Development of Turkish clause linkage in the narrative texts of Turkish-French bilingual children in France

Mehmet-Ali Akıncı and Harriet Jisa
Université Lumière Lyon 2 and CNRS

1. Introduction

The ability to weave sentences together across discourse through the use of explicit connecting devices is an important part of learning to create a coherent text (Jisa, 1987, 607). Adjacent clauses can be combined using a variety of syntactic means to encode a number of semantic relationships, such as temporal succession or simultaneity, cause and effect or concession. The acquisition of the ability to combine propositions to create coherent monologues is a development which extends well beyond early childhood. "Producing a narrative requires constructing an extended monologue through establishing local relationships between propositions (i.e. cohesion), as well as through organising information about characters and events into a globally defined unit (i.e. coherence)" (Bamberg & Marchman 1990, 60). In the work presented here we will show that the development of this competence is protracted well into adolescence.

We will compare devices for interclausal connectivity or syntactic packaging in three groups of Turkish-speaking children: 2 groups of monolingual children, one high SES (socio-economic status), one low SES, and a group of Turkish-French bilinguals. Our particular interest is in characterising the Turkish of the bilingual children.

In an attempt to draw the developmental profile of clause linkage in the acquisition of Turkish by these children we will investigate the distribution of two different types of interclausal connectivity: co-subordination and subordination (Foley & van Valin 1984, Erguvanlı-Taylan 1988, van Valin 1993, Watters 1993) and the semantic relations which these structures encode. We will compare the use of clause linkage in the texts produced by the bilingual children to those produced by the monolingual Turkish children (Aarssen 1996, Küntay 1992) in order to answer the following two questions:

1. What forms of clause linkage do Turkish-French bilingual children use in Turkish?
2. Is the use of Turkish clause linkage by the Turkish-French bilingual children comparable to that of monolingual Turkish children?

2. Method
2.1. Subjects
Bilingual Turkish-French
The 60 Turkish immigrant children constituting our sample were born in France. Their ages vary from 5;0 to 9;11. The youngest attend nursery school while the oldest children are in their last year of primary school. All of them live in Grenoble and surrounding towns. Table 1 presents the number of bilingual subjects and their ages.

Table 1. Age (years;months), number, mean age, range of the Turkish-French bilingual subjects.

Age group Number subjects	5 years N= 20	7 years N= 20	9 years N=20
mean age	5;7	7;5	9;5
range	5;0-6;2	6;8-8;0	8;8-9;11

Up to the age of 7, the children acquire Turkish exclusively within the family. From the age of 7, up to the end of secondary school, some of these children have the possibility of attending the LCO classes (Heritage Language and Culture). Only 38% of the subjects attend these classes. The children also have the possibility of practising Turkish in religious instruction classes (58% of the subjects) or group activities (35%) organized by Turkish-speaking associations. French, which will become their dominant language, is acquired essentially at nursery school, starting at the age of 2;6 or 3. Our research shows that 77% of the parents report that Turkish is the exclusive language at home. 68% of the children report that they speak French to one another.

90.5% of the fathers are factory or unskilled labourers and 9.5% of them are free-lance masons. All of the mothers are at home. 65% of the fathers quit their studies after primary school in Turkey; 27% completed secondary school. 8% of the fathers are illiterate. 62% of the mothers completed primary school in Turkey, 12% completed secondary school and 26% are illiterate.

Monolingual Low SES
The monolingual subjects representing a low SES are presented in Table 2. We borrowed this group of monolingual Turkish children from Turkey from Aarssen (1996).

Table 2. Age, number, mean age, range of the monolingual Turkish subjects (Low SES) (Aarssen 1996).1

Age group Number subjects	5 years N= 20	7 years N= 20	9 years N=20
mean age	5;6	6;9	8;11
range	5;1-5;11	6;7-7;8	8;7-9;7

In 1992, Aarssen collected these cross-sectional data in Turkey from three age groups (5-, 7- and 9-year-olds). To complete his study of Turkish-Dutch bilingual children Aarssen collected data from monolingual informants with a comparable socio-economic background. He recruited monolingual informants in rural areas of Turkey that matched the place of origin of the parents of his bilingual informants. Two schools in Tarsus in the district of İçel were willing to cooperate.

Monolingual High SES
The monolingual high SES subjects are speakers of standard Turkish from urban middle-class backgrounds in İstanbul. These data were collected and transcribed by Aylin Küntay. The subjects are presented in Table 3.

Table 3. Age, number, mean age, range of the monolingual Turkish subjects (High SES) (Küntay 1992)[2]

Age group Number subjects	5 years N = 20	7 years N = 15	9 years N = 15
mean age	5;6	7;3	9;3
range	4;7 - 5;11	7;0 - 7;11	9;0 - 9;10

2.2. Material and Procedure
All of the subjects told stories based upon a picture book, "*Frog, where are you?*" (Mayer 1969), following the procedures outlined in Berman and Slobin (1994). Each subject was shown the picture-book, which is composed of 24 pictures without text. The pictures relate a story about a little boy, his dog and a frog that the boy had caught and put in a jar in his room. During the night, while the boy and the dog are asleep, the frog escapes from the jar. The different episodes in the story relate the adventures of the boy and the dog during their search for their missing frog. In the end, they find a frog and return home with this frog.

