Two dimensions of the representation of complex event structures: granularity and condensation. Towards a typology of textual production in L1 and L2[1]

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1. Granularity and condensation. Two key dimensions in the representation of complex events in language[0]

As Bronckart (1994) suggests, language studies should take "discourse" as the basic unit of meaning. "Discourse", for Bronckart, is a cultural creation, and its organization principles may vary historically and geographically. When focussing on language acquisition, discourse is considered as a range of possibilities of language use for the learner at a given time. As the description of L1 and L2 learner language varieties may be looked at in a similar way, a discursive approach can provide powerful insights into the language acquisition process and discourse production in general.

A large number of studies on language acquisition working within a conceptual framework (Levelt 1989; Berman 1987) describe language as a system in which there is a modular relation between conceptualisation and formulation. Berman (1987) makes a close comparison between first and second language acquisition on the basis of a conceptual approach. She shows a similar evolution in the relation between forms and their function(s). However, in spite of the apparent regularity, this mapping of functions onto forms may vary according to several factors, such as the linguistic knowledge already acquired (elementary *vs* intermediate *vs* advanced L2 learners, and bilingual children), or the conditions of language acquisition (L1 vs L2, tutored *vs* immersion acquisition), or even individual factors. We will attempt to characterize the way in which linguistic knowledge on the one hand, and the conditions of acquisition in L1 and L2 varieties on the other hand, influence discourse construction. This will be done by comparing oral production from learners at different stages and from children at different ages, and for different languages.

A conceptual approach does not necessarily imply a textual dimension. However, we will investigate the conceptualization of complex event representations in texts. This allows a better understanding of language organization and use in L1 and in L2. We have chosen to work on narrative texts, which suit particularly well our investigation, i.e. ways of representing event structure in language.

The linguistic representation of events in time implies the development of lexical items for specifying events as well as that of the lexical and grammatical means for embedding them in time. We have attempted to characterise qualitatively the ways in which learners with developing varieties present complex events and embed them in time, in order to shed some light on various aspects of the evolution of learner varieties in text production. In doing so, we seek to go beyond the findings presented in studies bearing on the acquisition of temporal means (Dietrich, Klein, and Noyau 1995), as well as those concerned with the development of lexical items - verbal in our case (Voionmaa 1993; Dietrich 1989).

In order to deal with the different modalities of representing complex events in language production by a range of speakers (L2 learners, bilingual children, native speakers of different languages), we look closer at two key aspects of the conceptualisation of event structures in texts (cf. Noyau 1997, 1999; Noyau and Paprocka 2000):

a) *granularity*, or the degree of temporal partitioning of situations;
b) *condensation*, or the degree of hierarchical organisation of event structures.

The human mind is able to modulate its representations of a state of affairs, taking different, more or less differentiated, views on it, i.e. identifying a smaller or bigger number of its sub-components. What interests us here is the application of granularity to the temporal domain in texts. *Temporal granularity* is a qualitative dimension which characterizes the ways in which, in texts, a complex dynamic situation will be conceptualized, with either a high degree of granularity, i.e. presenting a detailed series of micro-events, or a low degree, as one macro-event or a few events, in which the different components merge. The temporal interval associated with this situation is more or less segmented into sub-intervals corresponding to many or few micro-events. These micro-events fill either the whole temporal lapse or just parts of it, leaving temporal gaps which can be filled by the listener who then infers intermediate components of the macro-situation.

We will use the term situation throughout this paper in two ways: a) for perceived or conceived states of things which are the stimulus to a linguistic representation by a speaker; b) in a technical sense, as in the studies on temporality by Comrie (1985: 5) and Klein (1994), as the lexical content of a predicate, which has given inherent temporal characteristics (duration, change, etc., often called Aktionsart in the literature), and which can be embedded in time within the complex temporal structure of the text.

In this technical sense, the labels action, event, process, activity, state and the like, as well as 1-state vs 2-state situations (depending on the different authors) refer to different types of situations.

An *event* is a situation considered as a singular occurrence embedded in time. Events are most frequently situations that include an inherent boundary and

whose duration is limited. Aspectualizing devices allow the speaker to present a durative situation as a singular bounded occurrence. As narratives are by definition made of a series of events (± additional material), we will often use *event* when referring to situations which make up the narrative.

Two aspects of temporal granularity will be examined: a) the degree of granularity adopted by a speaker in partitioning a situation for telling it; b) shifts in granularity, linked to discursive options which permit to present the complex situation in a hierarchical way, as in the temporal 'encapsulations' studied by de Saussure (1998).

Temporal granularity can manifest itself in several ways: partial *vs* more exhaustive representations of the events as well as shorter or longer sub-events filling the overall time interval (on the theoretical background of this notion, see Noyau (1999)).

This dimension can be characterized by contrasting different ways of telling the same story. The degree of granularity can be quantified by comparing the number of situations in different versions a) of the whole text, b) of an episode, c) of a portion of a dynamic situation expressed by one or several predicates. Comparing the length of narratives, in terms of number of episodes or of propositions, will show if the situation is presented in a more fine-grained or a less fine-grained way, i.e. with a high or a low degree of granularity.

Each conceptualised event belongs to a *proposition*, which, for the present purpose, is defined as a conceptual information unit which minimally includes reference to a situation (a predicate + its associated entities), reference to modality and, optionally, reference to time, to space, and to other circumstances (Levelt 1989; Klein and von Stutterheim 1989). The proposition is reconstructed from the text by the interpretation process on the basis of the linguistic material and the structural and contextual inferences. It is normally expressed by a syntactic *clause*, but not all syntactic clauses express propositions ('it is the dog that broke the glass' contains two formal clauses, each with a finite verb, but refers to only one situation, and counts as one proposition) — nor all propositions are expressed by a clause, even in full-fledged language: for example 'not here' may be a conceptual proposition in an appropriate context. In what follows, we keep apart these two notions for referring to the conceptual and to the linguistic level respectively.

The study of conceptualisation at text level requires a specification of the propositions that are linked. Moreover, we take suprapro-positional units into consideration, such as utterances, episodes, and the text itself.

We take the *utterance* to be an autonomous communicative unit, made up by one or more propositions uttered together, which has an illocutionary force, and whose contribution to the information structure of the text can be described as a whole. Various criteria were considered together to segment the texts into

utterances: syntactical, semantical, intonative, and interpretative (cf. Sanz Espinar 2000), leading to a consensus between analysts.

Finally, narrative texts can be segmented into *episodes* (Trabasso and Nickels 1992), viewed as a set of propositions which contain, at least, a goal, an attempt to meet this goal, and an outcome. In addition, as all our narrative data were elicited from a visual stimulus (film sequence, picture strip), the stimuli were also analysed in order to evaluate the episodic restitution in each narrative. Sometimes this restitution is quite simple (as a single macro-process per film / picture episode, i.e. with a low degree of temporal granularity), sometimes this restitution is complex and detailed (as a sequence of micro-processes per film / picture strip episode, i.e. with a high degree of temporal granularity). The linguistic means for choosing a specific degree of granularity are the lexical items for situations (states, activities, events, actions), i.e. mainly – but not exclusively – verbs.

Condensation is concerned with the linking of conceptual propositions into larger utterance units. When producing a text, the speaker has to comply with constraints imposed by the linear nature of spoken language. However, a message is not always conceptualised as a linear construct (Denhière and Baudet 1991; Levelt 1989; Trabasso and Nickels 1992). Texts, and in particular narratives, can also be hierarchically structured. A body of events making up a complex dynamic situation may be grouped into a hierarchical relational structure, displaying a high degree of condensation which is manifested by multi-propositional utterances and by hypotactic linkage. Conversely it may be expressed as a chain of isolated monopropositional utterances, with a lower degree of condensation.

The utterance was taken as the basic unit in our analysis of condensation. The relation between propositions within the utterances is usually hierarchical. Therefore, the quantitative cues of condensation area) the mean number of propositions per utterance in the text; b) the mean number of embedding levels per utterance.

Furthermore, condensation can be described qualitatively, by analysing the kind of relationship between the situations of different propositions: semantic (temporal, causal, aspectual, etc.), and enunciative / informational (topic / focus, foreground / background). Linguistic means realising these interpropositional relationships are mainly connectors, embedding devices, and verbal morphology.

Finally, two other notions are in order in relation to the two key dimensions that are discussed: when the event components are presented as a chain of temporally ordered sub-intervals, texts can be characterized as *sequentialized*. When the event components are linked to each other by diverse relations between the temporal intervals they cover (time of the situation, Tsit) and the asserted time intervals (time of assertion, Tas): partial or total overlap, inclusion, among others (in terms of Klein's (1994) model of time in language), texts can be characterized

as *aspectualized*. We will be referring to more or less sequentializing and to more or less aspectualizing languages, according to the means allowing these configurations. These tendencies have to be traced in native speakers' texts, as recent studies have shown (Carroll and von Stutterheim 1997; von Stutterheim and Lambert in this volume). These notions are linked to granularity and condensation in that sequentialisation tends to be associated with high granularity and with low condensation, and aspectualisation with low granularity.

A series of studies were conducted with the aim of observing the options chosen by speakers in L1 and L2 and the constraints on these options.

We are concerned here with the different types of linguistic means used for the expression of these options (lexical items: mainly verbal, used for events, syntax of interclausal relations, temporo-aspectual morphology, discourse configurations). Our aim is to determine how different *linguistic* choices map onto the *conceptual* options of granularity and condensation, and how these conceptual options help to distinguish between learner varieties at different stages in the acquisition process.

