

Communication Disorders in Turkish

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Communication
Disorders
Across
Languages

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Chapter 15

Aspects of Language Acquisition and Disorders in Turkish-French Bilingual Children

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Introduction

In the past 40 years, a large influx of immigrant families in the industrialized European countries has modified the demography of these nations and generated contexts of language contact. These contacts have raised a significant number of important social and linguistic debates, especially with a bearing on school difficulties in children from immigrant families whose background cultures and languages differ from those of the mainstream school system (Extra & Verhoeven, 1999; Extra & Yagmur, 2004). In reality, language practices of immigrant families evolve as they settle in the host country and as their children grow up (Deprez, 1994). Often parents may adapt themselves to this new situation, and this raises many questions as far as the maintenance of home language and cultural practices is concerned (Yagmur & Akıncı, 2003).

Numerous studies on the language of children from immigration backgrounds in European countries have yielded conflicting results. Some researchers suggest a 'language deficit' to explain why immigrant children do not attain the same levels at school as their native-speaking peers (Ammerlaan *et al.*, 2001). Others suggest that their language difficulties may be due to quite narrowly defined areas of literacy-related activities rather than to general language use (Akıncı *et al.*, 2001). Still others associate difficulties with child-specific factors such as home and/or host language, individual personalities and socio-cultural identities rather than with background literacy or school-based activities (Gregory & Williams, 2000; Wong-Fillmore, 1991). In addition, many educationally oriented studies (Billiez, 1990; Deprez, 1994; Grosjean, 1982; Hélot, 2007; Lüdi, 2001; Lüdi & Py, 2003) stressed that, in practice in France and elsewhere in Europe, minorities are not given the

chance to fully develop their bilingualism. These studies also point out the paradoxical policies that restrict bilingualism when it concerns migrants' children, but encourage it for the 'elite' by supporting early second-language learning. They also assert that differences in school performance may reflect negative teacher attitudes concerning the academic abilities of children from ethnic minority groups (Billiez, 1990; Gadet & Varro, 2006; Hélot, 2007; Lüdi, 2001). They propose the idea that difficulties may be due to inferior institutional and instructional facilities available to such populations. Another suggestion is that children from such backgrounds represent highly heterogeneous populations that show considerable inter-group diversity, and so they cannot automatically be identified as 'poor achievers', whether in language or in other domains. Lüdi and Py agree with this position, affirming that 'the more balanced the use of two languages is, the higher will be the increase in value of the home language on the language market, which is to say that bilinguals are capable of accomplishing cognitively demanding and de-contextualized tasks in their two languages, both orally and in writing. Consequently the problem of bi-literacy, the competence to read and write in both languages, arises' (Lüdi & Py, 2003: 186). Furthermore, school constitutes the primary place of acquiring the language of the host country and hence literacy. According to Dabène and Billiez (1987), school is not the only place where this occurs, but for the first time, it brings the child stemming from immigration into contact with the standard variety of this language.

The aim of this chapter is to outline aspects of language acquisition, development and disorders in Turkish-French bilingual children born in France. In order to do this, we will first briefly present French language policies concerning linguistic minorities and bilingualism in children from immigration backgrounds. Then, we will introduce the Turkish immigrant community in France. Next, we will focus on two aspects: the acquisition and development of language in Turkish children before and during their first years of schooling; and on the studies carried out on language impairments in Turkish. After having presented our methodology in a third part, the main body of the text analyzes two phenomena of language abilities of Turkish bilingual children and adolescents from Turkish immigration backgrounds in France: connectives in Turkish and French corpora and anaphors in French data. We will conclude with implications for speech and language pathologists (henceforth SLP) working with Turkish clients in France, focusing on the SLP process in French for Turkish people and assessment tools used for Turkish children with language disorders in context.

French Language Policies and Bilingualism in Children from Immigration Backgrounds

Compared to other West European countries, French policies concerning ethnic minorities differ in many respects. However, like many other

West European countries, nation-state ideology and maintenance of nationhood rooted in a commonly shared notion of cultural unity underlies French language policies (Archibald, 2002; Gadet & Varro, 2006). Rather than promote linguistic and cultural pluralism, French policies explicitly prefer integration and linguistic assimilation of immigrants. For the purpose of facilitating the transformation of immigrants into French nationals, a commission on nationality was set up in 1987. The commission took a number of measures to set up the legal framework for assimilating immigrants into the mainstream society (Zirotti, 2006). Along with many other factors, mastery of French was seen to be the most fundamental aspect of the acculturation process because language is considered to be of overarching importance in achieving social cohesion and national unity in France.

