipes which contain lead.	
	An expositionto lead is bad for health.	
	Blood test isused for diagnosis of lead poisoning.	
	Children are more subjected and people whoive in highways.	
	Children are the most vulnerable tofumes of lead.	

Errors were not highlighted in these randomly presented sentences. Coders had to read each sentence separately (Lead poisoning: 60 sentences, Food canning process: 63 sentences); to write the code that best fits the type of error in each sentence in accordance with our codification; and to suggest a correction respecting as much as possible the original form produced by the learner.

“[T]he coder must resist the temptation to make moral judgements about a student's intended meaning. If the language used is 'correct', the idea behind it is not brought into question”, says Nicholls (2003: 575). For example, **Labels are put in cans so that they can be ready for distribution*, was corrected as follows: *Labels are put on cans*, though *put* is not the most appropriate lexis here. The same applies to: **Vegetables will be separated in good or bad quality*, which is corrected as *separated into,* though one way of correcting it would be: *Vegetables will be separated depending on good or bad quality.*

On the other hand, coders knew that grammatical errors, including errors in the use of articles, determiners, inflections, are not included in the context of our study because we are not concerned with these errors. And, more importantly, they were informed about the overall objective of this research which is assessing the (non-)intelligibility of errors: lexico-grammatical and lexical. To avoid extensive error coding, correction was limited to the 'most erroneous'

words/phrases, but not to non-English words/phrases. This was possible with the co-codification of our native-speaker human raters.

In brief, coding errors without recourse to dual raters, notably, native speakers, would weaken the credibility of our codification. Luckily, there was no need to train the coders, who are themselves experts in language acquisition and teachers of English for specific purposes to French learners. This means that they were, to some extent, familiar with the types of errors, mainly L1 borrowing (e.g. **Our children need to live in sain environment*) and false friends (e.g. **During childhood, the development of the brain is very important*). They neither read the task instructions nor saw the audio/visual support (video and animated photo) prior to codification.

However, determining error types was not always as simple as it seems to be, for example, in relation to word order errors which were considered incomprehensible at first sight, as in:

> **Lead is a heavy metal that can be found in raw materials for food or for drugs manufacturing.*

In this context, Milton and Chowdhury (1994) argue that accounting for the uncertainty of error type is problematic, as in:

> *Lead poisoning can be detected early with blood test.*

Being unable to reach a consensus on whether there is a preposition error in this sentence or not, we ended up coding two types of errors: substitution of preposition (detected early by a blood test) and inappropriate word (measured early with a blood test).

Nonetheless, “[w]e attempt, wherever there is insufficient evidence to assign one interpretation, to indicate alternative possibilities” (Milton and Chowdhury, 1994: 129). This is to say, an error is assigned a single code unless it does 'plainly' fit in two categories. Here is an example:

**A rise of temperature can kill germs and disinfect vegetables.*

Two errors are coded here:

substitution of preposition (*A rise in temperature...*)

inappropriate word (*High temperature..*)

In the following example, too, we labelled two codes: preposition error (substitution) and lexical error (false friends) though *passage* in English indicates an act of moving through somewhere: **They are selected by passage in perforated cylinders.*

However, sentences including more than one type of error – excluding grammatical errors – were infrequent. In both tasks, only the two sentences below belong to both error categories (lexical and lexico-grammatical):

**Children eat it and seems to have a taste sweet for them in the age when they put everything in the mouth.*

The two assigned error codes are: word order and substitution of preposition.

**Vegetables are collected from fields and carried in the factory.*

The two assigned error codes are: inappropriate word(s) and substitution of preposition.

Recurring mistakes were only coded once, for example:

pick up:

**Farmers go in the fields to pick up vegetables.*

**The first step consists to pick up the vegetables.*

conserved:

**They transport conserved vegetables to the sold point.*

**We add juice composed by water and salt to improve the conservation.*

**They add water and salt in the cans to conserve the vegetables for long time.*

V.4.4. The usefulness of error correction

Error correction is necessary for the following reasons:

- to see if the sentences are understandable, and if so, how they can be corrected;
- to note if a sentence carries the same propositional meaning for each coder based on the suggested correction;
- to note the basic differences in codifying errors (between our version and the coders'); and
- to establish a reliable codification system taking account of the rater's coding and their argumentation.

For each erroneous construction, one correction has been suggested in spite of the fact that more than one possibility could be acceptable. We avoided rephrasing the whole sentence(s), and tried our best to keep the learner's original production, as in:

**Farmers go in the fields to pick up vegetables.*

Correction: Farmers go to the fields to pick vegetables.

Our main focus is coding the generated errors, which makes possible the assessment of intelligibility, but not correcting for evaluating learners' linguistic knowledge. Hence, error correction is also a means for justifying our codification.

Below are further examples of corrected sentences:

**The process of canning food passes by many steps.*

Correction: The process of canning food passes through many steps.

For the same aforementioned reasons, it was only coded as preposition error (XVPR substitution) though a better correction could be: *The food canning process involves different phases.*

**The picture explains us the canning process.*

Correction: The picture explains to us the canning process.

Here, too, we corrected the mistake in conformity with the learner's version but not what it ought to be.

**A selection is made to put out the noninteresting parts of the vegetables.*

Correction: A selection is made to eliminate the uninteresting parts of the vegetables.

Better English would be: In the selection phase, undesirable vegetable matter is removed.

**Last, they sterilize cans and close the opercula.*

Correction: Last, they sterilize cans and close the lid

instead of: Last, cans are sterilised and sealed off.

Error correction “remains problematic because there is regularly more than one correct form to choose from. The inserted correct form should therefore rather be viewed as one possible correct form--ideally the most plausible one than as the one and only possible form” (Dagneaux et al. 1998: 165).

Indeed, this was evident among coders in terms of preposition errors which were not always easy to identify and correct:

a. Hesitation whether to consider the following preposition errors or not:

**Gasoline vehicles emit lead oxide in the air.*

**They add water and salt in the cans to conserve the vegetables for long time.*

**The report talks about the consequences of lead poisoning for children.*

b. Hesitation as to the choice of the most appropriate preposition in these contexts:

**Lead is in gasoline. It is then sprayed on the air.*

Coder 1: Hesitation between *in* and *into*

Coder 2: Inappropriate word because the verb *to spray* implies a voluntary action, so *dispersed in the air* could be a better alternative

**Lead is spread with the air.*

Coders 1 and 2: Hesitation between *in, through,* and *into*

**The blood lead level is five times higher than normal at this boy.*

Coder 1: suggested *in*

Coder 2: suggested *for*

**The mixture is put down in different cans.*

Coder 1: suggested *in*

Coder 2: suggested *into*

**Vegetables pass a rotating cylinder for selection.*

Coders 1 and 2: Hesitation between *pass through* and *pass by*

c. Preposition mistakes in the following examples were not instantly detected by the coders:

**We learn that the exposure of lead in children is more dangerous than in adults.* (substitution)

**It causes the increase of the gasoline price.* (substitution)

**The process consist seven major steps.* (omission)

Evidently, prepositions are problematic even to native speakers who are themselves teachers of English as a second language. Besides, the above examples show that neither omission, addition nor substitution of prepositions greatly affects comprehension or is, at least, “not shocking” as both coders indicated.

In addition to preposition errors, coder hesitation was also noticed at the word level/phrase level. While lexical mistakes were more easily identified, they were not equally simple to correct:

**We add juice composed by water and salt to improve the conservation.* (? to improve the quality/to prolong the preservation)

**Vegetables are selected by perforated cylinders.* (?by being filtered through/by means of)

**Vegetables are cleaned, then separated on equal quantities.* (?even quantities/ proportions)

Moreover, in terms of the codification of lexical errors, the coders' argumentation was not always consistent as in:

**Production processes evoluted thanks to technology.*

Coder1: a spelling mistake

Coder2: mistake in lexical choice

It was finally coded as a lexical error (false friends).

**Young people hold everything in mouth.*

Coder1: wrong choice of verb

Coder2: irrelevant use of *young people*

It was finally coded as inappropriate word(s).

**Lead oxide is present everywhere on the food and on flora.*

Coder1: inappropriate association of *food/flora*

Coder2: acceptable association

It was finally coded as an inappropriate word.

The following examples of false friends were either unnoticed or there was uncertainty if they are English words at all:

**We introduce salt and water to the cans.*

**An exposition to lead is bad for health.*

**The doctor precised that a blood test is necessary.*

Additionally, we encountered examples that contain two types of errors. As is the case with preposition errors, each lexical error type was coded once in the corresponding error category as follows:

**Vegetables are collected from fields and carried in the factory.*

inappropriate word

substitution of preposition

In general, categorising errors was not as problematic as error correction, especially in terms of lexical errors. Interestingly, while examining learner errors, neither coder could accept the omission and addition of articles (e.g. **chronic pain in lungs/transfered in a another process*) and the use of the impersonal subject *We* instead of the passive voice (e.g. **We select vegetables/We fill the cans/We add juice*) which are mostly due to L1 interference.

In addition to the human raters, to be sure of grammaticality and appropriateness, we resorted to: Cobuild Concordance Sampler (http://www.collins.co.uk/Corpus/CorpusSearch.aspx), an online English corpus sampler which is composed of 56 million words of contemporary written and spoken text. This is to say, we typed a query which is made up of one or more terms (e.g. **introduce salt*). The Collins wordbanks would search for the word *introduce* immediately followed by the word *salt.* We check the context(s) in which such word combination can be used, if any.

In brief, the above codification can be a preliminary clue to our research question. Based on our observation of the human raters' argumentation and correction of learner errors, we conclude the following:

The two female coders (one British, the other American), who are in their

fifties and share the same profession, and who have been living in France for more than 15 years, interpreted learners' productions in a similar way in all examples. However, they differed in the extent to which they accepted certain sentences and annotated them (see Appendix IX). The percentage of inter-rater agreement in both tasks is 87% (107 sentences out of 123 coded similarly) and divergence is 13% (16 sentences out of 123 coded differently, 6 of which contain preposition errors annotated differently).

Errors raised varied explanations and argumentation simply because individuals do not analyse data similarly despite shared backgrounds (language, age, gender, work, country of residence). Comprehension is relative, and while someone rejects an utterance, the other might accept it!

Preposition errors, which constitute almost half the number of errors in this corpus (57 erroneous occurrences in 123 constructions), were not always misleading. Lexical errors, notably incomprehensible words and word order errors, were the most problematic to our coders in terms of intelligibility and correction. Hardly comprehensible to them despite repetitive readings, they left a number of sentences uncorrected. Yet, we were able to provide corrections by referring to the script in task 1 (lead poisoning) and the photo in task 2 (food canning process).

Humans do not primarily intend to trace errors while interpreting someone's words as much as they care for comprehension. Besides, the coders tried to reflect on the learners' intentions in having written what they have written. However, reporting on someone's intentions does not guarantee the exact interpretation of the speaker's idea.

As for the non-identification of errors, this could be due to the coders' knowledge of L2 (French) and the mixing up between L1 and L2, i.e. failure or delay in distinguishing between English and non-English. The above examples

revealed that some preposition mistakes were sometimes unrecognized or not easily recognized. Besides, the uncertainty of correcting preposition errors indicates that they are not always rule-based but depend on one's reasoning. For example, one of the coders prefers the use of *into* to *in* or *to* in certain occurrences as in *The mixture is put into cans/lead oxide spreads into the air/farmers go into the field*. And while *add salt in the cans* is not erroneous for one of the coders, it is unacceptable to the other. Thus, prepositions leave some place for hesitation depending on spatio-physical and situational contexts, even if one's mother tongue is English.

V.4.5. Error analysis

Error analysis of our corpora revealed that mother tongue interference is responsible for most types of errors. For instance, in addition to L1 borrowing and false friends, many other error types are attributable to interference from French as can be seen in the explanation below:

Generally, substitution errors were the most frequent in both error categories (lexico-grammatical and lexical) i.e. substitution of prepositions (39 errors) outnumbered omission and addition of prepositions (18 errors). At the same time, lexical substitution was mostly at the word but not phrase level.

The construction of 'unusual' verb + preposition1 (+ preposition2) constructions is mainly because of the lack of the appropriate lexis in a real time production. This could also be attributable to the fact that English is a satellite-framed language, so learners tend to construct new verb particle formations either consciously or unconsciously to express meaning as clearly as possible.

If we consider some examples, we notice that they are not totally erroneous, but can also be misleading depending on the context. Here is an

account of the analysis of the learners' interlingual constructions:

1. *Lexico-grammatical error category:*

Prepositional errors are classified according to different formal categories and to each type of linguistic context.

1.i. Substitution of preposition

This is the most frequent error type and it appears in five different types of linguistic contexts:

- Prepositional phrases acting as an adverbial denoting position/location:

  **They describe the canning process on this picture.*

  **Cans are stockpiled before be in the market.*

  **The report is about lead poisoning on undeveloped countries.*

  **Lead can cause damages on the brain.*

  **He had pain of the lungs.*

  **Children are more subjected and people who live in highways.*

- Prepositional phrases acting as an adverbial modifying the whole sentence as in:

  **In the beginning of the canning process, vegetables are collected and washed.*

  **In a first time, vegetables need cleaning for quality control.*

- Verb + preposition constructions denoting direction and motion:

  **Lead is in gasoline. It is then sprayed on the air.*

  **Gasoline vehicles emit lead oxide in the air.*

  **After labelling, the products can be carried to truck for distribution.*

  **Vegetables are collected from fields and carried in the factory.*

  **Farmers go in the fields to pick up vegetables.*

  **They are put in a truck to be transported until the process area.*

  **They add water and salt in the cans to conserve the vegetables for long*

time.

**Labels are put in cans so that they can be ready for distribution.*

**They are ready to be transported in the supermarket.*

- Sentences with prepositional verbs (verb + preposition + (adjective) + noun):

  **He suffers of chronic pain in lungs.*

  **We add juice composed by water and salt to improve the conservation.*

However, there were only two instances of substitution of transitive phrasal verbs:

**The first step consists to pick up the vegetables.*

**The process of canning food passes by many steps.*

- Substituting prepositions in noun phrases, mainly in noun + preposition constructions:

**We learn that the exposure of lead in children is more dangerous than in adults.*

**It causes the increase of the gasoline price.*

**A rise of temperature can kill germs and disinfect vegetables.*

1.ii. Omission of preposition: This error type appeared in two different linguistic contexts:

- Omission of *to* in sentences that contain a ditransitive verb:

**The picture explains us the canning process.*

**The speaker talk us about different symptoms caused by lead poisoning.*

- Omission of the preposition introducing the predicator complement that follows a verb of motion:

**Vegetables pass a rotating cylinder for selection.*

**We fill the cans vegetables and after that we add salt and water.*

1.iii. Addition of prepositions:

They mostly appear in sentences with the pattern (Subject + verb + direct object):

**Intoxication concerns for children more than adults.*

**Many children inhale of lead oxide in China.*

**A boy aged of nine years old..*

**Lead exposure causes to several symptoms.*

**The last step is labeling for cans.*

**A truck brings up vegetables to factory.*

2. *Lexical error category:*

Lexical errors are classified according to their relation with other sentential constituents:

2.i. L1 borrowing/coinage:

Errors appeared in different forms and were used like adjective, noun, verb, and gerund, with/without grammatical inflections (plural (-s), simple past (-ed)), where applicable:

**Our children need to live in sain environnment.*

**They process the arrached vegetables automatically.*

**There is no reglement to ban lead oxide in the underdeveloped countries.*

**We stockpile canettes in preparation to distribute them.*

**The doctor constated that the boy has elevated level of lead in blood.*

**They are checked then subit a ventilation.*

**The first step consists in recolting the vegetables.*

2.ii. Incomprehensible word(s):

These errors take different forms and appear in different linguistic contexts:

- Sentences including motion verbs basically formed with unneeded or with wrong prepositions. We cannot, however, hypothesize that incomprehensibility is inseparable from prepositional choice nor can we

ignore the irrelevance of the lexical choice, a direct reason for ambiguity:

**The mixture is put down in different cans.*

**Vegetables are taken in by a truck to the manufacturing industry.*

**They are driven in supermarkets to be sale.*

**A selection is made to put out the noninteresting parts of the vegetables..*

**Poisoning appears behind different symptoms like dizziness, vomiting,..*

**Some biology systems can keep out the lead from the surrounding..*

**A blood test is necessary to conclude of a lead poisoning.*

- Other reasons for incomprehensibility are purely lexical.
  Incomprehensibility is due to verbs/phrasal verbs used out of context, and this remained at the word level:

  **The solution is to ban the use of lead in gasoline and to insecure houses from lead.*

  **There are no symptoms before being physically ill, so there is no way to suppose the disease and act before.*

  **Products are sterilised and stored in huge amounts. Labels are coped on cans.*

  **People who are stinked out by lead have high level of this poison in their blood.*

- Incomprehensibility at the clause level due to erroneous morpho-syntactic patterns:

  **Quality control occurs and then canning food can be transport to the supermarkets to be sold.*

- Incomprehensibility due to a missing word(s):

  **The doctor explains this problem remains in third of the world countries.*

  **Experts provide simply to get lead out of gasoline.*

2.iii. Inappropriate word(s):

- Inappropriate motion verbs not followed by the corresponding preposition:

**After ventilation, they are transferred in a another process.*

**Vegetables are collected from fields and carried in the factory.*

**We select vegetables with perforated cylinders.*

**Vegetables are enclosed into cans using a temperature of 130°C*

**Vegetables are put into cans then salt and water are added.*

**Labels are added on each can.*

**Lead is in gasoline. It is then sprayed on the air.*

**Lead poisoning can be detected early with blood test.*

In these examples, we notice that preposition mistakes are omnipresent. In addition to the wrong lexis, prepositions are also used wrongly. And while it would be easier to attribute non-intelligibility of erroneous L2 productions to prepositions in the lexico-grammatical error category, it would be difficult to claim that wrong prepositional use in the lexical error category 'deforms' meaning. That is why it will be interesting to evaluate the informants' answers to the online questionnaire.

- Incorrect use of a word/phrase, but correct use of prepositions:

**This report was produced in a Chinese province.*

**Vegetables are carried to the industry thanks to a truck.*

**We arrive at the end of the process and cans are distributed.*

**Young people hold everything in mouth.*

**It's necessary to use unleaded gasoline and stop to consume paint with lead.*

- Sentences containing register errors:

**Last, they sterilize cans and close the opercula.*

**Lead oxide is present everywhere on the food and on flora.*

2.iv. False friends:

- They are used like English words in the form of adjectives, nouns and

conjugated verbs:

**During childhood, the development of the brain is very important.*

**They transport conserved vegetables to the sold point.*

**An exposition to lead is bad for health.*

**Vegetables are checked, cleaned and separated thanks to different automates.*

**Leaded gasoline must be retired to save children.*

**The doctor precised that a blood test is necessary.*

**We introduce salt and water to the cans.*

- Sentences containing prepositional phrases:

**They are put in cans with correct dosage, and then stored.*

**The products are ventilated and separated in function of their shape.*

**They are selected by passage in perforated cylinders.*

2.v. Word order errors:

Sentences having the same syntactic structure as in L1 i.e. follow the same sentential sequencing with the addition of unneeded word(s) or the omission of verb to (be):

**Children eat it and seems to have a taste sweet for them.*

**There are many steps for the canning food manufacturing process.*

**It is difficult to diagnose lead poisoning until high blood level.*

Intralingual errors

On the other hand, some errors (a-c below) do not fall into the category of interlingual errors because their literal translation into English does not correspond with the generated forms. They are, thus, intralingual errors resulting from L2 interference. Learners tend to generalise rules and to build on previous knowledge of L2 structures. In this context, Richards (1971a: 175-176) says: “The learner, encountering a particular preposition with one type of verb, attempts by analogy to use the same preposition with similar verbs”.

a. *Lead exposure causes to several symptoms.*

b. *Lead can cause damages on the brain.*

c. *It consist seven major steps.*

d. *Vegetables are cleaned, then separated on equal quantities.*

e. *Lead is spread with the air.*

For example, the substitution of prepositions in sentences *a* and *b* is probably by analogy with the verb *leads to* and the noun *effects on* while the omission of the preposition *of* in sentence *c* is probably because of the similarity with the verbs *include/contain*. In sentences *d* and *e*, however, these are errors of unidentifiable source i.e. neither interlingual nor intralingual.

V.4.6. Further explanation and deductions

Our corpus errors, as can be seen above, are mostly interlingual in nature due to L1 interference. This is to say that learners apply French rules and French morpho-syntactic patterns to L2 as is illustrated in the following:

- Verbs of motion and direction are followed by the preposition *in* where *to* or *into* are needed: *go in fields/transported in the supermarket/carried in the factory/driven in supermarkets/add water in the cans/cutting vegetables in small pieces/emit lead oxide in the air/separated in good or bad/transfered in,* etc.

However, when *into* is employed, it is wrongly used: **Vegetables are enclosed into cans.* This could be due to the absence of the preposition *into* in French. (see section II.2., page 76)

- Omission of required prepositions: The omission of the preposition *to*: **he explains/talks us* (il nous explique/parle) and the preposition *in*: **live poverty* (vivre la pauvreté)

- Literal translation is quite prevalent, for instance:

a. word to word translation of prepositional phrases:

**in a first time* (dans un premier temps)

**on this picture* (sur cette photo)

**at short term* (à court terme)

**in the age* (à l'âge)

**in preparation to* (en préparation de)

**higher than normal at this boy* (chez ce garçon)

**by group of* (par groupe de)

b. prepositional verbs:

**Labels are added on each can* (ajouter quelque chose sur)

**We introduce salt and water to the cans* (introduire quelque chose à ...)

**transported until the process area* (transporter jusqu'au)

**passes by many steps* (passer par plusieurs étapes)

**suffer of chronic pain* (souffrir de)

- Literal translation at the morphological level:

**We can't detect the problem before the level of lead* (ne pas.. avant)

- Literal translation at the syntactic level (word order):

**It seems to have a taste sweet for them..* (semble avoir un goût sucré..)

**We learn that the exposure of lead in children is more dangerous than in adults* (Nous avons appris que l'exposition au plomb chez les enfants est plus dangereuse que chez les adultes.)

- The use of the French impersonal subject pronoun *We (on* in French) instead of the passive voice: *We add juice/We fill the cans/We select vegetables.*

- Conscious/unconscious addition of unnecessary prepositions to explain motion events:

**Vegetables are checked before entering in the second process.*

**Poisoning appears behind...*

Learners could be influenced by the fact that English is satellite-framed. Another explanation could be that motion events motivate learners to use extra prepositions in order to give a more precise linguistic content and spatio-physical indication about direction, movement, and path as in:

**The mixture is put down in different cans.*

**A truck brings up vegetables to factory.*

**Vegetables are taken in by a truck.*

Further observations:

- Learners' use of descriptive language (paraphrasing) was at times fairly clear (e.g. **It is necessary to use unleaded gasoline and stop to consume paint with lead*) while other uses were less clear or incomprehensible (e.g. **Labels are added on each can/to put out the noninteresting parts of the vegetables/The mixture is put down in different cans*).

- Idiomatic expressions containing prepositions were not employed in any instance.

- Familiarity with the subject matter and the use of audio-visuals facilitate the flow of ideas, but does not assure correct language production.

- Learners are likely to grasp the overall meaning and to retain words separately (i.e. without the corresponding prepositions) in a listening task.