In the initial stages of acquisition, the emerging repertoire develops by a series of changes in the relation between forms and functions. Owing to the limitations of the lexical repertoire and, more notably, the grammatical repertoire, the learners are led to adopt modes (similar for all learners) of organising information which, although robust, are restrictive. In the later stages of the acquisition process, with an increased lexical repertoire and grammatical capabilities, the options available to speakers increase. This, somewhat paradoxically, gives more room for the influence of the L1 in the production of texts. This phenomenon shows up in the influence of the stronger language on the weak language in the development of bilingualism and in childhood acquisition of a L2 on the one hand, and in the most advanced stages of second language acquisition on the other hand: while the linguistic repertoire of the target language is mastered, there are still some peculiarities in the organisation of information in text production in the learner language (Carroll and von Stutterheim 1997).

These considerations led to state a series of hypotheses which could be tested in different types of data (they are presented in greater detail in Noyau and Paprocka 2000).

Granularity will allow to distinguish different levels within early stages of acquisition: the degree of granularity will increase with the development of lexical items for expressing events in the L2, becoming a free variable at more advanced stages, that is, giving the speaker greater leeway when faced with the situational constraints imposed by the particular communicative task.

Condensation will be more relevant to deal with intermediate and advanced stages of acquisition: learners' language production will show a development from an accumulative presentation of information towards a gradual command of

hypotaxis, allowing the hierarchical organisation of narratives. However, the functional use of these procedures in the L2 will remain under the influence of the modes of organisation proper of the L1 for a long time, even in the case of very advanced learners.

2. The data

The studies presented in this paper deal with a range of different situations and levels of acquisition. By making comparisons of narrative texts in the L1 and the L2 between different stages in the acquisition of the L2 or between groups of learners at different levels, between productions by native speakers and by children in a bilingual situation, we highlight different positions on the axes of granularity and condensation and attempt to determine the factors which contribute to the varying degrees of granularity and condensation encountered.
A range of narrative accounts were elicited using previously-existing stimuli used in research on language acquisition: picture sequences (Hickmann 1995; Berman and Slobin 1994); cartoon strips (Stutterheim and Lambert, in this volume). These accounts were obtained in the same controlled conditions in each case, thus permitting comparisons to be made. The different studies presented here bear on:

- childhood bilingual acquisition (French-German: Schneider);
- initial and intermediate stages in second language acquisition (French L2 with Polish L1: Paprocka);
- later stages in second language acquisition: advanced learners (Spanish L2 by French learners, French L2 by Swedish and by Spanish learners: De Lorenzo, Kihlstedt).

Bringing together these different studies led us to evaluate the weight of different factors at play in the degrees of granularity and of condensation that different speakers display in their texts. In fact, the two key dimensions may vary according to: (i) cognitive or linguistic development in child language acquisition; (ii) the level of L2 acquisition; (iii) the communicative task (requirements of the text type, adaptation to the hearer); (iv) global tendencies of a given language, given the options offered and the constraints imposed by the linguistic system; and finally, (v) individual preferences may show up when the linguistic repertoire reaches a given level of development.
Longitudinal case studies give access to the first two factors, careful design of data collection takes care of the third one, cross-linguistic comparisons bring to the fore the strength of language-specific tendencies, and, finally, cross-sectional

studies show that inter-individual variation does not prevail over the other factors. Therefore, we brought together several longitudinal and cross-sectional studies of granularity and condensation in an acquisitional and typological perspective.

3. Results

3.1. Bilingual acquisition in children

With regard to childhood language acquisition, Schneider (1999, 2000a, 2000b) observes a parallel development in the narratives produced by a French-German bilingual boy living in France, aged between 3 (years); 6 (months) and 5;2, in both languages, using Mayer's (1969) stimulus *Frog, where are you?*, which relates a young boy's attempts at finding his pet frog.

Between 3;6 and 4;0, only part of the events represented in the pictures are present in both the French and the German texts, and the child makes use of indirect means to refer to the events (direct reported speech not introduced by verbs of saying, onomatopoeia and noises, gestures, a theatrical way of speaking: expressive prosody and change of voice), resulting in a low degree of temporal granularity. At the same time, the first hypotactic structures appear in both languages: temporal subordination can be observed in the orientation parts and subordination of cause and purpose emerges in the development parts of the narratives[0].

Between 4;0 and 5;0, in both languages the child makes use of reference to space *überall / partout* (everywhere) to summarise and to anticipate in the search for the frog outside the house and to list the different places where the frog is looked for. Consequently, the expression of some information is lacking, in particular the (negative) outcomes of the different attempts at finding the frog, as well as the continuation of the search after each failed attempt (low degree of temporal granularity in the development part of the narrative). The amount of direct reported speech diminishes. The condensation of information by hypotaxis is found mainly in the orientation part (temporal subordination). However, a few cases of condensation by hypotaxis within episodes appear in the development part (relative subordination and subordination of cause and purpose).

The two narratives produced at 5;2, one in French and one in German, also converge on certain points. The number of clauses increases, as does the degree of temporal granularity of the texts. The previous extensive use of direct reported speech gives way to a new concern for a more exhaustive selection of the situations presented in the pictures (including actions that occur simultaneously), whilst a high degree of condensation occurs in the opening stages of the

narratives. New forms of expressing simultaneity surface, such as the German adverb *solange* (as long as/while) and the French temporal conjunction *pendant que* (whilst). A number of events expressed in the development parts of the story are also condensed by hypotaxis.

It can be observed then, a progression in the reference to events in narratives collected at the different stages: from a partial representation and linear organisation of the events to a more exhaustive selection and a more hierarchical organisation in the two languages. However, these observations merit greater reflection. Before the age of three, the subject already has at his disposal certain linguistic forms allowing the production of hypotactic structures in both languages (Schneider 1998). This may be seen in productions elicited using other stimuli as well as in personal narratives realised by the subject at barely three years old. The analysis of these narratives shows that the familiarity with the nature of the events to be expressed favours the selection of a great deal of information necessary to the adressee and the linearisation of this information into a hierarchically structured text. This is particularly true for personal narratives. This finding suggests that the linguistic repertoire alone does not dictate the selection of information to be transmitted, nor does it determine the use of complex means appropriate for text organization. The construction of a narrative seems to depend, in the case of the subject observed, more on cognitive factors (macro-planification of discourse *vs* picture saliency[0], the degree of familiarity with the particular situations[0]: situations already experienced by the subject *vs* new situations, the length of narratives) than on the (roughly equal) command of the two languages at a given age.

The fact that the progression of the language productions of child learners is not linear in nature with regard to granularity and condensation, but is rather subject to cognitive factors, can be supported by the spontaneous non narrative productions of another French-German bilingual boy of around two and a half years old, collected by Schneider.

Example (1) is produced spontaneously by the boy in a familiar situation (leaving the crèche and going home). This sequence is characterised by a high degree of temporal granularity: the child cuts up the process of 'going home' into a multitude of micro-actions. The degree of granularity is far higher than that one would normally find in adult productions about this kind of situation (micro-actions such as 'put the key in the lock' , 'turn the key', 'open the door', etc. go without saying when you simply want to refer to the action of 'going home') and far higher than is actually needed for communication to be effective in the given situation. This sequence rather points at the young subject's need to imagine complex actions and to build up scripts for familiar, frequently experienced actions. In contrast to the observations made by Cordier (1994: 91), who found

that in recall tasks bearing on familiar scripts of complex actions, the recall of actions becomes increasingly complex with age (between four and six years), it rather seems that, in natural interaction, the expression of micro-actions of this type should fade away with age, i.e. once the child has elaborated the script of a familiar action and has learnt that micro-actions do not need to be expressed for the communication to be effective. The child has to learn how to handle granularity and to select or leave out some micro-actions, and to judge what information can be inferred. In the case of (1), however, the child makes explicit most of the micro-actions belonging to the overall scenario he is developing, thus giving preference to the representative function of language above the communicative functions. In other words, the child has to learn what degree(s) of temporal granularity is /are appropriate to a given communicative situation.

(1) 'Going home' (CHI: aged 2;4)
*AD 1: *au revoir   on   va   rentrer*
      goodbye   we   go   go home
*AD 2: *nous aussi + au revoir*
      we   too +   good bye
*CHI: *au revoir   nous aussi on   va rentrer*
      good bye   we   also we   go go home
*CHI: *on   va sortir   de   la   crèche*
      we   go exit   of   the   crèche
*CHI: *passer par   la   place   avec la   fontaine*
      go past by   the   square   with the   fountain
*CHI: *traverser   la   rue*
      cross   the   road
*CHI: *ouvrir   la   porte*
      open   the   door
*CHI: *monter   l'escalier*
      climb   the steps
*CHI: *mettre   la   clé   dans la   serrure*
      put   the   key in   the   lock
*CHI: *tourner la   clé*
      turn   the   key
*CHI: *ouvrir   la   porte*
      open   the   door
*CHI: *enlever le   manteau*
      take off the   coat
      'Goodbye, we're going home. We too. Goodbye. Goodbye, we're also going home. We're going to go out of the crèche, go past the square with

the fountain, cross the road, open the door, climb the steps, put the key in the lock, turn the key, open the door, take off our coats'.

Spontaneous productions of this type would suggest that the development of temporal granularity in a child's language production is not necessarily characterised by a progression from productions lacking certain information towards a more exhaustive selection of information in all contexts and in all types of discourse. On the contrary, a higher degree of granularity may be observed early on in certain contexts (familiar actions) and may be absent in the expression of other actions (those less familiar to the child). In order to formulate utterances, the child must have access to certain linguistic means. However, the child's level of cognitive development would appear to play a crucial role in the selection of information to be expressed and thus in the choice of the degree of temporal granularity adopted (as pointed out by Romeo 1999). The same applies to the development of complex linguistic means which allow the condensation of information in texts. Whilst hypotactic structures may appear early on in day to day conversation, they will emerge later on in monological discourse such as narratives.

