Can L2 learners learn new ways to conceptualise events? Evidence from motion event construal among English-speaking learners of French

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Abstract

This study tests Slobin's (1996) claim that L2 learners struggle with conceptual restructuring in L2 acquisition. We suggest that learners can find themselves in four different reconceptualisation scenarios: the TRANSFER, RESTRUCTURING, CREATIVE/HYBRID and CONVERGENCE SCENARIOS. To test this proposal in the field of event conceptualisation, a comprehensive analysis was made of the frequency distribution of path, manner, caused motion and deictic verbs in narratives elicited from intermediate (N=20) and advanced learners (N=21) of French, as well as native speakers of French (N=23) and English (N=30). The productions of the intermediate level learners were found to correspond to the creative/hybrid scenario because they differed significantly in their motion expressions from English as well as French native speakers, except for path, which was verbalised in target-like ways early on. Advanced learners were found to be able to reconceptualise motion in the L2, as far as manner and path are concerned, but continued to struggle with deictic verbs and caused motion. The clearest evidence for transfer from the L1 was found in verbalisations among intermediate level learners of events which involved a boundary crossing.

Key words: event conceptualisation, second language acquisition, motion, transfer, French, thinking-for-speaking

1. Introduction

This chapter discusses the ways in which English learners of French talk about motion events in their L2. Speakers can choose how to construe an event, as they take different perspectives on what is happening in a story and explain the story differently. If a speaker chooses to say that a Figure *arrives* at a particular location, while another says that s/he *runs* towards or into this location, both descriptions are appropriate verbalisations of the event. The key point is however that the choices speakers make are not idiosyncratic: they reflect language-specific perspectives on motion events. Speakers of English opt to choose a manner verb such as *to run* much more often than speakers of French, who often focus on path alone: they use path verbs such as *descendre* "to descend" or *traverser* "to cross" to describe the movement of the Figure, and only add manner in an adjunct if there is a special reason for highlighting this, as in *il descend/traverse en courant* "he descends/crosses whilst running" (Hickman, 2006: 13). In other words, speakers of English choose to verbalise manner much more often than speakers of French, who often only express manner when it needs to be foregrounded for some reason. As Slobin (1987: 435) puts it, in preparing how to verbalise a particular motion event, speakers select those characteristics that (a) fit some conceptualization of the event, and (b) are readily encodable in the language". According to Slobin, language exerts an influence on thought when speakers prepare to speak, and this is what has become known as "thinking-for-speaking". This can happen because speakers are used to particular ways of encoding their thoughts, for example about motion, that are being used time and again. From now on these habitual ways of verbalising thought are referred to here as conceptualisation patterns. Van Stutterheim and Nüse (2003) provide important empirical evidence for thinking-for-speaking: they show that language-specific principles of information organisation are available at the moment of utterance planning. It is these principles that guide language users in the selection and structuring of knowledge while speaking.

While many authors agree that these language-specific principles are learnt during L1 acquisition, it is unclear to what extent L2 learners are capable of conceptual restructuring in the L2. According to Slobin (1996: 89) L2 learners find this difficult, because the training one receives in childhood is "exceptionally resistant

to restructuring in adult second-language acquisition". Therefore learners may continue to rely on the conceptualisation patterns from their L1 in, for example, construing motion events. This reliance on L1-mediated concepts when speaking in the second language is referred to as conceptual transfer (Jarvis and Pavlenko 2008).

In their studies of the cognitive processing of motion events, Carroll and von Stutterheim (2003, p. 398) show that even advanced L2 learners "remain rooted in at least some of the principles of conceptual organisation as constituted in the course of L1 acquisition". They show that L2 learners continue to base the production of L2 speech on conceptualisation patterns they have acquired for their L1, and this reveals itself in the information they select for verbalisation (e.g. whether or not they pay attention to manner) and in the segmentation, structuring and linearization of the information, as well as in the perspectives they take on the event (see also Daller, Treffers-Daller and Furman 2011 for further discussion of conceptual transfer in motion event construal among Turkish-German bilinguals).

The debate regarding learners' ability to restructure their conceptual system is however far from settled. According to Hendriks, Hickmann and Demagny (2008) even advanced English learners of French continue to rely on thinking-for-speaking patterns from the L1. Similar results were obtained by Larrañaga, Treffers-Daller, Gil Ortega and Tidball (2012) and Negueruela, Lantolf, Jordan and Gelabert's (2004), but Cadierno (2004), Cadierno and Ruiz (2006), Navarro and Nicoladis (2005) and van Stutterheim (2003) claim the evidence for L1 transfer of thinking-for-speaking patterns is limited. In recent work, however, Cadierno (2010) finds more evidence for L1 transfer of conceptualisation patterns than in her earlier work. Because of the mixed evidence in this domain Schmiedtova, von Stutterheim and Caroll (2011) call for more studies to gain a better understanding of the role of different factors in the domain of event conceptualization in L2.

As Pavlenko (2005; 2011) and Athanasopoulos (2011) have demonstrated, a range of factors affect bilingual cognition: factors they mention are age of acquisition, context of acquisition (whether learners live in the L1 context or the L2 context), length of stay in the target language culture, amount of language use as well as general and specific language competence. The former refers to the general level of competence in the two languages, and the latter to knowledge of the specific domain of investigation (e.g. motion or colour). In addition, the effects may not be the same

in different cognitive domains. Predicting whether or not conceptual restructuring will take place remains therefore very difficult.

According to Hendriks et al. (2008: 21) in particular studies of students of different proficiency levels can provide more insight into whether or not learners are able to reconceptualise spatial information in L2 acquisition. The current study aims to shed light on this issue by comparing motion event construal among L1 English adult learners of French of two different levels (intermediate and advanced).

The existence of thinking-for-speaking patterns has important implications for models of speech processing, such as Levelt's (1989) blueprint of the speaker, because it implies that language influences thought processes at the conceptualisation stage. Levelt's model may therefore need to be revised in view of the evidence from studies of event conceptualisation and cognitive restructuring in other domains in L2 learners and bilinguals. It is also possible that language exerts an influence on cognition in general, outside the context of speaking (see Athanasopoulos, 2011 for an overview), but this issue is beyond the scope of the current paper.

The discussion in this field is also relevant for the wider discussion about the role of transfer in L2 acquisition. It is interesting in this context that Ringbom (2007: 1) hypothesises that the primary concern of learners is to discover similarities between the L1 and the L2 or other languages they already know: this view is clearly in line with Slobin's view that L2 learners are reluctant to restructure their L1 conceptualisation patterns. Kellerman (1995: 141) goes even further and suggests that learners may actively look for "the linguistic tools which permit them to maintain their L1 perspectives". In the domain of motion, Latinate path verbs *enter, arrive* and *descend* may well be examples of such tools for English L1 learners of French. Larrañaga et al. (in press) consider the existence of such cognates to be a double-edged sword: on the one hand they facilitate learning of motion expressions by L2 learners, but on the other hand, they may trigger fossilization, as learners could be led to believe that motion events are based on the same pattern in both languages, and fail to notice the differences. Support for Slobin's approach can also be found in the cognitive linguistic notion of ENTRENCHMENT (Langacker 1987). As motion expressions are so widely used in language, they become cognitively routinised or entrenched (Langacker 1987) in the speakers' minds. For this reason, L2 learners

will experience difficulties in learning new patterns of motion event construal which differ from the entrenched patterns.

While most authors recognise that in L2 acquisition the first language influences the second language (and vice versa), researchers do not agree on exactly what features can be transferred, what the constraints on transfer are, whether transfer is important right from the start (Schwartz and Sprouse 1996; Montrul 2006) or only a later stage when the processor is ready (Pienemann 1998; Pienemann, Di Biase, Kawaguchi and Håkansson 2005), and whether it continues to play a role in the advanced stages of L2 acquisition, as Lefebvre, White and Jourdan (2006: 10) claim is the case if learners do not have access to sufficient positive evidence. We hope the current study will shed some light on the issue of the role of language competence in L2 in the transfer of conceptualisation patterns from L1. In this context Athanasopoulos' (2006; 2011) finding that intermediate level learners were clearly influenced by L1-based cognitive processing whilst more advanced learners had shifted towards L2-based cognitive patterns is particulary interesting for the current study, even though the study of Athanasopoulos focused on a different domain, namely consequences of the L2 acquisition of a grammatical number system on categorization.

In the current study we test the hypothesis that English learners of French will struggle to acquire the target-like expression of motion in their L2, and will transfer L1 conceptualisation patterns to their L2. Evidence for conceptual transfer will be sought, for example, in the amount of attention paid to manner in describing motion events in the L2. We expect British learners to select manner more often for verbalisation than native speakers of French, and to use manner of motion verbs in situations where the moving Figure crosses a boundary, which is not allowed in French because of the boundary crossing constraint (Slobin and Hoiting, 1994 – see section 3). Finally, we predict that language competence in the L2 is an important mediating factor: learners who have not had extensive exposure to everyday spoken and written French will rely to a larger extent on thinking-for-speaking patterns from the L1 than learners who had been on a year abroad prior to data collection.

As Jarvis (2000) and Jarvis and Pavlenko (2008) have shown, some of the confusion in the literature about the importance of transfer in L2 acquisition is probably due to the lack of methodological rigour in studying transfer. Researchers have far too often considered transfer as a "you-know-it-when-you-see-it-

phenomenon", and have assumed that particular interlanguage features were the result of transfer simply if these features occurred in the speech or writings of learners and native speakers of a particular language. Jarvis (2000) and Jarvis and Pavlenko (2008) therefore propose to compare the frequency of particular features in the L2 of learners with DIFFERENT L1s who study the same target language (intergroup heterogeneity) in addition to comparisons between the features in the interlanguage of learners and features in their L1s (crosslinguistic performance congruity). If a second group of L2 learners with a different L1 is not available, every effort should be made to compare the data with results from the available literature on the acquisition of the same feature by other groups of L2 learners.

The approach we try out in this paper builds on the work of Jarvis (2000) and Jarvis and Pavlenko (2008) but differs from it in that we explore what constitutes relevant evidence for transfer as well as for restructuring. Evidence for the former is sought in the differences between the overall distribution of relevant features in the speech of L2-users and monolingual users of the **L1** (the source language). This comparison provides information about the distance between the speech of L2-users and monolingual speakers of the source language. We will assume there is evidence for transfer if the following situation occurs: with respect to the differences in the overall distribution of features between and L2-users and monolingual uses of the L1:

- If the differences are not significant, it is likely that the L2-users have transferred features from the L1
- If the differences are significant, there is no evidence that the L2-users have transferred features from the L1

Of course additional evidence from L2-users with a different L1 will need to be provided too (intergroup heterogeneity).

In addition, we propose to make analyses of the differences in the distribution of features in the speech of L2-users and monolingual users of the **L2** (the target language). This comparison provides information about the distance between the speech of the L2-users and monolingual users of the target language and constitutes crucial evidence for (the lack of) restructuring. With respect to the differences in the

overall distribution of features between L2-users and monolingual users of the L2, we assume that:

- If the differences are significant, there is no evidence that the L2-users have restructured their interlanguages towards the L2 norm.
- If the differences are not significant, it is likely that the L2-users have (to a certain extent) restructured their interlanguages.