- Chunks containing prepositions were rarely observed. For instance, none of these were used (correctly) by any of the learners though mentioned in the video: *vehicles run on leaded gas; people at risk of; bring an end to the problem; named after somebody; loss of appetite; loss of memory;*

take account of something).

These are examples of chunks containing preposition mistakes which were not included in our corpus analysis because they do not belong to our error taxonomy (preposition errors following a noun/verb):

**In my mind, lead poisoning is a very serious problem.*

**In my point of view, it's dramatic..*

**This video deals with troubles occurring by the presence of lead in environment.*

The above analytical account of error occurrence, i.e. lexico-grammatical and lexical, helps us to interpret the questionnaire results, and to draw a clearer account of the intelligibility/non-intelligibility of L2 productions.

V.5. Comparison: oral vs. written corpora

Did L2 subjects produce similar erroneous prepositional constructions in the oral (fridge) and written (lead poisoning/food canning process) corpora? Are the errors generated intelligible or non-intelligible?

Before comparing erroneous prepositions in both corpora, we will mention the difference in language proficiency between subjects which is an indicator of language progress. At the same time, it gives a clue to the problematic nature of prepositions at the different stages of SLA.

The subjects in the oral task have various levels of English proficiency (A2-C1), so some need lexical learning in order to better describe motion events. Yet, we notice that the subjects in the written tasks, who have a B1-B2 level of language proficiency, equally generated a high number of erroneous prepositions which are mostly, according to the results of an online questionnaire, perfectly

clear but need rephrasing (see Appendix IV).

In the written tasks, we have seen that lexis was provided in both tasks: the subjects watched a video with sound in task 1 (lead poisoning), and, in task 2, they were provided with the names of each phase involved in the food canning process. Despite this, the rate of preposition errors is high. Similarly, in the oral task, L2 learners produced a relatively high number of erroneous prepositions considering, for example, the time of communication (20-150 seconds) and video length (35 seconds).

In short, preposition errors are frequently generated in both corpora, particularly in the description of motion events. Learners' erroneous productions are comprehensible as long as the head word (the verb) matches the description of the action/ movement/ direction/ path in question.

Hence, we hypothesize that non-intelligibility is linked to inappropriate lexical choice (followed or not followed by a wrong spatial preposition/satellite):

**Two men try to climb a fridge in a building.*

**Labels are coped on cans.*

**People who are stinked out by lead have high level of this poison in their blood.*

In terms of intelligibility, preposition errors are 'secondary' in comparison with wrong lexis, be it a verb or a noun (others like adjectives are not studied in our learner corpora). Moreover, motion situations are more likely to induce preposition errors (usually prepositional verbs) which are less comprehensible than erroneous static prepositions.

V.6. Questionnaire

To avoid the subjectivity of our assessment of the learners' erroneous constructions and to ensure credibility, native speakers were asked to assess the degree of (non-)comprehensibility of L2 productions.

This questionnaire is complementary to our lexical and lexico-grammatical categorisation of mistakes, which have also been rated by two native English coders. Subsequent to error coding, 56 native speakers of English replied to an online questionnaire (http://www.g-scop.fr/~abrass/abeer) containing 123 erroneous constructions (Lead poisoning: 60; Food canning process: 63). The questionnaire was forwarded via email to English speakers (selected through personal contact) known to have no knowledge of French, as this could be a clue to deciphering unintelligible meaning and/or erroneous sentence structure.

We were keen to develop a simple and clear questionnaire that (i) enables respondents to complete both tasks and (ii) allows responses to be easily processed. For these reasons, we designed a hierarchical template A-E, a rating scale for assessing intelligibility, that goes from the least to the most acceptable and comprehensible sentence structure. Before circulating the questionnaire, we tested its practicality and likely time limit, and we found that it requires 12-15 minutes to be filled in.

As for the layout of our questionnaire (see Appendix V), each erroneous sentence is presented separately on one page, and once it is assessed, the respondent can then move to the other erroneous sentence without being able to modify previous answer(s). Erroneous sentences are not presented in the order they occurred in context, but are alphabetically presented according to the initial letter in each sentence (A-Z). This is to say that lexical and lexico-grammatical errors were mingled and events did not follow any discernible pattern:

Topic: Food canning process

A *truck brings up vegetables to factory.*

A- makes no sense

B- difficult to understand

C- makes sense but a little ambiguous

D- perfectly clear but needs rephrasing

E- perfectly clear and acceptable

B*efore joining the process chain, vegetables are controlled.*

A- makes no sense

B- difficult to understand

C- makes sense but a little ambiguous

D- perfectly clear but needs rephrasing

E- perfectly clear and acceptable

C*ans are ordonned in boxes and transported to different supermarkets.*

A- makes no sense

B- difficult to understand

C- makes sense but a little ambiguous

D- perfectly clear but needs rephrasing

E- perfectly clear and acceptable

Erroneous sentences in both tasks are included separately in one questionnaire to make sure that the same respondents answer both tasks and in order to increase the number of native informants responding to our call. Once they answer the first task, they can then go on with the second.

No particular constraints – except ignorance of French – were assigned in the selection of the native informants (like profession, age, gender, etc.). As Corder (1981: 63) says, a native informant “should be able to make judgements about the acceptability of forms submitted to him; [...] about synonymy,

contradiction, entailment, and other relations between the sentences submitted to him". And he may or may not be able to give translation equivalents and metalinguistic explanations of the learner's language.

Within the context of this study, the informant is only required to make judgements about the intelligibility and acceptability of the submitted sentences. He is neither required to be a full bilingual nor to report on his introspection about the nature of his language, its categories and systems.

V.6.1. Questionnaire results

56 native speakers of English responded to our online questionnaire which contains 123 L2 constructions (see Appendix IV). Assessing the informants' answers as per the following five options allows us to answer the question of intelligibility of erroneous constructions:

A- makes no sense

B- difficult to understand

C- makes sense but a little ambiguous

D- perfectly clear but needs rephrasing

E- perfectly clear and acceptable

Which errors are more intelligible than others: lexico-grammatical or lexical? And to what extent do preposition errors hinder comprehension? Are there substantial differences between the informants' answers in tasks 1 and 2?

To answer these questions, we display the average number of answers. This is to say the sum of answers in each option (A-E) divided by the total number of sentences in each error sub-category. For example, in option A (Table 8 below), we obtain the average 2.57 by adding the total number of the informants' answers (i.e. 18) then dividing it by the total number of sentences in *XNPR, substitution* (i.e. 7). Since there are 56 informants, the total in the final line will always be 56.

A	B	C	D	E	***XNPR, substitution***
0	0	0	53	3	They describe the canning process *on this picture.*
0	2	0	33	21	*A rise of* temperature can kill germs and disinfect vegetables
0	0	0	38	18	The cutting of the vegetables *in* small pieces is automatic.
0	0	0	44	12	*In the beginning* of the canning process, vegetables are...
11	26	11	8	0	They are selected by *passage in* perforated cylinders.
0	1	7	48	0	*In a first time*, vegetables need cleaning for quality control.
7	5	13	31	0	Cans are stockpiled before *be in the market*
2,57	4,86	4,43	36,43	7,71	

Table 8. *Average of answers in the error sub-category 'XNPR, substitution'*

In the following, we display the average of answers in task 1 (lead poisoning) and task 2 (food canning process), classified in terms of lexico-grammatical errors (Table 9) and lexical errors (Table 10). The highest average in each error type is highlighted in grey:

Lexico-grammatical errors	**A**	**B**	**C**	**D**	**E**
XNPR, substitution					
Task 1	2,22	1,56	8,67	35	8,56
Task 2	2,57	4,86	4,43	36,43	7,71
XVPR, substitution					
Task 1	4,75	1,25	9,63	36,38	4
Task 2	5,5	8,07	16,29	25,29	0,86
XVPR, omission					
Task 1	3,33	0,33	2,67	49	0,67
Task 2	2,75	3,75	11,25	34,75	3,5
XVPR, addition					
Task 1	2,5	1,75	13	38,5	0,25
Task 2	4,2	5,6	12,6	32,4	1,2

Table 9. *Lexico-grammatical errors: average of respondents (total 56) choosing each option*

Lexical errors	A	B	C	D	E
coinage/L1 borrowing					
Task 1	53,17	2,17	0,67	0	0
Task 2	45,17	9,17	1,5	0,17	0
redundant word(s)					
Task 1	27,25	11,83	14,33	2,58	0
Task 2	35,83	9,17	8	3	0
inappropriate word(s)					
Task 1	2,17	0,67	16,67	29	7,5
Task 2	3,64	5,82	16,82	25,18	4,55
false-friends					
Task 1	41,17	8,83	1,5	3	1,5
Task 2	36,29	10,86	5,14	3,71	0
word order					
Task 1	19	13,5	12	10,17	1,33
Task 2	15,88	9,13	6,63	17,13	7,25

Table 10. *Lexical errors: average of respondents (total 56) choosing each option*

According to the above results, we notice, first of all, two juxtaposing points: L2 productions containing preposition errors would still be comprehended by native speakers of English though English prepositions are one of the most problematic areas to L2 learners. On the other hand, lexical errors, notably L1 borrowing, incomprehensible words and false friends are either comprehended or not by native speakers.

Based on the informants' answers, irrespective of the error taxonomy (substitution, omission, addition), preposition errors are perfectly clear but need rephrasing with a total average of 35.97 (option D) in both tasks. On the other hand, lexical errors, particularly L1 borrowing, incomprehensible words and false friends, are judged to make no sense with a total average of 39.81 (option A) in both tasks, followed by word order errors with an average of 19 in task 1.

Lexico-grammatical error category:

Preposition mistakes are not completely confusing though they account for a substantial proportion of ESL usage errors. The pie charts (Figure 3) represent preposition errors in tasks 1 and 2, remembering that sentences in the

questionnaire were listed in alphabetical order, but not classified with respect to error category:

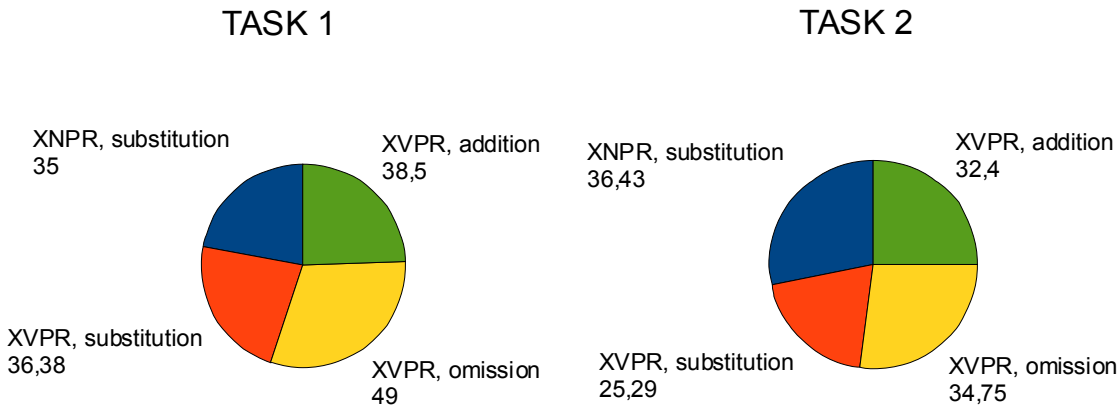

Figure 3. *Average number of "D" answers for all types of preposition errors (out of 56)*

What do these graphs signify?

- The judgements on intelligibility are relatively the same for both tasks. That is to say, erroneous prepositions with static and dynamic meaning have been equally assessed as to their intelligibility by the informants despite their divergence from target usage.
- Informants do acknowledge the ungrammaticality of the constructions, but are able to understand sentences containing preposition errors despite their idiosyncratic construction.
- Informants differ in the way they construe and approve preposition occurrences, and this explains our coders' difficulties during error codification: on the one hand, to spot certain erroneous prepositions and, on the other hand, to decide on the 'more correct' correction.

Let us consider some erroneous constructions which are rated perfectly clear and acceptable (option E), by at least 12 of the 56 informants:

**The interview deals with lead poisoning of children in poor countries.* (34 of

56)

**A rise of temperature can kill germs and disinfect vegetables.* (21 of 56)

**The cutting of the vegetables in small pieces is automatic.* (18 of 56)

**Lead poisoning can be detected early with blood test.* (17 of 56)

**Lead comes mainly from fumes from leaded gasoline.* (15 of 56)

**The process consist seven major steps.* (14 of 56)

**In the beginning* of the canning process, vegetables are collected and washed. (12 of 56)

**It causes the increase of the gasoline price.* (12 of 56)

As we can see, they are mostly preposition errors following a noun. We also notice verb + preposition errors that raised disagreement between our coders or were not easily identified (substitution of preposition: **detected with*, omission: **consist seven*).

Equally interesting would be to consider other constructions that also contain preposition errors and are labelled as perfectly clear but need rephrasing (option D):

**Farmers go in the fields to pick up vegetables.* (54 of 56)

**They describe the canning process on this picture.* (53 of 56)

**Lead can cause damages on the brain.* (50 of 56)

**In a first time, vegetables need cleaning for quality control.* (48 of 56)

**He had pain of the lungs.* (46 of 56)

**Vegetables are collected from fields and carried in the factory.* (45 of 56)

**They add water and salt in the cans to conserve the vegetables for long time.* (41 of 56)

**The blood lead level is five times higher than normal at this boy.* (39 of 56)

**We learn that the exposure of lead in children is more dangerous than in adults.* (35 of 56)

In these examples, too, we notice that most preposition errors are dependent on a noun in addition to errors of substitution (*verb + in* constructions): **go/carried/add in*

The fact that native speakers themselves have understood the above examples of substitution and omission of prepositions makes it clear that prepositional use depends greatly on both the speaker's and listener's intention and reception. Refusal and acceptance of certain erroneous prepositional occurrences is variable and linked with one's vision and understanding of spatio-physical events and relations.

What interests us the most is the question of intelligibility which seems to have been positively answered, as shown in the above results.

Lexical error category:

A closer look at the tables below (11 and 12) shows the most frequently chosen intelligibility ratings (from a total of 56 informants) for each of the lexical error types (see full table above, Table 10):

Task 1	**intelligibility rating**	**Average n° of times chosen (max=56)**
coinage/L1 borrowing	A	53,17
redundant word(s)	A	27,25
inappropriate word(s)	D	29
false-friends	A	41,17
word order	A	19

Table 11. *Most frequently chosen intelligibility ratings for all lexical error types in task 1*

Task 2	**intelligibility rating**	**Average n° of times chosen (max=56)**
coinage/L1 borrowing	A	45,17
redundant word(s)	A	35,83
inappropriate word(s)	D	25,18
false-friends	A	36,29
word order	D	17,13

Table 12. *Most frequently chosen intelligibility ratings for all lexical error types in task 2*

At this stage, we would like to note that in addition to the incomprehensible

lexical choice, the fact that verbs and nouns have been followed by wrong prepositions (**conclude of, driven in, appear behind,* etc.) could be an additional reason for lack of clarity or incomprehensibility (see Appendix IV for more examples).

It would be equally interesting to see the second most frequently chosen rating in both tasks (Table 13) to observe the extent to which the judgements vary, i.e. if there is a big gap between the first and second most frequently chosen intelligibility ratings (options A to E). The results show that intelligibility ratings in task 1 and task 2 are fairly similar: Regarding the most frequently chosen rating, constructions falling into the error sub-category *coinage/L1 borrowing* are judged to *make no sense* in both tasks (option A). Similarly, regarding the second most frequent judgements in the same error sub-category, constructions are judged *difficult to understand* also in both tasks (option B). Hence, to some degree, there is consistency among informants in judging lexical errors. In both tasks, intelligibility ratings in the same error sub-category do not go from one extreme to another, i.e. constructions judged to *make no sense* vs. *perfectly clear and acceptable*.

Task 1	**most frequent intelligibility rating**	**Average n° of times chosen (max=56)**	**2nd most frequent intelligibility rating**	**Average n° of times chosen (max=56)**
coinage/L1 borrowing	A	53,17	B	2,17
redundant word(s)	A	27,25	C	14,33
inappropriate word(s)	D	29	C	16,67
false-friends	A	41,17	B	8,83
word order	A	19	B	13,5

Task 2	**most frequent intelligibility rating**	**Average n° of times chosen (max=56)**	**2nd most frequent intelligibility rating**	**Average n° of times chosen (max=56)**
coinage/L1 borrowing	A	45,17	B	9,17
redundant word(s)	A	35,83	B	9,17
inappropriate word(s)	D	25,18	C	16,82
false-friends	A	36,29	B	10,86
word order	D	17,13	A	15,88

Table 13. *Lexical errors: most frequent vs. second most frequent intelligibility ratings*

It is indisputable that lexical errors, excluding inappropriate words, hardly convey any comprehensible content to the native English speakers. This is to say, they do present semantic difficulties which could be a direct reason for communication failure in the absence of lexical and contextual disambiguation. As for word order errors, amongst all other types of errors in both categories, interpretation is inconsistent, i.e. varies from one person to another.

In conclusion, informants largely agree in their judgements of intelligibility (for a comparison with inter-rater agreements, see Appendix IX). It appears, though, that lexical errors are principal reasons for miscomprehension, unlike erroneous prepositions whose role is (not always essential but) complementary to meaning completion, especially as L1 speakers retain the correct prepositional combination(s) in their lexicon. And this can best be seen in examples of addition or omission of preposition which are labeled as perfectly clear but need rephrasing (option D):

**A boy aged of nine years old living in a village is ill.* (54 of 56)

**Farmers go in the fields to pick up vegetables.* (54 of 56)

**Lead exposure causes to several symptoms.* (51 of 56)

**The speaker talk us about different symptoms caused by lead poisoning.* (53 of 56)

**The picture explains us the canning process.* (52 of 56)

**A small boy is diagnosed lung cancer.* (44 of 56)

We also conclude that errors in prepositional verbs do not greatly affect intelligibility since informants relate the verb with its dependent preposition, hence the following examples are judged perfectly clear but need rephrasing (option D):

**He suffers of chronic pain in lungs.* (53 of 56)

**Gasoline vehicles emit lead oxide in the air.* (49 of 56)

**After labelling, the products can be carried to truck for distribution.* (46 of

56)

**They add water and salt in the cans to conserve the vegetables for long time.* (41 of 56)

Knowledge facilitates comprehension as long as the propositional meaning of the utterance does not entail contradictory concepts as in **Labels are put in cans* which makes no sense and is difficult to understand. Though wrong, **Labels are added on each can,* makes more sense but would still be ambiguous because of the inappropriate lexical choice whereas **Labels are coped on cans* is completely incomprehensible. Furthermore, unusual prepositional verb formations expressing motion events are susceptible to various interpretations, specifically if the verb (the stem) does not collocate with the corresponding preposition as in **Vegetables are taken in by a truck* and **A truck brings up vegetables to the factory.*

Another point is that the choice of a preposition or deciding on a 'better' prepositional choice is subject to (socio-geographical) variations, keeping in mind that native-speaker assessors (teachers or non-teachers), as claimed by James (1977), are more tolerant of errors made by L2 learners while non-natives' judgements of errors are more severe.

Surprisingly, though, unlike a large majority of studies (see discussion below), James (1977) posited that native-speaker subjects do not give importance to lexical errors, and are inclined to judge errors lightly when they understand what the learner intended to communicate. Unlike non-native speaker teachers' scoring, native speaker teachers focus on intelligibility to the detriment of form and structure. Yet, James concluded his study with the recommendation that this should not be seen as definitive and investigation on this subject should be continued.

A more recent study of error-gravity by McCretton and Rider (1993) also

finds that native-speaker assessors are more lenient towards learner errors than non-native assessors (for whom verb forms and concord are the most serious errors), and that lexical errors are the least serious. The ranking of language errors was thought to be inherent and 'universal', but it turned out to reflect the subject's own educational training.

Like McCretton and Rider's (1993) findings, Hughes and Lascaratou's (1982) non-native subject teachers graded verb forms and concord as the most confusing of all errors. However, native-speaker teachers considered lexis and verb form errors to be the most serious. On the other hand, native speaker non-teachers, who are described as "the 'linguistically naive' native speaker whom we are often presumed to be preparing our students to communicate with", ranked errors of spelling and vocabulary as the most serious. Therefore, for native speakers (teachers as well as non-teachers), lexical errors are the most distracting because they have a great influence on communication, hence can reduce intelligibility (Hughes and Lascaratou, 1982: 179).

In his study of error gravity, Johansson (1978: 65) investigated the impact of grammar and lexical errors on intelligibility, and he found that grammatical errors (including preposition errors) were less likely to cause intelligibility problems to native speakers. Similarly, Khalil (1985), whose study was focused on native speakers' evaluation and interpretation of written errors of Arab EFL Learners, observed that semantic errors were more likely than grammatical errors to have a negative effect on intelligibility, thus distorting communication. Besides, contextualisation of sentences did not improve intelligibility.

Others, like Ellis, R. (1994: 63) refer to lexical errors and lexical limitations as important communication distractors assessed by all native speaker subjects as very serious due to "the effect that errors have on the person(s) addressed".

Therefore, amongst all language errors, lexical errors and the lack of lexical

knowledge are judged the most important by native speakers due to their pernicious impact on communication and intelligibility while errors in general, and morphological errors in particular are judged severely by non-native speakers.

Considering the above error gravity studies, preposition errors, in line with our corpus findings, are not regarded as 'errors' that can (significantly) impair intelligibility. We believe that the intelligibility of preposition errors can be linked to the precision/imprecision of the intended message in the TL. Where inaccuracy is transparent, erroneous prepositions need not impede intelligibility.

CONCLUSION

Besides marking one's production as non-native, erroneous prepositions can distort meaning. This is a common saying in second language learning that intrigued us to find out to what extent this can be true pragmatically.

We were interested in two inter-related points in this respect: the conceptualisation of motion events in L1 and L2 productions and the impact of erroneous static vs. motion prepositions on intelligibility.

As to the first point, an **oral corpus** containing L2 constructions produced by 25 learners of English was compared with 9 native-speakers' productions (see Chapter V, section V.3.1.). Observation of both productions in terms of lexical choice and preposition use revealed differences in the syntactic composition of manner and motion. This goes back to typological differences between the two languages, i.e. English as a satellite-framed vs. French as a verb-framed language. In other words, L1 subjects relied heavily on transitive verbs incorporating manner and path in motion verbal clauses whereas L2 subjects attempted to describe path using inappropriate prepositions, basically replacing directional prepositions with positional prepositions. Besides, imprecision in L2 productions can best be seen in the path scheme because of the wrong choice of both verbs and prepositions.

On the other hand, corpus analysis showed that lexical knowledge and constructions in L1 and L2 are different (see section V.3.5.). While some L2 subjects resorted to an “approximation strategy” i.e. using all-purpose verbs that express the meaning of the target word, L1 subjects produced a similar story using much the same expressions in all versions, including the heavy use of prepositional chunks and prepositional verbs. This supports the “Thinking for speaking” theory proposed by Slobin (1996) that speakers of typologically different languages conceptualise motion events in different ways, especially in

an on-spot production.

Languages vary typologically in terms of how they map lexical and syntactic elements onto semantic domains, notably in the expression of motion events (Talmy, 1985; Slobin, 1996). This could influence English and French speakers to organise their thinking and represent motion differently.