3.2. Initial and intermediate stages in L2 acquisition

This section summarizes analyses of a longitudinal corpus of L1 and L2 narratives produced by six Polish teenagers between six and thirty-eight months of French tuition at school. The productions were elicited using the stimuli *Modern Times* and the *Cat Story*.
In picture-based retellings, the learners mostly opt for mentioning the macro-events only,[0] and refer to the most important and the largest events of story (macro-events) by means of basic level verbal items, as: *aller, venir, dire, faire, vouloir,* 'go, come, say, do, want' (cf. Viberg 1993; Paprocka 1997) once they become able to produce narratives. They thus stick to a low degree of temporal granularity, so that the structure of their narrative is very straightforward but clear, as shown in Magda K.'s production:

(2)   (Magda, 6th month)
1 *sur [de larbe]   est   l'oiseau avec ses   enfants‾*
on   the   tree   is   the bird with its   children
2 *quand   l'oiseau + +   laisse   ses   enfants*
when   the bird   leaves   its   children
2a *[euh]   il   vient   grand   [muv~e] chat‾*

there arrives big   bad   cat   ‾
3 *il veut /   il   veut   [mõZ] +le   petit oiseau* ‾
it wants   it wants   eat   the   little bird
4 *mais il vient   grand / grand   chien*
but   it arrives big   big   dog
5' *et   il [le]   tire   par   la   [ke]* < taken over from the interlocutor>
   and   it him   pulls at   the   tail
6 *maintenant + arrive   l'oiseau avec + le   déjeuner*
   now   arrives the bird with   the   breakfast
pour ses   enfants ‾
for   its   children
7 ++   *encore   le /le chien / [purswi] + le   chat*
      again   the   dog   pursues   the   cat
'On the tree is the bird with its children. When the bird leaves its children, big bad cat arrives, it wants it wants to eat the little bird, but there arrives big big dog and pulls him at the tail. Now arrives the bird with the breakfast for its children. And the dog chases after the cat'.

As for condensation, it seems that in early narratives (after six months of tuition), the linguistic difficulties favour the strict adherence to the stimulus. This would explain the predominance of events expressed one following the other in accordance with the sequence of images[0]. This approach nonetheless allows the learners to stick to the "causal path" (Trabasso and Nickels 1992), which, at this stage, is still fairly easy to lose sight of, given their limited narrative capacity in the L2.

In the later texts, we find a higher degree of condensation: the learners are able to put across the same information without having to assert each event separately. They use different means such as nominalisation: the events are expressed verbally and also nominally, for example, in French: *être absent >> l'absence* (*to be absent >> the absence*). Meanwhile temporal granularity increases, with more finely-grained micro-events and the possibility of ordering event structures into whole-part relations, so that the texts become more condensed:

(3)   (Ola, 30th month)
a) *Chaplin toujours a   fait   les   choses*
Chaplin always   has   done the   things
pour se [...] trouver en   prison
to   himself find   in   jail
parce que ... il n'a pas   été   la   maison
because   he not have   been the   house
le   travail la   famille et   il par exemple

the   work   the   family   and   he for   example
+ *il   est   allé   au   restaurant...*
    he is   gone to the   restaurant
    'Chaplin always did the things in order to go to jail because he wasn't the
    house work the family and + for example + he went to the restaurant …'.

(MagdaK, 35th month)
b) *alors pendant l'absence   de leur mère +*
so   during the absence   of their mother
elle   a   volé   pour trouver la   nourriture
she   has   flown   to   find   the   food
quelque chose pour manger +
something   to   eat
a   arrivé   un chat +
has   arrived   a cat
pour manger les   petits oiseaux
to   eat   the   little birds
    'So during their mother's absence + she (= the mother bird) flew off to find
    some food / something to eat + a cat came along + to eat the little birds.

In (3a), *aller au restaurant* is one of the micro-events specifically placed under
the heading *faire des choses pour retourner au prison*, while in (3b) a single
complex utterance sums the story up: *pendant l'absence de leur mère [...] a
arrivé un chat + pour manger les petits oiseaux* ("during the mother's absence
[...] a cat came along + to eat the little birds"). There is no longer a series of
ordered events, but the texts reveal a higher degree of condensation, as they are
organized into a complex bundle of temporal and purpose relations around one
main event.
After the thirtieth month, the lexical repertoire for events becomes increasingly
richer, allowing the speaker to break down the macro-events into series of micro-
events. The number of different verb types increases; in *Modern Times*, the
amount of verbal items used by the six learners is: 10th month = 55 < 16th month
= 73 <, 30th month = 67 < 38th month = 75; in the *Cat Story* - 6th month = 27 <
35th month = 51.
More advanced learners whose lexical repertoire has become richer (cf. Paprocka
1998), refer to a smaller number of macro-events and more micro-events, and
they construct the stories with a higher temporal granularity: temporal
partitioning of situations increases by presenting detailed series of micro-events
expressed by more specific (verbal and nominal) items. This evolution can be

illustrated by a comparison between the 10th and the 38th month narratives narrative of one learner, Bartek, for the same episode:

(4) Bartek, *Modern Times 1 - 10th month*
1 *oui euh +* *[cetnom* *truve]* *le* *travail*
yes   this man   find   the   job
2 *il travaille*
he works
2a *mais +* *tout à l'heure il finit* *[cet] travail +*
but   soon   he finishes this job
3 *et* *il +++ il / il +++* *[il a ale]* *dans la* *ville*
and he   he   he has gonein   the   town
  'Yes, ehm, this man finds a job, he works, but soon he finishes this job and he
  he he has gone down town'.

(5) Bartek, *Modern Times 4 - 38th month*
1 *oui +* *il a* *obtenu une lettre //*
yes   he has received a   letter
1a *qui* *lui* *[a* *permet]*
which him has   allow
trouver le *travail /*
find   the   job
2 *et euh il a* *trouvé*
and   he has found
3 *il a* *travaillé* *dans la + +* *endroit où +*
he has worked   in   the   place   where
3a *où* *on* *construit* *les* *bateaux*
 where one builds   the   boats
4 *il +* *il a* *fait les* *petits* *boulots*
he   he has done the   small   jobs
5 *il +* *oui +* *le* *chef de cet* *endroit +* *lui* *a* *demandé*
he yes   the boss of this   place   him has   asked
de *rechercher //*
to   look for
5a *le* *morceau +* *de bois //*
the   piece   of wood
5b *comme* *ça /* *il a* *dit* *comme* *ça*
like   this he has said like   this
6 *il* *a* *trouvé //*
he   has   found
6a *mais c'était euh le* *morceau* *qui* *aidait*

but   it was   the   piece   which   helped
+ [*reste*] / *qui*   *aide rester* + *bateau* +   *sur   la   terre*
   staying which   help stay   boat   on   the   ground
7 *il* /*le   bateau* / *quand   il   a   pris   ce   morceau* //
he this boat   when   he has   taken this   piece
7a *le   bateau euh* + +   *est   tombé euh*
the   boat   is   fallen
8 *et   il   a   été   chassé*
and   he has   been chased

   'Yes, he got a letter which allowed him to find ajob. And he found. He worked
   in a place where where they build boats. He did small jobs. He yes the boss of
   this place asked him to look for the piece of wood. "Like this" he said "like
   this". He found, but it was the piece which helped staying which helped the
   boat stay ont he ground. He, this boat, when he took this piece, the boat fell,
   and he was chased'.

Changes in the degree of condensation also appear in the 30th month. In the initial
stages, i.e. from six to ten months of tuition, paratactic constructions prevail.
Even though, for some subjects, hypotaxis with relative pronouns (*que*, *qui*,
quand, *où*) is also found, allowing the early emergence of dependent clauses. The
rather early emergence of the syntactic structures of complex sentences in L2
enables the learners to produce hierarchically organised utterances. This is
probably an influence of formal instruction, centred on syntactic construction
types to be used in complex sentences. Moreover, after thirty-eight months, the
quantitative development of a repertoire allowing the construction of multi-
clausal sentences is striking: from one session to the next, the number and range
of conjunctions and logical connectors increases. All-round, multi-purpose
connectors give way to more specialised connectors: *mais, et, que > qui, parce
que, comment, où > quand > bien que, donc, grâce à > pendant que*. We find a
direct relation between the order in which these items are taught and their order
of appearence.
When the learners come to use more specialised connectors, they link two or
more propositions into larger, hierarchically structured, units, thus producing
multi-propositional utterances with a higher degree of condensation. The
condensation index in narratives goes up during the 38 months of investigation
(number of utterances / number of propositions).
The tables show the evolution of the condensation index in the *Cat story* and
Modern Times, produced by the six learners:

Table 1. Evolution of the condensation index. Cat story.

Month	6th	12th	16th	35th	L1 Polish
Condens. Index	1.2	1.1	1.5	1.6	1.6

Table 2. Evolution of the condensation index. Modern Times.

Month	10th	16th	30th	38th	L1 Polish
Condensation index	1.3	1.5	1.5	1.4	1.6

In the L2 Cat story narratives produced after sixteen months of tuition, the condensation degree is not far from that of their L1 narratives. It finally draws level after thirty-five months[0]. For *Modern Times*, the comparison between productions in L1 and L2 shows the early emergence of hypotactic constructions in the L2 which are frequently used in the L1, for the same functions as in the L1: relative clauses with *qui* (L1: *ktory = qui* masc., *ktora = qui* fem.) mostly for specifying entities; temporal subordination with *quand* (L1: *kiedy* / *gdy*). These two tasks give different images of the learners' narrative and linguistic competence.