Thus, this second source of information provides evidence about a different kind of intergroup heterogeneity, which can be used to argue the case for or against restructuring.

Our approach is partly based on Grosjean's (2001) language mode continuum. According to Grosjean, in their everyday lives bilinguals and L2-users find themselves in various language modes that correspond to points on a monolingual-bilingual mode continuum (see Grosjean, 2008, for a thorough discussion). At one end of the continuum, they find themselves in a completely monolingual mode (e.g. when speaking to monolinguals users) and at the other end they find themselves in a bilingual mode (e.g. when speaking to friends or relatives who are bilingual too). Grosjean (2001) has also pointed out that L2-users travel along the language mode continuum, so their speech could contain more or less transfer or evidence for restructuring depending on the situation in which they were recorded. Thus, any data collection from bilinguals (L2-users) necessarily constitutes a snapshot of their language use only.

We have adapted Grosjean's (2001) model to the one presented in Figures 1 to 4, which illustrate the fact that L2-users find themselves on the interlanguage continuum between native speakers of their L1 and native speakers of their L2. As Cook (1992, 2008) has pointed out, both languages coexist in the mind of the L2-user, and therefore the speech patterns of speakers who know more than one language do not correspond fully to those of monolingual users of the L1 or the L2 (see Cook 1992, 2008 for further details on multicompetence).

Contrary to other studies which focus exclusively on a single category of motion we have chosen to make a comprehensive analysis of a range of motion categories, that is manner, path, deixis and cause, as this enables us to see in which proportion each type is being used. Although motion events can often be verbalised in different ways, for example by choosing either a path verb or a manner verb or a

deictic verb, some choices are more common than others in each language. It is by studying THE OVERALL DISTRIBUTION OF DIFFERENT TYPES OF MOTION EXPRESSIONS that language-specific preferences for one or the other verbalisation are most clearly revealed, and not by focusing on just one aspect of motion.

The current study focuses on the characteristics of L2 speech only, and does not look at possible consequences of language learning for the speakers' L1. For a comprehensive review of different processes of cognitive restructuring that can take place in the minds of L2-users with respect to both L1 and L2, the reader is referred to Pavlenko (2011). With respect to the distribution of a range of features in the speech of L2-users and monolinguals the following four possible scenarios might occur:

A) The L2-users are significantly different from monolingual users of L2 but not from monolingual users of L1: this is the TRANSFER SCENARIO
B) The L2-users are significantly different from monolingual users of L1 but not from monolingual users of L2: this is the RESTRUCTURING SCENARIO
C) The L2-users are significantly different from both groups of monolinguals: this is the CREATIVE OR HYBRID SCENARIO
D) The L2-users are not significantly different from either group of monolinguals: this is the CONVERGENCE SCENARIO.

It is important to note at this point that the absence of significant differences between the L2-users and monolinguals does NOT mean that the speech patterns of both groups are the same: we agree with Cook (1992; 2008) that the speech patterns of L2-users are unlikely to be completely the same as those of monolinguals. Each possible scenario will now shortly be presented.

Under scenario A (Figure 1), the learners have not yet moved very far on the interlanguage continuum: they find themselves closer to the source language than to the L2 target. This is the *transfer scenario*: the learners are *not* statistically significantly different from monolingual users of the L1 but they are significantly different from monolingual users of the L2 with respect to a particular feature or the distribution of a range of features. Thus, for example, if there is *no* statistically significant difference between level one learners and native speakers of English in the frequency with which they conflate manner with motion in the main verb, this will

constitute evidence that the learners still follow the English patterns of verbalising manner.

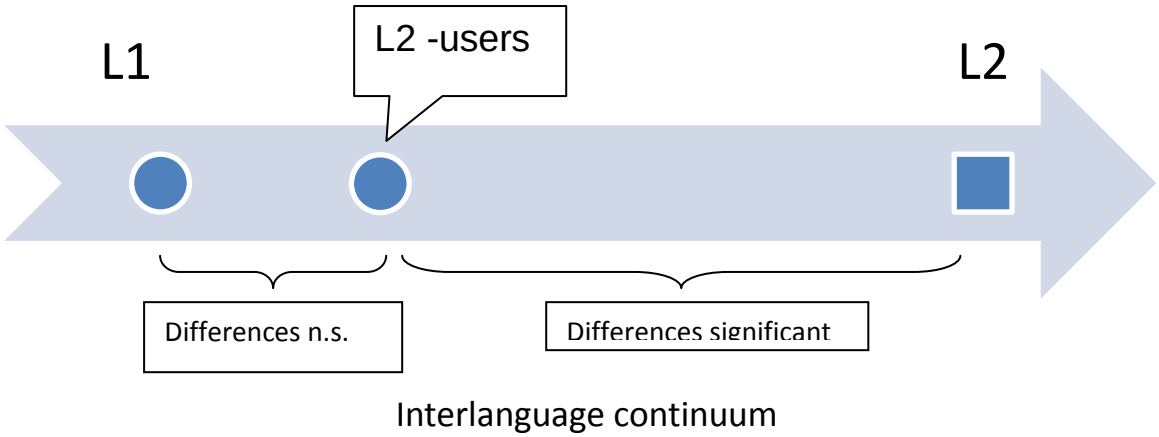

Figure 1: The transfer scenario (A)

Under scenario B, the learners have moved so far on the interlanguage continuum towards the target language that they are significantly different from monolingual users of the L1 but no longer significantly different from monolingual users of the L2. This is the *restructuring scenario* in Figure 2. Scenario B is one in which learners have started restructuring their interlanguage grammars to such an extent that the distribution of features in their L2 no longer reflects the distribution of features in the L1. Such a scenario might occur if British L2-users of French discover that native speakers of French use verbs to express path and start using these with a frequency that approaches that of monolingual users of French.

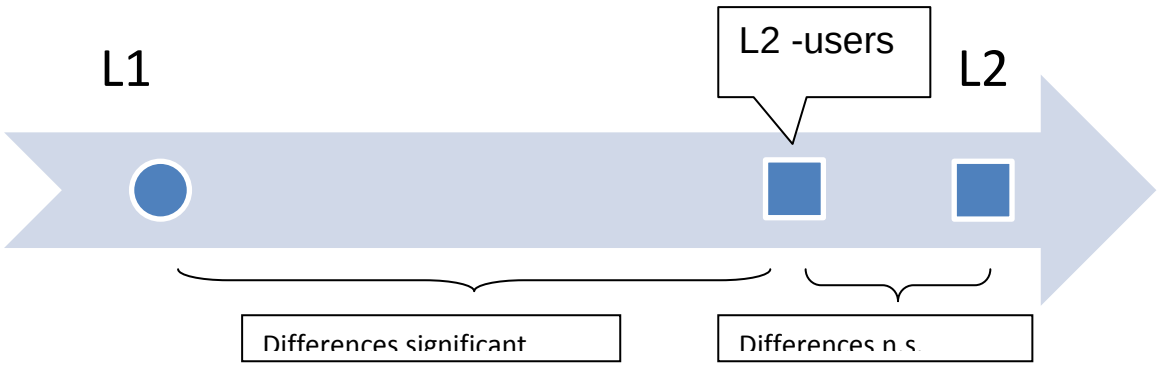

Figure 2. The restructuring scenario (B)

Scenario C occurs when the learners produce hybrid constructions that are neither found in L1 nor in L2 or when the frequency distribution of a particular feature in the learner data is significantly different from the frequency distributions in both the L1 and the L2. This is the *creative or hybrid scenario* (see Figure 3). An example of this could be if L2-users of French start using path verbs significantly more often than native speakers of English, but the native speakers of French use these significantly more often in French than the L2-users. Another example of such creative constructions could be the use of verbless static expressions to describe motion events, as described by Giacobbe (1992), which are not common among adult native speakers of either English or French. Further details of these are given in section 3.

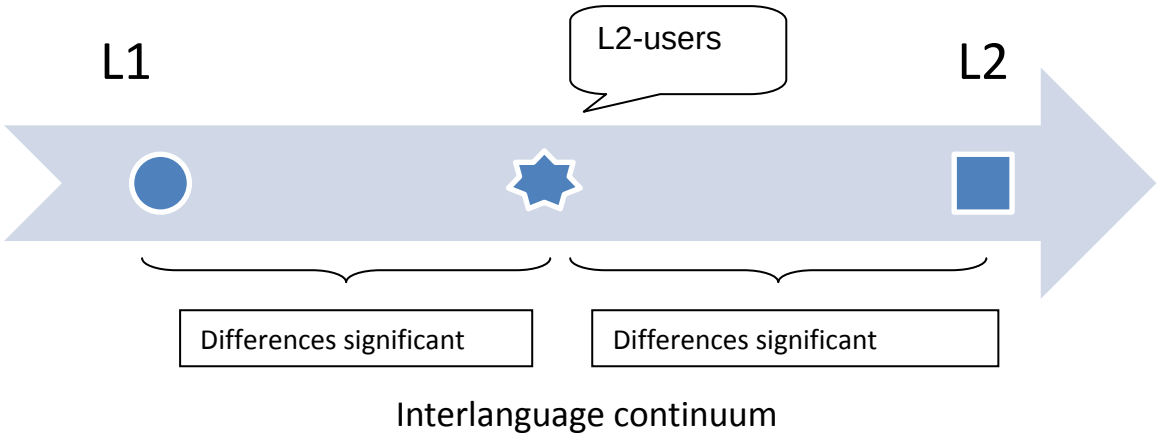

Figure 3: The creative or hybrid scenario (C)

Finally, scenario D, depicted in Figure 4, is the *convergence scenario*, where L2-users' productions are not significantly different from either the source or the target language. While this is impossible if the target languages are very different from each other, it might occur in situations where languages are similar with respect to a particular phenomenon, or where convergence between two languages has given rise to constructions or distributions that are intermediate between both languages. The existence of cognates or (perceived) syntactic similarities between the source and the target languages could trigger such a scenario. In the domain of motion, for example, French L2-users of English could make use of path verbs such as *to enter* to describe a movement into a closed space, as in *to enter a room*, which is possible but not the preferred expression in English (see section 2 for more details). A slight, but non-significant increase in the use of such cognates could be seen as an example of scenario D.

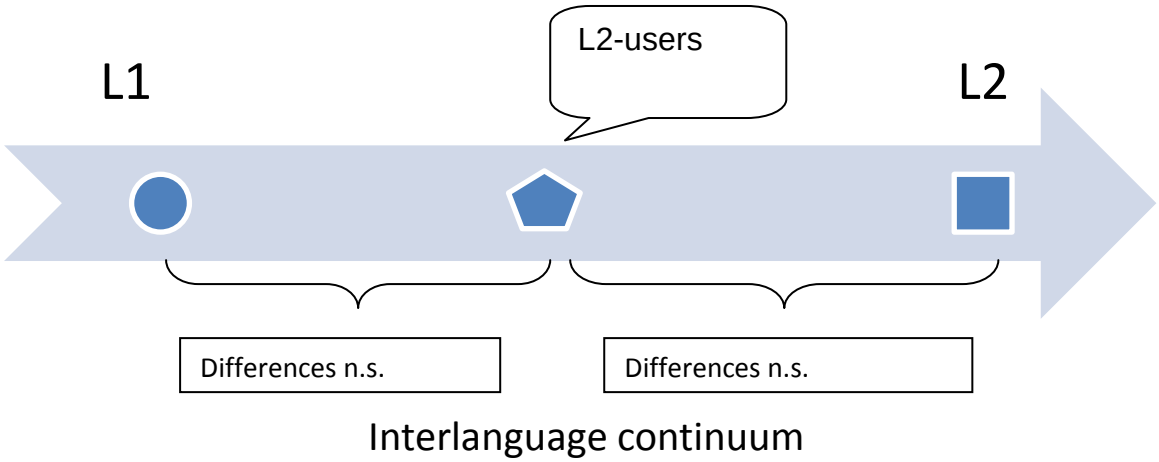

Figure 4: The convergence scenario (D)

In this paper we hope to show that this model provides us with a rigorous method for identifying conceptual transfer and restructuring in L2 acquisition.