Nonetheless, prepositions were not the principal reasons for failure in conveying meaning, especially as the semantic content was retained despite lack of lexical knowledge. Hence, lexis, but not prepositions, impede L2 learners from communicating a message or an idea in spontaneous speech. Besides, motion situations enhance the generation of erroneous prepositions which are on the whole intelligible.

As to the second point, a **written corpus** containing lexical and lexico-grammatical errors produced by French learners of English (see section V.4.1.) was studied in terms of the notion of intelligibility. To measure intelligibility, a coding system was conceived in line with our research goals, and errors were coded with the assistance of two native-English speaking human raters. Besides, a questionnaire was designed to evaluate native speakers' judgements (56 native speakers of English replied to an online questionnaire which contains 123 L2 constructions).

Analysis of learners' interlingual errors revealed that substitution errors were the most frequent in both aforementioned error categories. Moreover, we noticed conscious and/or unconscious addition of unnecessary prepositions to explain motion events, mainly because of the lack of the appropriate lexis in a real time production. Motion events may also have motivated learners to use extra prepositions in order to produce a more precise linguistic content and spatio-physical indication about direction, movement, and path.

Based on the informants' judgements in both tasks, preposition errors – irrespective of the error taxonomy: substitution, omission, addition – are perfectly clear but need rephrasing (total average of 35.97 out of 56 answers). On the other hand, lexical errors, particularly L1 borrowing, incomprehensible words and false friends, are more often judged to make no sense (total average of 39.81 out of 56 answers).

Erroneous prepositions with static and dynamic meaning have been equally assessed for intelligibility by the informants despite their divergence from target usage. Hence, we argue that prepositional use depends greatly on both the speaker's and listener's intention and reception. Refusal and acceptance of certain erroneous prepositional occurrences is variable and linked with one's vision and understanding of spatio-physical events and relations. People do not necessarily contextualise a stretch of language in the same ways. Certain factors may influence one's judgements of intelligibility like one's prior experiences with the language and a particular set of expectations for grammaticality, organisation, style, etc.

Our research finding on the erroneous use of spatial prepositions does not support the claim that they constantly distort meaning. These complex items, when used erroneously, do not necessarily affect the intelligibility of the overall message as much as other word classes like the verb and the noun do. Head words and/or the semantic contents of the whole construction contribute(s) to the clarity of one's proposition. Yet we do not claim that prepositions/particles play no role in semantic disambiguation and adding precision to one's speech.

Limitations of our research

We cannot generalise the findings of this study to all wrong prepositional uses, taking account of the polysemous nature of prepositions as well as the innumerable forms that errors might take and the varying contexts in which they might occur.

In this study, we could only observe a few occurrences on which our conclusions are based. The corpus has data from 25 subjects in each task, which is not representative of all foreign learners' use of English. We also have to take into consideration the possibility that native speakers are more tolerant of errors made by L2 learners than non-native speakers (James, 1977), a disputable point further developed by researchers to include the nature of erroneous items, i.e. whether native-speakers tend to tolerate more/less lexical or functional errors. Since there is no consensus view about the category that prepositions belong to, we suggest that the latter argument is marginal. On the contrary, we suggest that the anonymous assessment of the subjects' productions in an experimental context may have led the informants to feel under pressure to identify more errors than usual.

We codified incorrect instances into two error categories and their corresponding subcategories. Our codification is, therefore, not comprehensive of all features of learner errors, yet it can help to predict and assess the impact of prepositional mistakes on communication, in general, and on the clarity of the disseminated message, in particular.

Excluding research on actual pronunciation errors and pronunciation features affecting or reducing intelligibility (Jenkins, 2006), we could find no previous studies on the intelligibility of L2 learners' preposition errors, a theme which has not been covered in research on corpus analysis, so far limited to error frequency, the identification of linguistic errors, the impact of interlanguage on L2 production, etc.

Perspectives

It would be interesting to consider error intelligibility for evaluating learners' linguistic competence apart from the common right-wrong criterion in ESL/EFL. This, we believe, could bring insights to developing new teaching approaches. However, in order to investigate the intelligibility of an item, it has to be identified

as an error in the first place.

Our research findings make it possible to reconsider L2 teaching methods and manuals. For instance, shifting the emphasis in instruction from “the learn-all method” to focusing on the differences between L1 and L2 in terms of prepositional verbs and prepositional uses and the semantico-syntactic features that characterise them. Like Lewis (1993: 143), we argue that “collecting some of their (prepositions) most important patterns and arranging them in an arresting, non-linear format, where words which occur together are recorded together, is more likely to be pedagogically effective”.

Besides reconsidering the teaching methods and materials, instructors should better understand the processes involved in SLA like overgeneralisation of L1-L2 rules, geographical background, motivation, cognition, input, formal training, linguistic aptitude, and time.

For this, we call for further research on using corpus analysis, basically measuring the intelligibility of learner errors because this helps us design better teaching material and think over the current teaching approaches. Error analysis can shed light on L2 learners' psycholinguistic processes.

Teaching should draw attention to the typological differences between L1 and L2, yet insisting less on the excessive drills and exercises which raise confusion and lack of motivation. More research is required to examine the utility of concordancing instruction, mainly in terms of prepositional phrase attachment. On the other hand, classroom instruction ought to stress language learning aspects that are likely to generate errors, especially those that influence the comprehensibility of the communicated message. A clear distinction should be made between the characteristics of prepositional verbs and phrasal verbs, so that learners avoid erroneous verb + preposition combinations.

Furthermore, teaching should be centered on learners' needs. This is to say, teachers, especially at advanced levels, foster linguistic knowledge and emphasize linguistic mastery based on prospective language use (literary, scientific, technical, commercial, communication, leisure, etc.). As we have seen in our questionnaire results, the ungrammaticality of an utterance (containing preposition mistake(s)) is not a decisive factor in non-intelligibility.

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APPENDIX I: One-/two-/three-word prepositions

One-word prepositions:

aboard	atop	except	pending	unlike
about	barring	excepting	per	until
above	before	excluding	plus	unto
absent	behind	failing	pro	up
across	below	following	qua	upon
after	beneath	for	regarding	versus
against	beside	from	respecting	via
along	besides	given	round	vice
alongside	between	granted	save	vis-a-vis
amid	betwixt	in	since	with
amidst	beyond	of	than	within
among	but	off	through	without
amongst	by	on	throughout	worth
anti-	circa	onto	till	
around	concerning	opposite	times	
as	concurring	out	to	
aside	considering	outside	toward	
astride	despite	over	towards	
at	down	pace	under	
athwart	during	past	underneath	

Two-word prepositions:

according to	in between	thanks to
ahead of	inside of	that of
along with	instead of	together with
apart from	into	up against
as for	irrespective of	up to
as of	left of	void of
as per	near to	where as
as regards	next to	
as to	onto	
aside from	out from	
away from	out of	
because of	outside of	
close to	owing to	
contrary to	prior to	
devoid of	pursuant to	
due to	regardless of	
except for	right of	
far from	subsequent to	

Three-word prepositions:

as a consequence of
as a result of
as far as
as well as
at the risk of
by means of
by reason of
by virtue of
for fear of
in accordance with
in addition to
in advance of
in aid of
in back of
in breach of
in care of
in case of
in charge of
in comparison with
in conformity with
in conjunction with
in connection with
in contrast to
in control of
in exchange for
in favour of
in front of
in keeping with
in lieu of
in line with
in place of
in point of
in reference to
in relation to
in response to
in search of
in spite of
in terms of
in the course of
in view of
on account of
on behalf of
on top of
to the right of
to the left of
with reference to
with regard to
with respect to
with the exception o

A list of English prepositions, adapted from Wikipedia, last visited 22 October 2010
http://en.wikipedia.org/wiki/List_of_English_prepositions

APPENDIX II: ESL manuals (French publishers)

French Publishers – 1 secondary manuals

Manual	Editor	Edition	presentation	explanation	Type of exercises	Exercises (SL & TL)	Instructions in French	Authors
Bridges (L, ES, S)	Nathan	2004	NA	NA	NA	yes	both	F. Guary, M. Fort-Couderc, G. Manescau S. Persec, S. Tripodi, C. Zeppilli, H. Delpont, P. Vrinat-Hindle
Broad Ways (Tech. Section)	Nathan	2004	NA	NA	NA	yes	yes	F. Guary, G. Manescau S. Persec, A. Richards, S. Tripodi, M. Fort-Couderc, P. Vrinat-Hindle
Connections	Delagrave	2004	NA	NA	translate, fill in gaps on V+prep+(ing), prepositional verbs (one exercise each)	yes	yes	M. Skopan, R. Hollander, E. Loupien
Crossroads	Hatier	2005	NA	NA	Pick the prepositions from the text & explain the difference with prepositional adverbs (one exercise)	no	no	N. Assou, L. Bednarek-Valtier, S. Lockhart, W. Rotgé, S. Vassor, R. Yates
Projects	Didier	2008	NA	NA	NA	no	no	S. Basty, B. Baudin, F. Laboue, C. Lennevi, J. Reyburn
The New Pick and Choose	Hachette	1999	incorporated into lessons: prepositions of time (since & for), phrasal verbs, prepositional verbs	NA	NA	yes	no	C. Terré, K. Blamont-Newman
Tracks Plus (Tech. Section)	Hachette	2002	separate lessons: phrasal verbs; prepositions in general	listing few comparative meanings at the end of the book	gaps, match verbs with their synonymous phrasal verbs	no	yes	B. Lallement, N. Pierret, J. Martinez
Tracks Plus Workbook (Tech. Section)	Hachette	2002	integrated into the lessons	NA	gaps, highlight prepositions & particles, correct wrong sentences by replacing incorrect particles/prepositions, match each preposition with the corresponding picture	yes	yes	B. Lallement, J. Martinez, N. Pierret
VOICES (L, ES, S)	Bordas	2001	NA	NA	NA	yes	yes	M.H. Fougeron, P. Larreya, L. Northrup, C Zeppilli
VOICES (Tech. Section)	Bordas	2001	NA	a small remark on the use of the preposition 'for' (pendant) for expressing duration	translate into English (one exercise)	yes	yes	F. DU, M.H. Fougeron, P. Larreya, L. Northrup, C. Zeppilli
WIDE OPEN	Hachette	2002	NA	NA	NA	yes	both	A. Vesque-Dufrénot, M. Brusson, J.L. Habert
XL Anglais	Didier	2002	NA	In French, small remarks in the summary page on the use of 'to' to mean 'in order', verb+to+verb, the difference between 'in'/'within', etc.	NA	yes	both	H. Adrian, M. Albisser, J.L. Bordron, J. Bourjault, J. Walters, J.P. Gabilan

French Published Secondary manuals								
Bridges	Nathan	2005	NA	NA	NA	yes	both	F. Guary, M. Fort Couderc, G. Man S. Persec, S. Trip C. Zeppilli, P. Vrir Hindle, JC Burgu
Broad Ways (L, ES, S)	Nathan	2004	NA	NA	NA	yes	yes	F. Guary, J. Starc Persec, M. Fort-Couderc, S. Tripc Vrinat-Hindle
Connections	Delagrave	2003	incorporated into the lessons	NA	mark the differences between a preposition/particle, preposition stranding (one exercise each)	yes	yes	M. Skopan, R. Hollander, A. Gal Lilly
Crossroads	Hatier	2003	NA	NA	pick the prepositions and explain how they differ from adverbial particles	no	no	N. Assou, V. Cuv Diedrich, S. Lock S. Vassor, H. Wa
Projects	Didier	2007	NA	NA	NA	no	no	B. Baudin, B. Dir Lennevi, K. Rodc Reyburn, G. Ran
The New Pick and Choose	Hachette	1999	NA	NA	phrasal verbs, prepositional verbs (one exercise each)	yes	no	C. Terré, K. Blam Newman
Tracks Plus	Hachette	2001	NA	At the end of the book, a very short list of prepositions of time and place and their counterparts in French	gaps, match one-word verbs with their synonymous phrasal verbs	no	yes	B. Lallement, J. K N. Pierret, M-T. T
VOICES	Bordas	2001	NA	NA	NA	yes	yes	C. Renucci, M.H. Fougeron, L. Nor B. Tchao, C. Zep
WIDE OPEN	Hachette	2001	NA	NA	NA	yes	both	A. Vesque-Dufré Brusson, J.L. Ha
XL Anglais	Didier	2001	NA	NA	NA	yes	both	H. Adrian, S. Luy Tanet, J. Walters Gabilan

List of Abbreviations

NA	**Not Available**
L	**Le baccalauréat littéraire**
ES	**Le baccalauréat économique et social**
S	**Le baccalauréat scientifique**
Tech	**Le baccalauréat technologique**

APPENDIX III: ESL manuals (English publishers)

English Publishers - intermediate level manuals

Manual	Editor	Edition	proficiency level	presentation	explanation	Type of exercises	Author(s)
Changes	Cambridge	1994	Pre-intermediate	incorporated into the lessons: prepositions 'for', 'at', 'in', 'to', 'on' (1st part of the book)	brief explanation	fill in gaps	J. C. Richards, Hull, S. Proctor
Changes	Cambridge	1995	intermediate	NA	NA	NA	J. C. Richards, Hull, S. Proctor
Cutting Edge	Longman	1998	intermediate	NA	NA	NA	S. Cunningham Moor
English File	Oxford	2003	upper-intermediate	phrasal verbs (first lesson)	first definition	cross out the wrong answer; give the meaning of; matching	C. Oxenden, C. Latham-Koenig
English Grammar in Use	Cambridge	2004	intermediate	presented altogether at the end of the book (pp. 240-290): prepositions of time, position, adj+preposition, verb+preposition, phrasal verbs	a one-page illustration on the use of each type of preposition (+images where necessary), remarks on common wrong usages	Fill in gaps (prepositions/prepositional phrases are provided); decide whether the sentence is correct or not; pick the answer from a given list; spot objects	R. Murphy
English Vocabulary in Use	Cambridge	1994	upper-intermediate & advanced	phrasal verbs & common expressions	Explanation illustrated with examples	give the meaning of the phrasal verb in each sentence; gaps (preps not provided); correct the mistakes; find opposites; answer questions using phrasal verbs from a list	M. McCarthy, F. O'Dell
English Vocabulary in Use	Cambridge	1997	Pre-intermediate & intermediate	Introduced in the first part of the book: verb+preposition; adjective+preposition; preposition+noun; phrasal verbs; prepositions of place	practical explanation with examples	gaps (prepositions given/not given); match the sentence beginnings with their endings; cross out wrong answers; complete sentences on your own; replace a number of words with a prepositional phrase	S. Redman

Look Ahead	Longman	1995	intermediate	adjective+preposition, preposition+noun, preposition+ (ing) form	NA	make a list of 10 things you can do at home (e.g. Tired of…)	A. Hopkins, J. Potter
New English File	Oxford	2006	intermediate	phrasal verbs (last lesson)	brief definition	gaps (given phrasal verbs), gaps (fill in with the right particle); look up verbs in dictionary	C. Oxenden, C. Latham-Koenig
Oxford practice Grammar	Oxford	2006	Intermediate & upper-intermediate	separate lessons: prepositions of time/place; preposition+noun; adjective+preposition; noun+preposition; verb+preposition	Photos, rules, lists of frequent co-occurrences and expressions	gaps, rephrase sentences using words in brackets, correct wrong usages, replace one-word verbs with phrasal verbs, give the meaning of a sentence that includes a phrasal verb; replace complete expressions with verb+adverb+preposition	J. Eastwood
Oxford practice Grammar	Oxford	2006	advanced	presented in one unit towards the middle of the book: Prepositional phrases, prepositions of time/place/movement, prepositions used for connections (of, with, by), prepositions used for exceptions (except, besides, without, etc.), phrasal verbs	extensive explanation and list of uses	correct erroneous sentences; fill in with prepositional phrases; add prepositions to sentences that are constructed without prepositions; match words with the preposition that goes with it (both are given); gaps (prepositions ; prepositional phrases; verbs &their particles)	G. Yule
Reward	Macmillan Heinemann	1994	Pre-intermediate	prepositions of place, prepositions of time	map (streets); short list of prepositional uses	locate places using given prepositions; giving directions; gaps; provide a list of uses for the prepositions "at/on/in" to talk about time	S. Greenall
Reward	Macmillan Heinemann	1998	upper-intermediate	phrasal verbs (1st lesson)	definition+ examples	find phrasal verbs in the text that mean '..'; decide what type of phrasal verbs are in the passage; decide if meaning is clear based on the verb or the particle	S. Greenall
True To Life	Cambridge	1995	Pre-intermediate	NA	NA	short exercise on prepositional phrases, gaps	R. Gairns, S. Redman
True To Life	Cambridge	1996	intermediate	incorporated into the lessons: preposition+(ing) form; verb+preposition; prepositions in Wh-questions	NA	gaps (note: students may use a dictionary)	R. Gairns, S. Redman, J. Collie

Appendix IV: Informants' answers: Task 1 (lead poisoning)

Informants' Answers

A makes no sense
B difficult to understand
C makes sense but a little ambiguous
D perfectly clear but needs rephrasing
E perfectly clear and acceptable

XNPR: lexico-grammatical error of a noun followed by wrong preposition
XVPR: lexico-grammatical error of a verb followed by wrong preposition

Questionnaire Results

A	B	C	D	E	ERRONEOUS CONSTRUCTIONS	CORRECTION
					LEXICO-GRAMMATICAL ERROR CATEGORY	
					XNPR, substitution	
0	0	15	33	8	The report talks about the consequences of lead poisoning *for* children.	the consequences of lead poisoning on children
6	8	11	31	0	The report is about lead poisoning *on* undeveloped countries.	in undeveloped countries
13	0	5	35	3	We learn that the *exposure of lead* in children is more dangerous than in adults.	exposure to lead is more dangerous in children
0	0	0	44	12	It causes the increase *of* the gasoline price.	an increase in the price of gasoline
0	0	15	39	2	The blood lead level is five times higher than normal *at* this	in this boy
0	0	0	22	34	The interview deals with *lead poisoning of children* in poor countries.	the lead poisoning in children
0	0	7	46	3	He had pain *of* the lungs.	in the lungs
1	0	5	50	0	Lead can cause damages *on* the brain.	to the brain
0	6	20	15	15	Lead comes mainly from fumes *from* leaded gasoline.	from fumes of leaded gasoline
2,22	**1,56**	**8,67**	**35**	**8,56**		
					XVPR, substitution	
13	1	23	15	4	Lead is spread *with* the air.	spread through the air
0	0	0	53	3	He suffers *of* chronic pain in lungs.	suffers from
11	0	20	25	0	Lead is in gasoline. It is then sprayed *on* the air.	dispersed in the air
9	0	16	31	0	Children are more subjected and people who *live in highways.*	near a highway
1	0	6	32	17	Lead poisoning can be detected early *with* blood test.	by a blood test

0	0	5	50	1	Blood test is *used for* diagnosis of lead poisoning.	in the diagnosis of
4	9	7	36	0	Lead is found *in* floor, bed, paint, etc.	on the floor, on beds, in paint
0	0	0	49	7	Gasoline vehicles *emit* lead oxide *in* the air.	emit lead oxide into the air
4,75	**1,25**	**9,63**	**36,38**	**4**		
					XVPR, omission	
4	0	0	50	2	When people *live poverty*, they may be exposed to lead.	live in poverty
3	0	0	53	0	The speaker *talk us* about different symptoms caused by lead poisoning.	talks to us about the different
3	1	8	44	0	A small boy is *diagnosed lung cancer*.	diagnosed with
3,33	**0,33**	**2,67**	**49**	**0,67**		
					XVPR, addition	
0	0	2	54	0	A boy *aged of* nine years old living in a village is ill.	A boy aged nine years
3	1	0	51	1	Lead exposure *causes to* several symptoms.	causes several symptoms
6	6	35	9	0	Intoxication *concerns for* children more than adults.	concerns children
1	0	15	40	0	Many children *inhale of* lead oxide in China.	Many children in China inhale lead oxide.
2,5	**1,75**	**13**	**38,5**	**0,25**		
					LEXICAL ERROR CATEGORY	
					coinage/L1 borrowing	
53	3	0	0	0	The *degaged* lead oxide is danger for our health.	The emitted lead oxide is dangerous
56	0	0	0	0	Our children need to live in *sain* environnment.	in a healthy environment
48	5	3	0	0	There is no *politique to secure* people and children in poverty.	no policy to protect
55	1	0	0	0	The doctor *constated* that the boy has elevated level of lead in blood.	noted that the boy has elevated blood lead level.
56	0	0	0	0	The *usines* should be outside villages.	factories
51	4	1	0	0	There is no *reglement* to ban lead oxide in the underdeveloped countries.	There are no regulations for banning
1,6	**2,17**	**0,67**	**0**	**0**		
					incomprehensible word(s)	
27	2	24	3	0	Pesticides are the *main responsible of* this kind of pollution.	the main cause of
38	5	13	0	0	Some *biology systems can keep out the lead from* the surrounding using specific plants able to capture the poison.	Some biological systems can reduce the amount of lead

40	4	12	0	0	Experts *provide* simply to get lead out of gasoline.	provide one solution
35	19	2	0	0	A blood test is necessary to *conclude of* a lead poisoning.	to identify lead poisoning
39	11	6	0	0	People who are *stinked out* by lead have high level of this poison in their blood.	People who are daily exposed to lead
55	1	0	0	0	The solution is to ban the use of lead in gasoline and to *insecure* houses from lead.	to ensure houses are free from lead
10	2	33	11	0	Children are the most vulnerable to *fumes of lead*.	lead fumes
16	21	15	4	0	The doctor explains this problem remains in *third* of the world countries.	in one third of the world countries
10	18	23	5	0	We can't detect the problem *before* the level of lead in blood is too high.	until the level
17	14	25	0	0	There are no symptoms before being physically ill, so *there is no way to suppose the disease and act before.*	there is no way to diagnose the disease and act early
20	27	3	6	0	Children living in poor countries are at risk *owing to the pollution of soil and spring of water caused by the manufacturing plant.*	owing to soil and water pollution
20	18	16	2	0	Poisoning *appears behind* different symptoms like dizziness, vomiting, ...	is behind different symptoms
7,25	**11,83**	**14,33**	**2,58**	**0**		
					inappropriate word(s)	
0	0	23	24	9	This report was *produced* in a Chinese province.	filmed
0	0	25	27	4	*Young people hold* everything in mouth.	Children put everything in their mouth.
0	0	12	37	7	Lead oxide is present everywhere on the food and on *flora*.	plants
1	4	14	29	8	It's necessary to use unleaded gasoline and stop *to consume paint with lead.*	and stop using lead-based paint
11	0	20	25	0	Lead is in gasoline. It is then *sprayed on* the air.	dispersed in the air
1	0	6	32	17	Lead poisoning can be *detected* early with blood test.	can be measured with a blood test
2,17	**0,67**	**16,67**	**29**	**7,5**		
					false-friends	
25	6	1	15	9	During childhood, the development of the brain is very *important*.	the brain undergoes continuous development
54	2	0	0	0	We should not *attend that* children are physically ill to act.	wait until