3.3. From intermediate to advanced stages

In this section we present data from learners at later stages of acquisition: Swedish-speaking university learners of French at intermediate and advanced stages, and a cross-sectional study of French-speaking Spanish learners and Spanish-speaking French learners at very advanced levels.

Two aspects of granularity will be treated in this section: the link between granularity and acquisition level on the one hand, and the interaction of granularity and sequentiality with respect to language-specific differences on the other hand. More precisely, we will look at the degree of granularity adopted by native speakers and its potential influence on narrative structure, as reflected in data from Swedish and Spanish learners of French and French learners of Spanish.

The stimuli used for the Swedish learners were excerpts from two silent movies[0]. For one of the stimuli, *The Sandbox* (Fr. *Le Bac à Sable*) a longitudinal investigation was done: four students recounted the film sequences three or four times over a period of two years. These learners have been studied extensively by researchers in the Interfra project (Bartning 1997; Kihlstedt 1998; Kirchmeyer 2000; Hancock 2001), with the aim of establishing distinctive grammatical and discourse features characteristic of different advanced levels. According to the above-mentioned studies, one learner, *Marie,* has a more advanced learner profile, whereas the production of *Yvonne* characterises a less advanced, or rather

intermediate, learner. Given that their proficiency levels had been established according to independent criteria in other studies, it was assumed that the link between granularity and acquisition level could be more easily examined.

3.3.1. Granularity and level of acquisition

The length of the re-tellings in number of propositions varied randomly both within and between learners. The degree of granularity varied accordingly, since long retellings often indicate a fine-grained account and short retellings the opposite. No clear distinction could be made between the advanced level (Marie: (6)) and the intermediate level (Yvonne: (7)) as far as granularity was concerned. Both learners sometimes made use of 'synthesising' techniques in describing complex events, with a low degree of granularity:

(6)   (Marie)
l'homme   essaie   tout   pour lui   plaire [..]
the man   tries   everything to   him   please. / /
mais /   le   petit gamin   il   est   toujours très très   fâché.
but /   the   little kid   he   is   still   very   very   angry
'The man tries everything to please him, but the little kid, he is still very, very angry'.

(7)   (Yvonne)
e:t   mais l'enfant   n'aime pas   l'homme   tellement.
and   but   the child   not like not   the man   much
il   fait   tout   pour /   pour lui   faire /
he does all   to   to   him   make
lui   faire   sortir   de: de   là.
him   make   exit   from   there
'And but the child doesn't much like the man. He tries everything to get him to come out of there'.

On other occasions, they encoded events with a higher amount of detail, even when the intended specific verb item was not available in French, so that transfer from L1 Swedish occurred, as *sparka* ('kick') in (9):

(8)   (Marie)
*et   puis **l'homme   voit passer**   un vendeur de de ballons.*
and   then **the man   sees pass**   a   seller   of of balloons
*et   il /   **il court** après.*
and   he /   **he runs** after

il achète / *tous* *les* *ballons* /
he buys all the balloons
et **les** **donne** *au* *gamin* /
and **them give** to the boy
qui **s'** **envole**.
who **refl. fly off**
'And the man sees a balloon seller pass by and he / he runs after him. He buys all the balloons / et gives them to the kid / who floats off.'

(9)   (Yvonne)

quand **il** **voit** *que*: //
when **he sees** that
que **le** **garçon** **devient** *un* *peu* *jaloux* /
that **the boy becomes** a bit jealous
il *fait* *des* / **il donne** *le:s* *bonbons* […]
he makes the *he gives* the sweets
mais *le* / **le** **garçon** // *mm:* // ***ja** ***sparka** //
but the **the boy** well **kick**
lui **fait** **du mal** *quand même*.
him does pain anyway
'and when he sees that // that the boy becomes a bit jealous / he makes some / he gives the sweets […] but . the / the boy // mm: // *well *kick // hurts him anyway'.

This intra-individual and inter-individual variation in the degree of granularity was constant throughout the two-year investigation period.

No systematic study of the condensation dimension was carried out on these learners. However, sporadic observation clearly showed that the learners differed in the way the events were hierarchically structured. Marie made use of various syntactic means of condensation, such as elliptic infinitive constructions: *au lieu de craquer* and *pour s'échapper de l'enfant,* as in (10):

(10*)*   (Marie)

au lieu de de craquer *le* *bonbon*
instead of bite the sweet
le *petit* *enfant* *craque* *le* *doigt* *de* *l'homme* . //
the little child bites the finger of the man
pour pour s'échapper *de* *de* *l'enfant* /
to to escape from from the child
le *l'homme* / *achète* *des* *ballons*
the the man buys some balloons

d'un   d'un /d'un   vendeur de ballons
of a   of a   of a   seller   of balloons
qui   qui   passe.
who   who   passes
'Instead of biting the sweet the little child bites the man's finger. To escape
from the child the man buys some balloons from a passing balloon seller'.

Elliptic constructions were scarcely used by Yvonne, except *pour + infinitive* (to
+ inf.) as in (7) *pour lui faire sortir de là* ('to get him to come out of there). She
used the same construction in her second retelling, at the same point in the
narration, which suggests that it was rather used as a chunk than as a productive
condensing device.

This difference in condensation has been confirmed in other studies on the
same learners. Kirchmeyer (2000) studied the general textual competence in
advanced learners. In her investigation, Marie tended to link clauses by more
complex subordinating means than other learners. She also had the highest
number of clauses per utterance[0].

Likewise, in another linguistic task (dialogues), Marie uses a wide range of
different connectors and other means to structure information hierarchically
(Hancock 2001). As regards temporal linking of discourse, Kihlstedt (1998)
showed that in the dialogues, Marie managed to express temporal moves back
and forth on the time axis by her own linguistic means. This was done through
the use of various morphological (e.g. the pluperfect) and syntactic means (e.g
temporal subordination, narrative present with subject ellipse). Still she didn't
lose track of the overall temporal cohesion of long sequences anchored in the
past. Yvonne, on the other hand, tended to place all events in a default temporal
frame of 'past time', without explicit marking of the temporal links between
them.

Let us sum up the observations so far. Granularity seems subject to individual
preferences, rather than to proficiency level. This observation is consistent with
our general hypothesis (cf. section 1) that the degree of granularity will become a
free variable once the lexical and grammatical means of the target language are
less of an obstacle to expression. Proficiency enables the learner to choose more
freely whether to give a fine-grained account of events or not. As shown in the
production from Yvonne, this choice seems to appear already at intermediate
stages of acquisition. Yvonne's lexical repertoire for verbs is still limited (cf. (9)),
a fact that does not prevent her from choosing different degrees of granularity in
the different retellings.

In contrast to the observations concerning granularity, there seems to be a link between
proficiency level and the degree of condensation as defined in 1. above, i.e. clauses in a text
linked in a hierarchical structure. Condensation increases with higher proficiency, irrespective of

the nature of the task (narratives or dialogues), as demonstrated evidence in the above-mentioned studies.

3.3.2. Granularity in L1 and its influence on L2 production

The degree of granularity adopted by the speaker depends on many factors, one of which is the acquisition level. However, as shown in the preceding section, beyond a certain stage of acquisition, the importance of this factor decreases in favour of the learner's individual choice.

For more advanced learners, language-specific differences regarding the degree of granularity in native speaker production come into play. As stated in the introduction, a dynamic situation can be conceptualised in different ways, with either a high degree of granularity (a series of detailed micro-events) or a low degree, where potential sub-events merge in one or a few macro-events. This choice, although depending partly on personal narrative style, is also determined by the linguistic means at the native speaker's disposal, and thus reflects conceptualisation tendencies of a particular language. The question can be raised as to whether advanced learners have acquired the degree of granularity characteristic of the target language, or whether a foreign 'discourse accent' lingers on, reflecting the conceptualisation tendencies of the mother tongue. As stated by Slobin (1993: 245): " Each native language has trained its speakers to pay different kinds of attention to events and experiences when talking about them. This training is carried out in childhood and is exceptionally resistant to restructuring in adult second language acquisition"[0].

The task of the advanced adult learner is to discover and acquire the linguistic means reflecting these "different kinds of attention" in the target language. By studying conceptual choices made by native speakers, one can examine whether learners opt for L1 or L2 strategies, when faced with the task of constructing a narrative. This question was examined in the L2 French narrations by the Swedish learners, as well as in the L2 French and L2 Spanish narrations of Spanish and French learners. The results from the Swedish learners will be presented first.

The inherent constitutive feature of a narrative text is the consecutiveness of events, but this feature can be more or less central, depending on the linguistic (morpho-syntactic and other) devices available. Establishing the degree of granularity in native speakers' narrations is one way of finding out how central sequentiality is in a given language, and thus a tool for addressing the issue of textual typological differences.

It is important to keep in mind that a narrative text may be detailed even without explicit marking of the consecutiveness of events. This is particularly

true in advanced learners, who have a greater range of means of expression at their disposal. Therefore, in our analyses of narrations at advanced levels, an additional distinction was made between a *sequential* presentation of events, i.e. when the event components are presented as a chain of temporally ordered sub-intervals, and an *aspectual* presentation of events, i.e. when the event components are linked together by diverse relations between the asserted time interval – which, in the default case, is the time of the previously mentioned event - and the actual time interval that the event takes up on the time (*i.e.* relations between TT and TSit, see Klein's model 1994 and above). In the first case, the degree of granularity tends to be higher; in the second case, granularity tends to be lower, as if one way of presenting the events would somehow compensate for the other. It seems that a given language will prefer one or the other of these ways of embedding the narrated events in time, and this preference will depend upon the linguistic means offered by the language.