When one talks about children from an immigration background in French schools, the common perception seems to be that the variable 'child stemming from immigration' is a factor in school failure. Yet Deprez (1994) speaks positively about 'family bilingualism' in the context of immigrant families, since the children who were born and raised in France introduce the language of schooling into the home environment.

In the last three decades, one of the most influential theories in the field of language contact was doubtless the ethnolinguistic vitality theory developed by Giles and his colleagues (Giles *et al.*, 1977). According to this theory, the language and culture of origin tend to undergo changes in situations of contact, and their maintenance is conditioned by several factors. The factors involved are generally divided into two categories: those affecting a speech community and those affecting individuals within a speech community (Kipp *et al.*, 1995). However, it is not always easy to draw the line between individual and societal factors as there is an ongoing interaction between an individual and the speech community. In the majority of cases, these factors are interdependent.

Since the first studies of Skutnabb-Kangas and Toukomaa (1976) showed that there was a direct relation between a child's competence in his first language and his or her competence in the second language, numerous investigations have been carried out to confirm these findings. Many studies referring to Cummins' interdependence hypothesis (Cummins, 1979) showed that poor development of skills in the first language hinders progress in the second language, both in quantity and in quality. Thus, one will put at risk the cultural identity and linguistic development of migrant children who are schooled by 'immersion' in the language of the host country and are urged to give up their home language following the principles of assimilation policies (Cummins, 1991; Hamers & Blanc, 1983). As discussed by Skutnabb-Kangas and Toukomaa (1976) and Haugen (1977), some theories on bilingualism do not hesitate to classify children from an immigration background as semilinguals who not only confuse and mix both languages but also, like second-language learners, have unstable

skills, as indicated by restricted vocabulary, faulty grammar, hesitation in production and difficulties in expression in both languages. The study conducted by Gonzo and Saltarelli (1983) concerning immigrant families advances the idea that linguistic and cultural attrition can take years with first-generation immigrants, while children belonging to the second generation acquire a weakened language and culture of origin. These languages and cultures are in their turn transmitted in an even weaker form to a third generation. Influenced by a follow-up effect, authors such as Thomason and Kaufman (1988) and Lüdi and Py (2003) affirm that in three or four generations, the languages and cultures of migrant children who are in contact with the language and culture of the environment will become extinct.

Turkish immigrants in France

The immigration history of the Turkish community in France is shorter compared to other immigrant communities. The Turkish population arrived in France mainly in the seventies, 'coming from a country having not a historical background related to colonization, neither knowledge of France' (Petek-Salom, 2001: 98). In most cases, Turks came to France by default, because they could not go to Germany, the main destination at the time for the vast majority of Turkish economic immigrants.

Shortly after World War II, only 7770 Turks lived in France. This number declined to 5273 in 1954 and increased slightly to 7628 in 1968. The first bilateral immigration agreement between France and Turkey was signed in 1965, but large-scale Turkish migration only started at the beginning of the 1970s and continued in the 1980s. Between 1968 and 1972, the Turkish population increased to 50,860; between 1972 and 1982, it rose further to 123,540. The increase is due not only to labor migration, but also due to family reunification for those immigrants whose families had remained in the home country. In the 1982 census, the consequences of family reunification were already apparent. It revealed a sharp rise in the number of both women and young people (between 10 and 34 years). By the year 1990, there were 202,000 Turks in France. They were then the fourth largest immigrant community in the country. In 1990, for half of the Turkish population, the average age was below 20. Thus, as opposed to less educated first-generation Turkish immigrants, the young generations have been through the French school system and their educational and vocational profiles are much better than the previous generations. This modifies the general profile and outlook of the Turkish population in France. Many Turkish families have now settled in France and maintain contacts with the homeland. These families may end up staying in France indefinitely, whereas at first they intended their stay to be only temporary. Today, the Turkish population in France is estimated to be 400,000, of

which around 15,000 Turks have acquired French nationality (the number is very low due to the French language proficiency condition for the applicants). According to Kastoryano (2003), 47% of the Turks in France have the nationality of their home country.