56	0	0	0	0	Leaded gasoline must be *retired* to save children.	banned
36	18	1	1	0	Using leaded gasoline *rest a danger* in poor countries.	remains a threat for people's health
27	21	6	2	0	The doctor *precised* that a blood test is necessary.	indicated
49	6	1	0	0	*An exposition to lead* is bad for health.	Lead exposure is bad for health.
1,17	**8,83**	**1,5**	**3**	**1,5**		
					word order	
27	17	7	5	0	Children eat it and seems to have *a taste sweet for them* in the age when they put everything in the mouth.	and it seems to have a sweet taste at an age
9	2	17	22	6	*A solution at short term* could include removing old water pipes which contain lead..	A short-term solution
17	16	14	9	0	It talks about the impact of lead poisoning *in poverty areas on children health.*	on children's health in impoverished areas
15	2	20	17	2	If children are physically ill, we can deduce that their *blood level of lead* is so high.	blood lead level
29	20	5	2	0	It is difficult to diagnose lead poisoning *until high blood level.*	to diagnose lead poisoning until blood lead level is high
17	24	9	6	0	Lead is a heavy metal that can be found in raw materials *for food or for drugs manufacturing.*	for manufacturing food or drugs
19	**13,5**	**12**	**10,17**	**1,33**		

Appendix IV: Informants' answers: Task 2 (food canning process)

Informants' Answers

1 makes no sense
2 difficult to understand
3 makes sense but a little ambiguous
4 perfectly clear but needs rephrasing
5 perfectly clear and acceptable

XNPR: lexico-grammatical error of a noun followed by wrong preposition
XVPR: lexico-grammatical error of a verb followed by wrong preposition

Questionnaire Results

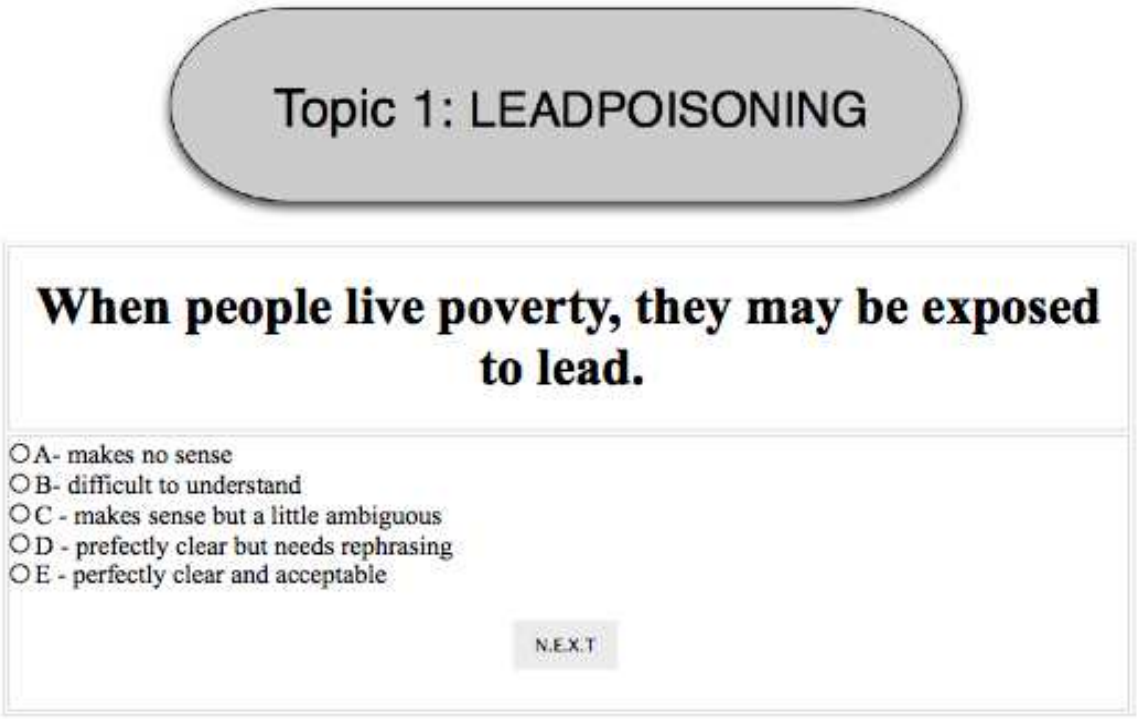
A	B	C	D	E	ERRONEOUS CONSTRUCTIONS	CORRECTION
					LEXICO-GRAMMATICAL ERROR CATEGORY	
					XNPR, substitution	
0	0	0	53	3	They describe the canning process *on this picture.*	in this picture
0	2	0	33	21	*A rise of* temperature can kill germs and disinfect vegetables.	The rise in temperature
0	0	0	38	18	The cutting of the vegetables *in* small pieces is automatic.	Cutting vegetables into small pieces
0	0	0	44	12	*In the beginning* of the canning process, vegetables are collected and washed.	At the beginning of
11	26	11	8	0	They are selected by *passage in* perforated cylinders.	passing through
0	1	7	48	0	*In a first time*, vegetables need cleaning for quality control.	Firstly
7	5	13	31	0	Cans are stockpiled before *be in the market.*	before being on the market
2,57	**4,86**	**4,43**	**36,43**	**7,71**		
					XVPR, substitution	
2	2	7	45	0	Vegetables are collected from fields and *carried in the factory.*	transported to the factory
0	2	11	40	3	Farmers *go in the fields* to pick up vegetables.	Farmers go to
8	7	24	17	0	Vegetables are cleaned, then *separated on* equal quantities.	separated into
6	12	33	5	0	The first step *consists to* pick up the vegetables.	consists in picking vegetables
1	1	19	35	0	They are *put in* a truck to be *transported until* the process area.	put on a truck to be transported to the processing area
0	2	13	41	0	They *add* water and salt *in* the cans to conserve the vegetables for long time.	add water and salt to the cans
7	21	16	11	1	Vegetables are *selected by* perforated cylinders.	selected through
27	27	2	0	0	Labels are *put in* cans so that they can be ready for distribution.	put on

3	1	0	46	6	After labelling, the products can be *carried to* truck for distribution.	carried by
13	6	31	6	0	They are ready to be *transported in* the supermarket.	transported to
4	12	19	21	0	Vegetables will be *separated in* good or bad quality.	separated depending on
5	15	22	14	0	We add juice *composed by* water and salt to improve the conservation.	composed of
1	1	16	36	2	The process of canning food *passes by* many steps.	passes through
0	4	15	37	0	Labels are *added on* each can, then they are *stored by group of* 100.	Cans are put on each can..stored in groups of
5,5	**8,07**	**16,29**	**25,29**	**0,86**		
					XVPR, omission	
0	2	2	52	0	The picture *explains us* the canning process.	explain to us
0	0	1	41	14	The process *consist* seven major steps.	consists of
10	13	22	11	0	Vegetables *pass* a rotating cylinder for selection.	pass through
1	0	20	35	0	We *fill* the cans vegetables and after that we add salt and water.	fill the cans with
2,75	**3,75**	**11,25**	**34,75**	**3,5**		
					XVPR, addition	
1	4	11	36	4	The products are checked before *entering in* the second process.	entering the second phase
3	10	17	26	0	A truck *brings up* vegetables *to* factory.	brings the vegetables to the factory
0	0	2	54	0	Farmers go in the fields to *pick up* vegetables.	to pick vegetables
0	1	13	40	2	The last step is *labeling for* cans.	labeling the cans
17	13	20	6	0	Vegetables are *taken in* by a truck to the manufacturing industry.	taken by trucks
4,2	**5,6**	**12,6**	**32,4**	**1,2**		
					LEXICAL ERROR CATEGORY	
					coinage/L1 borrowing	
53	3	0	0	0	The first step consists in *recolting* the vegetables..	harvesting
38	18	0	0	0	Cans are *ordonned* in boxes and transported to different supermarkets.	Cans are packed
47	7	2	0	0	They are checked then *subit* a ventilation.	then ventilated
41	14	1	0	0	In the final stage they would *rajoute* sodium and water in the cans.	put
37	12	6	1	0	We stockpile *canettes in preparation to* distribute them.	We stockpile cans awaiting distribution.

55	1	0	0	0	They process the *arrached* vegetables automatically.	harvested
5,17	**9,17**	**1,5**	**0,17**	**0**		
					incomprehensible word(s)	
20	10	20	6	0	Vegetables are *taken in by a truck to the manufacturing industry*.	taken by trucks to the plant
31	15	10	0	0	A selection is made to *put out the noninteresting parts* of the vegetables..	to eliminate the uninteresting
29	12	9	6	0	The mixture is *put down* in different cans.	put in
43	8	5	0	0	They are *driven in* supermarkets to be sale.	driven to the supermarkets for sale
40	6	4	6	0	Quality control *occurs and then canning food can be transport* to the supermarkets to be sold.	QC is carried out ... canned food can be transported
52	4	0	0	0	Products are sterilised and stored in huge amounts. *Labels are coped on cans*.	Cans are labelled.
5,83	**9,17**	**8**	**3**	**0**		
					inappropriate word(s)	
2	2	7	45	0	Vegetables are *collected from fields* and *carried in* the factory.	are harvested and transported to
16	20	8	12	0	After ventilation, they are *transfered in* a another process.	they undergo another process
5	13	24	14	0	Vegetables are *enclosed into cans using a temperature* of 130°C.	are put in cans at a temperature of
6	0	27	20	3	Before *joining* the process chain, vegetables are *controlled*.	Before entering the.., vegetables are checked.
0	2	33	19	2	We *select vegetables with perforated cylinders*.	Vegetables are selected by means of
0	2	0	33	21	*A rise of temperature* can kill germs and disinfect vegetables.	High temperature can kill germs
0	0	11	35	10	Vegetables are *put into* cans then salt and water are added.	preserved in cans
0	4	15	37	0	Labels are *added on* each can, then they are *stored by group of* 100.	Cans are put on each can
2	3	14	32	5	Vegetables are carried to the industry *thanks to a truck*.	by truck
9	18	29	0	0	Last, they sterilize cans and close *the opercula*.	the lid
0	0	17	30	9	We *arrive at the end of the process* and cans are distributed.	We reach the end of the process
3,64	**5,82**	**16,82**	**25,18**	**4,55**		
					false-friends	
49	4	2	1	0	We *introduce* salt and water to the cans.	add
46	7	3	0	0	Vegetables are checked, cleaned and separated thanks to different *automates*.	automated machines
38	10	5	3	0	They are put in cans *with correct dosage*, and then stored.	They are put in cans in correct proportions

40	5	7	4	0	They transport *conserved* vegetables to the *sold point.*	processed vegetables to a sales outlet
34	16	6	0	0	The products are ventilated and separated *in function of* their shape.	according to their shape
11	26	11	8	0	They are selected by *passage in* perforated cylinders.	passing through
36	8	2	10	0	Production processes *evoluted* thanks to technology.	evolved
6,29	**10,86**	**5,14**	**3,71**	**0**		
					word order	
19	23	5	7	2	There are many *steps for the canning food manufacturing process*.	The food canning process involves different phases.
20	11	17	7	1	We can see the *chain process* is machine operated.	process chain
0	0	1	35	20	*The process for canning food* has different steps.	the food canning process
0	0	0	25	31	They are packed and *taken to the factory by a lorry.*	taken by lorry to the factory
13	9	15	19	0	Vegetables can be with water completely disinfected.	completely disinfected with water
29	17	4	6	0	Quality control occurs then *food can be to supermarkets transported.*	food can be transported to the supermarkets
41	10	5	0	0	*Using a system ventilation vegetables are clean.*	Vegetables are cleaned using a ventilation system.
5	3	6	38	4	They are distributed *for sale to the market*.	to the market for sale
5,88	**9,13**	**6,63**	**17,13**	**7,25**		

Appendix V: Layout of e-questionnaire



Appendix VI: Pictures of macroevents (fridge – oral corpus)

Appendix VII: Lead poisoning (instructions and script)

Task 1: Lead poisoning

You are going to watch a video twice and then report it in the form of a coherent written production.

- Listening: You may take down notes while listening.
- Content: Sum up the main points in your own words, and add any relevant information.
- Form: free written production (maximum one page)
- Allotted time: 15-20 minutes

Script:

Poor Children Worldwide Face Potential Lead Poisoning

By Melinda Smith

VOA News, August 20, 2007

Imagine a map of the world, and think of places where children **live in poverty**. It is possible that many of those children are **exposed to lead**.

How do we recognize it? Doctors say you will not -- until the level of lead is so high the child is physically ill.

One nine-year-old boy living in **a village close to a lead factory** in **the Gansu province of China** describes how he felt. "I always feel dizzy. I feel the **pain in my legs** after a short walk. Sometimes I cannot remember the assignment given by the teacher. I often vomit, too."

Zhou Wen-yuan's blood lead levels were reportedly five times greater than normal. Other children in the village also had high amounts of lead from their exposure and were hospitalized after tests confirmed the metal's presence.

"Most children around the world who have elevated blood levels today have no symptoms whatsoever, and there's no way to know they have elevated blood lead levels except **through a blood test**," says Dr. Jerome Paulson, a pediatrician and an **expert on the environmental health of children**. He says the absorption of lead is far more **dangerous in children** than in adults. "They have a smaller body over which to spread the amount that they have absorbed. The other thing is, that children's brains are developing and therefore are more **susceptible to damage** during that time of development."

Lead can be found, even in developed countries. In the United States, lead paint is still found in old houses. The lead oxide in paint chips **tastes sweet to a child**, especially at that age when **everything goes in the mouth**. Paint dust can also be inhaled.
So can the **fumes from leaded gasoline**. Most countries ban or restrict the amount of lead in fuel. But vehicles in at least one third of the world still **run on leaded gas**. Children **living near a highway** are the most vulnerable, says Dr. Paulson. "When the lead is in the gasoline, it **comes out of the tailpipes** and so it's **sprayed in the air** and goes literally everywhere that the air goes. It's **on the food**, plants **in the fields**; it's **on the floors of the houses**. It's **on the beds**. It's everywhere."

Dr. Paulson says the solution is simple. "Lead poisoning should not exist, and the solution is to **get the lead out of gasoline** and make sure that homes in which children are going to live are safe. And we can **bring an end to this problem**. We have not had the political will to do that.

Appendix VIII: Food canning process (instructions and photo)

Task 2: Food canning process

You are going to see an animated photo of the food canning process. Describe its different stages in the form of a coherent written production.

- The different stages involved -as can be seen in the photo- are:
field - verification - ventilation - elimination - cleaning - cutting - perforated cylinders - blanching - preservation - juices, salt and water - sealing - sterilization - labeling - stockpiling - shipment
- Content: Depict the stages without further detailed technical explanation. You may add any relevant information.
- Form: free written production (maximum one page)
- Allotted time: 15-20 minutes

Source: http://www.bonduelle.com/fr/nos-activites/process.html

Appendix IX: Measuring Coders' rating of L2 errors

LEXICO-GRAMMATICAL ERRORS	**error code**
XNPR, substitution	XNPRs
XVPR, substitution	XVPRs
XVPR, omission	XVPRo
XVPR, addition	XVPRa
LEXICAL ERRORS	**error code**
coinage/L1 borrowing	L1
incomprehensible word(s)	incomp
inappropriate word(s)	inapp
false-friends	ff
word order	wo

Error categories and their corresponding codes

Total number of erroneous constructions: 12

Inter-rater agreement: 107	87%
Divergence: 16	13%

Number of constructions (lead poisoning): 60

Inter-rater agreement: 53	88%
Divergence: 7	12%

Number of constructions (canning process): 63

Inter-rater agreement: 54	86%
Divergence: 9	14%

Coder 1	Coder 2	erroneous constructions
XVPRs	XVPRs	After labelling, the products can be carried to truck for distribution.
inapp	inapp	After ventilation, they are transfered in another process.
XNPRs	**inapp**	A rise of temperature can kill germs and disinfect vegetables.
incomp	incomp	A selection is made to put out the noninteresting parts of the vegetables.
XVPRa	XVPRa	A truck brings up vegetables to factory.
inapp	inapp	Before joining the process chain, vegetables are controlled.
L1	L1	Cans are ordonned in boxes and transported to different supermarkets.
XNPRs	XNPRs	Cans are stockpiled before be in the market.
XVPRs	XVPRs	Farmers go in the fields to pick up vegetables.
XNPRs	XNPRs	In a first time, vegetables need cleaning for quality control.
XNPRs	XNPRs	In the beginning of the canning process, vegetables are collected and washed.
L1	L1	In the final stage they would rajoute sodium and water in the cans.
XVPRs, inapp	XVPRs, inapp	Labels are added on each can, then they are stored by group 100.
XVPRs	XVPRs	Labels are put in cans so that they can be ready for distributi
inapp	**incomp**	Last, they sterilize cans and close the opercula.
ff	ff, L1	Production processes evoluted thanks to technology.
incomp	incomp	Products are sterilised and stored in huge amounts. Labels a coped on cans.
incomp	**inapp**	Quality control occurs and then canning food can be transpo to the supermarkets to be sold
wo	wo	Quality control occurs then food can be to supermarkets transported
XNPRs	XNPRs	The cutting of the vegetables in small pieces is automatic.
L1	l1	The first step consists in colting the vegetables.
XVPRs	XVPRs	The first step consists to pick up the vegetables.
XVPRa	XVPRa	The last step is labeling of cans.
XVPRs, incomp	XVPRs, incomp	The mixture is put down in different cans.
XVPRo	XVPRo	The picture explains us the canning process.

Coder 1	Coder 2	erroneous constructions
XVPRo	XVPRo	The process consist seven major steps.
wo	wo	The process for canning food has different steps.
XVPRs	**L1**	The process of canning food passes by many steps.
XVPRa	XVPRa	The products are checked before entering in the second process.
ff	ff	The products are ventilated and separated in function of their shape.
wo	wo	There are many steps for the canning food manufacturing process.
XVPRs	XVPRs	They add water and salt in the cans to conserve the vegetables for long time.
L1	L1	They are checked then subit a ventilation.
wo	wo	They are distributed for sale to the market.
incomp	**XVPRs**	They are driven in supermarkets to be sale.
wo	wo	They are packed and taken to the factory by a lorry.
XVPRs	XVPRs	They are put in a truck to be transported until the process area.
incomp	ff, incomp	They are put in cans with correct dosage, and then stored.
XVPRs	XVPRs	They are ready to be transported in the supermarket.
ff	**XNPRs**	They are selected by passage in perforated cylinders.
XNPRs	XNPRs	They describe the canning process on this picture .
L1	L1	They process the arrached vegetables automatically.
ff	ff	They transport conserved vegetables to the sold point.
wo	wo	Using a system ventilation vegetables are cleaned.
inapp	inapp	Vegetables are carried to the industry thanks to a truck.
ff	ff	Vegetables are checked, cleaned and separated thanks to different automates.
XVPRs	XVPRs	Vegetables are cleaned, then separated on equal quantities.
inapp, XVPRs	inapp	Vegetables are collected from fields and carried in the factory.
inapp	inapp	Vegetables are enclosed into cans using a temperature of 130°C.
inapp	**-**	Vegetables are put into cans then salt and water are added.
inapp	**XVPRs**	Vegetables are selected by perforated cylinders.
XVPRa, incomp	XVPRa, incomp	Vegetables are taken in by a truck to the manufacturing industry.
XVPRo	XVPRo	Vegetables pass a rotating cylinder for selection.
XVPRs, inapp	XVPRs	Vegetables will be separated in good or bad quality.
wo	wo	Vegetables can be with water completely disinfected.
XVPRs, inapp	XVPRs, inapp	We add juice composed by water and salt to improve the conservation.
inapp	inapp	We arrive at the end of the process and cans are distributed .
wo	wo	We can see the chain process is machine operated.
XVPRo	XVPRo	We fill the cans vegetables and after that we add salt and water.
-	**ff**	We introduce salt and water to the cans.
inapp	inapp	We select vegetables with perforated cylinders.
L1	L1	We stockpile canettes in preparation to distribute them.

Coder 1	Coder 2	erroneous constructions
incomp	incomp	A blood test is necessary to conclude of a lead poisoning.
XVPRa	XVPRa	A boy aged of nine years old living in a village is ill.
XVPRs	XVPRs	A small boy is diagnosed lung cancer.
wo	wo	A solution at short term could include removing old water pipes which contain lead.
ff	**-**	An exposition to lead is bad for health.
XVPRs	XVPRs	Blood test is used for diagnosis of lead poisoning.
XVPRs	XVPRs	Children are more subjected and people who live in highways.
incomp	incomp	Children are the most vulnerable to fumes of lead.
XNPRs, wo	XNPRs, wo	Children eat it and seems to have a taste sweet for them in the age when they put everything in the mouth.
incomp	incomp	Children living in poor countries are at risk owing to the pollution of soil and spring of water caused by the manufacturing plant.
ff	ff	During childhood, the development of the brain is very important.
incomp	incomp	Experts provide simply to get lead out of gasoline.
XVPRs	XVPRs	Gasoline vehicles emit lead oxide in the air.
XNPRs	XNPRs, wo	He had pain of the lungs.
XVPRs	XVPRs	He suffers of chronic pain in lungs.
wo	wo	If children are physically ill, we can deduce that their blood level of lead is so high.
XVPRa	XVPRa	Intoxication concerns for children more than adults.
XNPRs	XNPRs	It causes the increase of the gasoline price.
wo	**incomp**	It is difficult to diagnose lead poisoning until high blood level.
wo	wo	It talks about the impact of lead poisoning in poverty areas on children health.
inapp	**-**	It's necessary to use unleaded gasoline and stop to consume paint with lead.
XNPRs	XNPRs	Lead can cause damages on the brain.
XNPRs	XNPRs	Lead comes mainly from fumes from leaded gasoline.
XVPRa	XVPRa	Lead exposure causes to several symptoms.
wo	wo	Lead is a heavy metal that can be found in raw materials for food or for drugs manufacturing .

XVPRs	XVPRs	Lead is found in floor, bed, paint, etc.
XVPRs	XVPRs, inapp	Lead is in gasoline. It is then sprayed on the air.
XVPRs	XVPRs	Lead is spread with the air.
inapp	**-**	Lead oxide is present everywhere on the food and on flora.
XVPRs	**inapp**	Lead poisoning can be detected early with blood test.
ff	ff	Leaded gasoline must be retired to save children.
XVPRa	XVPRa	Many children inhale of lead oxide in China.
L1	L1	Our children need to live in sain environment.
incomp	incomp	People who are stinked out by lead have high level of this poison in their blood.
incomp	incomp	Pesticides are the main responsible of this kind of pollution.
incomp	**L1**	Poisoning appears behind different symptoms like dizziness, vomiting, ...
incomp	incomp	Some biology systems can keep out the lead from the surrounding using specific plants able to capture the poison.
XNPRs	XNPRs	The blood lead level is five times higher than normal at this boy.
L1	L1	The degaged lead oxide is danger for our health.
L1	L1	The doctor constated that the boy has elevated level of lead in blood.
incomp	incomp	The doctor explains this problem remains in third of the world countries.
-	**ff**	The doctor precised that a blood test is necessary.
XNPRs	XNPRs	The interview deals with lead poisoning of children in poor countries.
XNPRs	XNPRs	The report is about lead poisoning on undeveloped countries.
XNPRs	XNPRs	The report talks about the consequences of lead poisoning for children.
incomp	incomp	The solution is to ban the use of lead in gasoline and to insecure houses from lead.
XVPRs	XVPRs	The speaker talk us about different symptoms caused by lead poisoning.
L1	L1	The usines should be outside villages.
incomp	incomp	There are no symptoms before being physically ill, so there is no way to suppose the disease and act before.
L1	L1	There is no politique to secure people and children in poverty.
L1	L1	There is no reglement to ban lead oxide in the underdeveloped countries.
inapp	inapp	This report was produced in a Chinese province.
XNPRs	XNPRs	This video deals with lead poisoning children.
ff	ff	Using leaded gasoline rest a danger in poor countries.
incomp	incomp	We can't detect the problem before the level of lead in blood is too high.
XNPRs	XNPRs, wo	We learn that the exposure of lead in children is more dangerous than in adults.
ff	ff	We should not attend until children are physically ill to act.
XVPRs	XVPRs	When people live poverty, they may be exposed to lead.
inapp	inapp	Young people hold everything in mouth.