3.3.3. Granularity and sequentiality in Swedish and French

The characterisation of Swedish and French with respect to the degree of granularity was based on native speaker retellings of the two film stimuli, *The Sandbox* and *The Quest.*

Native French speakers, just like native Swedish speakers, recounted the films mainly in the present tense. It turned out, however, that the degree of granularity was considerably higher in the Swedish production. The most general tendency was for the Swedes to form a sequential structure and use a greater number of connectors that mark consecutiveness, such as *sen* and *så* ('and then').

For *The Quest*, the mean length of the texts in terms of number of words was roughly equivalent for the two groups of native speakers (9036 versus 9098). However, in Swedish, the number of connectors was more than double of that used in French (200 versus 85). For *The Sandbox*, the tendency was clearer still: the Swedish speakers used fewer words but more connectors (37 for 1328 words) than the French speakers (23 for 2358 words)[0]. In Swedish, this preference for putting events in sequence is expressed most notably using the connector *så* ('and then'). This marker, when followed by an inversion of the subject, imposes a sequential interpretation, whether there is a causal link between the events or not[0]. So, for example, the clause *så tror han* ('and then he thinks') in the following example marks referential movement of time (*i.e.* belongs to the foreground), despite the fact that it contains a stative verb:

(11) L1 Swedish
    *så **hittar han*** en våt pöl . /
    *så **tror han*** att de kommer ovanifrån . /
    *så **kollar han*** om han de gör de . /
    men / de gör de inte .
    *så **han börjar krafsa*** på den där pölen /
    *så **ramlar han igenom*** igen
    '***And then he comes across*** a pool. A***nd then he thinks*** it's coming from above. ***And then*** he ***checks*** to see whether that is the case. But it isn't. ***and so he starts to scrape away*** at the pool. A***nd then he falls*** through again'.

French speakers use fewer connectors of this type, but rely more on other means of linking events, thus reducing the relation of consecutiveness. Let us take, for example, the *gérondif* (gerund) in French: *en* V*ant* (e1) + NP V (e2). Events expressed in the *gérondif)* can be interpreted, according to the context, as either simultaneous or consecutive. In the following examples, both interpretations seem plausible, despite the presence of the connector *et puis* ('and then') in the first one:

(12) L1 French
    et   *puis* **en** *travaillant* *cet* *espace* *mouillé*
    and then **by** **working**   this   space   wet
    il est   *à nouveau* ***aspiré***
    he is   again   sucked up
    'And then he works and / as he is working this damp ground, he gets sucked in it again.**'**
    e1 < e2 or e1 = e2?

(13) L1 French
    en   *se*   *faisant* *engloutir*
    by   refl. making swallow
    il tombe *dans un*   *trou*
    he falls   in   a   hole
    'he is swallowed up and / as he is being swallowed up he falls in a hole'
    e1 < e2 or e1 = e2?

The same event is typically expressed thus in Swedish:

(14) L1 Swedish
    å   *så*   *börjar* *han* *gräva*   *i*   *vattnet.*
    And then   He dig   the   water

å   så   åker   han   igenom   marken
and   then
'and then he starts digging in the water. *and then* he falls through the ground'
e1 < e2

where the only possible interpretation is one of succession from one event to the next.

In selecting means of expression other than connectors, such as, for example, the *gérondif* (gerund), French speakers give less priority to the temporal succession of events. Thus, temporal sequencing is less central in the French production than in those of Swedish speakers. Fourty-four percent of the clauses produced by Swedish speakers in *The Quest* data express temporal move, thus belonging to the foreground, compared to 33% in French. This is a quantitative indicator that sequentiality is higher in Swedish than in French.

The results obtained for Swedish speakers match those found by Carroll and Stutterheim for German speakers (1997). These speakers tend to rely on an abstract temporal structure (a time axis) independent of the event structure, making considerable use of adverbials and connectors to express temporal localisation on this axis independently of the inherent temporal features of the events, unlike English speakers. These differences can be linked to the linguistic means made available by the different languages to express temporal notions, with English necessarily combining time and aspect - as does Spanish (see De Lorenzo's study below) - whereas German and Swedish only encode purely temporal relations.

But how can we situate French in relation to the these language-specific differences? French disposes of an aspectual morphological distinction (*passé composé / imparfait*) restricted to past time. As shown by Schlyter (1996), in data from bilingual Swedish-French children, *så* + inverted word order is used as a perfective marker for events in the foreground, where the *passé composé* is used in French.

Since *så* as a sequential marker is independent of tense forms, whereas *passé composé / imparfait* is limited to events anchored in past time, the order of events is verbalised to a higher degree in Swedish, when the present tense is used in both languages. Or, in other words, succession between events has to be inferred to a greater extent in French than in Swedish when the present is used as the main narrative form. This is exactly what was observed in our L1 data.

The next question addressed was whether the Swedish learners transferred this sequentializing presentation of events when retelling the films in French.

Our results were variable on this point. On the one hand, if we take into account the use of connectors, this does not seem to be the case. The native French speakers produced 9098 words in *The Quest,* 85 of which were sequentializing connectors, i.e. around 1 %. In *Le Bac a Sable,* approximately the same proportion was observed: 23 connectors on 2358 words. In the L2 French data, the proportion is roughly the same, i.e. around 1 % (5645 words and 56 connectors in the first film and 1145 words and 11 connectors in the second one).

On the other hand, in the L2 French retellings, around 40% of the propositions in the *Quest* expressed temporal move, which is similar to the 44% sequential propositions in the L1 Swedish retellings of the same film. The corresponding figure for the native French speakers was 33%. These differences indicate that the higher sequentiality of Swedish, as compared to French, is reflected in the retellings in French L2.

There are, of course, other ways of portioning the time axis than using connectors. In Marie's production, the following episode displays a high degree of granularity in both languages. In Swedish, there are 6 temporally ordered sub-events and 1 background clause. The sequencing of events is marked by coordination and ellipsis, such as *å* ('and') followed by subject omission. Each time interval is filled: a balloon seller comes by (t^1), the man gets an idea (t), runs up to him (t), buys the balloons (t), gives them to the boy (t), and the boy floats off (t):

(15) Marie, L1 Swedish
(I:mm) och / till / mannens lycka
så kommer de en / ballongförsäljare gående förbi (t1).
och han får en fix idé (t2)
å springer fram (t3) /
å köper ett gäng me ballonger (t4) /
mycke väl medveten om att lilla pojken
inte kommer å kunna hålla dessa . /
(I: jaa) och ger dom (t5) /
till pojken och han flyger iväg (t6),
som planerat /
   'and / to / the man's great pleasure, a balloon seller walks by (t1)... and he's got one idea in mind (t2), and runs up to him (t3). / and buys a load of balloons (t4)., / totally aware that the little boy will not be able to keep hold of them / (I:yes) and gives them (t5)., to the boy who floats away (t6). as planned.'

The same episode in French L2 is presented with nearly the same degree of granularity:

(16) Marie, L2 French
      lui / tout seul . /
      et puis l'homme euh / voit passer
      un un vendeur de / de ballons (t1), /
      et il court après (t2),
      il achète tous les ballons (t3), /
      et les donne (t4), au gamin /
      qui s'envole (t5),
      'Him alone. And then the man sees a passing balloon seller (t1), and he he
      runs after him (t2), he buys all the balloons (t3), and gives them (t4), to the
      kid who floats off (t5).'

As shown above, Marie is the most advanced Swedish-speaking learner. The tendency to conceptualise events sequentially in Swedish seems however to influence her production in French. This is not so surprising: the foreign 'discourse accent', i.e. the kind of L1 conceptualisation preferences discussed above tend to linger even at very advanced stages.

    The next study is based on very advanced learners and offers a closer look into the question of whether the degree of granularity in L1 surfaces in L2 production.

3.3.4. Granularity and aspectualisation in final stages of L2 acquisition

De Lorenzo (1999, in press, in progress) studies conceptualization preferences in the structuring of narrative in general, and the role of temporo-aspectual relations and their relationship to the degree of granularity adopted in particular. Both languages, French (henceforth Fr) and Castilian Spanish (henceforth Sp) were analyzed on the basis of productions from two native reference groups (henceforth FrL1 and SpL1)[0]. This analysis then served as a basis for investigating the influence of L1 conceptual structures (degree of granularity) on the L2 production of both learner groups (henceforth FrL2 and SpL2).

    From a typological point of view, the temporo-aspectual systems of the two languages are at first sight very similar. In the past tenses, aspectual differences (perfective /imperfective, perfect) are expressed by verb morphology in both languages. However, Spanish offers a greater range of periphrastic verb constructions. Among these periphrastic forms, the progressive form (*estar* + GER, 'be + V-ing') and other periphrastic constructions formed on the same pattern[0] , combines with all tense-aspect forms.

    To what extent does this typological difference affect the way events are segmented in narratives, i.e. the degree of granularity adopted? It was

hypothesized that in Spanish, the event structure in narratives should be principally organized according to aspectual distinctions (contact or topological relations), whereas in French, where aspectual distinctions play a lesser role, sequential relations (order relations, i.e. the plot line) would be brought to the fore. This in turn would affect the degree of granularity of situations and narrative structure in L1 but also L2 productions. Two sets of analyses - the use of verb morphology and the use of periphrastic constructions in FrL1/SpL1 and FrL2/SpL2 led to the confirmation of this hypothesis.