The structure of the paper is as follows. In section 2 we present a summary of the main differences between motion event construal in French and English, and section 3 focuses on the existing literature on the L2 acquisition of MOTION in French and other Romance languages. In section 4 the hypotheses are formulated and in section 5 the methods for the current study are explained. In section 6 we present the results of our study, and in section 7 these are discussed in the light of Slobin's thinking-for-speaking theory, and some thoughts for further research are offered.

2. Motion event construal in English and French

Since the groundbreaking work of Talmy (1985; 2000a, 2000b) on the typology of lexicalization patterns, which formed the basis for Slobin's (1996) highly influential thinking-for-speaking framework, many researchers have become interested in the ways in which speakers map conceptual structure on to surface structures, and in crosslinguistic influence in the conceptualisation of MOTION in L2 learners and bilinguals. Before discussing the issue of transfer, we will look at Talmy's and Slobin's framework and how this applies to differences between English and French.

Speakers of English and French differ in the way they construe motion events. According to Talmy's (1985, 2000b) typology, English and French belong to two different types of languages, Satellite-framed and Verb-framed languages, because of the different way in which they encode path and manner in motion events. In French, a Verb-framed language (V-language), path is typically encoded in the verb (*entrer* "to enter", *sortir* "to exit"), whereas in English, a Satellite-framed language (S-language), the path component is typically expressed in a particle associated to the verb (*in, out*), as in (1a/b).

(1a) The man goes *into* the bank

(1b)	L'	homme	*entre*	dans	la	banque
	The	man	enters	in	the	bank

'The man goes into the bank.'

Deictic motion verbs express motion either toward the speaker (*venir*) or away from the speaker (*aller*)[i], but do not express the Vector, i.e. the arrival, traversal or departure that the Figure can execute with respect to a particular ground, nor do these verbs specify any details regarding the Conformation component of the path, i.e. the spatial relation of the path to the ground[ii]. The path verb *entrer*, for example, specifies that the motion is an arrival and that it is a movement into an enclosure, whereas the verbs *venir* and *aller* do not provide any such information. *Venir* and *aller* can be seen as verbs that conflate deixis and motion in the main verb. In English, the verbs *take* and *bring* are also deictic motion verbs, but they express caused motion rather than voluntary motion. In French this distinction is expressed in prefixes, *emporter/emmener* "take away from the speaker" versus *apporter/amener* "bring towards the speaker".

English and French differ from each other with regard to the encoding of manner. In English, manner is characteristically conflated with manner in the verb as in (2a); in French, it is expressed by an adjunct to the verb, as in (2b).

(2a) The man *runs* into the bank

(2b)	L'	homme	entre	dans	la	banque	*en courant*

The man enters in the bank running
'The man runs into the bank.'

In other words, as Hickmann, Taranne and Bonnet (2009) put it, English and French native speakers differ from each other with respect to the semantic density of their motion expressions. They show that descriptions of motion are denser in English in that manner and path are often packed into the same clause in English, as in (2a), whilst the same information is spread over different clauses in French, as in (2b).

Whereas English speakers habitually express manner, it is often omitted by French speakers. When it is the habitual way of moving, such as flying for a bird, as in (3), manner is not mentioned unless it needs to be fore-grounded for a purpose, as in (4).

(3a) The bird flew out of the hole

(3b) L' oiseau est sorti du trou
The bird is exited from.the hole
'The bird left the hole.'

(4) Paul a monté la côte à pied, Sophie
Paul has ascended the hill on foot, Sophie

a pris le bus.
has taken the bus
'Paul went up the hill on foot, Sophie took the bus.'

The ease with which information can be processed is a major factor in the lexical and grammatical choices made by speakers (Slobin 2004). As path is encoded in the satellite in English (*in, out, up down*), manner and motion can be neatly conflated in the verb, the obligatory constituent of the sentence, thus making the expression of manner easy to process. As Slobin (2003:4) puts it, English speakers get manner "for free", whereas for French speakers elaborating on manner is "more of a luxury". Slobin (2004: 232) also notes that in V-languages manner adjuncts are generally added to path verbs, and not to manner verbs, whereas in S-

languages, manner adverbs qualify manner verbs, thereby augmenting attention to manner.

English has developed a rich lexicon of manner verbs and English speakers learn to use a wide variety of such verbs from an early age. As Slobin (2003) has demonstrated, in this study English-speaking pre-school children used 34 types of manner-of-motion verbs when French-speaking pre-school children used far fewer types. Thus, manner of motion is a salient lexical domain for English speakers whereas it is not part of the habitual expression of motion in French.

However, patterns that are different from the overall typology can be found in English as well as French. As Talmy (1985: 64) has shown, English has a system of lexicalization doublets, i.e. the same verb can be used with or without an incorporated idea of motion, as (5a) and (5b) illustrate:

(5a) The craft floated/was afloat on a cushion of air
(5b) The craft moved into the hangar, floating on a cushion of air.

In (5a) the verb *float* does not imply movement, but in (9b) it does. The expression of motion in (5b) is similar to the French expression in (2b), in that manner is expressed in a subordinate clause.

In her study of the semantic structure of motion verbs in French, Kopecka (2006) shows that French also has satellite-framed patterns, but these have generally been neglected in studies of the expression of motion in French. According to Kopecka, 22 verbal prefixes, such as *a(d)* "to, toward" as in *accourir* "run to" and *em/en* "away, off" as in *s'envoler* "fly away" make it possible to express elements of path in the main verb.

Although French does have common verbs which conflate manner and motion (*marcher* "to walk"*, courir "*to run"*, ramper "*to crawl"*, glisser "*to slip/slide") most authors agree that their use is restricted by the boundary crossing constraint (Slobin & Hoiting 1994): they are not used when the path involves crossing a boundary. Thus, *l' homme court dans la maison* can only depict a man running around *inside* a house and not a man running *into* a house. A path verb is used in French to express the boundary crossing *il entre dans la maison* "he enters the house", leaving the manner to be added (*en courant* "by running") or inferred. An exception to this rule is the use of manner verbs which denote instantaneous actions such as *to throw*

oneself or *plunge* (Slobin, 2004: 226). These can be used in French in a boundary crossing situation, e.g. *plonger dans la piscine* “to plunge into the swimmingpool”.

Cummins (1996) proposes that the difference between French and English in the expression of motion does not reside in the lexicalization by the verb but in the semantic content of the prepositions. French has no equivalent to the English preposition *into* to express transition from an initial location along a path to a final location: *into* can encode both the path and the attainment of final location, whereas *dans* can only locate an entity or an activity at a final location. Thus, *Il arrive dans la maison* “he arrives in(side) the bank” and *Il court dans la maison* “he runs in(side) the house” both depict the man at the same location inside the house. Similarly, the preposition *to* has a different semantic content from its French equivalent *à* , as it can express path and end location - compare “*he wobbled at me” “he wobbled to me”* (examples from Cummins) - whereas *à* can only locate the entity at its end point. This often causes difficulties for English learners of French who transfer the notion of path contained in *to* to *à* and translate *the bus to the station* by “le bus à la gare*”* (“the bus at the station”).

Interestingly, Pourcel (2004) reports some unexpected lexicalization patterns by French native speakers who conflate verb and manner and express path in the satellite, as in (6-7).

(6) Un homme court en traversant la rue
A man runs crossing the road
A man is running across the road.’ (Pourcel 2004: 353)

(7) Un homme pédale à vélo en montant la rue
A man pedals on his bike going up the street
‘A man is cycling up/upwards.’ (Pourcel 2004: 353)

Although this lexicalization pattern is unusual as it does not fit the typological properties of French as a V-language, it does occur and illustrates the fact that some satellite-framed constructions can be found in French. Cummins (1996:48) also gives an example of two motion events where the prepositions “locate the theme at the final location” (8).

(8) *Max a couru dans sa chambre / au magasin*
Max has run in his bedroom / to.the store
'Max ran into his bedroom/ to the store.'

While this seems to point to a weakening of the boundary crossing constraint in Canadian French and a shift towards the S-language pattern of English, Cummins (p.c.) does not believe that there is a difference between Canadian French and metropolitan French in this regard. The existence of examples such as (9), and Stringer's (2010) example (10) from a five-year-old, which appear to involve a boundary crossing as well, support Cummins' point of view.

(9) Je me suis levée et j'ai couru dans le salon pour rejoindre ma soeur et ma mère était là, allongée sur le canapé !! (source : http://entite.over-blog.com/article-2788877.html)

(10) Il est en train de grimper dans sa maison (5-year-old)
He is in process of climb in his house
'Now he's climbing into his house' [context: tree house] (Stringer 2010: 21)

Thus, a more detailed analysis of the ways in which motion is expressed in French and English shows that there is variation in both languages. The existence of variation clearly complicates the task of learners of French, who need to discover which expressions represent the habitual ways of describing motion, and which ones are more marginal patterns (see also Hendriks et al 2008).

Finally it should be pointed out that there is no complete overview of all motion verbs in either English or French. The most complete list of English motion verbs can probably be found in Levin (1993), who provides a typology of English verbs. For French there is Krassin's (1984) study of the semantic field of motion in French. This study is one of the rare works which provides not only a semantic classification but also a list of 207 motion verbs. Other studies which deal with the syntactic structures associated with French motion verbs, and provide a contrastive analysis of the expression of motion in French and English are Braun (1976) and Vinay and Darbelnet (1958), but these do not offer a complete list.

In most studies a distinction is made between motion involving no change of location, as in *gigoter* ”to wiggle”, *trembler* “to shake”, *s’accroupir* “to crouch” or *se pencher* “to lean over” and on the other hand, there is motion involving movement from one location to another, as in *culbuter* “to tumble, fall” or *se précipiter* “to throw oneself”, which are examples of translational motion or translocation (Zlatev, David and Blomberg 2006). Krassin’s (1984) list consists of verbs of translational motion, although she provides examples of other kinds of motion verbs too, for example *vaciller* “to sway”, which does not necessarily imply movement across space. In the current study both types of verbs are being analysed.