Appendix X: Information units produced by L2/L1 speakers for the fridge task

(reproduced from PAROLE corpus)

L٢ speakers: IDs ٠٠١ to ٠٣٥
L١ speakers of English: IDs N٠١ to N١٥

ID	frames	events	attributes	total info units	time	words	info units per min	words pe info uni
001	0	5	0	5	32366	53	9,27	10,6
002	0	9	1	10	149972	120	4	12
003	1	5	0	6	88444	76	4,07	12,67
004	0	4	1	5	49555	50	6,05	10
005	0	3	0	3	49373	40	3,65	13,33
006	0	4	0	4	124196	59	1,93	14,75
007	0	3	0	3	30423	41	5,92	13,67
008	1	8	1	10	72853	89	8,24	8,9
009	0	6	0	6	32515	48	11,07	8
010	1	6	0	7	57495	89	7,3	12,71
011	2	3	0	5	39205	48	7,65	9,6
012	0	5	1	6	44130	39	8,16	6,5
013	0	4	3	7	90982	55	4,62	7,86
014	0	1	4	5	39095	71	7,67	14,2
015	1	4	0	5	86923	73	3,45	14,6
016	0	6	1	7	71026	81	5,91	11,57
017	0	4	0	4	29700	37	8,08	9,25
019	1	7	3	11	36632	84	18,02	7,64
020	0	9	2	11	57949	102	11,39	9,27
021	2	6	2	10	39401	78	15,23	7,8
022	1	3	1	5	50353	58	5,96	11,6
023	1	7	1	9	72242	140	7,47	15,56
024	1	6	1	8	23729	50	20,23	6,25
025	0	7	4	11	34319	101	19,23	9,18
027	2	7	0	9	39626	95	13,63	10,56
028	0	7	2	9	39151	74	13,79	8,22
029	0	8	2	10	52856	98	11,35	9,8

ID	frames	events	attributes	total info units	time	words	info units per min	words per info unit
٠٣٠	٠	٨	٠	٨	٣٨٣٨٦	٧٣	١٢,٥	٩,١٣
٠٣١	٠	٧	٠	٧	٢٤٧٢٢	٥٨	١٦,٩٩	٨,٢٩
٠٣٢	١	٣	١	٥	٢٦١٠٣	٥٠	١١,٤٩	١٠
٠٣٣	٠	٧	٣	١٠	٤٥٠٩٧	٦٨	١٣,٣	٦,٨
٠٣٤	٠	٩	٠	٩	٣٣٨٦١	٧٩	١٥,٩٥	٨,٧٨
٠٣٥	٠	٩	٠	٩	٥٩٦٥٩	٩٨	٩,٠٥	١٠,٨٩
N٠١	١	٥	٠	٦	٢٢٠٣٢	٥٠	١٦,٣٤	٨,٣٣
N٠٢	٠	١١	٠	١١	٣٠٢٥١	٩٢	٢١,٨٢	٨,٣٦
N٠٣	٠	٤	٣	٧	١٨٨٤٣	٧٠	٢٢,٢٩	١٠
N١٠	٠	٧	١	٨	٢٧٩٥٠	٧١	١٧,١٧	٨,٨٨
N١١	٠	٨	١	٩	١٨١٥٤	٥٥	٢٩,٧٥	٦,١١
N١٢	١	١٠	٢	١٣	٢٦٧١٧	٩٩	٢٩,١٩	٧,٦٢
N١٣	٢	٨	١	١١	٣٩٢١١	١٣٧	١٦,٨٣	١٢,٤٥
N١٤	٠	٧	٠	٧	١٤٤٥٤	٤١	٢٩,٠٦	٥,٨٦
N١٥	٠	٥	١	٦	١٢١٥٤	٣٣	٢٩,٦٢	٥,٥

7,24 average info units, L2
8,67 average info units, L1

10,3 average words/info unit, L2
8,12 average words/info unit, L1

Appendix XI: PAROLE Corpus

L2/L1 speakers' productions (fridge)

L2 speakers (IDs 001 to 035):

@UTF8
@Begin
@Languages: en
@Participants: 001 Subject, INV Investigator
@**ID:** en|parole|**001|**18;00.00|female||LEA| |
@Language of 001: fr
@Coder: Hilton
@Date: 28-NOV-2005
@G: frigo
*INV: okay ? [+ bch] %snd:"001A"_0_1039
*001: so I [/] I say what I +/. [+ bch] %snd:"001A"_964_2734
*INV: yes uh <what you> [/] what you saw . [+ bch] %snd:"001A"_2746_4563
*001: okay so uh I [/] u:h [#0_285] I saw a building and <u:h #> [#1_219] there were <u:m # u:h> [#2_131]
some uh mens [*] +/. %snd:"001A"_4626_14847
%err: mens = men $MOR $NFL
*INV: mhmm. %snd:"001A"_14980_15416
*001: +, uh [#0_255] looking [*] uh [#0_296] outside . %snd:"001A"_17682_22872
%err: try = are trying $MOR $ASP; enter = bring in, put $LEX $PHR; by = through $MOR $PREP; ze = the $PHO $CON
*INV: +< mmhm .
*001: #0_755 and uh <at least> [*] uh <the [*] &w> [//] the: fridge <u:h #> [#1_347] felled [*] [//] <# u:h> [#0_530] felt [*] #0_528 on a car . %snd:"001A"_22857_32064
%err: at least = in the end $MOR $CONN; ze = the $PHO $CON; felled = fell, falls $MOR $TNS $NFL; felt = fell $MOR $NFL; caR = car $PHO $CON
*001: #0_790 and so a: [/] a man in the street uh was <a little> [*] angry &=rire . [+ bch] %snd:"001A"_37983_39509
*INV: okay &y you see a man in the street +..? [+ bch] %snd:"001A"_39496_41261
*001: yes . [+ bch] %snd:"001A"_41296_42062
*INV: www .
@End
@UTF8
@Begin
@Languages: en
@Participants: 002 Subject, INV Investigator
@**ID**: en|parole|**002**|18;00.00|female| |LEA| |
@Language of 002: fr
@Coder: Hilton
@Comment: lex learning (failed); limited lex strategy (L1)
@Date: 28-NOV-2005
@G: frigo
@Bg
*002: <# &=bouche #> [#4_050] so uh we can see in &th this [*] <uh: #> [#0_940] sequence
[*] which <u:m # &=bouche #> [#4_493] +... %snd:"002A"_0_17493

%err: zis = this $PHO $CON; 0det = a $MOR $DET; /matchain = ma/chine $PHO $STS $VOW
*002: uh &=rire #0_407 <sorry I don't know> ["] . %snd:"002A"_17493_20842
*002: <# &=bouche #> [#1_573] so we can see a: &fr frigo@s> ["] . %snd:"002A"_36401_40308
*002: <# &=bouche # u:h> [#1_796] so the fridge monter@s [*] +/. %snd:"002A"_40396_44000
%err: monter@s = is being lifted $LEX $PHR $CWFA
*INV: +< <is [/] is going up> ["] . %snd:"002A"_44000_44620
*002: +< <is going up> ["] . %snd:"002A"_44621_45565
@Eg
*INV: +< mh .
*002: <&=bouche #> [#0_656] a:nd <u:h #> [#1_143] we can see: <u:h #> [#0_877] three or four <u:h # &=bouche> [#1_654] per/sons [*] who <u:h #> [#2_2] try [*] . %snd:"002A"_45579_62914
%err: per/sons = /people $PHO $STS $MOR $NFL; try = are trying $MOR $ASP; receive = get hold of $LEX $PHR $L1; zis = this $PHO $CON; fraidge = fridge $PHO $VOW
*002: <&=bouche #> [#0_795] but <u:h #> [#2_090] unfortunately [*] #0_447 this [*] uh fridge [*] <u:h # &=bouche e:r #> [#9_557] doesn't [*] <u:h #> [#1_068] pass [*] #1_300 through [*] the: [*] <# &=bouche> [#0_470] window [*] <# &=bouche #> [#8_203] +... %snd:"002A"_85472_100719
%err: ze = the $PHO $CON; resoult = result $PHO $VOW: fraidge = fridge $PHO $VOW
*002: <I uh don't know uh also [*] uh &=rire tomber@s [*]> ["] . %snd:"002A"_100681_104442
%err: also = either $LEX $SYN; tomber@s = falls $LEX $CWFA
*INV: +< xx <falls down> ["] . %snd:"002A"_104071_105197
*002: tomber ["] ? %snd:"002A"_104850_105367
*INV: mhmm <falls down> ["] . %snd:"002A"_105407_106365
*002: <falls down@s [*] <# &=bouche #> [#5_912] &=cherche:aide +... %snd:"002A"_107547_123404
%err: sur@s = onto $MOR $PREP $PHR
*INV: onto . %snd:"002A"_124201_126529
@Eg
*002: #0_429 and <u:m # &=bouche> [#1_649] <just after> [*] we <can see> [*] the: [*] owner #0_470 <who is <u:h #> [#2_079] arrive . %snd:"002A"_126478_138168
%err: just after = afterwards, next $LEX $CONN; can see = see $SYN; ze = the $PHO $CON; is arrive = runs up $LEX $PHR $L1 $MOR $NFL
*002: and u:h he's <u:h # &=bouche> [#2_269] crying> [*] +... %snd:"002A"_142585_156047
%err: doing with his hands big moves = he's waving his arms $SYN $POS $LEX $PHR $CWFA
*002: #0_429 <oh I don't know> ["] . %snd:"002A"_156087_157585
*INV: okay xx <he's he's waving his arms> ["] mmhm. %snd:"002A"_157757_159487
*002: +< yes . %snd:"002A"_159510_160137
@Eg
*INV: www . %snd:"002A"_160089_163982
@End @UTF8
@Begin
@Languages: en
@Participants: 003 Subject, INV Investigator
@**ID**: en|parole|**003**|18;00.00|female|LEA1| |Subject||
@Date: 28-NOV-2005
@Coder: Hilton
@G: frigo
*INV: www . [+ bch] %snd:"003A"_0_2849

*003: yes <e:r #> [#1_823] I [/] <I have seen <u:m # &=bouche> [#1_799] a: few> [//] #2_264 I have seen <um &=bouche #> [#1_881] mans [*] <e:r # &=bouche> [#3_263] who were [*] <u:m # &=bouche uh> [#1_979] at the window I think . %snd:"003A"_32722_37732
*INV: +< mmhm .
*003: #0_731 and <u:h #> [#1_776] they: [/] they try: <uh #> [#1_817] to: [/] <um # &=bouche> [#2_194] to take [*] uh the fridge . %snd:"003A"_69215_72901
*003: <# &=bouche> [#0_516] and <u:m #> [#2_194] there is &a another [*] <um #> [#0_354] man <# e:r # uh> [#4_017] who is uh I think uh very angry . %snd:"003A"_73295_92033
%err: anover = another $PHO $CON; ongry = angry $PHO $VOW; her = his $MOR $PRO
*INV: #1_603 okay . %snd:"003A"_92122_94070
*003: mmhm. [+ bch] %snd:"003A"_94160_96068
*INV: www . [+ bch]
@End @UTF8
@Begin
@Languages: en
@Participants: 004 Subject, INV Investigator
@**ID**: en|parole|**004**|18;00.00|female||LEA| |
@Language of 004: fr
@Coder: Hilton
@Comment: lack of propositional coherence
@Date: 30-NOV-2005
@G: frigo
*004: I can see: <u:m #> [#1_747] a fridge↑ . #%snd:"004A"_3228_6819#
*004: <# u:m #> [#2_873] it's maybe <u:m #> [#2_322] people that are <uh #> [#1_678] living in this [*] [/] uh [#0_238] this flat↑ . #%snd:"004A"_6666_18143#
%err: this = a $MOR $DET
*004: <# uh> [#1_311] they are trying to: <pass the fridge <uh #> [#2_508] over> [*] #0_581 the window↑ . #%snd:"004A"_17938_26210#
%err: pass it over = put it through $LEX $PHR
*004: <# &=bouche # &=rire &=bouche> [#3_187] the fridge uh falls #0_250 <on a: car↑> [//] #0_639 on a <er #> [#0_836] green car . #%snd:"004A"_26241_35436#
@Bg
*004: #0_482 and u:h [#0_232] the: [*] [/] #0_854 the man <uh #> [#1_103] <that [*] [/] <u:h #> [#1_115] that <uh #> [#1_904]> [/-] who <u:h #> [#2_148] <is the car↑> [*] <# uh> [#1_602] is u:h [#0_458] very <u:h #> [#1_230] [/-] is <not happy> [*] &=rire . #%snd:"004A"_35430_52584#
%err: de = the $PHO $CON; dat = that $PHO $CON; the man who is the car = the man whose car it is $SYN $REL = who owns the car $LEX $CWFA; not happy = upset $LEX $CWFA
@Eg
@End@UTF8
@Begin
@Languages: en
@Participants: 005 Subject, INV Investigator
@**ID**: en|parole|**005**|19;00.00|female||LEA| |
@Language of 005: fr
@Coder: Hilton
@Comment: lex learning
@Date: 28-NOV-2005
@G: frigo
*INV: okay ? [+ bch] #%snd:"005A"_0_1132#
*005: <# u:m &=bouche>[#2_021] it's a: video↑ <# &=bouche> [#0_592] with

[*] <u:m #> [#1_115] a ma:n <u:h #> [#1_503] w(h)o [*] are [*]
<u:h #> [#1_457] in an apartment↑ [*] . #%snd:"005A"_1132_12863#
%err: wis = with $PHO $CON; wu = who $PHO $CON; aRe = is $MOR $AGT $PHO $CON; apartemunte = apartment $PHO
*005: #0_360 and <u:m #> [#0_778] they [*] want to: [/] <u:m # &=bouche> [#2_396] to <u:h #> [#1_254] enter [*] <u:h # u:m # &=bouche u:h #> [#6_722] frigo↑@s [*] ["] . #%snd:"005A"_12892_28256#
%err: zey = they $PHO $CON; enteR = bring in $LEX $L1 $PHR $PHO $CON; frigo@s = fridge $LEX $CWFA
*INV: <a fridge> ["] . #%snd:"005A"_28476_29538#
*005: <a fridge↑> ["] . #%snd:"005A"_29538_30222#
*005: <# &=bouche> [#0_621] and <u:h #> [#0_546] they: [*] [/] <u:h #> [#0_412] they don't <u:h #> [#0_447] <arrive to 0v> [*] that↑ [*] because <u:h #> [#0_871] they <u:m # &=bouche #> [#2_040] [/-] the &fr [/] #1_184 &free [*] &=cherche:aide +//. #%snd:"005A"_30184_42101#
%err: zey = they $PHO $CON; arrive to 0v = manage to do $LEX $PHR; &free = fridge $LEX $CWFA
*INV: fridge ["] . #%snd:"005A"_42131_42485#
*005: +, fridge ["] <# u:m # &=bouche # u:m #> [#5_529] go [*] <on a:> [/] on a car [*] u:h in the [*] street . #%snd:"005A"_42609_52286#
%err: go = fall $LEX = falls $MOR $AGT; caR = car $PHO $CON; ze = the $PHO $CON
*005: 0 #1_149 . [+ bch] #%snd:"005A"_52325_53474#
*INV: okay . #%snd:"005A"_52434_54477#
@End@UTF8
@Begin
@Languages: en
@Participants: 006 Subject, INV Investigator
@**ID**: en|parole|**006**|19;00.00|female||LEA| |
@Language of 006: fr
@Coder: Hilton
@Comment: lex strategy absent
@Date: 29-NOV-2005
@G: frigo
*006: www. [+ bch] %snd:"006A"_0_5464
%com: regarde encore le film
*006: okay . [+ bch] %snd:"006A"_5464_6826
*006: <u:m # &=bouche # ahem # &=bouche> [#6_577] it's a: [/] <# &r uh #> [#5_208] a frigo@n [*] ? %snd:"006A"_26432_28523
%err: 0det = a $MOR $DET; REfri@n = fridge $LEX $L1 $PHO
*006: <# um #> [#1_045] I [/] <I don't know> ["] . %snd:"006A"_28581_30287
*006: #0_279 <I don't know <what I> [/] #0_365 <what I> [/] <uh #> [#1_166] what I can do> ["] . %snd:"006A"_30617_35725
*006: #0_877 I [/] <I don't know the: [/] #0_575 the word> ["] . %snd:"006A"_35767_39098
*INV: # okay fridge ["] . %snd:"006A"_39051_41098
*006: a fridge ["] ? %snd:"006A"_41098_41745
*INV: mmhm . %snd:"006A"_41791_42294
*006: <&=bouche #> [#0_441] it's a fridge <# u:m # er # &=bouche #> [#14_826] +... %snd:"006A"_42220_58550
*006: the thing [*] it's [*] i:n the street [*] . %snd:"006A"_85885_113329
%err: do that the fridge go = make the fridge go $SYN $CAUS; to = 0prep $MOR $PREP; upstair = upstairs $LEX $ADV
*INV: mmhm . %snd:"006A"_113412_113824
*006: <&=bouche #> [#1_411] but <u:m # uh # &ze #> [#9_249] &i it fall . %snd:"006A"_127590_132791

%err: it's = is $SYN $L1
*INV: okay . %snd:"006A"_132981_133748
*006: #1_886 a:nd #1_138 there is a: [/] a man [*] . %snd:"006A"_149497_151233
%err: it = he $MOR $PRO; nervous $PHO $VOW
*INV: okay okay . %snd:"006A"_151094_153573
*006: #2_526 xxx@s . [+ bch] %snd:"006A"_152754_159322
*INV: all right . [+ bch]
*INV: www .
@End @UTF8
@Begin
@Languages: en
@Participants: 007 Subject, INV Investigator
@**ID**: en|parole|**007**|19;00.00|male||LEA| |
@Language of 007: fr
@Coder: Hilton
@Date: 29-NOV-2005
@Comment: weak propositional content
@G: frigo
*007: <# uh:> [#1_126] I can see a #0_767 freezer or a #0_656
refrigerator↑ . #%snd:"007A"_2047_7579#
*007: I don't know . #%snd:"007A"_7613_8385#
*INV: mmhm . #%snd:"007A"_8542_9180#
*007: <# &=bouche # &tuhe &=bouche yes> [#4_650] two or three [*] men &ike
are [*] trying to [/] <uh #> [#0_842] to catch him [*] +/. #%snd:"007A"_9425_18009#
%err: free = three $PHO $CON; aRe = are $PHO $CON; him = it $MOR $PN
*INV: mmhm . #%snd:"007A"_18084_18705#
*007: +, by [*] a window↑ . #%snd:"007A"_18709_19615#
%err: by = at $MOR $PREP
*INV: mmhm mmhm . #%snd:"007A"_19661_20764#
*007: but he [*] [/] <uh #> [#1_480] he <felt [*] (do)wn [?]> [*] on a
car↑ . #%snd:"007A"_20741_24113#
%err: he = it $MOR $PN; felt = fell $MOR $NFL; fell down = fell on top of
$LEX $PHR
*007: #2_1 and uh [#0_383] a man was [/] <uh # &=rire #> [#4_619] <was
(h)orrified↑> [*] [//] <# um #> [#1_272] was terrified↑[*] . #%snd:"007A"_24155_35558#
%err: orrified = horrified $PHO $CON; terrified = furious $LEX $CWFA
*INV: +< okay . [+ bch] #%snd:"007A"_35545_36137#
*007: <# xx> [#2_827] . [+ bch] #%snd:"007A"_36320_39147#
*INV: okay . [+ bch] #%snd:"007A"_39030_39871#
*INV: www .
@End@UTF8
@Begin
@Languages: en
@Participants: 008 Subject, INV Investigator
@**ID**: en|parole|**008**|18;00.00|female||LEA| |
@Language of 008: fr
@Coder: Hilton
@Date: 29-NOV-2005
@G: frigo
*008: # &=bouche okay . [+ bch] #%snd:"008A"_0_2833#
*INV: okay↑ . [+ bch] #%snd:"008A"_2897_3390#
*008: so I can see a fridge↑ . #%snd:"008A"_4011_6031#
*INV: mmhm . #%snd:"008A"_6088_6785#
*008: <&=bouche # u:h #> [#5_933] the [*] fridge is [/] <u:h #> [#0_755]
is <climbing the [*] air↑> [*] . #%snd:"008A"_6827_16422#

%err: ze = the $PHO $CON; climbing the air = being lifted $LEX $PHR; ze = the $PHO $CON
*INV: mmhm mmhm . #%snd:"008A"_16412_17596#
*008: #0_389 because uh &s people are &m #0_284 moving↑ . #%snd:"008A"_17656_20982#
*INV: okay . #%snd:"008A"_21069_21677#
*008: <&=bouche # u:h> [#1_997] the [*] fridge <u:h #> [#1_173] climb [*] until [*] the: [/] #1_777 the: [/] #1_718<the &lai> [/] the <last stair↑> [*] . #%snd:"008A"_21984_34261#
%err: ze = the $PHO $CON; climb = climbs $MOR $AGR $PHO; climb = is lifted $LEX $SYN; until = to $MOR $PREP; last stair = top floor $LEX
*INV: okay . #%snd:"008A"_34528_35091#
*008: #0_633 and u:h [#0_702] when u:h 0det [*] mans [*] #0_371 <a:re #0_267 catching> [*] it↑ [*] +/. #%snd:"008A"_35161_40883#
%err: 0det = some $MOR $DET; mans = men $MOR $NFL; are catching = reach for $LEX $PHR $MOR $ASP; heet = it $PHO $CON $VOW
*INV: mmhm mmhm . #%snd:"008A"_40924_41917#
*008: +, <# u:h> [#1_817] they: [*] #0_290 don't catch [*] it very well↑ . #%snd:"008A"_41918_46383#
%err: catch = take hold of $LEX $PHR
*INV: mh . #%snd:"008A"_46396_46913#
*008: #0_476 a:nd u:h [#0_336] the: [*] fridge <u:h #> [#3_280] fall↑ [*] [//] #0_546 falls . #%snd:"008A"_46913_53376#
%err: ze = the $PHO $CON; fall = falls $MOR $AGT
*INV: mmhm . #%snd:"008A"_53432_54164#
*008: #2_ and u:h [#0_394] when (h)e [*] falls &ze: #0_385 there is a car↑ . #%snd:"008A"_54206_59475#
%err: he = it $MOR $PRO $PHO $CON
*INV: mmhm mmhm . #%snd:"008A"_59776_60461#
*008: &=bouche and <u:h #> [#0_917] the: fridge is [/] <u:h #> [#0_795] <is fal/ling> [*] #0_331 in [//] <uh #> [#1_503] on the [/] the car↑ . #%snd:"008A"_60326_68582#
%err: is falling = falls $MOR $ASP; fal/ling = /falling $PHO $STS;
*INV: mmhm mmhm &=rire . #%snd:"008A"_68689_70384#
*008: and uh we can see a man who (i)s <u:h #> [#0_755] furious [*] #0_290 because it's #0_366 probably his car↑ . #%snd:"008A"_70475_76555#
%err: furrious = fjurious $PHO $VOW
*INV: mm &=rire ! #%snd:"008a"_76635_77895#
*008: +< &=rire . [+ bch] #%snd:"008a"_77872_78789#
*008: and <u:h #> [#3_605] he <looks like> [*] <very furious↑> [*] because uh the car is <[/] u:h #> [#0_865] is off↑ [*] . #%snd:"008A"_79588_88968#
%err: looks like = looks $LEX $PHR; very furious = furious $LEX $PHR; off = wrecked $LEX
*INV: mmhm mmhm . #%snd:"008A"_88966_89973#
*008: <&=bouche #> [#7_867] . [+ bch] #%snd:"008A"_90039_97906#
*INV: www .
@End@UTF8
@Begin
@Languages: en
@Participants: 009 Subject, INV Investigator
@ID: en|parole|**009**|22;00.00|female||LEA| |
@Language of 009: fr
@Coder: Hilton
@Date: 29-NOV-2005
@Comment: weak propositional content
@G: frigo