3.3.5. Verb forms in the foreground and the background

In the French speakers' productions, the *Présent* (henceforth PRES) represents 95% of the verb forms in the foreground, whereas the *Pretérito indefinido* (henceforth *PI*)^0 covers 82% of the verb tokens in the Spanish speakers' productions, with the *PRES* accounting for just 14%. The imperfect tense (henceforth *IMP*) does not have the same distribution in the two languages: it is abundantly used in Spanish (3,5% in the foreground, 61% in the background), but only scarcely used in French (0% and 7% respectively). As a consequence, from one language to another, the *IMP* does not fulfil the same functions in discourse.

In Spanish, whether speakers use the *PI* or the *PRES* in the foreground, they still tend to use the *IMP* for the background (61%). This means that the topological relation between foreground events and background events is aspectual, irrespective of the main narrative form used (*PRES* or *PI*). In both cases the *IMP* fulfills an important function of establishing the opposition between perfective and imperfective, thus contributing to the structuring of a narrative into episodes (Silva-Corvalán 1983).

In the following example, the *IMP* associated to a 2 state lexical content (cf. Klein 1994) conveys an iterative value, linked to the macro-event 5a:

(17) Spanish BER ("the research in the bedroom")
5a. *lo   buscó   por   toda   la   habitación*
      him   searched-PI   through all   the   bedroom
5b. *y   no   la   encontraba*
      and   not   her   found-IMP
      'He searched him all over the bedroom but didn't find her'.

In French, this aspectual contrast plays a very limited role. On the one hand the *Passé simple* (henceforth PS) – perfective aspect - has been replaced by the *Passé composé* (henceforth PC) – which also expresses a perfect aspect (Topic Time

after Time of the Situation, cf. Klein 1994). Thus PC has lost its transparency and conveys now both perfective and perfect meanings in modern French. That might be the reason why PRES operates just as well in the background (79%) as in the foreground (95%) in our L1 French data. The PRES-PRES combination is frequently used and neutralizes a morphological aspectual contrast, as in the following example:

(18)   Français LUC ("the research in the bedroom")
8a *il <u>regarde</u>   dans ses   grandes bottes*
   he looks-PRES   in   his   big   boots
8b *il <u>regarde</u>   dans le   bocal*
   he looks-PRES   in   the   jar
8c *il <u>fouille</u>   le   lit*
   he searches-PRES   the   bed
9a *il <u>met</u>   <u>tout</u> <u>sens</u>   <u>dessus</u> <u>dessous</u>*
   he turns-PRESall   direction   upside   downside
9b *il <u>ne</u>   <u>trouve</u> <u>pas</u> la   grenouille,*
   he not   find-PRES   the   frog
   'He looks into his big boots. Helooks into the jar. He searches the bed. He turns everything upside-down. He doesn't find the frog'.

As a consequence, event presentation in French tends to be more sequential than aspectual.

   Another striking difference between the two languages was found in the relation between the type of situation (i.e. Aktionsart), and verb morphology. In the case of French, there is a tight correlation between the type of situation and verb morphology in our data, which confirms observations from previous studies (e.g., Fayol et al. 1993; Kihlstedt in press). The PRES is used with all kinds of situations, as in (18: 8a-9b). The IMP is only used in the background with one-state verbs (*être* 'to be', *avoir* 'to have', *appeler* 'to call', *chercher* 'to look for'…). The PC is almost exclusively used in the background. In average, 11% of the verb forms used in the background are PC forms, as compared to 1,5% in the foreground, and then mostly with two-state verbs (*trouver* 'to find' *voir* 'to see', 95%).

   In Spanish the relation between the type of verb/situation and the use of verb morphology is less restricted. Spanish speakers freely make different kinds of associations, as in the following example:

(19)   Sp. BER ("the search in the forest")
12. *allí Juan y   su   perrito empezaron la   búsqueda*

there Juan and his doggie started the search
de la rana[0]
for the frog

13a. *cada paso (13b. que daban*
Each step that make-IMP

13c. *y que se alejaban de la casa)*
and that refl. move away-IMP of the house
iban descubriendo nuevas cosas
they went-IMP discovering new things'

14. *el perrito, se entretuvo con un panal de abejas*
the little dog spend-PI some time with a bee hive

15a. *le llamaba la atención la forma*
him get-IMP the attention the way-SUBJ

15b. *en que trabajaban*
in which they work-IMP

16. *Juan por otra parte descubrió un agujero,*
Juan on other hand discover-PI a hole
en un tronco en el suelo
in a trunk in the floor

17a. *le llamó la atención*
[it-SUBJ] attract-PI the attention

17b. *qué podía haber dentro -?*
what could there-be inside?

18a. *y le salió un topo*
and him get-PI a mole-SUBJ

18b. *no sabía*
not know-IMP

18c. *que hubiera animales que vivían*
that have-IMP/SUB animals that lived-IMP'
debajo la tierra
under the earth

19. *pero allí no estaba la ranita*
but there not be-IMP the frog

20a. *enseguida descubrió otro agujero*
immediately after discover-PI another hole

'There Juan and his doggie started the search for the frog. Each step they made moving away from the house, the discovered new things. The little dog spent some time with a beehive. He got attracted by the way in which they work. Juan, on the other hand, was attracted by a hole in a tree trunk on the floor. "What could there be inside?" And there was a mole. He

didn't know that there were animals that lived under the ground. But the frog wasn't there. Immediately thereafter he discovered another hole'.

A two-state lexical content such as *descubrir* ('discover': 13a.) may be associated with imperfective past (which, combined with '*cada paso' + 'nuevas cosas'*, characterizes the situation as iterative), and, conversely, a 1-state content such as *buscar* ('to look for') may be associated with perfective past: *estuvo buscando* 'he was -PI looking for'.

Moreover, the same event is easily associated with different aspectual morphemes depending on context, e.g. *llamar la atención* 'attract' in 15a and 17a.

To sum up, native speakers of these two romance languages make different conceptual choices when anchoring events in a narrative structure. Spanish speakers rely on the aspectual opposition perfective / imperfective, for structuring the text into foreground / background and into episodes. French speakers leave the aspectual opposition implicit in favor of sequential-causal relations.

This difference affects the degree of granularity adopted by Spanish and French speakers: less fine-grained accounts in Spanish (see (17)) and more fine-grained accounts in French (see (18) and the quantitative results above).

3.3.6. The use of periphrastic verb constructions

Among the Romance languages, Spanish (and Portuguese) dispose of the greatest range of periphrastic verbal constructions (henceforth PVC) that encode aspectual meanings, whereas French has relatively few of them (Dietrich 1985). In our analysis, a distinction is made between phasal constructions (initial / intermediate / final phase) and other constructions. The latter ones can be further divided into those which express aspect (progressive: *estar* +GER / être en train de +INF, 'be + V-ing') or *Aktionsart* (*volver a*+INF / re-{V}, the prefix 're-' or 'again'; *conseguir* +INF/ réussir à +INF 'to manage to'), and those which express diathesis (passive constructions using verbs such as *quedarse / rester, verse / se voir, salir / se retrouver* +PART/GER, 'remain', 'see oneself', 'be suddenly' +V-ed/-ing).

Spanish speakers use 49% more PVC than French speakers (143 token vs 96): they also use 100% more phasal constructions (80 vs 40) and 13% more PVC expressing temporal perspective (63 vs 56). Here again, two different conceptual choices are made by Spanish and French speakers. Spanish speakers tend to focus on the initial phase of situations, (thus contributing to the structuring of a narrative into episodes); in addition, they characterize situations in subtle ways, combining PVC with the whole morphological repertoire. This is another

example of the *aspectual* presentation of events made by Spanish speakers. French speakers tend to focus on the temporal relation of consecutiveness in their use of lexical expressions and PVC, i.e. they give a *sequential* presentation of events.

Two closely related temporo-aspectual systems are then used differently in narratives by the speakers of each language. The observed differences (aspectuality vs sequentiality) bring out language-specific constraints on the degree of granularity. The question can be raised as to whether learners opt for the degree of granularity typical of the L1 or of the L2.

3.3.7. Granularity in French L1 and Spanish L1

In comparison with the production of the French speakers, the following divergences concerning the degree of granularity appear in the Spanish speakers' productions. The speakers of Spanish break down their narratives into fewer episodes (-28%: 3,8 vs 5,3)[0] which cover broader time intervals, fewer utterances (-22%: 39 vs 50) and fewer clauses (-15%: 110 vs 130), thus adopting a lower degree of granularity than their French counterparts: their narratives are less fine-grained[0]. This tendency is confirmed by Sanz Espinar (1999). Her data of film-retelling productions (from *Modern Times*) by native speakers and learners of French and Spanish show that temporal granularity is higher (+ 15% of propositions on average) in L1 French as compared to L1 Spanish productions.

So, why is it that speakers of Spanish use a lower degree of granularity than speakers of French, and by what linguistic means? Noyau's hypothesis (1998) relates the degree of granularity to the type of temporo-aspectual links established between events. This relation depends in turn on the linguistic means offered by the language and their availability for the particular task.

As shown above, Spanish speakers focus on the phases of events and the aspectual relations with other events, making use of verbal morphology and PVC (see (17) above), while French speakers prefer the sequential segmentation into chains of events along the time axis (see (18) above).