3. Transfer and simplification in the expression of Path and Motion in L2 learners of French

There are only a few studies into transfer in the L2 acquisition of French motion verbs and even less on transfer in the conceptualization of events, as most research focuses on transfer in the acquisition of syntax (e.g. White 1991). The first study into this topic is that of Schlyter (1984), who investigated Swedish learners of French, but does not use Talmy’s framework which was published a year later. She found some evidence for transfer among learners who learn French in classroom settings, in that they used manner of motion verbs in combination with a path satellite[iii], as in (11a):

(11a)	On	a	*fait*	*la*	*bicyclette*	à	des	endroits différents
	We	have	done	the	bicycle	to	ART	places different

‘We cycled to different places.’ (Schlyter 1984: 13)

In Standard French the following expression is normally used:

(11b)	On	est	*allé*	*en*	*bicyclette*	à	des	endroits différents
	We	are	gone	on	bike	to	ART	places different

‘We went on bike to different places.’ (Schlyter 1984 : 13)

Schlyter also found that learners overuse *venir* “to come” in the initial stages of language acquisition, where native speakers prefer path verbs such as *sortir* “to go out”. According to Schlyter, informants who acquire French in naturalistic settings are less likely to transfer Swedish ways of expressing motion into French. Transfer in structures such as those in (12) and (13) would only be common among learners in classroom settings.

(12) Le fleuve coule dans un tunnel [for: le fleuve entre dans un tunnel]
‘The river flows into a tunnel.’ (Swedish learner of French, Schlyter 1984: 36)
(13) Je peux pagayer à l’école [for: Je peux aller à l’école en pagayant]
‘I can paddle to school.’ (Swedish learner of French, Schlyter 1984: 36)

Harley and King (1989) find similar results in the interlanguage data from Anglophone learners of French, which they interpret as representing transfer of the English way of expressing motion into French. Harley and King (1989) show that Anglophone learners overuse *venir* and *aller*, as in (14) and (15), whereas native speakers of French would prefer to use verbs which conflate motion and path, such as *sortir* “go out” or *entrer* “go in”.[iv] The authors attribute this to transfer from English.

(14) Après un heure Madame Dupont *a* *venu* au
After one hour Mrs Dupont has come to.the

balcon
balcony
‘After one hour Mrs Dupont came to the balcony.’ (Harley and King 1989: 427) (Canadian immersion student, 6th grade)

(15) Elle *est* *allé* dans la maison
She is gone in the house
‘She went into the house.’ (Harley and King 1989: 427) (Canadian immersion student, 6th grade)

The authors observe that immersion students make substantially less use of the following verbs: *arriver* “arrive”, *descendre* “go down”, *monter* “go up”, *partir* “leave”, *passer* “go along”, *redescendre* “go down again”, *rentrer* “go home” and *sortir* “leave, go out”, and make more use of the following verbs which the authors consider to be easily translatable in that the syntactic and semantic structures associated with these correspond to those found in English: *aller*, *courir*, *entrer*, *grimper* “to climb”, *marcher* “to walk”, *retourner* “to return”, *sauter* “to jump” and *venir*. Despite the apparent ease with which they select these verbs, students in Harley and King’s study were found to transfer aspects of the syntactic information from their L1: perhaps even the entire subcategorisation frame which is associated with the verb, as can be seen in sentences such as (16), where the immersion students use *entrer* with a direct object (as is common in English) instead of with a prepositional phrase beginning with *dans* “in”.

(16)	Trois	bandits	entre	Ø	le	banque
	Three	bandits	enter	Ø	the	bank (Harley and King 1989: 426).

The use of English subcategorisation information on French verbs may be interpreted as evidence that learners transfer not only phonetic forms but also some semantic and syntactic information attached to lexical items into the target language.

Transfer need however not necessarily be involved in the production of (14) and (15), as it is not impossible that they are the result of simplification. Students in the study may have chosen to simplify the constructions by splitting motion and path and opting for a deictic motion verb (*venir* or *aller*) followed by a path particle. In fact, learners do not always resort to deictic motion verbs as a simplication strategy. Giacobbe (1992), for example, shows that an adult learner with Spanish as her L1 starts from a path-less, static conceptualisation of space. The learner does not use *aller*, despite the fact that Spanish *ir* and French *aller* are so similar in their conjugation (cf Sp. *vas, va, van* vs. Fr. *vas*, *va* and *vont*). Instead she uses the similarity between the French and Spanish prepositions *a*, *de* and *en* to construe the event, as in (17) and (18).

(17) Y après la femme al camion de la
And afterwards the woman into.the van of the

police
police
'And afterwards the woman goes into the police van.' (Giacobbe 1992)

(18) Après de la prison
Afterwards from the prison
'Afterwards s/he returns from prison.' (Giacobbe 1992).

Giacobbe's study could be interpreted as evidence for Pienemann's (1998) claim that at the early stages of naturalistic L2 acquisition wholesale transfer may not be an option because of processing problems.

Simplifications in motion event construal can sometimes also be found in child language. According to Bowerman's (1982; in Allen, Özyürek, Kita, Brown, Furman, Ishizuka and Fujii 2005) universal hypothesis children have an initial strategy of isolation or differentiation of semantic elements. Thus, they would have an early preference for mapping each semantic element onto a different lexical item or syntactic structure.

Some evidence for this hypothesis can be found in Stringer (2006: 139) who shows that young French children often split complex trajectories into subevents. Predicates such as *traverser* "to cross" imply that the Figure goes into a particular reference element (ground) and comes out on the other end, which is more complex than predicates which express only one of these two subevents. As (19) shows, young children do not use *traverser*, but split the event into two or three different subevents, whereas adults express the whole trajectory using the verb *traverser*, see (20).

(19) Il va dans la rivière, il nage, il
He goes in the river, he swims, he

ressort de la rivière
comes.out of the river
'He goes in the river, he swims, he gets out of the river again." (Stringer 2006: 140) (French NS; 3;6)

(20) Il traverse la rivière en nageant
He crosses the river by swimming.
'He swims across the river.' (Stringer 2006: 140) (French NS, adult)

Stringer also found examples of children and adults who split motion and path, as in (21), although children as young as three were found to use verbs such as *entrer* in these contexts, as (22) shows.

(21) Il va dans la caverne
He goes in the cavern
'He goes in the cavern.' (Stringer 2005: 185) (French NS 7;6)

(22) Il rentre dans la caverne
He enters in the cavern
'He enters the cavern.' (Stringer 2005 : 174) (French NS 3;2)

It does not appear to be the case that the acquisition of path and motion *necessarily* involves a developmental stage in which these two are split. In their study of the acquisition of path and manner in Japanese, Turkish and English, Allen et al. (2007) tested the universal hypothesis, but found little evidence for it. Instead of spreading path and manner over different clauses, children prefer synthetic expressions of path and manner in one clause, and they acquire the language-specific ways of expressing path and manner by the age of three. Further evidence for French was obtained by Hickmann (2003) and Hickmann, Taranne and Bonnet (2009), who observed that French children often start out by verbalising just one component of a motion event, and generally acquire path before manner.

In a recent study of motion event construal among English learners of French, Hendriks and Hickmann (2011) investigated voluntary motion and Hendriks, Hickmann and Demagny (2008) studied caused motion among adult English learners of French. Both studies show that both intermediate and advanced learners struggled with the target-like expression of motion in French. Many learners of French expressed manner and cause of motion in the main clause, but in order to express path the intermediate level learners often used expressions which did not imply a change of location, as in (23) or expressed in a separate clause, as in (24).

(23) Papy pousser/poussé une roue dans une caverne dans les bois. (LOW-INT_01)
'Popi to push/pushed a tire in a cave in the woods.' (Hendriks et al 2008)

(24) Popi tirer/tiré une sac et # et ascende le # le toit. (LOW-INT _01)
'He pull/pulled a bag and **#** and ascends the **#** the roof.' (Hendriks et al 2008)

Advanced learners sometimes transformed French path verbs into satellite-like devices, as in (25).

(25) Il rouler/roulé le roue dans # entre le ferme. (ADV_06)
* 'He to roll/rolled the tire in **#** between/enter the shed

Importantly, Hendriks et al (2008) point out that native speakers of French produce a great variety of structures to express manner, cause and path of motion. It is this variation which makes learning the target system opaque to English learners of French and explains the fact that learners continue to rely on the L1 in construing motion events.

4. Hypotheses of the current study

We assume that English-speaking L2 learners of French will find acquiring new ways of thinking-for-speaking patterns difficult, because of the cognitive entrenchment of event construal patterns from the L1.

With respect to the acquisition of path, we hypothesize that learners of French at lower intermediate levels may go through a phase where path and motion are split, and use deictic verbs such as *aller*, combined with a preposition such as *à*, which functions as a path satellite, or even opt for static expressions such as those illustrated by Giacobbe (1992). The static expressions and the overuse of deictic motion verbs are predicted to disappear in later stages of L2 acquisition, if the learners are exposed to sufficient input. The overuse of deictic motion verbs can either be interpreted as transfer from English (as deictic verbs + path satellites are common in English) or as simplification. A comparison with native speakers of English may shed some light on which interpretation is more likely to be correct. An additional reason why learners may prefer *aller* and *venir* is that these are highly frequent verbs: they are among the first 25 verbs in the Corpaix word list (Véronis 2000). The only other motion verbs in the first 25 in this list are *arriver* "to arrive" and *partir* "to leave" (see also Treffers-Daller in prep.).

With respect to the acquisition of manner, we hypothesize that the learners a) will select manner more often for verbalisation than native speakers of French; b) will conflate manner in the main verb more frequently than native speakers of French; c) will use manner verbs in expressions in which a boundary-crossing is predicated.

With respect to caused motion, we expect learners to find it difficult to restructure their grammars and learn the fine-grained vocabulary of French. Intermediate level learners will be expected to use simple verbs of caused motion, such as *jeter* "to throw" or to avoid complicated constructions involving caused motion, but it is unlikely that this is related to transfer from English.

We also hypothesise that language competence in the L2 is an important mediating factor and predict that transfer of conceptualisation patterns is more prevalent among intermediate level learners, who have had little contact with everyday spoken French than advanced learners who had been on a year abroad prior to data collection. As is always the case in L2 acquisition, learners will differ from each other as to how successful they are in the long run and we can therefore expect variation in the performance of L2 learners, related to factors such as motivation, and other individual characteristics of learners, but these are beyond the scope of the current paper.

5. Methods

Our informants were 94 students at the University of the West of England (UWE), Bristol, divided into four groups (see also Table 1), all of whom were around 20 years old. There were two groups of learners of French, namely 21 first year students (all with an A level in French) and 20 final year students. All students received some instruction regarding the differences between French and English in the construction of motion during their second year, but not much time is spent on this issue. The final year students had all undertaken a one-semester or one-year placement in France the previous year. French native speaker data were obtained from a group of ten Erasmus students from France who spent one academic year at UWE and thirteen students in their first year at a French Business School following a three-month course in English as a foreign language. Native speaker data for English were gathered from a group of 30 monolingual level one Linguistics students at UWE Bristol.

Table 1. Overview of informants in the current study

groups	Learners of French, level one	Learners of French, level three	Native speakers of French	Native speakers of English
N	21	20	23	30
Mean age	19.3	22.4	20.3	19.7

In the current study a comparison with learners with a different L2 background can only be made on the basis of the available literature as we do not have access to another group of L2 learners of French. Therefore Schlyter's (1984) study of Swedish learners and Giacobbe's (1992) study of a Spanish learner of French will be used to provide the necessary information about intergroup heterogeneity (see section 1).