*009: so: <u:m #> [#0_592] I think u:h [#0_308] this is a fridge↑ #0_296 .
#%snd:"009A"_0_3117#
*INV: mmhm . #%snd:"009A"_3193_3878#
*009: +, who [*] is #0_203 <going up↑> [*] . #%snd:"009A"_3901_5323#
%err: who = which $MOR $REL; going up = being lifted $LEX $PHR
*INV: okay . #%snd:"009A"_5391_6401#
*009: <&=bouche #> [#1_208] and the [*] man u:h #0_325 is <u:h #> [#2_125]
trying to: [/] to catch↑ [*] the fridge↑ . #%snd:"009A"_6275_13601#
%err: the = a $MOR $DET; catch = reach $LEX
*INV: okay mmhm . #%snd:"009A"_13639_15157#
*009: #1_1 but the fridge u:h <falls down↑> [*] . #%snd:"009A"_15215_18164#
%err: falls down = falls $LEX; $PHR
*INV: mmhm mmhm . #%snd:"009A"_18387_20552#
*009: #1 a:nd u:h [#0_395] [/-] 0subj falls down <on the:> [/] on [*] the
road↑ #0_435 on a car↑ . #%snd:"009A"_20592_25426#
%err: 0 = it $MOR $PRO; on = to $MOR $PREP
*INV: mmhm . #%snd:"009A"_25527_26230#
*009: <# &=bouche> [#0_551] and there's a ma:n [#0_418] in the street↑
#0_737 who is <u:h #> [#7_728] furious↑ [*] . #%snd:"009A"_26276_39143#
%err: ferious = furious $PHO $VOW $CWFA
*INV: okay . #%snd:"009A"_39157_40167#
*009: #8_244 . [+ bch] #%snd:"009A"_40308_48794#
*INV: is there any more [?] ? [+ bch] #%snd:"009A"_50158_52363#
*009: &=rire <# &=bouche #> [#4_364] the fridge <u:h &=rire #> [#3_802]
is broken↑ . [+ bch] #%snd:"009A"_52362_62627#
*INV: mmhm . [+ bch] #%snd:"009A"_62709_65049#
@Bg
*009: #1_637 and the man is <uh # &=bouche #> [#14_050] +... [+ bch] #
%snd:"009A"_65142_81869#
*009: <um #> [#0_871] the man <uh #> [#1_359] can't do something [*] +...
[+ bch] #%snd:"009A"_81916_85945#
%err: thomesing = anything $MOR $PRO $PHO $CON
*009: he's uh very little [?] [*] <u:m # enfin@s> [#1_439] <in face of> [*]
this uh accident↑ . [+ bch] #%snd:"009A"_86003_92293#
%err: little = powerless $LEX $CWFA; in face of = about $LEX $PHR $PREP
@Eg
@End@UTF8
@Begin
@Languages: en
@Participants: 010 Subject, INV Investigator
@**ID**: en|parole|**010**|19;00.00|female||LEA| |
@Language of 010: fr
@Coder: Hilton
@Date: 30-NOV-2005
@G: frigo
*INV: okay ? [+ bch] %snd:"010A"_0_6124
*010: okay . [+ bch] %snd:"010A"_6159_6803
*INV: so . [+ bch] %snd:"010A"_6819_7277
*010: so <um #> [#0_453] I have seen <u:m #> [#0_487] a building #0_911 who [*] try [*] to:
<um #>
[#0_604] take [*] <u:h #> [#1_393] a refrigerator [*] . %snd:"010A"_18846_22457
%err: for = into $MOR PREP; zeir = their $PHO $CON; home = apartment $LEX
*010: #0_540 but <u:m #> [#0_923] <it's a> [/-] #0_203 there [*] is a
prob/lem [*] because it's a: [/-] #0_935 <(h)e [*] don't [*]> [//]
enfin@s it don't [*] <want uh to: #0_453 go #0_221 in the

building> [*] . %snd:"010A"_22465_32589
%err: zere = there $PHO $CON; prob/lem = /problem $PHO $STS; he = it $MOR $PRO; don't = doesn't $MOR $AGT; don't = doesn't $MOR $AGT; don't want to go in the building = doesn't fit through the window $SYN $PHR $CWFA
*010: so (h)e: [*] [/] #1_916 (h)e: crash [*] on [*] a car [*] arrived [*] a:nd +... %snd:"010A"_37812_41523
%err: mand = man $PHO $BLE; arrived = ran up $LEX $PHR $L1
*010: #1_649 and (h)e is a:ll <u:m #> [#4_1] [/-] (h)e: [/] #0_452 (h)e 0v [*] moved [*] . %snd:"010A"_41539_50473
%err: 0v = is $SYN $COP; moved = upset $LEX $L1 $CWFA
*INV: mmhm . %snd:"010A"_50447_51283
*010: +< (h)e: +/.
*010: +, #1_1 he don't [*] know what to do uh when he see [*] this #0_589 disorder &bu:h +... %snd:"010A"_56578_60943
*010: #1_562 but uh for them <uh #> [#0_267] I think that it's not #0_365 so funny &=rire ! %snd:"010A"_60949_66843
*INV: +< not so funny yes ! %snd:"010A"_66844_68957
*INV: www .
@End @UTF8
@Begin
@Languages: en
@Participants: 011 Subject, INV Investigator
@**ID**: en|parole|**011**|19;00.00|male||LEA| |
@Language of 011: fr
@Coder: Hilton
@Comment: avoidance strat
@Date: 30-NOV-2005
@G: frigo
*011: so . [+ bch] %snd:"011A"_41_1620
*011: #0_465 well <u:m # &=rire <&=bouche #> [#3_181] this is kind of <u:h #> [#1_184] ridiculous . %snd:"011A"_9636_18123
%err: doing = showing [?] $LEX
*011: and u:h [#0_360] +/. %snd:"011A"_18261_19173
*INV: +< mmhm . %snd:"011A"_19219_19973
*011: +, #0_992 he's trying to: [/] to make the: [/] the [*] fridge <u:h #> [#0_412] <come up +... %snd:"011A"_33778_41377
*011: <# u:h #> [#2_476] &=rire &=bouche <0subj 0v> [*] nothing more to say I think . [+ bch] %snd:"011A"_41323_46841
%err: 0subj 0v = I have $SYN $L1
INV: okay . [bch] %snd:"011A"_47009_47630
*011: &=rire . [+ bch] %snd:"011A"_47659_48234
*INV: www .
@End @UTF8
@Begin
@Languages: en
@Participants: 011 Subject, INV Investigator
@**ID**: en|parole|**011**|19;00.00|male||LEA| |
@Language of 011: fr
@Coder: Hilton
@Comment: avoidance strat
@Date: 30-NOV-2005
@G: frigo
*011: so . [+ bch] %snd:"011A"_41_1620
*011: #0_465 well <u:m # &=rire <&=bouche #> [#3_181] this is

kind of <u:h #> [#1_184] ridiculous . %snd:"011A"_9636_18123
%err: doing = showing [?] $LEX
*011: and u:h [#0_360] +/. %snd:"011A"_18261_19173
*INV: +< mmhm . %snd:"011A"_19219_19973
*011: +, #0_992 he's trying to: [/] to make the: [/] the [*] fridge <u:h #> [#0_412] <come up +... %snd:"011A"_33778_41377
*011: <# u:h #> [#2_476] &=rire &=bouche <0subj 0v> [*] nothing more to say I think . [+ bch] %snd:"011A"_41323_46841
%err: 0subj 0v = I have $SYN $L1
INV: okay . [bch] %snd:"011A"_47009_47630
*011: &=rire . [+ bch] %snd:"011A"_47659_48234
*INV: www .
@End @UTF8
@Begin
@Languages: en
@Participants: 012 Subject, INV Investigator
@**ID**: en|parole|**012**|18;00.00|male||LEA| |
@Language of 012: fr
@Coder: Hilton
@Comment: weak propositional content
@Date: 13-NOV-2005
@G: frigo
*012: <u:h #> [#4_394] je@s dois@s raconter@s uh +..? [+ bch] #%snd:"012A"_3467_8523#
*INV: yes if you could just tell me <what you:> [/] what you saw . [+ bch] #%snd:"012A"_8527_10930#
*012: +< oh yes . [+ bch]
*012: <# u:h> [#1_149] there are <u:h #> [#0_430] two person [*] <in [*] the:> [//] #0_412 at the window↑ . #%snd:"012A"_10987_16183#
%err: person = people $MOR $AGT; in = at $MOR $PREP
@Bg
*012: <# uh> [#1_139] they: see <# u:h # u:h> [#3_498] 0det [*] frigo↑@n [*] &=cherche:aide +... #%snd:"012A"_16473_22567#
%err: 0det = a $MOR $DET; frigo@n = fridge $LEX $L1 $CWFA
*INV: uh yeah a fridge ["] mmhm . #%snd:"012A"_22643_24288#
*012: fridge ["] ? #%snd:"012A"_24317_24805#
*012: yes . #%snd:"012A"_24834_25345#
*012: +, <# uh: #> [#1_904] 0det fri:dge <u:h #> [#0_546] <going up↑> [*] . #%snd:"012A"_25368_29350#
%err: 0det = a $MOR $DET; going up = being lifted $LEX $PHR
@Eg
*012: #0_859 and uh: they want to: #0_615 &kaitch [*] [/] catch [*] the: [/] #0_592 the fridge↑. #%snd:"012A"_29350_35529#
%err: kaitch = catch $PHO $VOW; catch = reach $LEX
*012: a:nd <uh: #> [#1_272] he: [/] <# uh:> [#1_666] he [*] <fall [*] <uh # u:m #> [#3_150] down> [//] +/. #%snd:"012A"_35518_44146#
%err: he = it $MOR $PRO; fall = falls $MOR $AGT
*INV: mmhm . #%snd:"012A"_44105_44745#
*012: +, #1_ falls down . #%snd:"012A"_44776_46448#
*012: 0 #2_ . #%snd:"012A"_46416_48436#
*INV: okay . #%snd:"012A"_48424_49005#
*012: and <u:h #> [#0_859] a car was [/] <u:h #> [#2_154] was [/] <u:h &=rire # uh> [#3_286] was bring↑ [*] +... #%snd:"012A"_49013_58028#
%err: bring = crushed [?] $LEX $MOR $NFL
*INV: mmhm . #%snd:"012A"_57917_58915#
*012: <# hm #> [#3_791] . #%snd:"012A"_58814_62605#

*INV: and that's the end . [+ bch] #%snd:"012A"_62606_63597#
*012: yes &=rire . [+ bch] #%snd:"012A"_63661_64636#
*012: okay . [+ bch] #%snd:"012A"_64654_65188#
@End@UTF8
@Begin
@Languages: en
@Participants: 013 Subject, INV Investigator
@**ID**: en|parole|**013**|18;00.00|female||LEA| |
@Language of 013: fr
@Coder: Hilton
@Comment: weak lex strat (L1)
@Date: 30-NOV-2005
@G: frigo
*INV: www . %snd:"013A"_0_924
*013: <&=bouche u:m # &=bouche #> [#2_247] I see <uh #> [#0_941] a:
great [*] uh built [*] <u:h # &=bouche> [#1_805] +... %snd:"013A"_459_8117
%err: great = big $LEX $L1; bult = building $LEX $PHO $VOW
*013: and <u:m # u:h #> [#5_669] <(h)ow [*] do you say a [/] a frigo@s>
["] ? %snd:"013A"_8164_16144
%err: o = how $PHO $CON $VOW; frigo@s = fridge $LEX $CWFA
*INV: a [/] <a fridge> ["] . %snd:"013A"_16127_17113
*013: <a fridge> ["] . %snd:"013A"_17177_18094
@Bg
*013: <# u:m # &=bouche> [#3_083] two men <u:h #> [#1_450] want to [/] <u:h
#> [#7_235] to: <u:h # &=bouche> [#17_612] +... %snd:"013A"_18162_49598
*INV: so they [/] they've got a big fridge # uhhuh . %snd:"013A"_49679_52100
*013: and <u:m #> [#3_791] two men want to <u:h #> [#3_367] <faire@s
passer@s> ["] [*] ? %snd:"013A"_52454_62700
%err: faire@s passer@s = put through $LEX $PHR $CWFA
*INV: #1_190 mmhm so &th they want to <take the fridge> ["] +... %snd:"013A"_62817_66123
*013: ++ <u:h #> [#1_648] by [*] the [*] window . %snd:"013A"_69780_79032
%err: ze = the $PHO $CON
*INV: mmhm. %snd:"013A"_79125_79911
*013: #0_818 and <u:m #> [#4_452] I uh think [*] <# u:h #> [#1_747] the
man <u:h #> [#1_161] we see <u:h #> [#2_154] near the car [*] <u:h #>
[#1_974] is the: proprietaire . %snd:"013A"_79931_100486
%err: fink = think $PHO $CON; caR = car $PHO $CON; proprietaire@s = owner
$LEX $L1; zees = this $PHO $CON $VOW
*INV: mmhm . %snd:"013A"_100538_101429
*013: #0_418 and <u:h #> [#0_848] that's all . [+ bch] %snd:"013A"_101439_103896
*INV: mmhm okay . %snd:"013A"_103954_105385
@End @UTF8
@Begin
@Languages: en
@Participants: 014 Subject, INV Investigator
@**ID**: en|parole|**014**|18;00.00|male||LEA| |
@Language of 014: fr
@Coder: Hilton
@Comment: had seen video; odd propositional content
@Date: 30-NOV-2005
@G: frigo
*014: so er I: [/] I already knew [*] this [*] [/] u:h this [*] video .
[+ bch] %snd:"014A"_0_2943
%err: knew = know $MOR $TNS; zis = this $PHO $CON
*INV: +< you've already seen it ? [+ bch] %snd:"014A"_2984_3495

*014: yes . [+ bch] %snd:"014A"_3512_3942
*014: <# uh &ai> [#1_050] it's very fun .
%snd:"014A"_6797_12321
%err: u = who $PHO $CON; sees = see $MOR $AGT
*INV: uhhuh . %snd:"014A"_12385_13005
*014: <# &=bouche #> [#1_388] it's [/-] uh [#0_209] I think the: [//]
<# &sis &a #> #2_095 <th(ey) a:re> [//] they [/] they [*] just
<u:h #> [#0_778] bought this [/] <u:h #> [#0_964] this fridge@s> [*] .
%snd:"014A"_39617_47407
%err: put = lift $LEX; grue@s = crane $LEX $L1 $CWFA
*INV: mmhm. %snd:"014A"_47419_48011
*014: xxx .[+ bch] %snd:"014A"_48017_49108
@End @UTF8
@Begin
@Languages: en
@Participants: 015 Subject, INV Investigator
@**ID**: en|parole|**015**|18;00.00|female||LEA| |
@Language of 015: fr
@Coder: Hilton
@Comment: weak propositional content
@Date: 30-NOV-2005
@G: frigo
*015: so u:h [#0_494] we can see a: [//] (h)a [*] move . %snd:"015a"_3171_7508
*015: <# u:m # u:h #> [#5_831] there is a fridge and <u:h #>
[#1_347] the fridge uh calls [*] <in &th> [//] in [*] a car #0_337 we can
see <u:m #> [#1_445] the [//] a man . %snd:"015A"_24799_35881
%err: (h)a(s) = owns $LEX $PHO $CON
*015: #0_767 and <u:h #> [#2_015] <he's uh &hu:h> [//] #0_923 he's
<u:m #> [#1_846] sad . %snd:"015A"_99454_102606
@Eg
*INV: uhhuh . %snd:"015A"_102641_103233
*015: <# &=rire # uh> [#1_446] about [*] . %snd:"015A"_103319_105264
%err: about = or something like that [?] $LEX $PHR
*015: and <u:h #> [#1_102] the fridge uh calls [*] <# u:m #> [#3_541] +...
%snd:"015A"_105305_111169
%err: calls = falls $LEX
*015: yes &=rire ? [+ bch] %snd:"015A"_111215_112150
*INV: mmhm . [+ bch]
@End @UTF8
@Begin
@Languages: en
@Participants: 016 Subject, INV Investigator
@ID: en|parole|**016**|17;00.00|female||LEA| |
@Language of 016: fr
@Coder: Hilton
@Date: 30-NOV-2005
@G: frigo
*INV: www .
*016: <# u:m &=bouche> [#1_677] in the video uh we can't [*] uh see two
man [*] uh in the [*] flat↑ . #%snd:"016A"_215_6259#
%err: can't = can $MOR; man = men $MOR $NFL; the = a $MOR $DET
*016: <# u:m &=bouche> [#1_805] <they [*] try:> [/] they try [*] uh to: [/]
#0_656 to take [*] a: [/] a fridge↑ . #%snd:"016A"_6180_13273#
%err: zey = they $PHO $CON; try = are trying $MOR $ASP; take = lift $LEX
@Bg

*016: <# u:m #> [#3_140] <it is> [/] <u:m #> [#2_711] <(i)t is> [/] <u:m #
&=bouche # u:m # um #> [#11_630] it is <u:m # &=bouche> [#3_343] +...
#%snd:"016A"_13178_35802#
%com: lexical search
*016: <what is attaché@s [*]> ["] ? #%snd:"016A"_35804_37158#
%err: attaché@s = tied to $LEX $PHR $CWFA
*INV: #2_293 oh it's [/] it's [/-] um you can say attached ["] .
#%snd:"016A"_37227_41992#
*016: +, attached [*] <uh # u:m # &=bouche> [#2_194] by [*] <u:m #>
[#1_161] +... #%snd:"016A"_42228_46662#
%err: attaiched = attached $PHO $VOW; by = to $MOR $PREP
*016: <I don't know <what is #0_372 grue@s> [*]> ["] . #%snd:"016A"_46685_48316#
%err: what is grue = what grue is $SYN $REL; grue = crane $LEX $L1
*INV: oh it's [/] it's attached to a crane . #%snd:"016A"_48433_50888#
*016: <to a crane> ["] ? #%snd:"016A"_50955_51897#
@Eg
*016: <&=bouche u:m #> [#1_631] but u:h the two man [*] u:h try to: [/]
#0_226 to take [*] u:h the fridge↑ and <u:h #> [#0_552] they: #0_383
+... #%snd:"016A"_52008_60366#
%err: man = men $MOR $NFL; take = take hold of $LEX $PHR
*016: the [*] [/] um the fridge uh fall [*] [/] uh <falls into> [//] falls
to [*] the [/] the car↑ . #%snd:"016A"_60383_65846#
%err: ze = the $PHO $CON; fall = falls $MOR $AGT; into = onto $MOR $PREP;
the = a $MOR $DET
*INV: mmhm . #%snd:"016A"_65991_66629#
*016: +, inside↑ [*] . #%snd:"016A"_66680_67208#
%err: inside = outside $LEX
*016: a:nd <u:m #> [#0_841] uh we can see a man <u:h # um #> [#2_159] maybe
<uh # uh> [#1_509] it is (h)is [*] car↑ . #%snd:"016A"_67237_75218#
%err: is = his $PHO
*INV: mmhm . #%snd:"016A"_75241_75827#
*016: <# u:m # &=bouche #> [#2_589] and u:h the [*] fridge is broke↑ [*] .
#%snd:"016A"_75765_80242#
%err: broke = broken $MOR $NFL
*INV: uhhuh . #%snd:"016A"_80254_81415#
@End@UTF8
@Begin
@Languages: en
@Participants: 017 Subject, INV Investigator
@**ID**: en|parole|**017**|17;00.00|female||LEA| |
@Language of 017: fr
@Coder: Hilton
@Date: 30-NOV-2005
@G: frigo
*017: it's a: #0_731 per/son . %snd:"017A"_0_9867
%err: per/son = /person $PHO $STS; wu = who $PHO $CON; want = wants $MOR
$AGT; pass by = put through $LEX $PHR
*INV: mmhm . %snd:"017A"_9877_10579
*017: and <u:m #> [#1_939] it's [/] <u:h #> [# 0_778] <it's high [*] . %snd:"017A"_10755_16591
%err: high = up high, being lifted $LEX $PHR
*017: and <u:m # &=bouche #> [#1_834] &ze: [/-] and (h)e [*] fall [*]
#0_297 on a car
[*] . %snd:"017A"_22752_31271
%err: ze = the $PHO; howneR = owner $PHO $CON; hangry = angry $PHO $CON
$CWFA

*017: <&=bouche #> [#1_179] a:nd #0_778 it's [*] the end of the
video . %snd:"017A"_31048_35285
%err: it = that $MOR $PRO $PHO
@End @UTF8
@Begin
@Languages: en
@Participants: 019 Subject, INV Investigator
@**ID**: en|parole|**019**|23;00.00|female| |CAPES| |
@Coder: Hilton
@Language of 019: fr
@Date: 27-FEB-2006
@G: frigo
*019: okay so &il (i)t's +//. %snd:"019A"_1498_3454
*019: um [#0_365] there is a: [#0_540] white building #0_505 up [*] to: a window <# u:m>
[#1_631] high on the
wall a:nd they try to
catch [*] the fridge and the fridge falls . %snd:"019A"_16330_25565
%err: catch = reach $LEX
*INV: oh dear ! %snd:"019a"_25584_26583
*019: +< a:nd &th there is a man o:n [/] #0_969 on the: [/] <(u)m #>
[#1_021] the pavement . %snd:"019A"_26011_31183
*019: a:nd #0_517 the fridge falls <on a car> [//] (o)n a green car and .
%snd:"019A"_31210_35509
*019: #0_592 the man on the pavement is obviously very angry
. %snd:"019A"_35150_38691
*INV: &=rire www . %snd:"019a"_38736_40788
@End @UTF8
@Begin
@Languages: en
@Participants: 020 Subject, INV Investigator
@**ID**: en|parole|**020**|27;00.00|female||CAPES| |
@Coder: Hilton
@Comment: interesting for word stress
@Language of 020: fr
@Date: 27-FEB-2006
@G: frigo
*INV: www . %snd:"020A"_0_3738
*020: okay now # I think that's okay +//. [+ bch] %snd:"020A"_3332_5155
*020: so <u:m #> [#1_022] there um@fs [*] #0_993 two or three people.
%snd:"020A"_38385_41457
%err: have the refrigerator going = make the fridge go $SYN $CAU $PHR
@Eg
*020: +^ a:nd u:h [#0_651] it's going pretty well until the moments [*]
#0_325 they: just #0_778 grab #0_558 the: refrigerator a:nd the
refrigerator actually #0_424 falls down +/. %snd:"020A"_41291_52646
%err: moments = moment $MOR $NFL $LEX $ADV $SYN
*INV: &=gasp ! %snd:"020A"_52634_53134
*020: +, on the [*] car which is parked right #0_205 under the window .
%snd:"020A"_53151_56744
%err: the = a $MOR $DET
*INV: oh dear ! %snd:"020A"_56751_57366
*020: a:nd so it #0_320 breaks [*] the car a:nd +/. %snd:"020A"_57300_59903
%err: breaks = crushes $LEX
*INV: +< oh ! %snd:"020A"_59483_59843
*020: +, squash [?] [*] the refrigerator . %snd:"020A"_59900_61341