Another difference is the way Spanish speakers use morphology for keeping apart the time and aspect dimensions, and for differentiating the degree of granularity in narratives, as in (20) below (low granularity in 15a-b, shift to high granularity in 16-22).

(20) (MIG) "The search in the forest[0]"
15a. *entonces   cada uno   empezó   la búsqueda   por su cuenta*
      then   each   begin-PI   the search   individually

15b. *y   empezaron a sufrir   peripecias una trás otra*,
     and   begin-PI   to suffer   incidents   one   after other
--16a. *el   niño se*
     the   boy   refl. leaned-IMP into a   mole tunnel
16b. *llamándolo*
     calling him
16c. *y   enseguida, salía   un topo*
     and suddenly   appear-IMP   a mole
16d. *que le   asustaba*
     that him frighten-IMP
17a. *el   perro saltaba   saltaba*
     the   dog jump-IMP jump-IMP
17b. *porque había visto una   colmena*
     because had   seen a   beehive
17c. *y   la   colmena se   caía*
     and the   hive   refl. fall-IMP down
17d. *y   todas las   abejas   empezaron   a perseguirle*
     and all   the   bees   begin-PERF to follow him
18a. *y   el   perro salía   corriendo*
     and the   dog go out-IMP   running
18b. *escapando de   las   ovejas,*
     fleing   from the   sheep
19a. *el   niño se   subía   a lo   alto de un árbol*
     the   boy refl. climb-IMP to the   top   of a tree
19b. *y   buscaba   por los   agujeros*
     and search-IMP   into the   holes
20a. *y   salía   un búho*
     and go out-IMP   a owl
20b. *y   se   caía   el   niño*
     and refl. fall down-IMP   the   boy
21a. *luego   el   niño se   subía a   una piedra*
     afterwards the   boy refl. climb-IMP a   stone
21b. *y   salía   la   cabeza de un ciervo*
     and go-IMP out   the   head   of a deer
21c. *que lo   cogía   entre   sus   astas*
     who him take-IMP   between his   antlers
22a. *y   entonces salía   corriendo el   ciervo*
     and then   go-IMP running   the   dear
22b. *y   lo   tiraba,   por   un pequeño barranco*
     and him throw-IMP through a little   gully

hacia   un río
towards a   river

'Then each begins the search individually, and they begin to encounter all kinds of trouble. The boy leaned into a mole tunnel, calling him, and suddenly a mole appeared and frightened him. The dog jumped and jumped because he had seen a beehive. And the hive fell down and all the bees began to chase after him and the dog ran away fleeing from the bees. The boy climbed up a tree and looked into the holes, and an owl came out, and he fell down the boy. Later the boy climbed upon a stone and came off the head of a deer, who took him on his antlers. And then the deer ran away, and threw him through a little gully down towards a river'.

15a and 15b (*PI*) provide a sequential frame for the whole episode: 'beginning the search and failure of each tentative. 15a gives the beginning of the plot. 15a and 15b exhibit a lesser degree of granularity than the sequence 16a-22b (*IMP*) which follows, where events from a variety of situation types are presented imperfectively and linked by diverse specific temporal relations. In addition, the events have a given duration and an internal temporal structure (phases, iterations and the like).

In the case of French, the absence of verbal morphology contrasts leads to a higher degree of granularity, bringing out the sequential relation between the events at the expense of the aspectual relations.

(21) (YVE) "The deer episode"[0]. (corresponds to 21a – 22b in (20) above)
51a. <u>*le   cerf*</u>*, [...] relève   brusquement la   tête,*
     the   deer   lift   suddenly   the   head
     et   <u>le   petit garçon,</u> se   retrouve sur   la   tête,
     and   the   little boy   refl. finds   on   the   head
     du   cerf, entre   les   deux, bois,   du   cerf #
     of the   dear between the   two   antlers of the   dear
 53a. <u>*le cerf*</u>*, [...] commence à se   diriger vers, un endroit,*
     the dear [...] begins   to refl. direct   to   a place
54a. *lorsque le   cerf arrive à l'endroit   voulu,*
     when   the   dear arrives to the place intended
54b. *il projette le   petit garçon,*
     he throws   the   little boy
54c. <u>*qui*</u> *se   retrouve propulsé,   avec son   chien [...]*
     who refl. finds   hurled   with his   dog [...]
     dans une   mare
     into a   pond

55a. *le   cerf se   met   alors à   ricaner,*
    the   dear refl. begins   then to snigger
55b. *et   fait demi~tour*
    and   turn around
    'The deer suddenly lifts his head, and the little boy finds himself on the deer's head between the two woods of the deer. The deer starts to run to a place and when he arrives at where he wanted to go, he throws the little boy off, who finds himself thrown off, with his dog, in a pond. The deer then starts to snigger and turns around'.

3.3.8. Granularity — an indicator of the influence of L1 on L2 productions

Let us now consider the productions of L2 learners. To what extent do learners adopt the degree of granularity of the target language or, alternatively, do they stick to the degree of granularity of the L1? In order to adopt the degree of granularity of the target language, learners need to perceive the temporal and aspectual notions verbalized in the representation of events by native speakers. They must then choose the most appropriate linguistic means to express these notions: in short, they have to restructure the relative importance of time and aspect in comparison with their L1.

We will compare FrL2 and SpL2 productions to the FrL1/SpL1 productions discussed above according to three criteria: episodes, utterances and clauses, verb forms in the foreground and the background, and the use of periphrastic verbal constructions.

As regards the segmenting of events into *episodes, utterances and clauses*, the degree of granularity in productions of FrL2 is lower than that of native FrL1 (episodes -11%: 4,7 vs 5,3; utterances -10%: 45 vs 50; clauses -9%: 119 vs 130). The degree of granularity is also higher (episodes +24%, utterances +15%, clauses +8%) than that of SpL1. The degree of granularity adopted is, then, somewhere between that of the L1 and that of the L2. The degree of granularity produced by the SpL2 group is higher than that of SpL1 (episodes +39%: 5,3 vs 3,8; utterances +38%: 54 vs 39; clauses +35%: 148 vs 110). It is also a little higher than that of FrL1 (episodes 0%: 5,3 = 5,3; utterances +8%: 54 vs)50; clauses +14%: 148 vs 130). The degree of granularity adopted is, then, closer to that found in the L1: French speakers use the granularity of their L1 in their productions in SpL2.

As for *verb forms in the foreground and the background*, in FrL2, the PC is the most frequently used form for foreground events (46%), followed by the PRES (42%) and the PS (11%). If we consider the averages obtained, the FrL2

group as a whole differs from both the FrL1 speakers (PRES 95%) and from the SpL1 speakers (*PI* 82%,). However, inter-individual differences must be taken into account: five FrL2 speakers made the same choices as the native Fr speakers and seven other FrL2 speakers the same choice as the native Sp speakers. In the background clauses, the *IMP* is the dominant form (51%): this choice is similar to that of the native Sp speakers (61%), but is completely opposed to that of the native Fr speakers, for whom the IMP receives a mere 7% and the PRES represents 79% of the verb forms for the background in FrL1. In the productions by French speakers in SpL2, the *PRES* is the most frequent form for foreground events (80%), a choice made by the majority of speakers (ten learners out of twelve.) This choice contrasts with that of native Sp speakers (*PRES* 14%) and is closer to that of native Fr speakers (PRES 95%). As for background events, the *PRES* is also the most frequent form found in SpL2 (71%), which is similar to the percentage for the native Fr speakers (79%). Note that the *IMP* musters a score of 17% in SpL2, which, although much less than the 61% found for the native Sp speakers, is at least greater than the 7% for the native Fr speakers. To sum up, the choice of verb forms used by the learners to anchor events in the narrative structure does not match up to that of the native speakers of both target languages, but is rather similar to the options of speakers of the respective L1s.

The *use of PVC* also shows an important influence of the L1. Spanish learners of FrL2 are somewhere in between those of native Fr and Sp speakers: they use 27% more PVCs than the natives Fr (122 vs 96), but 15% less than the Sp (122 vs 143). They use 50% more phasal expressions (60 vs 40) and 11% more expressions of temporal perspective than native Fr speakers (62 vs 56), and respectively -25% (60 vs 80) and -2% less than the Spanish group (62 vs 63): the difference is most apparent in the figures for phasal expressions (+50%, -25%) (cf. (19: 12); (20: 15a, 17d); (21: 53a, 55a). French learners of SpL2 use 24% more PVCs than the native Sp speakers (177 vs 143), mostly for temporal perspective (67% of the PVCs, 119 token): for this function the total is 89% more than for the native Sp speakers (63 token). As for phasal expressions on the contrary, they are used less: 28% (58 vs 80) than by the native Spanish group. The tendencies observed for the native French group are even stronger in L2 by the French learners (fewer phasal expressions but more expressions of temporal perspective than for the native Spanish group), which shows that the degree of granularity relates to that of their L1.

As to verb morphology, both learner groups are clearly influenced by the verb forms used in L1 productions. As to the PVC, on the other hand, the two groups differ: the Spanish-speaking learners of French seem to be influenced by their native language, whereas the French learners of Spanish use nearly as many PVC as the SpL1 group.

The results obtained here according to the three criteria (number of episodes, utterances and clauses; verb forms and PVCs) generally point in the same direction: in L2, both advanced learner groups (FrL2 and SpL2) use the same temporo-aspectual relations between events, the same kind of complex event structure as the native speakers of their respective L1 (Sp, Fr). In order to reach a native-like text organization, they would need to opt for the appropriate degree of granularity in the target language, by taking into account the temporal-aspectual constraints specific to each language. This is probably one of the final obstacles in the acquisition process.