All students undertook the same task under the same conditions: in the booths of the interpreting lab they individually recorded their description of two

picture stories presented as cartoon strips of six pictures each (Plauen 1996 [1952]). These were entitled *Erfolglose Anbiederung* “unsuccessful ingratiation” and *Unbeabsichtigte Helden* “unintentional heroes”. Students were asked to tell two stories in order to ensure there was enough data to analyse for each student. The main protagonists in the stories are a father and a son. In the first story they go for a walk along the beach with their dog and they play fetch the stick from the water. Another man comes along and wants to play with them but the dog is not interested. From now on this story is referred to as the Lake Story. In the second story, the pair are witnesses to a bank robbery and kidnap in a bank. The father beats up the robber and frees the employees (see also appendix for the stories). This story will be called the Bank Story.

The students could use as much preparation time as they liked, they could tell the stories in any order they wished, and there was no time limit. In order to familiarize themselves with the data collection procedure, and to prepare for speaking in the L2, they were asked to explain on tape in French why they learnt French and to count to thirty in the L2 before telling the stories. We assumed this would also help trigger an L2 speaking mode (Grosjean 2001), although it is unlikely that speakers were in a completely monolingual French mode while telling the stories, because the data collection took place in the UK, and prior to the recordings, the students were with their peers with whom they normally spoke English. To what extent this has impacted the students’ way of telling the stories is unclear and further research will need to show whether collecting data from the same informants in a French-speaking environment (e.g. at the end of the year abroad) would lead to significantly different results.

Each participant also completed a C-test, which provided us with an external criterion for the linguistic competence of our participants (see Daller and Xu 2009; Eckes and Grotjahn 2006 for a discussion about the validity of this test as a measure of general language ability). This test consisted of a series of six short texts on a variety of topics in which, from the second sentence onwards in each text, the second half of every second word was deleted and students had to provide the missing half. In total students had to complete 120 words. The French C-test we used proved highly reliable (Cronbach’s Alpha .963, six items). As can be seen in Table 2, native speakers achieved the highest scores, and level three learners

outperformed level one learners. A one-way ANOVA and a Tukey post hoc test showed that there are significant differences between all three groups in their performance on the C-test ($F(2,61) = 105.371$, $p < .001$; see Tidball and Treffers-Daller 2007 for more details). In terms of the Common European Framework of Reference for Languages, the students on the course varied from A2/B1 at level one to B2/C1 at level three. Native speakers of French who were enrolled on the course were excluded from the learner groups.

Table 2. Language proficiency of the learners of French, in comparison with native speakers.

	Oral exam	written exam	C-test
Level one	53	53	51%
Level three	55	61	77%
Native speakers			92%

Prior to the analysis all data were transcribed in CHAT format (MacWhinney 2000). In order to find all motion verbs in the French data set, we created an include file with all 207 motion verbs listed in Krassin (1984). As the latter only lists verbs which can be used with human protagonists, we checked manually whether any motion verbs not listed in Krassin were used in those parts of the lake story where the movements of the dog are described. This turned out not to be the case. Upon scrutiny of the stories told by the students it did however become clear that twelve motion verbs which were repeatedly used by informants when telling the two stories were missing from this list. As giving an overview of the motion events in the stories was only

possible with a list that was as complete as possible, we added those twelve verbs to the file with all French motion verbs.[v] With the help of wildcards we ensured that all inflected forms of the verbs could be traced in the data. We then ran the FREQ command in CLAN with the list of motion verbs as an include file, which allowed us to find all motion verbs in the two stories of all informants (freq +s@motion.cut @). This made it possible to establish which groups used most motion verbs and which percentage of these verbs were manner verbs, deictic verbs, path verbs or verbs of caused motion.

A small number of verbs belong in more than one category (e.g. *échapper* encodes path as well as manner, and these were therefore counted as belonging in both categories. Although *emporter/apporter* and *amener/emmener* encode deixis as well as caused motion, these were classified as verbs of caused motion for the purposes of this paper because we were interested in the frequency of usage of the basic deictic verbs *aller* and *venir* for reasons explained in section 3, and these therefore needed to be counted separately. As *aller* and *venir* are both used for a variety of functions in French, for this paper only those instances in which they were employed as main verbs which expressed a motion event were analysed. Thus we excluded utterances in which *aller* was used as an auxiliary, as in *le chien va le chercher* or *venir* was employed to express the recent past as in *il vient de sauver une banque d' un holdup*. In the current study we did not include periphrastic expressions of motion such as *mettre à terre* "to put down" or *faire tomber* "to make fall" or collocations such as *prendre une plongée* "take a dip", but we did analyse phrasal verbs such as *knock down*, as studying motion in English is hardly possible without including phrasal verbs.

In order to ensure that other verbalisations of manner were not ignored, we also explored the use of adverbial expressions of manner such as *très vite* "very fast" in the data. Finally, we wanted to find out whether the learners of different levels were able to construe motion events in the context of a boundary crossing, as these are assumed to be particularly challenging for English learners of French. We therefore studied the construal of a single motion event, namely the action of one of the main protagonists in the bank story, the bankrobber, who runs into the bank (see picture in appendix 1). While the stories contain many different kinds of motion events, this event was described by almost all speakers in each group, and there was little avoidance.

6. Results

In this section we first present the overall results of our analysis of different types of motion verbs in the two stories of the learners and the native speakers (6.1), then we briefly sketch the use of manner adverbials (6.2), and we finish with a comparison of the construal of one motion event which constitutes a boundary crossing (6.3). The final section offers a summary of the findings.

6.1 Overall use of motion verbs in the two stories

First of all we wanted to know whether native speakers of English and French produced similar numbers of motion verbs in telling the stories, and this was indeed the case: members of both groups produced approximately 15 tokens each. Thus, we can conclude that for native speakers of both languages the stories were comparable in that they generated similar numbers of motion events in each language.

As one might expect, the average number of motion verbs that are being used by the learners increases from level one (200 tokens; 21 types) to level three (314; 27 types); both learner groups produce fewer motion verbs than the native speakers of French (368 tokens, 33 types), and these differences are significant (X^2 (2) = 30.75, p< .001). These results are entirely predictable, given the obvious differences in language competence among the three groups.

Tables 3 and 4 offer a perspective on the DIVERSITY of manner verbs and the verbs of caused motion used by the different groups. Table 3 shows that the native speakers of both languages employ an equal number of types of manner verbs, but almost half of the types used by the native speakers of French occur only once in the data. In English most types are used very frequently, which clearly reveals the different perspectives on the events in the stories: while manner verbs are available in both languages, the French choose to use these much less frequently than the English. On average, when verbs from both stories are counted together, each native speaker of French uses 1.8 manner verbs, and the learners use a similar number of manner verbs on average, while the mean figure for native speakers of English is 5.23.

Table 3. Manner verbs (types and tokens) used by learners and native speakers of French found in both stories

Native speakers English (n =30)	**Level one (n=21)**	**Level three (n=20)**	**Native speakers French (n=23)**
walk (53)	courir (20)	courir (20)	courir (19)
run (53)	marcher (10)	nager (12)	nager (8)
swim (13)	nager (6)	marcher (4)	marcher (3)
fly (12)	sauter (1)	voler[vi] (1)	plonger (2)
rush (9)	plonger (1)	flotter (1)	se précipiter (2)
jump (7)			se baigner (2)
hurry (4)			pénétrer (1)
float (2)			s'enfuir (1)
climb (2)			enjamber (1)
stride (1)			sauter (1)
march (1)			s'envoler (1)
Total 157 (m =6.43)	Total 38 (m =1.8)	Total 38 (m =1.9)	Total 41 (m =1.8)

The results displayed in Table 4 reveal that verbs of caused motion are used equally much by both native speaker groups: on average, the French use 6.1 verbs of caused motion and for the English this figure is 6.4. Thus, both groups make extensive use of this type of motion verbs. The averages for the learners are understandably much lower.

The picture obtained by studying manner verbs or verbs of caused motion IN ISOLATION FROM OTHER TYPES OF MOTION is however not complete: we argue that all types of motion verbs should be studied together to obtain a comprehensive account of motion event construal. As we will see below, the similarity between the groups disappears when manner verbs or verbs of caused motion are studied AS A PROPORTION OF ALL MOTION VERBS.

Table 4. Verbs of caused motion (types and tokens) used by learners and native speakers of French

Native speakers English (n=30)	**Level one (n=21)**	**Level three (n=20)**	**Native speakers French (n=23)**
throw (53)	jeter (15)	jeter (36)	lancer (39)
take (48)	lancer (10)	lancer (12)	bousculer (21)
knocked down (44)	amener (1)	ramener (5)	jeter (20)
push (11)		enlever (3)	renverser (19)
bring (9)		rattraper (3)	récupérer (11)
turn (7)		emmener (1)	emmener/amener (10)
drop (5)		emporter (1)	enlever (8)
carry (5)			envoyer (8)
chuck (4)			lâcher (3)
pull (2)			apporter (1)
lift (2)			tourner (1)
lead away (1)			
cart off (1)			
send (1)			
Total 193 (m=6.4)	Total 26 (m=1.2)	Total 61 (m=3.1)	Total 141 m =(6.1)

As explained above, much more revealing information can be obtained from looking at the different categories of motion verbs, expressed as a percentage of the total number of motion verbs, as this gives a comprehensive picture of motion event construal in all groups. Figure 5 offers an overview of the result of these calculations for all four groups of motion verbs. It shows, for example, that the percentage of manner verb tokens is HIGHEST among the native speakers of English and LOWEST among the French native speaker group, whilst the level one and the level three students occupy the middle position.

The differences between the four groups in their use of manner verbs are statistically significant (X^2 (3) = 152.7, p< .001), but this could be due to the large differences between the English native speakers on the one hand and all French-speaking groups on the other hand. The results are however still significant when the English native speaker group is excluded (X^2 (2) =7.52, p< .05). A full overview of all intergroup comparisons is offered in Table 5.

Table 5. Overview of intergroup comparisons for all motion verbs in the two stories

	1-3	1-NS (Eng)	1 –NS (Fr)	3 – NS (Eng)	3 –NS (Fr)
manner	ns	**	**	**	ns
path	ns	**	ns	**	ns
deixis	ns	**	**	**	**
caused motion	ns	**	**	**	**

** = p <.01, * = p <.05

When separate X^2 tests are carried out to establish which of the groups are significantly different from each other, it becomes clear that the level one students are significantly different from the native speakers of French (X^2 (1)= 7.5, p< .01), as well as from the native speakers of English (X^2 (1)= 36.0, p< .001) but they are not significantly different from the level three students (X^2 (1)= 3.08, p = .101). The level three students are also significantly different from the native speakers of English (X^2 (1) = 73.2, p< .001) but they are NOT significantly different from the native speakers of French. In other words, the level one students are still far away from the target-like expression of manner in the L2, but the level three students are more similar to native speakers of French in this respect.

Figure 5 also reveals that the level one learners make most use of the deictic motion verbs *aller* and (re)*venir*. The overall differences between the four groups are significant (X^2 (3) = 71.54, p <.0001), but individual comparisons between groups do not always lead to significant results. A comparison between the level one learners and the native speakers of French shows that these groups are significantly different from each other (X^2 (1) = 25.46, p <.001), but the differences between the level one and the level three learners are not significant. The level one learners are also

significantly different from native speakers of English (X^2 (1) = 6.0, p< .05), and there are significant differences between the level three students and the native speakers of French (X^2 (1) = 17.2, p <.001).