%err: squash = squashes $MOR $AGT
*INV: I see . %snd:"020A"_61343_62111
*020: and that's it . %snd:"020A"_62129_62570
*020: +^ and there is a man just like running and saying [?] +"/. %snd:"020A"_62587_64927
*020: +" ah: what did you do &=rire ? %snd:"020A"_64944_66722
*INV: www .
@End @UTF8
@Begin
@Languages: en
@Participants: 021 Subject, INV Investigator
@**ID**: en|parole|**021**|23;00.00|female| |CAPES| |
@Coder: Hilton
@Language of 021: fr
@Date: 27-FEB-2006
@G: frigo
*INV: you can laugh ! [+ bch] #%snd:"021A"_2461_3245#
*021: &=rire . [+ bch] #%snd:"021A"_3257_4940#
*021: so that's a video of <# &=bouche #> [#0_714] a fridge being
delivered . #%snd:"021A"_4966_9267#
*021: #0_424 so: <(u)m # &=bouche #> [#1_324] there's [/-] #0_546 it's in a
white building↑ . #%snd:"021A"_9360_14076#
*021: #0_900 and <the &frin> [/] the fridge is being [//] <# uh> [#3_448]
<going up↑> [*] . #%snd:"021A"_14091_21604#
%err: going up = being lifted $SYN $PHR
*021: #0_847 and there are two people at the window↑ . #%snd:"021A"_21575_24536#
*021: #0_412 and they are waiting for the fridge . #%snd:"021A"_24561_26773#
*021: <the w@fs> [*] fridge finally <arrives at> [*] the window it just
falls on a car . #%snd:"021A"_26791_30465#
%err: the w@fs = when the $SYN; arrives at = gets to $LEX $PHR $L1
*021: #0_435 so that's what's funny about it . #%snd:"021A"_30513_32453#
*INV: +< oh oh dear ! #%snd:"021A"_32479_33216#
*021: &=rire that's really funny and then +... #%snd:"021A"_33220_35681#
*021: <# um> [#1_539] on [*] the f(il)m [?] #0_220 in the street <#
&=bouche u:h> [#0_934] there's a man #0_372 who's just #0_436 saying
+"/. #%snd:"021A"_35653_42959#
*021: +" #0_226 what's your problem &=rire ! #%snd:"021A"_42892_45028#
%err: on = in $MOR $PREP
*021: so #0_412 that's funny &=rire . #%snd:"021A"_45057_47442#
*INV: okay fine . #%snd:"021A"_47466_48882#
@End@UTF8
@Begin
@Languages: en
@Participants: 022 Subject, INV Investigator
@ID: en|parole|**022**|26;00.00|female|CAPES| ||
@Coder: Hilton
@Language of 022: fr
@Date: 28-FEB-2006
@Comment: avoidance strategy
@G: frigo
*022: okay so v@fs [*] got to describe uh &=rire +... [+ bch] %snd:"022A"_1811_4847
%err: v@fs = I've $SYN
*022: <# uh: #> [#1_358] obviously [*] it's somebody who's #0_331 moving
in [*] a: new apartment and they're trying to: #0_604 make the <u:m
#> [#0_569] fridge <# um: #> [#1_771] pass [*] through u:m [#0_621]
the window . %snd:"022a"_31558_38247

*INV: uhhuh . %snd:"022A"_38252_39048
*022: a:nd u:h +/. %snd:"022A"_39128_40143
*INV: +< oh dear ! %snd:"022A"_40022_40573
*022: +, &=rire #0_331 it's broken [*] ! %snd:"022A"_40653_42488
%err: broken = crushed $LEX
*INV: uhhuh . %snd:"022A"_42503_43061
*022: <&=bouche um:> [#0_865] +//. %snd:"022A"_43113_43978
*INV: uh uh &w and # so where is this window ? %snd:"022A"_43990_47383
*INV: why +..? %snd:"022A"_47310_48436
*022: oh maybe it's on [/] #0_778 on the second floor of a: #0_609 flat
o:r #0_378 0det [*] first floor I don't know . %snd:"022A"_48439_55717
%err: 0det = the $MOR $DET
*INV: +< uhhuh .
*INV: uhhuh . %snd:"022A"_55932_56688
*022: #0_400 and it's <u:m # &w #> [#4_502] quite high &=rire . %snd:"022A"_56560_62986
*INV: oh okay so it's up high . %snd:"022A"_62986_64652
*INV: oh dear # and then # it falls . %snd:"022A"_64685_67396
*022: <# um # &=rire # u:m # &w #> [#10_709] <I don't know what to say>
["] ! [+ bch] %snd:"022A"_68085_79800
*INV: okay no that's fine that's fine . [+ bch] %snd:"022A"_79976_81474
@End @UTF8
@Begin
@Languages: en
@Participants: 023 Subject, INV Investigator
@ID: en|parole|**023**|25;00.00|female||CAPES| |
@Coder: Hilton
@Language of 023: fr
@Date: 27-FEB-2006
@G: frigo
*INV: just tell me what you saw in that # uh video that uh first little
video . [+ bch] #%snd:"023A"_0_2723#
@Bg
*023: +< &=bouche well I: [/] I +...
*023: just now I don't have the: (u)m appropriate vocabulary but +... #
%snd:"023a"_3795_7644#
@Eg
*INV: +< aha ! #%snd:"023a"_7289_7684#
*023: #0_342 I think <u:m # &=bouche> [#0_976] a family or some people
#0_209 have just moved . #%snd:"023A"_7644_12839#
*INV: right . #%snd:"023A"_12856_13483#
*023: a:nd <# u:h #> [#1_672] the [*] object <u:m #> [#1_027] +//. #
%snd:"023A"_13459_17842#
*023: I think it's a fridge . #%snd:"023A"_17865_19107#
*INV: uhhuh . #%snd:"023A"_19105_19633#
*023: and that u:h [#0_383] they a:re at the window because they want
#0_221 to: receive [*] this fridge . #%snd:"023A"_19681_24447#
%err: receive = pull in through the window $LEX $L1 $PHR
*023: #0_546 but +/. #%snd:"023A"_24456_25292#
*INV: through the window ? #%snd:"023A"_25275_26300#
@Bg
*023: +, I mean the fridge which <# u:m> [#1_573] come [*] [//] <comes up>
[*] thanks to <u:m #> [#1_376] +//. #%snd:"023A"_26325_32267#
%err: come = comes $MOR $AGT; comes up = is lifted $LEX $PHR
*023: <it's not an elevator> ["] it's <u:m #> [#1_619] +//. #%snd:"023A"_32273_35681#
*023: <I don't know> ["] . #%snd:"023A"_35657_36441#

*INV: uhhuh . #%snd:"023A"_36477_37301#
*023: <# u:m #> [#1_254] <it's not a tow> ["] <# &=bouche #> [#3_071]. #
%snd:"023A"_37464_41630#
*023: &=bouche <no I don't know> ["] . #%snd:"023A"_42518_43557#
*INV: +< <it's okay <I 'll tell> [/] I 'll tell you when you 've finished>
["] . [+ bch] #%snd:"023A"_43580_45537#
@Eg
*023: +< a:nd a bad <# u:m> [#0_511] incident [*] happened [*] [//] +/. #
%snd:"023a"_44750_48053#
%err: a bad incident = something bad $LEX $PHR; happened = happen $MOR
$TNS
*INV: uhhuh what happened ? #%snd:"023A"_48064_49039#
*023: +, happens . #%snd:"023A"_49051_49684#
*023: #0_430 a:nd <# uh> [#0_319] the fridge <# u:m #> [#1_568] <falls
down> [*] and hits <the car> [//] a car . #%snd:"023A"_49724_55816#
%err: falls down = falls $LEX $PHR
*INV: uh oh dear ! #%snd:"023A"_55841_56805#
*023: and <u:m # u:m # &=bouche> [#2_305] a pedestrian or a [/] <a
&per> [//] a man in the street <# u:m #> [#2_613] is furious to see
that the &f fridge has just bumped [*] (h)is [/] his car . #%snd:"023A"_56811_69622#
%err: bumped = crushed $LEX
*INV: oh dear ! #%snd:"023A"_69639_70302#
*INV: oh so I see &th the chap who owns the car ? [+ bch] #%snd:"023A"_70280_72869#
*023: +< u:m I think . [+ bch] #%snd:"023A"_73051_73951#
*INV: +< and what &wh where is this window ? #%snd:"023A"_73897_77258#
*023: <# &=bouche u:h> [#1_370] okay . [+ bch] #%snd:"023A"_77278_79438#
*023: <u:m #> [#2_229] these people may live on the: third floor I don't
know where . #%snd:"023a"_79241_84889#
*INV: +< oh I see .
*023: +^ it's quite <up the:> [//] <# uh> [#0_911] on [//] <# &=bouche
&n #> [#1_358] nearly at the top <of the:> [/] #0_418 <of the flat>
[//] of the building . #%snd:"023A"_84966_92630#
*INV: oh I see oh okay . [+ bch] #%snd:"023A"_92640_93980#
*023: but &=rire # I'm not sure at all &=rire ! [+ bch] #%snd:"023A"_94003_96185#
*INV: +< I see ! [+ bch]
*INV: (it) sounds like something I would do &=rire ! [+ bch] #%snd:"023A"_96180_99475#
@End@UTF8
@Begin
@Languages: en
@Participants: 024 Subject, INV Investigator
@**ID**: en|parole|**024**|25;00.00|female||CAPES| |
@Coder: Hilton
@Language of 024: fr
@Date: 27-FEB-2006
@G: frigo
*024: # okay . [+ bch] %snd:"024A"_1277_2084
*024: <&=bouche u:m> [#1_730] I think it's a fridge #0_401 which is being
lifted up u:h [#0_389] to [/] <u:m # &=bouche> [#1_208] to a window
u:m [#0_789] <up on> [*] a building . %snd:"024A"_14890_17666
*INV: uhhuh . %snd:"024A"_17707_18171
*024: a:nd eventually [*] they don't manage to catch it . %snd:"024A"_18202_21401
%err: eventually = in the end $LEX $ADV
*024: a:nd #0_308 it falls down on u:m [#0_650] a car and it <# &=bouche>
[#0_730] crushes the car . %snd:"024A"_21374_26301
*INV: oh no ! %snd:"024A"_26331_27063

*024: &=rire . [+ bch] %snd:"024A"_27057_28640
*INV: okay . %snd:"024A"_28657_29859
*INV: strange [/] strange sort of activity ! %snd:"024A"_29831_32606
*024: +< &=rire that was funny &=rire ! [+ bch] %snd:"024A"_32784_34943
*INV: +< okay yeah probably not if you owned the car huh ? %snd:"024A"_34961_38231
*024: &=rire . [+ bch] %snd:"024A"_38248_38829
*INV: www .%snd:"024A"_39171_44783
@End @UTF8
@Begin
@Languages: en
@Participants: 025 Subject, INV Investigator
@**ID**: en|parole|**025**|25;00.00|female||CAPES|Subject||
@Coder: Hilton
@Date: 28-FEB-2006
@G: frigo
*025: okay #0_278 . [+ bch] #%snd:"025A"_35_2885#
*025: 0det first [*] thing I saw in the video was a big white building . #
%snd:"025A"_2879_6345#
%err: 0det = the $MOR $DET
*025: a:nd uh inside that building #0_163 there was a window with
two or three people inside . #%snd:"025A"_6336_10631#
*025: #0_493 0subj [*] can't remember I think it was two . #%snd:"025A"_10646_12669#
%err: 0subj = I $SYN $PRO
*025: #0_743 and they were trying to catch [*] something heavy I think it
was a fridge . #%snd:"025A"_12669_16611#
%err: catch = reach $LEX
*025: <&=bouche # um> [#1_196] so &th the fridge was lifted by #0_279 a
crane or whatever it was . #%snd:"025A"_16660_21925#
*025: <&=bouche #> [#0_621] but they didn't manage to catch [*] it . #
%snd:"025A"_21954_24387#
%err: catch = get hold of $LEX $PHR
*025: #0_582 and in the end <# uh> [#0_395] the: fridge f:ell #1_138 on a
car &=rire . #%snd:"025A"_24393_30226#
*INV: +< oh dear ! #%snd:"025A"_30246_30844#
*025: and I think the car's owner was screaming . #%snd:"025A"_30841_33268#
*025: +^ he was uh raising his hands and he was uh screaming +"/. #
%snd:"025A"_33361_35811#
*025: +" what happened to my car ? #%snd:"025A"_35843_36951#
*INV: +< oh god ! #%snd:"025A"_36986_37630#
*025: he was mad . #%snd:"025A"_37671_38327#
*INV: +< yeah ? #%snd:"025A"_38403_38832#
*025: and that's it &=rire ! #%snd:"025A"_38931_39883#
*INV: www . #%snd:"025A"_39695_44304#
@End@UTF8
@Begin
@Languages: en
@Participants: 026 Subject, INV Investigator
@**ID**: en|parole|**026**|57;00.00|male| |CAPES| |
@Coder: Hilton
@Language of 026: fr
@Date: 07-MAR-2006
@G: frigo
*026: uh: [#0_697] on [*] this sequence <u:m uh #> [#1_875] in my
opinion &i: [/] it's dealing with a fridge↑ . #%snd:"026A"_1858_8216#
%err: on = in $MOR $PREP

*026: #0_876 a:nd <uh &=rire #> [#1_190] these [*] people are trying to:
<u:h #> [#0_424] get the fridge into the: u:m [#0_790] supposedly [*]
&ssir third floor of a building↑ +/. #%snd:"026A"_8216_17227#
%err: these = some $MOR $DET; supposedly = maybe $LEX $ADV
*INV: uhhuh . #%snd:"026A"_17245_17901#
*026: +, <# u:m> [#1_271] through the window↑ . #%snd:"026A"_17892_20092#
*026: #0_627 so they: [/] uh &th they &ar [//] they have the [//] &s
some kind of <a machine> [//] a hydraulic machine or something . #
%snd:"026A"_20089_26505#
*026: #0_998 <so [/] uh so far you know uh up to the corner of the: #0_320
window #0_703 the [/] the fridge is entering about uh: [#0_958] one
fourth of it's size> [*] and suddenly <&=rire #> [#0_372] it drops
down &=rire ! #%snd:"026A"_26545_39121#
%err: $SYN
*INV: oh no ! #%snd:"026A"_39190_40137#
*026: #0_807 you know <&=rire #> [#0_748] on the car <of a:> [/] <um
#> [#1_045] <of a neighbor> [//] of somebody who is just &fs
desperate and <uh #> [#0_819] who's yelling and stuff because he's
just lost his car I guess &=rire . #%snd:"026A"_40028_51149#
*INV: oh dear &=rire . #%snd:"026A"_51097_51927#
*026: &=rire . #%snd:"026A"_51872_52655#
*026: #1_ so: [/] <u:h #> [#0_784] so someone has lost a fridge and
another person has lost a car &=rire . #%snd:"026A"_52645_58490#
*INV: &=rire . #%snd:"026A"_58472_59360#
*026: #0_400 so that 's what I [/] <uh #> [#0_482] I interpret [*] .
[+ bch] #%snd:"026A"_59322_61847#
%err: inter/pret = $PHO $STS
*INV: okay [/] okay . [+ bch] #%snd:"026A"_61870_63482#
*026: +< so +... [+ bch] #%snd:"026A"_63637_64530#
*INV: ++ disaster all round . #%snd:"026A"_64577_65645#
*026: yes yes . [+ bch] #%snd:"026A"_65668_66667#
*INV: okay that's fine www . [+ bch] #%snd:"026A"_66915_69543#
@End@UTF8
@Begin
@Languages: en
@Participants: 027 Subject, INV Investigator
@ID: en|parole|**027**|22;00.00|female||SIEGN|Subject|
@Language of 027: de
@Coder: Hilton
@Date: 14-APR-2006
@Comment: sentence fragments; strategy
@G: frigo
*027: okay . [+ bch] #%snd:"027A"_2467_3158#
*027: #0_232 so <u:m # &=rire> [#0_673] it's really funny the video↑ . #
%snd:"027A"_3175_6519#
%com: syntax
*027: <&=bouche #> [#0_841] so we can see u:m [#0_667] some men #0_354
trying to: [/] #0_372 to get a fridge into the [*] house . #%snd:"027A"_6481_13131#
%err: the = a $MOR $DET
*INV: mmhm . #%snd:"027A"_13095_13705#
*027: <&=bouche #> [#0_401] an(d) <it's [*] like> [//] <yeh it's like>
[//] u:m [#0_429] it's a machine <to get it &u> [/] to get it up
#0_354 to the: [/] to the room . #%snd:"027A"_13856_20012#
%err: it's = there's $MOR $PRO
*INV: +< yeah .

*027: <&=bouche #> [#0_586] and then <one moment> [*] they &near [//]
almost get it in and then it &f: fell [*] down #0_458 <and just>
[/-] <# &=rire> [#1_718] at [*] the [/] at the car just standing
#0_308 just &da yeah down [*] +... #%snd:"027A"_20025_31890#
%err: one moment = at one point $LEX $ADV; fell = falls $MOR $TNS; at = on
$MOR $PREP; down = below $LEX $ADV
*027: +^ and so: the man is just &s &s saying +"/. #%snd:"027A"_31939_34191#
*027: +" oh my go(d) &=rire ! #%snd:"027A"_34197_36554#
*027: &=rire and he:'s not [/] not really #0_407 worrying [*] about the
car he's worrying about the fridge . #%snd:"027A"_36533_41119#
%err: vorrying = worrying $PHO $CON
*INV: ah ! #%snd:"027A"_41152_41448#
*027: that's what's funny &=rire ! #%snd:"027A"_41480_43727#
*INV: +< &=rire .
*INV: <maybe the car> [/-] maybe the fridge is worth more than the car . #
%snd:"027A"_43731_45792#
*027: yeah &=rire ! [+ bch] #%snd:"027A"_45810_47476#
*027: <yeah it's perhaps> [/] yeah it's perhaps in India or something I
don't know . #%snd:"027A"_47400_50390#
*027: #0_627 for them a fridge is &moz [/-] oh my god was so [/]
so expensive +/. [+ bch] #%snd:"027A"_50390_53821#
*INV: mh . #%snd:"027A"_53952_54231#
*027: +, perhaps and so #0_436 it's really &no [/-] yeah #0_330 it's
useless [*] . [+ bch] #%snd:"027A"_54262_58482#
%err: uzeless = useless = totaled, destroyed $PHO $CON $LEX
*INV: # okay . [+ bch] #%snd:"027A"_57556_59123#
@End@UTF8
@Begin
@Languages: en
@Participants: 028 Subject, INV Investigator
@**ID**: en|parole|**028**|25;00.00|female||SIEGN| |
@Language of 028: de
@Coder: Hilton
@Date: 14-APR-2006
@G: frigo
*028: okay &=rire . [+ bch] #%snd:"028A"_0_1968#
*INV: +< okay .
*028: okay <um ahem &=bouche> [#0_958] so there is a: #0_801 very <(h)uge
[*] house> [*] . #%snd:"028A"_2548_7167#
%err: (h)uge = huge $PHO $CON; huge house = tall building $LEX
*028: a:nd #0_517 some men are trying to transport +//. #%snd:"028A"_7160_11102#
*028: #0_772 I don't know exactly what it is maybe a fridge or something
like that . #%snd:"028A"_11075_15632#
*INV: mmhm . #%snd:"028A"_15661_16176#
*028: +, <# u:m #> [#1_271] through the window which #0_237 i:s <on the
top> [//] #0_690 or at the top u:m [#0_412] of the house . #%snd:"028a"_16164_23776#
*028: a:nd <# u:m> [#2_467] just #0_221 before <# u:m &=bouche>
[#1_851] getting [*] this fridge #0_227 into the window #0_528 it
falls <# &=rire #> [#0_888] on a car↑ . #%snd:"028a"_23769_36134#
%err: getting = they get $SYN
*028: #0_429 and it breaks and there is a man who (i)s #0_929 angry or
shocked #0_285 by [*] seeing this . #%snd:"028A"_36046_42367#
%err: by = at $MOR $PRO $PHR
*028: #1_909 &=rire ! [+ bch] #%snd:"028A"_42220_44129#
*INV: okay . [+ bch] #%snd:"028A"_44153_44751#

*INV: that's fine . [+ bch] #%snd:"028A"_44762_45877#
@End@UTF8
@Begin
@Languages: en
@Participants: 029 Subject, INV Investigator
@**ID**: en|parole|**029**|20;00.00|female||SIEGN| |
@Language of 029: de
@Coder: Hilton
@Date: 12-APR-2006
@G: frigo
*INV: okay okay . [+ bch]
*029: +< okay . [+ bch] #%snd:"029A"_0_1052#
*029: <u:m #> [#2_287] I can see a: [/] #0_412 <a hou:se↑> [//] a
white house and there's <u:m #> [#0_540] some #1_ kind of +//. #
%snd:"029A"_1052_10687#
*029: +^ I don't know if it's <a crane> ["] ? #%snd:"029A"_10676_12405#
*INV: mh . #%snd:"029A"_12434_13288#
*029: u:h it's <a crane> ["] a:nd u:m [#0_714] <they are people they> [*]
want to: <# &=bouche> [#0_551] move a fridge from <u:h #> [#1_696]
the street to: #0_244 the second or the [*] first floor↑ I don't
know↑ . #%snd:"029A"_13370_24604#
%err: they are people they = there are people who $SYN $REL; de = the $PHO
*029: <# &=bouche> [#0_529] a:nd <u:h #> [#1_324] <by: #0_220 lifting> [*]
uh #0_290 it up <u:m #> [#1_138] to the window↑ [/-] <# u:h # mh #>
[#3_165] +... #%snd:"029A"_24569_34733#
%err: by lifting = when they lift $SYN $CONN
*029: they lift it up to the window↑ and then <uh #> [#1_219] suddenly
it crashes [*] &on <# uh> [#0_441] onto a@fs car↑ which is parked
unde:r the window↑ . #%snd:"029A"_34724_43974#
%err: crashs = crashes $PHO $SYL
*029: #0_505 a:nd <# uh> [#0_476] a man runs in and cries +"/. #%snd:"029A"_43944_47909#
*029: +" oh oh ! #%snd:"029A"_47944_48641#
*029: <# uh> [#1_504] I didn't hear him cryin(g) [*] but one can see that
he's cryin(g) [//] <# &=bouche er> [#0_853] crying . #%snd:"029A"_49146_54685#
%err: cryin = crying = shouting $PHO $LEX
*029: #0_540 a:nd #0_250 yes #0_470 that's it .[+ bch] #%snd:"029A"_54601_57713#
*INV: okay . [+ bch] #%snd:"029A"_57765_59100#
@End@UTF8
@Begin
@Languages: en
@Participants: 030 Subject, INV Investigator
@**ID**: en|parole|**030**|22;00.00|female||SIEGN| |
@Language of 030: de
@Coder: Hilton
@Comment: tense shifts
@Date: 14-APR-2006
@G: frigo
*030: okay <u:m #> [#0_703] n@fs [*] ths@fs first video↑ <# u:m> [#0_731] I
saw #0_372 how they [*] tried to: <# u:m #> [#1_689] move [*] &a &a a
fridge↑ [*] #0_325 or something else [*] +/. #%snd:"030A"_760_10536#
%err: n@fs = in $MOR $PREP¨; zey = they = some people $PHO $CON $SYN $PRO;
mouf = move $PHO $CON $L1; freudge = fridge $PHO: else = like that
$SYN
*INV: +< mmhm .
*030: +, #0_429 into: [//] <uh # uh> [#0_737] through a window↑ [*] into a:

#0_200 kitchen↑ . #%snd:"030A"_10414_14269#
%err: vindow = window $PHO $CON
*030: <u:m # &=bouche> [#1_341] but the fridge was too: [/] #0_876 too big to get uh #0_238 through the window↑ . #%snd:"030A"_14308_20576#
*030: #0_388 and so: <um #> [#1_068] i:t fell down and [/-] <u:m #> [#0_958] onto a car↑ which was <u:m # &=bouche u:m> [#2_311] at [*] the street dam@fs #0_772 below the window↑ . #%snd:"030A"_20576_31942#
%err: at = in $LEX; dam@fs = down [?]
*030: #0_546 a:nd <u:m #> [#0_975] there was a man who was <u:m #> [#0_528] angry becau:se I think it's his car↑ +/. #%snd:"030A"_31963_37710#
*INV: uhhuh uhhuh . #%snd:"030A"_37732_38701#
*030: +, u:m [#0_325] that got damaged↑ . #%snd:"030A"_38747_40123#
*030: #0_749 yeah . [+ bch] #%snd:"030A"_40052_41236#
@End@UTF8
@Begin
@Languages: en
@Participants: 031 Subject, INV Investigator
@**ID**: en|parole|**031**|31;00.00|female||SIEGN| |
@Language of 031: de
@Coder: Hilton
@Date: 14-APR-2006
@G: frigo
*031: okay . [+ bch]
*INV: okay ? [+ bch]
*031: yes . [+ bch] #%snd:"031A"_1985_3379#
@Bg
*031: #0_516 so: I sa:w some people↑ in a house↑ [*] #0_296 who try [*] to: <u:m #> [#0_580] put [*] a refrigerator #0_754 into the house [*] <# u:m #> [#1_411] with #0_802 some kind of machine↑. #%snd:"031A"_3420_14940#
%err: house = flat, building $LEX; try = are trying $MOR $ASP; put = move $LEX; houze = house $PHO $CON $L1
%com: paraphrase
*INV: mmhm . #%snd:"031A"_14945_15282#
*031: <I don't know the word for this machine> ["] . #%snd:"031A"_15327_16697#
@Eg
*031: <# &=bouche> [#0_598] and <u:m # &=bouche> [#1_033] while they a:re trying to: put the refrigerator into the house↑ (u)h the: refrigerator #0_200 falls down onto: a car↑ . #%snd:"031A"_16701_25171#
*INV: mmhm . #%snd:"031A"_25200_25745#
*031: a:nd there's a man who's #0_267 complaining abou:t #0_200 the accident . #%snd:"031A"_25763_29049#
*031: #1_440 yes &=rire . [+ bch] #%snd:"031A"_29062_31953#
*INV: okay . [+ bch] #%snd:"031A"_31915_32368#
*031: okay ? [+ bch] #%snd:"031A"_32426_32966#
*INV: that's fine yeah . [+ bch] #%snd:"031A"_32972_33587#
@End@UTF8
@Begin
@Languages: en
@Participants: 032 Subject, INV Investigator
@**ID**: en|parole|**032**|20;00.00|female||SIEGN| |
@Language of 032: de
@Coder: Hilton
@Comment: weak propositional content
@Date: 14-APR-2006

@G: frigo
*032: yeah first we saw: <u:m # u:m #> [#1_956] a house . %snd:"032A"_4060_6092
*032: and that window was open . %snd:"032A"_7721_14782
%err: moved = is moving $MOR $ASP
@Eg
*032: #0_650 and we sa:w <uh #> [#0_314] it <might be:> [//] might have
been a frigo . %snd:"032A"_19251_21676
%err: fall = fell, falls $MOR $AGT; the = a $MOR $DET
*032: #0_975 a:nd <uh #> [#0_540] yeah #0_523 oh it's [/-] #1_057 well
that's all . %snd:"032A"_21704_27074
*INV: that's all . [+ bch] %snd:"032A"_27183_27897
*INV: okay . [+ bch] %snd:"032A"_27920_28674
@End @UTF8
@Begin
@Languages: en
@Participants: 033 Subject, INV Investigator
@**ID**: en|parole|**033**|21;00.00|female||SIEGN| |
@Language of 033: de
@Coder: Hilton
@Date: 14-APR-2006
@G: frigo
*033: okay ? [+ bch] %snd:"033A"_0_1126
*033: that's it ? [+ bch] %snd:"033A"_1155_1660
*INV: +< mmhm . [+ bch] %snd:"033A"_1666_1968
*033: <&=bouche # u:m> [#1_399] okay there's <u:m # &=bouche> [#1_956] a
big #0_238 refrigerator or anything [*] <# u:m #> [#1_045] which
seems to be quite heavy . %snd:"033A"_2142_12346
%err: anything = something $LEX
*033: #0_645 and <u:m # uh> [#1_423] there (a)re people that try to pu:ll
thi:s #0_261 refrigerator by means of a@fs crane . %snd:"033A"_12409_24353
*033: +^ they are in [*] the: [//] #0_848 on the second floor i:t falls . %snd:"033A"_27577_37097
*033: #0_505 a:nd <u:m # &=bouche> [#1_642] unluckily [*] it falls on
&=rire on the car &=bouche of u:h the man who's ri:ght in
front of it . %snd:"033A"_37164_47166
%err: unluckily = unfortunately $LEX $ADV
*INV: mmhm okay .%snd:"033A"_47021_48356
@End @UTF8
@Begin
@Languages: en
@Participants: 034 Subject, INV Investigator
@**ID**: en|parole|**034**|21;00.00|female||SIEGN| |
@Language of 034: de
@Coder: Hilton
@Date: 14-APR-2006
@G: frigo
*034: okay . [+ bch] #%snd:"034A"_17_377#
*034: <# u:m #> [#1_184] some people were obviously [*] lifting up a:
fridge or something like that↑ . #%snd:"034A"_424_5927#
%err: obviously = apparently $LEX $ADV
*034: <# u:h> [#0_772] trying to move it <in an> [//] <u:m #> [#0_691] in
[*] a [*] apartment↑ <# u:m #> [#1_190] by [/-] <u:h #> [#0_789] &tr
well they try to <um #> [#0_708] put it through the window ! #%snd:"034A"_6023_15381#
%err: in = into $MOR $PREP; a = an $MOR $DET
*INV: mmhm . #%snd:"034A"_15386_15845#
*034: <u:m #> [#0_725] and there were some people watching out of the

window trying to take [*] the: <# u:m> [#0_941] object↑ &=rire . #
%snd:"034A"_15989_21811#
%err: take = pull in $LEX $PHR
*034: <# u:h> [#0_418] but it didn't work ! #%snd:"034A"_21851_23007#
*034: +^ just before u:m [#0_523] getting it in to the apartment uh it
fell down on a car and +... #%snd:"034A"_23007_28153#
*034: #0_639 somebody down [*] #0_679 was shocked about it . #
%snd:"034A"_27915_31332#
%err: down = below $LEX
*INV: +< mmhm .
*034: er and the car #0_604 was a bit damaged I think . #%snd:"034A"_31425_34722#
*INV: +< xxx ?
*034: yeah &=rire . [+ bch] #%snd:"034A"_34716_35900#
*INV: +< okay that's fine . [+ bch] #%snd:"034A"_35924_37294#
@End@UTF8
@Begin
@Languages: en
@Participants: 035 Subject, INV Investigator
@**ID**: en|parole|**035**|21;00.00|female||SIEGN| |
@Language of 035: de
@Coder: Hilton
@Date: 14-APR-2006
@G: frigo
*035: ahem &=bouche . [+ bch] %snd:"035A"_0_636
*INV: so . [+ bch] %snd:"035A"_743_1010
*035: so . [+ bch] %snd:"035A"_1033_1283
*035: I saw a scene . %snd:"035A"_3617_14633
%err: come = came $MOR; came = became $LEX
*035: #0_308 a:nd <# ahem> [#0_627] he: tried to: <u:m # &=bouche>
[#0_708] lift a: refrigerator +//. %snd:"035A"_21425_27816
%err: pass = get $LEX; through = up (the staircase) $LEX $COL
*035: I (do)n't know . %snd:"035A"_27769_28331
*035: <# &=bouche> [#0_975] yeah . %snd:"035A"_28354_29770
*035: but then it fell off [*] <# u:h> [#0_993] just at the top #0_221
whe:n [/] when they wanted to: pull it through the window . %snd:"035A"_37404_40347
@Bg
*035: #0_307 a:nd after that the man <was <u:m #> [#0_836] completely> [/]
<&=bouche u:m # &=bouche # u:m &=rire> [#4_368] was <completely <#
u:h> [#0_969] disappointed> [*] [//] er completely <# &=bouche #>
[#3_367] destroyed [*] . %snd:"035A"_40359_56845
%err: disappointed = upset $LEX; destroyed = upset $LEX
*035: no ['] ! %snd:"035A"_56880_57292
*INV: uhhuh . %snd:"035A"_57292_57571
*035: &=rire ! %snd:"035A"_57600_58556
*035: he was &=rire <uh #> [#1_504] yeah he was like +/. %snd:"035A"_58562_61869
*INV: +< oh he was very upset &w . %snd:"035A"_61252_62274
*035: +, yeah upset . %snd:"035A"_62280_62878
@Eg
*INV: the: [/] the owner of the car . %snd:"035A"_62874_64143
*035: the owner of the car . %snd:"035A"_64143_65302
*INV: mmhm . %snd:"035A"_65331_65679
*035: possibly possibly yeah . [+ bch] %snd:"035A"_65714_66933
*INV: okay fine . [+ bch] %snd:"035A"_66986_68554
@End

L1 speakers of English (IDs N01 to N15):

@UTF8
@Begin
@Languages: en
@Participants: N01 Subject, INV Investigator
@**ID**: en|parole|**N01**|00;00.00|male||Natif|Subject| |
@Coder: Osborne
@Language of N01: en
@Date: 12-DEC-2006
@G: frigo
*N01: yeah . [+ bch] #%snd:"N01A"_197_575#
*N01: <#0_458 uh> [#0_830] right there's a: +//. #%snd:"N01A"_551_2136#
*N01: <oh &=rire &=bouche> [#1_613] ! [+ bch] #%snd:"N01A"_2154_3419#
%act: cogne qqchose
*N01: +, <&=bouche #> [#0_685] there's a #0_372 crane maneuvering a fridge
up to a window . #%snd:"N01A"_3605_7527#
*N01: #0_698 trying to uh get it in through the window <of the> [//]
#0_383 to the apartment <# um #> [#1_031] trying to maneuver it . #
%snd:"N01A"_7527_13567#
*N01: but <um #> [#1_022] it [//] the: uh link broke and it fell on a car
. #%snd:"N01A"_13524_17605#
*N01: <# um # > [#2_479] (whi)ch is obviously unfortunate for the car owner
but &=rire +...#%snd:"N01A"_17588_25914#
*INV: +< &=rire ok .[+ bch] #%snd:"N01A"_24801_25914#
@End@UTF8
@Begin
@Languages: en
@Participants: N02 Subject, INV Investigator
@**ID**: en|parole|**N02**|00;00.00|female||Natif|Subject|
@Coder: Osborne
@Language of N01: en
@Date: 12-DEC-2006
@G: frigo
*N02: u:h ok so +/. [+ bch] #%snd:"N02A"_2728_3756#
*INV: +, okay . [+ bch]
*N02: +, <# &=bouche> [#1_178] it's a: clip o:f #0_528 people having to
lift a fridge in through the window <# uh> [#0_894] with a crane
#0_262 (be)cause I guess it can't fit through the door . #%snd:"N02A"_3756_13050#
*N02: #0_238 but [/] u:h [#0_273] and then it falls and lands on some
guy's car . #%snd:"N02A"_13026_16486#
*N02: #0_517 and he's very annoyed &=rire ! #%snd:"N02A"_16486_18568#
*INV: +< mmhm .
*N02: it looks like uh he's flailing his arms around . #%snd:"N02A"_18508_20481#
*N02: #0_458 so they obviously haven't uh strapped it on to the crane
properly so it's fallen off . #%snd:"N02A"_20450_25106#
*INV: ok at &wh what moment does it fall down on to the car ? #%snd:"N02A"_25106_28331#
*N02: <uh #> [#1_498] when they're about to put it in the window I think
just when they've lifted it up towards the end . #%snd:"N02A"_28331_33762#
*INV: +< mmhm .
*N02: #0_812 and then it just /smashes to the ground &=rire . #%snd:"N02A"_33696_37051#
*INV: ok .#%snd:"N02A"_36871_38105#
@End@UTF8

@Begin
@Languages: en
@Participants: N03 Subject, INV Investigator
@**ID**: en|parole|**N03**|21;00.00|female| |NS| |
@Language of N03: en
@Coder: Hilton
@Date: 05-APR-2007
@G: frigo
*N03: (o)kay I saw a: [/-] <&=bouche> [#0_662] something white being
hoisted up to the top of a: building with some men at the top
#0_610 waiting at the window with open arms to receive it . #%snd:"N03A"_296_8435#
*N03: +^ turned out to be a: fridge I think . #%snd:"N03A"_8447_10084#
@Bg
*N03: <# &=bouche> [#0_644] a:nd just as they got their hands on it it
slipped out of the: [/] #0_343 the hold↑ [//] the: [/] the rope
that was around it #0_337 and landed on a: green car beneath it
&=rire ! #%snd:"N03A"_10081_19148#
@Eg
*INV: &=rire oh no oh dear ! #%snd:"N03A"_19177_20895#
*N03: +< &=rire ! [+ bch] #%snd:"N03A"_20904_21415#
*INV: uh oh okay . [+ bch] #%snd:"N03A"_21432_23580#
@End@UTF8
@Begin
@Languages: en
@Participants: N10 Subject, INV Investigator
@**ID**: en|parole|**N10**|21;00.00|female| |NS| |
@Language of N10: en
@Coder: Hilton
@Date: 20-MAR-2007
@G: frigo
*N10: well <&=rire #> [#0_772] it looks like they were trying to hoist a:
refrigerator up to: <# u:m> [#0_662] an apartment building↑ . #%snd:"N10A"_772_8552#
*N10: a:nd uh they're trying to get it through the window with a crane o:r
not a crane like <u:m #> [#1_353] <a &b> [/] a pole . #%snd:"N10A"_8557_16109#
*N10: +^ and it obviously wasn't very well attached a:nd at the last
minute when they were trying to get it in through the window
<&=bouche # uh> [#0_941] it fell and u:h [#0_394] smushed the green
car that was &=rire #0_424 right below the window &=rire ! #
%snd:"N10A"_16149_28767#
*INV: +, oh no oh no ! #%snd:"N10A"_28499_29213#
*N10: &=rire <# &=bouche> [#1_387] okay ! [+ bch] #%snd:"N10A"_29208_32180#
@End@UTF8
@Begin
@Languages: en
@Participants: N11 Subject, INV Investigator
@ID: en|parole|**N11**|21;00.00|male| |NS| |
@Language of N11: en
@Coder: Hilton
@Date: 20-MAR-2007
@G: frigo
*N11: okay &n . [+ bch] %snd:"N11A"_1271_1910
*N11: so there's a crane hoisting a refrigerator #0_203 up into: it looked
like um [#0_430] a third storey window . %snd:"N11A"_8058_13579
*N11: #0_580 a:nd evidently it wasn't fastened well enough and then ended
up falling on a car that someone neglected to move +/. %snd:"N11A"_13627_19134

*INV: oh ! %snd:"N11A"_19134_19767
*N11: +, <&=bouche #> [#0_987] below . %snd:"N11A"_19807_20794
*INV: uh oh # uh oh ! %snd:"N11A"_20689_22587
*N11: so <# u:m # &=bouche #> [#3_251] and that's basically it &=rire ! [+ bch] %snd:"N11A"_22762_27943
*INV: yeah that's fine okay . [+ bch] %snd:"N11A"_27534_29118
*N11: +< &=rire ! [+ bch]
@End @UTF8
@Begin
@Languages: en
@Participants: N12 Subject, INV Investigator
@**ID**: en|parole|**N12**|22;00.00|female| |NS| |
@Language of N12: en
@Coder: Hilton
@Date: 20-MAR-2007
@G: frigo
*N12: we:ll <u:m #> [#1_532] there are these guys trying to hoist a big fridge <# uh> [#0_673] up into a window↑ . #%snd:"N12A"_671_6749#
*INV: mmhm . #%snd:"N12A"_6737_7346#
*N12: <&=bouche #> [#0_348] about three guys in the window #0_302 and there's one guy on the ground . #%snd:"N12A"_7400_10918#
*N12: #0_679 and they almost got it in it was very [?] up to the window and they were reaching for it and the:n #0_337 it fell . #%snd:"N12A"_10937_16278#
%err: very [?] = right $LEX $ADV
*N12: oh no ! #%snd:"N12A"_16313_16806#
*N12: and of course there was a car right under the window +/. #%snd:"N12A"_16807_19013#
*INV: +< oh ! #%snd:"N12A"_19031_19483#
*N12: +, 0subj crushed the car +... #%snd:"N12A"_19457_20514#
*N12: #0_522 (a)nd there's the [*] guy who's like #0_407 &ge gesturing madly with his hands and the fridge is just ruined and the car is also ruined . #%snd:"N12A"_20505_26073#
%err: the = a $MOR $DET
*INV: oh no ! #%snd:"N12A"_26090_26799#
*N12: #0_360 it was actually pretty funny &=rire ! #%snd:"N12A"_26940_29047#
*INV: okay # fine great . [+ bch] #%snd:"N12A"_29064_30498#
*N12: +< but not for them I guess . #%snd:"N12A"_30496_31338#
@End@UTF8
@Begin
@Languages: en
@Participants: N13 Subject, INV Investigator
@**ID**: en|parole|**N13**|20;00.00|female| |NS| |
@Language of N13: en
@Coder: Hilton
@Comment: very fast speech
@Date: 20-MAR-2007
@G: frigo
*N13: okay . [+ bch]
*N13: so it seems that they [*] were <# &=rire &=bouche> [#0_778] [/-] that people are trying to move into 0det [*] apartment and they seem to be trying to: <# u:m> [#1_161] lift something up <# u:m> [#0_812] with a pulley system into u:m [#0_412] a window that it's [*] up um maybe on the first floor or so . #%snd:"N13A"_319_12371#
%err: they = some people $SYN $PRO; 0det = a $SYN $DET; it's = is $SYN $PRO
*N13: <&=bouche #> [#0_610] a:nd <uh #> [#0_743] (be)cause I guess they don't want &eh [/-] it won't fit up [/-] they won't [//] don't want

to take it <up the elevator> [//] up the stairs so +/. #%snd:"N13A"_12336_18730#
*INV: +< uhhuh .
*N13: <&=bouche u:m> [#0_755] I guess they're trying to put this through a window +/. #%snd:"N13A"_18510_20821#
*INV: +< oh www . #%snd:"N13A"_20764_21188#
*N13: +, a:nd <uh &=rire #> [#0_882] or something and it [/] <# &=bouche> [#0_452] it falls &an [//] onto a car actually on the [/-] it's right below . #%snd:"N13A"_21291_27469#
*N13: #0_442 a:nd www . #%snd:"N13A"_27484_28993#
*N13: #0_200 and then the: [/] the [*] man <u:m #> [#0_511] seems quite upset actually that it &=bouche [#0_522] fell on his car but I'm not quite sure why they were doing this &=rire ! #%snd:"N13A"_28990_35763#
%err: the = a $MOR $DET
*INV: oh ! #%snd:"N13A"_35761_36307#
*N13: #0_267 a:nd I'm not really &kw quite sure what they were trying to lift some kind of um [#0_232] appliance I assume . #%snd:"N13A"_36340_40444#
*INV: uhhuh . #%snd:"N13A"_40476_41074#
*N13: <&=bouche # u:m> [#1_242] yeah that's interesting . [+ bch] #%snd:"N13A"_41065_43309#
*INV: okay that's fine . [+ bch] #%snd:"N13A"_43330_44938#
@End@UTF8
@Begin
@Languages: en
@Participants: N14 Subject, INV Investigator
@**ID**: en|parole|**N14**|20;00.00|female| |NS| |
@Language of N14: en
@Coder: Hilton
@Date: 20-MAR-2007
@G: frigo
*N14: of course so it looked like they were trying to mo:ve it looked like a fridge <&=bouche # u:m> [#0_906] um into thei:r new house or something↑ . #%snd:"N14A"_0_6118#
*N14: <&=bouche #> [#0_540] a:nd #0_487 it: couldn't go through the window lost balance and tumbled over and fell #0_418 onto the street #0_308 onto a car . #%snd:"N14A"_6360_14462#
*N14: #1_852 . [+ bch] #%snd:"N14A"_14681_17775#
*INV: okay fine . [+ bch] #%snd:"N14A"_16366_17550#
*N14: +< &=rire ! [+ bch]
@End@UTF8
@Begin
@Languages: en
@Participants: N15 Subject, INV Investigator
@**ID**: en|parole|**N15**|22;00.00|male| |NS| |
@Language of N15: en
@Coder: Hilton
@Date: 20-MAR-2007
@G: frigo
*N15: okay . [+ bch] #%snd:"N15A"_1080_1927#
*INV: okay . [+ bch] #%snd:"N15A"_1916_2937#
*N15: <um #> [#0_632] it was about a [/] um [#0_278] a crane hoisting a refrigerator up to: +/. #%snd:"N15A"_2850_8570#
*INV: mmhm . #%snd:"N15A"_7722_8460#
*N15: +, <uh #> [#0_505] (w)ell a higher storey on a: [//] an apartment complex to people and then <# &=bouche uh> [#1_149] it (of) course fell in [//] onto a: small car . #%snd:"N15A"_8370_15771#

*N15: #2_444 . [+ bch] #%snd:"N15A"_15771_19478#
*INV: okay . [+ bch] #%snd:"N15A"_18164_18657#
*N15: (i)s that sufficient ? [+ bch] #%snd:"N15A"_18664_19599#
@End