The subjects were instructed that the pictures in the book tell a story and that they should first look carefully through the book. Then they were asked to tell the story. They had the pictures in front of them while telling the story.
All of the Turkish-French bilingual children completed the task, first in Turkish and then subsequently in French. The time between the two recordings varies from one day to two months.

Differences in text length are observed only between the low and high SES monolingual groups. Low SES Turkish monolinguals produce significantly longer texts than either the high SES monolinguals or the bilinguals ($F_{(2,52)} = 3.21$, $p < .04$).

2.3. Coding procedures
Each clause was coded for one of four types of connectivity: juxtaposition, coordination, co-subordination and subordination, following Foley & van Valin (1984), Erguvanlı-Taylan (1988) and Watters (1993). In addition, we coded spatial and temporal deictic markers. The different categories are illustrated below.

a) juxtaposition: two successive clauses are conjoined without a mark of nexus.

(1)   gurba çıkıyo
/frog/go-PROG.-3sg./
"the frog is going"
köpek yatıyo
/dog/sleep-PROG.-3sg./
"the dog is sleeping"
adam yatıyo
/man/sleep-PROG.-3sg./
"the man is sleeping" (TB8;08n)3

b) **deictic**: this category contains both spatial and temporal deictic markers.

(2)   **şimdik burda** bi gız var
      /now/here/one/girl/there is/
      "now here there is a girl"
      burda da köpek va
      /here/DE/dog/there is/
      "and here there is a dog"
      şurda da grenouille çıkıyo
      /there/DE/frog/come out-PROG.-3sg/
      "and there the frog comes out" (TB5:01p)

c) **coordination**: two successive clauses are conjoined using a coordinate conjunction or another connectors.

(3)   çocuk ağaca biniyo
      /child/tree-DIR./climb-PROG.-3sg./
      "the child climbs the tree"
      ve deliğe bakıyo
      /and/hole-DIR./look-PROG.-3sg./
      "and he looks into the hole" (TB8;02e)

d) **co-subordination**: two clauses are related through a relation of dependence. The dependent clause is not embedded.

(4)   küçük oğlan da çık**ıp**
      /little/boy/DE/climb-IP/
      "and the little boy climbs"
      bağarıyo
      /shout-PROG.3sg./
      "(and) he shouts" (TB7;11f)

e) **subordination** : two clauses are related through a relation of dependence and the subordinate clause is embedded.

(5) ondan oğlan da arbre'ın içine saklan**maya**
    /that-ABL/child/DE/tree-GEN./in-POSS.-DIR./hide-MA-DIR./
    gaçıyo
    escape-PROG-3sg./
    "and from there the boy escapes to hide in the tree" (TB7;00d)
(6) çocukunan köpek **uyandığı zaman**
    /child-WITH/dog/wake up-DIK-3sg./time/
    "when the child and the dog wake up"
    kurba euh: şişenin içinde yoktu
    /frog /euh/bottle-GEN./in-POSS.-LOC./there is not-D.PAST-3sg./
    "the frog euh wasn't in the bottle" (TB9;03m)

Table 4 summarises the different forms observed in the data.

Table 4. Summary of observed forms

Deictic (spatial)	*burda*, 'here'; *şurda*, 'there'; *orda* 'there'; *işte*, 'here's'
Deictic (temporal)	*şimdi*, 'now'; *sabahleyin*, 'in the morning'; *akşam* 'in the evening'
Coordination	*ve* 'and'; *ama* 'but'; *sonra* 'then'; *ondan sonra* 'and then' *de* 'and / also'; *o sırada* 'meanwhile'
Co-subordination	*{-İNCE}* 'when X, Y, as soon as X, Y' ; *{-(er)KEN}* 'while X-ing, Y' , *{-İP}* 'X and (then) Y' *{-EREK}* '(in, by) X-ing, Y' , *diye, ki*
Subordination	*{-ME}*, *{-MEK}* + *için* ; *{-MEDEN}* + *önce/sonra* 'before/after V-ing' ; *{-DİKTEN}* + *önce/sonra* 'before/after V-ing' ; *{-DİĞİNDE}* 'at his V-ing'; *{-DİĞİ} zaman* 'at the time of his V-ing'

3. Results

Table 5 presents the proportion of clauses combined using juxtaposition, deictic markers, coordination, co-subordination and subordination for the three groups.

Table 5. Proportions of different interclausal nexus relationships encoded by the three groups of Turkish-speaking children: 5-year-olds, 7-year-olds and 9-year-olds.