Verbs of caused motion are used more by the advanced learners than by the intermediate learners, but native speakers also make extensive use of these. The overall differences between the four groups in their use of this type of motion verbs are significant (X^2 (2) = 68.0, p< .001). A comparison of the individual groups reveals that the level one learners are significantly different from the native speakers of French verbs (X^2 (1) = 38.04, p <.001), but not from the level three learners. The level three students are also significantly different from the native speakers of French (X^2 (1) = 26.76, p<.001). Both the level one learners X^2 (1) = 21.0, p< .001), and the level three learners X^2 (1) = 29.8, p< .001) are significantly different from native speakers of English.

The analysis of path verbs revealed large differences if all four groups are compared (X^2 (3) = 317.4, p< .0001), but there were no significant differences among the three French-speaking groups. The English native speakers are clearly significantly different from both the level one learners (X^2 (1) = 251.0, p< .001) and the level three learners (X^2 (1) = 292.0, p< .001).

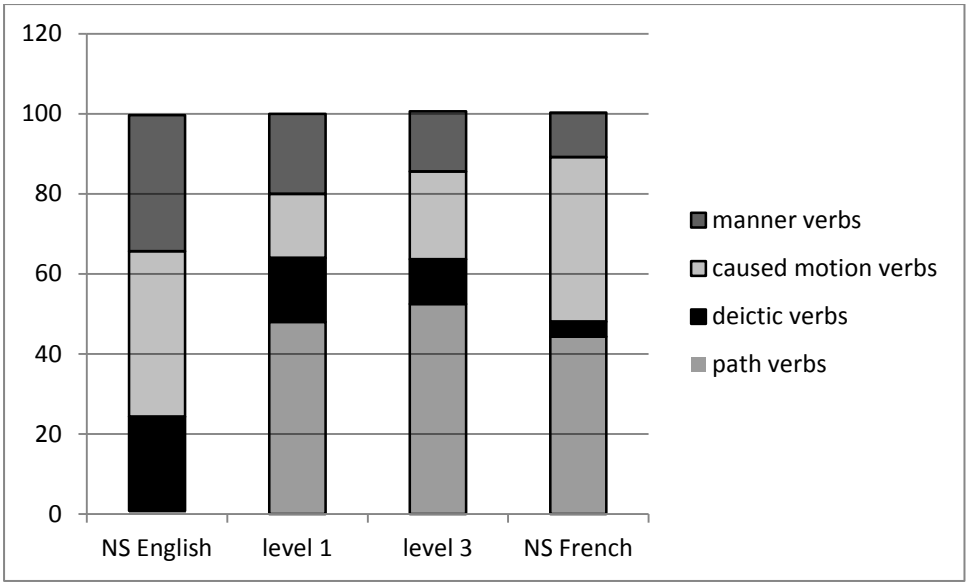

Figure 5. Path verbs, deictic verbs, verbs of caused motion and manner verbs (tokens) as a percentage of all motion verb tokens in the speech of learners and native speakers

It is also interesting to look at the trajectory of individual verbs in the data set. We selected verbs that were used by all three French-speaking groups, one from each type of motion verbs, and calculated how often it was used as a percentage of the total number of motion verbs used by that group. Figure 6 shows that the deictic verb *aller* and the manner verb *courir* are employed less and less frequently as language proficiency goes up, whilst the frequency of the path verb *arriver* and the verb of caused motion *(r)amener* increases. The same effect is visible in the differences in rank order of frequency of the verbs: *arriver*, for example, ranks fifth among the motion verbs at level one, but third at level three and it is the most frequent motion verb among the native speakers. By comparison, the manner verb *courir* drops in rank: at level one it is the third most frequent verb, at level three it occupies rank six and among the native speakers it is at rank nine. It is interesting that for all four verbs the level three students occupy the middle position between the level one students and the native speakers, which suggests an upward trajectory towards the frequency patterns of the latter.

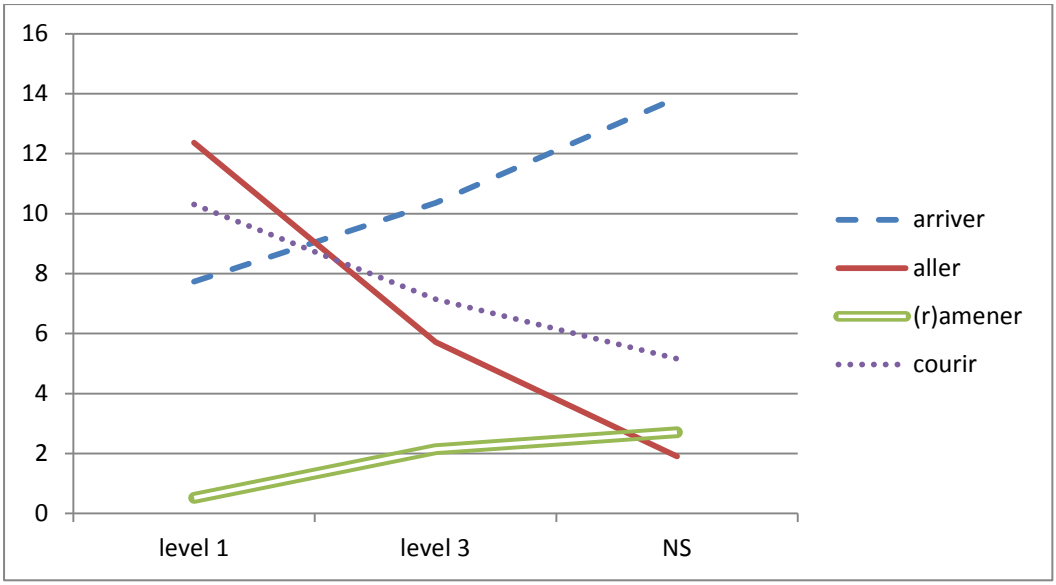

Figure 6. Frequency of four motion verbs among learners and native speakers of French (percentage of total number of motion verbs per group)

6.2 Use of manner adverbials

As it is possible that speakers of French express manner through a variety of means (not necessarily verbs), we also looked at the uses of adverbials which might provide more details about the manner of movement of the protagonists. Adverbials were however very limited in number, and almost all of these were time adverbials. At level one students use *vite* "fast" and *vitement* [sic] "fast", both of which were combined with manner of motion verbs (*courir*), and at level three we find three of these time adverbials: *vite* (x2), *en vitesse* "fast" (two of which are used with the manner verb *courir*). The native speakers used the greatest variety of time adverbials: *à toute allure* "at full speed", *à toutes jambes* "at full speed", *précipitamment* "hastily" (x2), *sans s'arrêter* "without stopping" and *vite*. Four of these are used with path verbs and two with manner verbs. The number of alternative manner expressions is however very limited and they do not compensate for the low frequency of manner verbs in the speech of native speakers. It is interesting though that native speakers combine time adverbials most frequently with path verbs, whilst the learners use these preferably to reinforce the expressivity of manner verbs.

6.3 Manner of motion in boundary crossing situations

In this section we will analyse the movement of the robber in picture one of the story *Unbeabsichtigte Helden* (Plauen 1996 [1952]) in which the robber runs into a bank. The fact that the robber is running rather than walking is very clear in the picture. As some speakers verbalise the event in two different ways and some speakers avoid telling this part of the story by using a generic expression by saying, for example, *un homme essaie de kidnapper une banque* “a man tries to kidnap a bank” the total number of occurrences of each event differs somewhat from the number of participants. In total we have 38 verbalisations from English native speakers, 34 from French native speakers, 26 from level one learners and 30 from level three learners.

Figure 7 shows that the English native speaker and the French native speaker descriptions of the movement of the robber differ from each other in predictable ways. The French native speakers mainly use the path verb *entrer*, whereas the English native speakers mainly use manner verbs (*rush* or *run*), although there is variation in the expression of this event in both languages: the French use some manner verbs, and the English use some deictic verbs, but no path verbs. The differences between both groups in the number of times they conflate manner and motion in the main verb are significant (χ^2 (1) = 19.3, p <0.001). In all groups some informants avoided expressing the movement of the bank robber. Understandably most avoidance is found among the level one students. No informants used verbs of caused motion for this story, so these will not be discussed here.

We will now have a look at how native speakers of both languages construe the event, and then at the characteristics of the learners’ event construals.

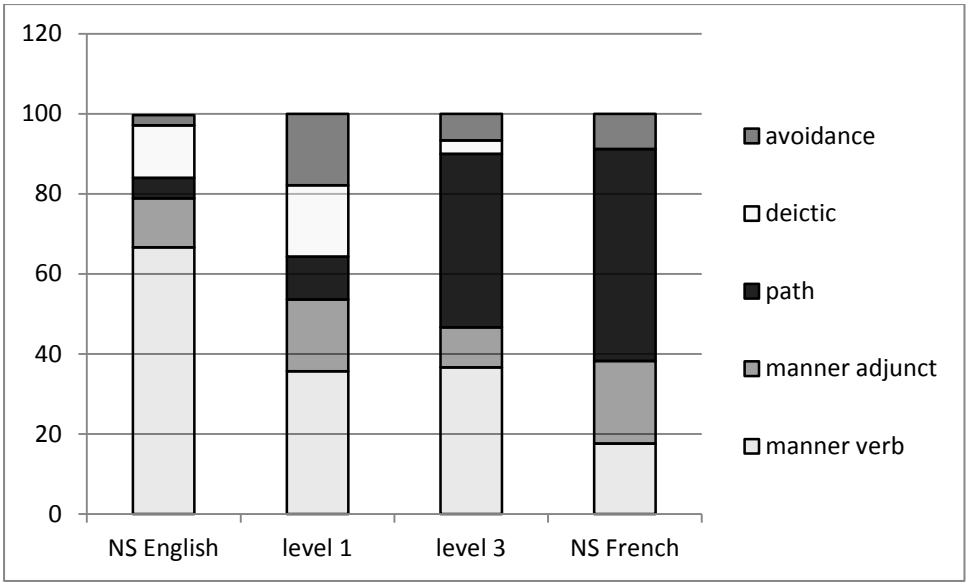

Figure 7. Different ways to verbalise the boundary crossing event by learners and native speakers (percentages of all expressions used)

Twenty native speakers of English describe the action of the robber using a manner verb (*run* or *rush*) in combination with a boundary crossing, in most cases *into the/a bank*. In six other cases, *run* is used with another satellite which does not express a boundary crossing, namely *past* or *past him*, as in (26).

(26) And a rude man runs *past him* (English NS 134)

Interestingly, three English native speakers opt to use a deictic motion verb followed by a manner adjunct, as in (27), which is possible in English but is actually more common in V-languages.

(27) A man *comes running past* and into the bank (English NS 103)

Two native speakers of English use the path verb *enter* to describe the event, as in (28).

(28) A man or what seems to be a thief *enters* a bank very quickly (English NS 138).