3.3.9. Granularity in French, Spanish and Swedish

To sum up the studies on granularity in advanced L2 varieties, it has been shown that languages exploit more or less strongly the dimension of granularity, and that the degree of granularity in the L1 influences *more or less* productions in L2. Swedish speakers appear to be less influenced than Spanish speakers: the frequent use of sequential connectors in SwL1 does not show up in productions in FrL2, whereas Spanish speakers do apply Spanish *IMP* functions to the corresponding IMP in their FrL2 narratives.

Secondly, Fr speakers' narratives are more fine-grained than those of the Spanish speakers, but less fine-grained than those of the Swedish speakers. This means that the language-specific degree of granularity is relative, depending on what languages are compared. Incidentally, the task of the learners is not so much a question of reaching a maximal degree of granularity, but rather of acquiring the degree of granularity characteristic of the target language. This is particularly important to consider when examining advanced learners, where the granularity degree is no longer restricted by lexical and grammatical shortcomings in the target language.

Another clear tendency is that French native speakers make limited use of the available aspectual contrast in French between the IMP and the PRES/PC, as was observed in three different sets of narratives: *The Quest, The Sandbox, The Frog Story*. These converging results show that French is situated between Swedish and Spanish as far as the aspectual or sequential organization of events is concerned. It thus seems particularly interesting to study how learners with a more 'aspectualizing' first language (Spanish) and a more 'sequentializing' first language (Swedish) perform in French L2 (De Lorenzo and Kihlstedt, in progress).

4. Discussion

Let us sum up the results presented. The work carried out by Schneider on bilingual acquisition in children shows, for children in a balanced bilingual situation (age 3;0 -5;2) the importance of the acquisition of verb items in the development of granularity and condensation. This development is outlined here:

1) early narratives show a lack of verbal lexemes, supplied in part by mimic (low degree of granularity), and a few early hypotactic means for condensation (from the age of 3) to express consecutiveness, cause and purpose;
2) at the age of 5;2 there is a clear increase of the verbal lexicon, with consequences on the length of narratives (longer narratives, i.e. higher degree of temporal granularity). New hypotactic means appear, notably for the expression of simultaneity.

This results in an evolution from poor event representation and linear organisation to a more specific and detailed representation of events and a more hierarchical organisation of the text structure. Moreover, the development of verbal lexicon appears to be crucial in the relation between granularity and condensation.

For personal narratives on familiar situations, the available knowledge of scripts allows the children to build more complex narratives, while fictional narratives require the development of concepts carried by specific verbs (cognitive development) before condensation — whose means are acquired early for basic relations as consecutiveness, causality, purpose — can be displayed in this kind of text. All in all, longitudinal studies of children in a balanced bilingual situation show the predominance of cognitive factors in explaining the evolution of the conceptualisation of complex events in narratives in both languages (Schneider 2000; Romeo 1999).

In conclusion we find a non linear development of granularity in bilingual L1 acquisition, depending on the domains of knowledge acquired by the child. These results also show that granularity and condensation are not independent from each other. On the one hand, the degree of condensation depends on the development of granularity options which in turn relies on the quantitative development of verbs. On the other hand, the scarcity of verbs results in a low degree of granularity, and restricts the possibility to establish hierarchized relations between propositions.

The same relation between granularity and condensation is present in the initial to intermediate stages of L2 acquisition studied by Paprocka. The earliest stages show a low degree of granularity (macro-events only, with basic level

verbal items, and gaps in the re-told scenario). The lack of verbal lexicon in early stages of L2 acquisition places learners in a similar situation to children, which is reflected in the analysis of granularity and condensation. The gradual development of the verb lexicon consequently increases the degree of granularity of narratives. The difference between first and second language acquisition is that concepts are already developed in adolescents and adults, but as conceptualisation is language-dependent, L2 learners have to find new ways to present information in the L2. Although linguistic means for condensation are available from early on for these learners in tutored acquisition, the 30th month shows a crucial change in the use of condensation means, which coincides with a clear growth of verbal lexicon. As far as condensation is concerned, it seems as though the guided acquisition of syntactic complexity enables learners to reach the same degree of condensation of sentences as in their L1 discourse, and that this takes place fairly rapidly in the acquisition process (*supra* and Noyau and Paprocka 2000).

In L2 as in bilingual acquisition, different behaviors are manifested depending on the task. It seems that picture stories do not lead to display all the condensation means at the speaker's disposal, as the pictures show a previous segmentation of the story, whereas film retellings allow for more condensation.

As for the intermediate-advanced and very advanced L2 learners, the situation changes. Once the verbal lexicon has become richer, granularity is a matter of choice at those levels, as the studies of Kihlstedt and De Lorenzo show. As for condensation, neat differences between native speakers and learners show up. The influence of the L1 at advanced levels of L2 acquisition, as regards the use of connectors and of verbal morphology and most notably of verbal periphrases, lead to characterize two different strategies of embedding events into a global text structure: linearisation, based on temporal consecutiveness, which goes with a high degree of granularity and low condensation, and aspectualisation, based on a hierarchical structure (temporo-aspectual relationships as simultaneity, perfectivity vs imperfectivity, causality), which goes with a lower degree of granularity and higher condensation.

This way of exploring the nature of linguistic knowledge in advanced L2 narrative production, examined individually or in comparison with productions of native speakers of the same language, is in keeping with other research studies, especially on three points. Firstly, it is linked to the production model bearing on conceptualisation and formulation proposed by Levelt (1989). Secondly, it is a fruitful way of investigating text production, if one shares the idea that a text is best characterised by its referential movement (Klein and Stutterheim 1987). Finally, it is a way of examining the claim that linguistic means made available by different languages (grammatical means and lexicalisation patterns) "filter the

conceptual choices prior to expression" (Carroll and Stutterheim 1997) and lead speakers either to select or leave out certain notions in discourse elaboration (Slobin 1996).

These studies, as well as those presented in this paper, converge in showing how speakers are guided by their L1 to adopt a particular perspective in discourse planification. This choice of planification is characterised by the selection of information to be expressed, according to the reference domains and cohesion (for a given type of text). Access to a degree of competence approaching that of the native speaker implies the restructuring of the conceptual schemas which underline modes of organising texts. This line of research leads to a more in-depth consideration of the typological characteristics of languages as determining patterns of constructing texts.

It is our firm belief that the two dimensions of the representation of complex event structures in discourse that we have tackled here help us to better understand the interactions between conceptualisation and formulation, i.e. the way in which the acquired linguistic repertoire influences the choices made in the pre-verbal message, thus determining how a specific communicative task is fulfilled.

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Endnotes

1. We express our warm thanks to Henriette Hendriks and to an anonymous reviewer for their valuable criticism and suggestions. This text has gained in clarity and strength due to their attentive reading. All remaining errors are, of course, our own responsibility.

2. See Labov (1972) for a discussion of the notions of orientation and development in narratives.

3. The observations made by Berman and Slobin (1994: 67) go along the same lines. They note that some very young children are capable of structurally organising part of their narratives but « are generally unable to sustain this level of complexity across their texts ».

4. As Hudson and Shapiro (1991: 90) point out: "a narrative is more than just a piece of connected discourse, it is an account of an event. In order to produce a narrative, one must have knowledge about the event that is the topic of the narrative."

5. The macro-events are the necessary events for a meaningful account of the story.

6. The sequence of images, which was available during the whole time in which the learners produced their accounts, proved to be more restricting than the film, which was narrated after having being seen.

7. With regard to the slight drop in the thirty-eighth month, this may have been due to the repetitive nature of the task. By this stage, it was the fourth and final time subjects were asked to give an account of the narrative.

8. Accounts were produced by 4 university students in L2 French and L1 Swedish during four terms, as well as by a group of native speakers for the film *The Sandbox* (data from the Stockholm InterFra corpus, see Bartning 1997). For the second study, based on the film *The Quest,* which is used in several studies on information structure in discourse (see e.g. Carroll, Lambert, and von Stutterheim 2000), the design was cross-sectional and based on data from in L1 Swedish and L2 French from 18 university learners. Comparisons with native speaker production were made for both films.

9. For a more detailed account of different coordinating and subordinating means used by these learners and native speakers, see Kirchmeyer (2000)

10. This question has been studied by a number of L2 researchers, see e.g. Carroll & Stutterheim (1997).

[11] These divergences between the two groups are statistically significant (at $p < .00001$ and $p < .0000001$ respectively)

[12] *SÍ,* followed by SVO order can mark the cause ('so that'), the notion of succession, or both.

[13] The data base (De Lorenzo, in progress) comprises 72 oral narrative produced by 48 speakers who were divided into 4 groups of 12, i.e. two groups serving as reference groups (native French speakers (Fr) and native Spanish speakers (Sp), and two groups of learners (SpL2-FrL1; FrL2-SpL1). The productions were elicited using the picture book *Frog, where are you?* Mayer (1969).

[14] i.e. constructions with motion verbs, such as *IR* 'to go', *SALIR* 'to leave/go out': see (19: 13a-c) below.

[15] In *italics* Spanish tense forms.

[16] In **bold**, main structure clauses

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[17] The granularity index here is based on the number of clauses and the number of episodes expressed. The length of the episodes in number of propositions must also be taken into account (De Lorenzo, in progress).

[18] Simultaneously, the number of clauses per utterance is greater (+8%): the Spanish speakers' utterances show a higher degree of condensation.

[19] In **bold**, foreground clauses and situations; <u>underlined</u>, sequential connectives.

[20] For the presentation here we have cut out those parts relating to the background (signalling them in brackets).