	Juxta-position	Deictic	Coordination	Co-subor-dination	Subor-dination
5 years					
High SES	27,5	5,5	50,5	7	7,5
Low SES	36	18	38	3,5	2,5
Bl.	41	9	51	1	0,5
7 years					
High SES	32,5	5,5	47	10	7
Low SES	46	14,5	30	3	3
Bl.	43,5	6	47	2	0,5
9 years					
High SES	33	5	34	11,5	12
Low SES	29	21	40	6	4,5
Bl.	41	2,5	32	2	0,5

We will restrict our attention here to co-subordination and subordination. A series of ANOVA tests (Appendix 1) reveal significant differences between the groups. The bilingual children show a much lower proportion of co-subordination in comparison to both the low and high SES groups. The bilingual children show some development between 5 and 7 years of age. Then their development appears to stop. This same pattern is even clearer for subordination: the bilingual children show a much lower proportion of subordination than the monolingual children. There appears to be no development in our bilingual subjects from the age of 5 to 9.

The deer episode: comparison of high SES and bilingual Turkish-French speakers
We will now briefly turn to a more qualitative look at the uses of co-subordination

and subordination in the texts of the high SES group and the Turkish-French bilinguals. We have selected one particular episode for this comparison, the deer episode, in which the boy climbs up on a rock and steadies himself by holding onto two pieces of wood. The pieces of wood are in fact a deer's antlers. The boy falls on the deer, the deer runs and the boy falls into a pond. We isolated the cases in which the high SES children used co-subordination and subordination in this episode and compared them to the equivalent content in the bilingual children's texts. The results of this comparison show that where the high SES children use co-subordination and subordination, the bilingual children use juxtaposition or coordination to establish the same semantic relation between clauses. As an example consider the use of *-ken* in (7) below, taken from a high SES child, and the equivalent content in (8) taken from one of our bilingual subjects.

(7) ondan sonra karaca denen geyik böyle gider**ken**
/that-ABL./after/roe deer/say-PASS-EN/deer/so/go-AOR.-KEN/
"and then while the deer called roe deer went so"
köpekle çocuğu bi yere düşürüyor
/dog-WITH/child-ACC./one/place-DIR./fall-CAU.-PROG.-3sg./
"it makes the dog and the boy fall somewhere" (TI9;01n)

(8) keçi de koşmuş
/goat/DE/run-M.PAST.-3sg./
"and the goat had run"
koşmuş köpeğinen
/run-M.PAST.-3sg./dog-WITH/
"it had run with the dog"
keçi köpeğinen çocuğu düşürmüş
/goat/dog-WITH/child-ACC./fall-CAU.-M.PAST.-3sg./
"the goat made the dog and the boy fall" (TB9;10c)

The proposition encoded by *-ken* in (7) encodes an ongoing process in which the event in the second clause is embedded. In (8), taken from one of our bilingual subjects, these events are encoded using coordination and juxtaposition as connectivity devices.

4. Discussion
We have shown that there are very significant differences in the distribution of co-subordination and subordination between our bilingual subjects and the monolingual subjects. Monolingual high SES children use more complex forms than either the low SES monolinguals or the Turkish-French bilingual children. The low SES monolinguals also show more use of these forms than to the Turkish-French bilinguals.

We would like to conclude with questions rather than conclusions. Why are our bilingual subjects not acquiring complex connectivity structures? Why does their development seem to stagnate? Where are the high SES monolingual children acquiring these forms? Are they acquiring them in literacy activities in school which are reinforced in the home? Are these more complex forms associated with a particular register to which our bilingual subjects have little access? We would certainly not want to argue that our bilingual children are delayed in narrative competence or conceptual organisation. All of the bilingual children can tell the story using the basic clause level syntactic devices of coordination and juxtaposition available to them to encode temporal or cause and effect relations. However, they do seem to be considerably delayed in using the full range of devices available in Turkish for syntactic packaging of story content.

Appendix 1
Table 7. Co-subordination in Frog stories for the three Turkish-speaking populations

	MONO. LOW SES	MONO. HIGH SES
BI. TURKISH-FRENCH		
5-year-olds	$F_{(1,38)} = 7.39, p < .009$	$F_{(1, 38)} = 18.64, p < 0.0001$
7-year-olds	NS	$F_{(1, 33)} = 12.48, p < 0.001$
9-year-olds	$F_{(1,38)} = 6.79, p < .01$	$F_{(1, 33)} = 32.61, p < 0.0001$
MONO. LOW SES		
5-year-olds		NS
7-year-olds		$F_{(1, 33)} = 9.61, p < 0.003$
9-year-olds		$F_{(1, 33)} = 6.00, p < 0.01$

Table 8. Subordination in Frog stories for the three Turkish-speaking populations

	MONO. LOW SES	MONO. HIGH SES
BI. TURKISH-FRENCH		
5-year-olds	$F_{(1,38)} = 7.41, p < .009$	$F_{(1, 38)} = 37.6, p < 0.0001$
7-year-olds	$F_{(1,38)} = 9.06, p < .004$	$F_{(1, 33)} = 31.2, p < 0.0001$
9-year-olds	$F_{(1,38)} = 19.41, p < .0001$	$F_{(1, 33)} = 61.09, p < 0.0001$
MONO. LOW SES		
5-year-olds		$F_{(1, 38)} = 13.07, p < 0.0009$
7-year-olds		$F_{(1, 33)} = 7.91, p < 0.008$
9-year-olds		$F_{(1, 33)} = 18.02, p < 0.0002$

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