The difference between English and the French native speakers becomes clear immediately in that only six of the 23 French native speakers conflate manner with motion in the main verb. Among these, five students choose *courir* “to run” as in (29), one student chooses *se précipiter* “to rush/dash” as in (30) and one chooses

s'incruster "to become embedded" as in (31). The choice of *se précipiter* is interesting as it is used in a boundary crossing situation, which is possible in French if the verb denotes a sudden, instantaneous movement (see section 2).

(29) Une personne *court* vers l' entrée d'
a person runs towards the entrance of

une banque
a bank
'A person runs towards the entrance of a bank.' (French NS 015)

(30) On voit un homme *se précipiter* dans
One sees a man himself.rush into

une banque
a bank
'One sees a man rushing into a bank." (French NS 604)

(31) On voit apparemment un voleur qui
One sees apparently a thief who

s'incruste dans une banque[vii]
becomes.encrusted in a bank
'One apparently sees a thief who forces his way into a bank.' (French NS 602)

It is remarkable that among the students who choose *courir* there is one who uses this manner verb in combination with the PP *à l'intérieur d'une banque* "to the inside of the bank", which is unexpected as this actually means "running around inside the bank", which does not describe the event shown in the picture (see 32). This PP can have a path reading when combined with a path verb as in *rentrer à l'intérieur* "to go inside".[viii]

(32) Un homme court à l'intérieur d'une banque
A man runs to the inside of a bank

‘A man runs into the bank.’ (French NS 015)

Eighteen native speakers of French choose a path verb, which is followed by a manner adjunct in seven cases. The verb *entrer* “to enter” is the most common choice (see 33), with eight students, whereas seven students choose colloquial equivalent *rentrer,* as in (34), which means “to enter” in this context and not “re-enter”, and three choose *arriver* “to arrive” as in (35). The latter also expresses the manner of movement of the robber in a satellite.

(33) Un cambrioleur *entre* dans la banque
A burglar enters in the bank
‘A burglar enters the bank.’ (French NS 605)

(34) Il y a un voleur qui *rentre* dans une banque
There.is a thief who enters in the bank
‘There is a thief who enters the bank.’ (French NS 034)

(35) Un monsieur *arrive* en courant
A gentleman arrives running
‘A gentleman arrives running.’ (French NS 603)

It is remarkable that French speakers who choose a manner verb tend not to add further manner adjuncts to those verbs. The French native speakers in our study add *en courant* “running”, *sans s’arrêter* “without stopping” or *précipitamment* “hurriedly” to *(r)entrer* to path verbs. Only one of the manner verbs in the descriptions of the event is accompanied by a manner adverbial (*courir à toute allure* “run at top speed”). A full overview of all intergroup comparisons can be found in Table 6.

Table 6. Overview of intergroup comparisons of the boundary crossing event

	1-3	1-NS (Eng)	1-NS (Fr)	3-NS(Eng)	3 –NS (Fr)
manner	ns	ns	*	**	ns
path	*	ns	*	**	ns
deixis	ns	ns	*	ns	ns

** = p <.01, * = p <.05

An overall comparison of the four groups leads to significant results with respect to conflation of manner in the main verb (χ^2 (3) =. 29.5, p <.001), but individual groups are not always significantly different from each other. The two learner groups verbalise manner in this motion event in ways that partly resemble the expressions used by the English native speakers, and partly those used by the French native speakers. Although the level one learners differ significantly from the French native speakers (χ^2 (1) = 11.3, p <.05), they are not significantly different from the level three learners, **nor** from the native speakers of English. Thus, the way in which the level one students use manner verbs in boundary crossings resembles the English way of expressing this event but does not correspond to the French way of verbalising it. For the level three students we found the opposite: they do **not** differ significantly from the French native speakers with respect to the conflation of manner and motion in the main verb, but they do differ significantly from the English native speakers (χ^2 (1) = 15.06, p <.001). The level three students thus seem to have moved further away from the English way of expressing motion, in the direction of a more target-like expression of this motion event in L2.

Ten out of 21 students at level one express manner in the main verb, and there are only five manner adjuncts at this level. The manner verb chosen most frequently is *courir* “to run” (nine occurrences), and one student chooses *marcher* “to walk”. On two occasions students add a manner adverb to the manner verb, as in (36), which is not common among the native speakers.

(36) Un homme qui a couré *très très vite*
A man qui has run very very fast
‘A man who ran very very fast.’ (level one French, 311)

In ten cases students express a boundary crossing in a sentence where the main verb is a manner verb, as in (37).

(37)	C'est	une	homme	qui	court	*dans*	*une*	*banque*
	It is	a	man	who	runs	into	a	bank

'It's a man who runs into a bank.' (level one French, 363).

At level three, there are still eleven students who express manner in the main verb (mostly using *courir*), but there are only four occurrences of *courir* with a boundary crossing, which is clearly less than among the level one students. One student adds a manner adjunct to the manner verb, as in (38), and two students add a manner adjunct to a path verb.

(38)	Un	homme	sont	couru	*en vitesse*	et	entré
	A	man	are	run	quickly	and	entered

dans	la	banque
in	the	bank

'A man ran fast and entered the bank.' (level three French, 560)

Both learner groups use more manner verbs than manner adjuncts. In this respect both learner groups are clearly different from the French native speakers, who use manner adjuncts more often than manner verbs. One learner at each level construes the event by conflating path with motion in the main verb and using a satellite to express manner, as in (39).

(39)	Un	criminel	ou	un	délinquant	rentre	dans	une
	A	criminal	or	an	offender	enters	in	a

banque	*en courant*
bank	running

'A criminal or an offender runs into the bank.' (level three French, 551)

With respect to path, the level one learners are NOT significantly different from the native speakers of English, but they are significantly different from the French native speakers (χ^2 (1) = 11.3, p <.05). Thus, the level one learners follow the English way of verbalising path, and have not yet achieved the French way of expressing path. The level one learners are also significantly different from the level three learners (χ^2 (1) = 6.6, p< .05). The results for the level three learners are the opposite of those for the level one learners: the level three learners are significantly different from the English native speakers (χ^2 (1) = 15.6, p < .001), but they are NOT significantly different from the native speakers of French.

At level one there are two students who avoid expressing path altogether and opt for static expressions, as in (40):

(40) une homme dans une banque (level one French, 323 and 334)

'A man in the bank.'

Level one students prefer deictic motion verbs such as *aller* "to go" (5 occurrences), as in (41), over path verbs (three occurrences of *entrer*).

(41) Un voleur *est* *allé* à la banque
A thief is gone to the bank
'A thief went to the bank.' (level one French, 312).

In two of these cases, the students use *entrer* without the preposition *dans*. No student at this level makes use of the colloquial equivalent *rentrer*. At level three, ten students use *entrer*, but there are also two who use the colloquial equivalent *rentrer*. Exposure to everyday French during the placement year in France has probably led to students' acquisition of this colloquial form. At level three only two students omit the preposition *dans*, and only one student uses the deictic motion verb *aller*.

It is highly interesting that with respect to deictic verbs, NEITHER THE LEVEL ONE LEARNERS NOR THE LEVEL THREE LEARNERS are significantly different from the English native speakers[ix]. The level three learners are not significant from the level one learners either. The level one learners are significantly different from the native

speakers of French, but the level three learners are not different from the native speakers of French.

6.4 Summary of the findings

Our study confirms the findings of earlier studies (Hickmann, 2006) that native speakers of French make less use of manner verbs than speakers of English, and rely much more on path verbs. Both groups of native speakers use verbs of caused motion approximately equally often, whilst deictic verbs are employed most frequently by native speakers of English. There were virtually no differences with respect to alternative expressions of manner. The number of adverbials of manner was low in both groups, although the English were more likely to add adverbials to manner verbs and the French more often combined them with path verbs.

We found that the percentage of manner verb tokens is HIGHEST among native speakers of English and LOWEST among the native speakers of French, whilst the learners occupy the middle position. The level three learners have further moved towards the target-like verbalisation of manner in that they are less likely to conflate manner in the main verb than level one learners.

Level one and level three learners were also found to overuse deictic verbs, in particular *aller*, by comparison with French native speakers. In this respect they were similar to native speakers of English.

The three groups of French speakers were similar in their use of path verbs. Apparently, learners pick up path verbs fairly easily from level one onwards, but with respect to verbs of caused motion, both learner groups were far away from the French native speaker norms.

Having studied motion events across the four groups, we can now reach a conclusion with respect to different scenarios we sketched in section 1. The level one learners find themselves in scenario C (creative/hybrid constructions) with respect to manner, deixis and caused motion: the choices they make are significantly different from both groups of monolinguals. With respect to path, they have moved towards scenario B (restructuring) in that they are significantly different from monolingual users of English, but not from monolingual users of French. The level three learners have moved on in the direction of the target-like expression of motion:

they find themselves in scenario B with respect to manner and path, but in scenario C with respect to deixis and caused motion. Neither of the groups fulfils the criteria for either scenario A (transfer) or scenario D (convergence).

After completing the overall picture of motion event construal in both stories, we focused on motion in the boundary crossing event from the bank story. This analysis revealed that the way in which manner was verbalised by level one learners was different from native speakers of French but NOT DIFFERENT FROM NATIVE SPEAKERS OF ENGLISH. For level three students we found the reverse: they are different from native speakers of English but NOT DIFFERENT FROM NATIVE SPEAKERS OF FRENCH. Thus, the level one learners follow English ways of verbalising manner, but the level three learners, have moved on towards the target-like expression of manner in French.

As far as the verbalisation of path is concerned, both learner groups were clearly different from the native speakers of English, who rarely use path verbs for this event. The level one students were clearly different from the French native speakers too, but the level three learners are NOT different from the French native speakers anymore. This constitutes additional evidence that the level three learners have moved on in the direction of the target language, whilst the level one learners are following English patterns.

With respect to deictic verbs, the most interesting finding of this part of the study was that NEITHER THE LEVEL ONE STUDENTS NOR THE LEVEL THREE LEARNERS WERE DIFFERENT FROM THE ENGLISH NATIVE SPEAKERS. Both groups continue to follow the English way of expressing motion in this respect.

With respect to the boundary crossing event, we can now reach the conclusion that the level one learners find themselves in scenario A (the transfer scenario), as far as manner, path and deixis are concerned, whereas the level three learners have moved to scenario B (restructuring) for manner and path, but are in scenario D (convergence) for deixis, because they are not significantly different from either native speaker group in this respect.

It should be stressed, however, that this conclusion relates to the groups as a whole. This does not mean that all learners in both groups behave similarly: clearly learners in either group display features that are similar to motion event construals among native speakers of English or French.

7. Discussion and conclusion

The results obtained in this study reveal some intriguing patterns that have so far not been highlighted in previous studies of the acquisition of motion by L2-learners. The intermediate level learners were found to struggle with almost all aspects of construing motion events, except path, which was apparently the most transparent aspect of French motion event construals. Even the more advanced learners who had had extensive exposure to French prior to data collection were still different from the native speakers of French in that they overuse deictic verbs and underuse verbs of caused motion, although they were found to have moved on to more target-like patterns for path and manner.

The most interesting finding is perhaps that among the intermediate level learners the distribution of variants is significantly different not only from the French monolinguals (which was to be expected) but also from the English monolinguals (which was not expected). Thus, the new approach to transfer and restructuring proposed in this study revealed that level one learners find themselves in a hybrid situation (scenario C), because their L2 productions are significantly different from both groups of monolinguals, with respect to manner, deixis and caused motion, whilst the level three learners were found to have moved on to scenario B (restructuring) for manner and path, but scenario D (convergence) for deixis and caused motion. That level three learners struggled with caused motion, despite the fact that English does have a wide range of verbs of caused motion, confirms the findings of Hendriks et al (2008) who found that acquiring caused motion is very difficult for English learners of French. This is not a transfer effect, but it does constitute evidence for the difficulty learners have in restructuring their interlanguages towards the target language norms.

The situation was very different with respect to the boundary crossing event. Here the level one learners clearly followed the English patterns in that they underuse path, but overuse deictic verbs and manner verbs. The level one learners' behaviour in construing this boundary crossing event was found to be significantly different from the French native speakers, but NOT significantly different from the English native speakers. Thus, for this part of the study the criteria for transfer have been unambiguously met and the learners find themselves in scenario A. As far as the level three learners are concerned, they have clearly moved on and are often

similar to native speakers of French, but not similar to the native speakers of English, except for their use of deictic verbs. Thus, they were found to have progressed to scenario B (restructuring) for manner and path, but remained in scenario C for deictic verbs.

Acquiring target-like expressions for manner of motion in situations where boundaries are being crossed is understandably quite difficult because this involves a very complex reconceptualisation of space: learners need to discover a) which kinds of events involve a boundary crossing and b) how this new concept is relevant for the verbalisation of a motion event in French. In English boundaries can be crossed using a variety of expressions (including manner verbs) but in French path verbs are normally used, except when instantaneous movements need to be described. These insights must somehow been gained from analysing the input they receive, because there is virtually no explicit teaching of this in class.

Clearly there are individual differences between students in their success in dealing with motion: ten level one students and four level three students produce structures which violate the boundary crossing constraint. Although the number of students at level three who are unaware of this constraint has clearly fallen, some are still struggling with this constraint.

To a certain extent, the results of our study confirm those of Inagaki (2001; 2002), who found that advanced British learners of Japanese continue to accept non-target-like expressions of manner of motion, in combination with a directional PP in Japanese. The lack of positive evidence about the unacceptability of *courir dans la banque* could indeed be a relevant factor in explaining these difficulties, although more attention would need to be paid to the kinds of evidence that are available to learners (see Treffers-Daller in prep.). In this context it is particularly relevant that Hendriks et al (2008) point out that English learners of French are presented with a target system that is relatively opaque. Whether or not the English system is transparent to L2 learners of English whose L1 is French will need to be investigated in a follow-up study (see Treffers-Daller in prep.).

The learners' expressions of manner in the main verb and their of use path satellites with manner verbs in boundary crossing events cannot be explained as a simplificatory strategy on the part of L2 learners. In this paper we have argued that the choices of the level one learners are best explained as the result of transfer from English, whilst the level three learners appear to be less dependent on their L1 for

expressing manner of motion. Our data therefore provide some support for Schlyter's (1984) claim that it is mainly classroom learners who struggle with these constructions, although our data show that even some learners who have spent a year abroad in France still use manner verbs in boundary crossing situations.

Two level one learners opted for static expressions such as *un homme dans la banque*, which are similar to those discussed by Giacobbe (1992), which clearly demonstrates that construing an event which involves a boundary crossing is a daunting task for some learners. The static expressions by level one learners form an interesting illustration of the hybrid constructions which are neither typical of L1 nor of L2. The occurrence of these structures can also be interpreted as evidence for Pienemann's (1988; 2005) claim that transfer does not occur at the lower levels of L2 acquisition, because the processor is not yet ready.

As argued above, the overuse of deictic motion verbs is also clearly the result of transfer (at least in the boundary crossing event, for level one learners). There could however also be simplificatory strategies at work: our results are similar to those of Schlyter (1984) and to those of Harley and King (1989) in that in all these studies L2 learners of French overuse verbs such as *aller* and *venir*, and underuse verbs in which motion and path are conflated, such as *entrer*. The fact that learners with *different* L1 backgrounds (Swedish and English) use similar strategies for coping with the acquisition of French ways of expressing motion, seems to point into the direction of universal L2 acquisition strategies as an additional factor. Schlyter (1984: 27) explains the overuse of *viens/vient* by her learners not on the basis of a potential transfer from Swedish, but as a simplification strategy of the learners who at the early stages of acquisition have one form only, namely *vien* which has the non-marked meaning "movement" and which does not distinguish between movement towards the speaker or movement away from the speaker. At a later stage, the learners begin to use *aller* as well as *venir*.

The fact that evidence for transfer was only found in descriptions of the boundary crossing event but that there was little evidence for transfer in the analysis of the entire data set does not mean that the data constitute counter evidence to Slobin's thinking-for-speaking theory. Learners at both levels struggle with the reconceptualisation of motion and take time to discover that manner is not selected for verbalisation as often in French as in English. Figure 5 clearly illustrates the differences between the native speakers of English, who select manner so frequently

and the native speakers of French who do so much less often. The data in Figure 5 reveal the trajectory learner groups follow when an S-framed language is the point of departure and a V-framed language the target. In learning a new way of thinking-for-speaking, learners do however not necessarily rely on the L1, but can also resort to simplification, as when they use static patterns or deictic verbs, or avoid explaining this part of the story. All these strategies clearly indicate they are struggling to reconceptualise motion. L1 transfer is only one out of a range of strategies learners can adopt to fulfil their communicative needs.

In this paper we have shown that in the process of reconceptualisation learners can go through four different scenarios which we have named the TRANSFER, RESTRUCTURING, CREATIVE or HYBRID and CONVERGENCE scenarios. On the basis of the current cross-sectional study we cannot say in which order these occur (even though one would expect the restructuring scenario to be the final one), and/or to what extent individual differences between learners influence outcome of the reconceptualisation process and whether fossilisation is more likely to be associated with particular scenarios. A longitudinal study of the development of learners would be able to shed light on this.

There obviously are important differences between individuals: some L2 learners learn to express motion in their L2 in a target-like fashion from level one, whereas others still do not master the new patterns at level three after having spent a year abroad in the target culture. The variable outcome of the L2 learning process may in part be due to the fact that learners find it difficult to establish the rules because of the existence of variation in the expression of motion in L1 and L2, as discussed above. Another reason might be that the level three learners are far from the levels of exposure that French children get when learning how to express motion in their L1, as one of the reviewers has pointed out. Of course continued exposure to French is an important factor that could help the learners to move on, but how and why some learners make good use of the available input and restructure their interlanguages whilst others are less successful will need to be explored in future studies on this topic.

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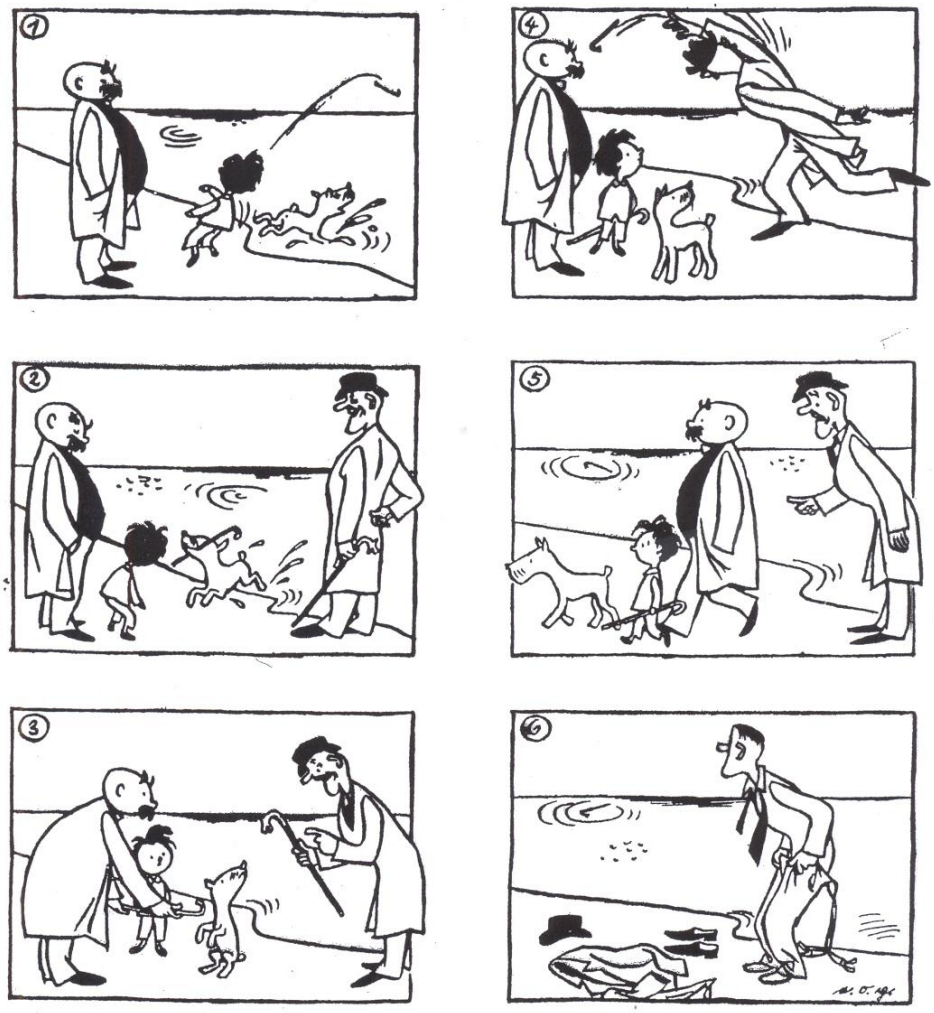
Appendix 1

Source: Der Bankräuber (alias: Unbeabsichtigte Helden). From: E.O.Plauen (2000) *Vater und Sohn*, in Gesamtausgabe Erich Ohser © Südverlag GmbH, Konstanz. Reprinted with permission from the Publisher.

Erfolglose Anbiederung



Notes

[i] Talmy (2000: 36) formulates this as “in a direction other than towards the speaker”.
[ii] The conformation component of Path is a geometric complex that relates the fundamental ground schema within a motion aspect formula to the schema for a full Ground object (Talmy 2000b: 54).

[iii] Schlyter (1984) uses the term “verbes de déplacement” for path verbs such as *venir*, *aller* and *sortir*, and “verbes de mouvement” for manner verbs such as *marcher*, *courir*, etc.
[iv] All examples are given in the original version, without correction.
[v] We added: *bousculer , conduire, emmener, emporter, enlever, envoyer, rattraper, récupérer, renverser, se baigner, s’enfuir* and *s’envoler*.
[vi] *Voler* has two different meanings: to steal and to fly. Both meanings occur in story, but only occurrences of the meaning *fly* have been counted, as *steal* is not a motion verb.
[vii] The verb *s’incruster* literally means to become encrusted or to be superimposed or to take root. The student uses this verb in an original, non-standard way.
[viii] I am grateful to the anonymous reviewer for drawing my attention to this possibility.
[ix] Fisher Exact was used for this comparison, as some cells had an expected frequency below 5, and X2 could therefore not be used.