The majority of Turkish immigrants in France are blue-collar workers. According to Echardour and Maurin (1993), 43.7% of Turks are working in production, 28.5% in construction and 23.5% in services. Although, following the study of Brabant (1992), there has been a slight shift in the occupational structure from blue-collar (89.9% in 1982 and 80% in 1989) to white-collar jobs and self-employment (both were 6.6% in 1982 and 18.5% in 1989), the majority of the working Turkish population can still be identified as blue-collar.

Today, the largest proportion of the Turkish population can be found in the region of Île de France (27% of all the Turks live in this region; Manço, 2004). The second region is Rhône-Alpes (17%) with 38,185 individuals. Alsace comes next with 15% (Villanova, 1997).

As in other major immigration contexts (Germany and The Netherlands), in-group marriage tendencies are very strong. According to INSEE (National Institute of Statistics and Economic Studies) (1997), 98% of girls and 92% of boys marry a person from Turkey, so that the migration process renews itself continuously. Young immigrants born in Turkey arriving in France through family reunification contribute also to language maintenance. The population structure of Turkish immigrants in France is very young, which is the same pattern observed in other immigration contexts as well. According to INSEE, 90% of immigrants are less than 55 years old and 40% are less than 25 years old. Women represent nearly half of their members (46%). If we consider that 57.2% of the children are now born in France, nonetheless 82% of the couples are composed of two persons of Turkish nationality or origin. According to the education attaché in The Turkish Consulate, the number of pupils of Turkish origin, from nursery school to university, is 71,321 in France. While the level of education is rising with the second generation, which could be considered as perfectly French-speaking, among the first generation, about 100% of the women and 75% of the men hardly speak any French or do not speak any French at all. According to INSEE, in Turkish families, 17% of fathers and 3% of mothers speak to their children in French (as compared to 69% and 52% of Algerians).

As in other immigration contexts (such as Germany and The Netherlands), Turkish immigrants in France are able to visit their homeland at least once every year. The Turkish-language media is readily accessible to Turkish immigrants in France. Most of the major Turkish newspapers have rather high-circulation European editions. There are weekly magazines and journals coming from Turkey as well. Turkish bookshops provide a wide range of Turkish-medium books in major areas of Turkish concentration. On a regular basis, Turkish-language plays are

performed by actors from Turkish state theaters and private theaters, as well as by local immigrant Turkish theater groups. Movies, concerts and exhibitions by Turkish artists are also very common all over Western Europe. In the main centers of Turkish concentration, there are rich collections of Turkish books in public libraries. These libraries also organize panels during which novelists from Turkey meet Turkish immigrants and interested mainstream community members. Along with print media, major Turkish TV channels can be received by cable or satellite dish. Members of the receiving societies are mostly critical of satellite dishes, arguing that they delay 'integration' of immigrants. Some marginal groups even support the idea of a ban on satellite dishes. Nevertheless, there is a growing demand for Turkish-medium broadcasting, and Turkish immigrants who have satellite dishes can receive all Turkish-medium channels. Additionally, in the age of the internet, immigrants are able to access a rich variety of first-language medium resources on the web. These support factors presumably contribute to maintenance of the Turkish language and provide a wide (and rich) social network for Turkish immigrants.

Finally, the learning and teaching of Turkish contribute considerably to the maintenance of first-language skills among younger generations. On the basis of a bilateral cultural agreement, the French and Turkish governments agreed to provide mother tongue education for Turkish children in French schools. In line with the practice in many other European countries, the Turkish government sends teachers from Turkey to teach Turkish language, history and geography in French schools (Akıncı, 2009).

The use of Turkish remains very active in many families, as demonstrated above. Turkish mothers, whose French skills are often very limited, are the guaranteed source of language transmission and maintenance. Thus, during early childhood and until the beginning of nursery school, the child develops his language in an exclusively Turkish linguistic environment. The entry to school marks a break in language learning. In what follows, we will present briefly the characteristics of language development in Turkish children in France before and during their schooling.

Turkish children acquiring and developing languages before and during schooling

Before describing the acquisition of language by Turkish children, it is necessary to distinguish the several types of such children that exist:

- those born in France;
- those who arrived in France before the age of 6; and
- those who arrived after the age of 6.

In these last two types, children arrived in France within the framework of family reunification. In all cases, parents may share the same

nationality and speak only Turkish; the couple may be mixed and use only one language, often French, or they may use both languages. One parent may have been born and raised in France and will therefore use French with his or her child. All these children could be subject to language pathology or not. Our study concerns only children born in France of first- or second-generation parents.

Generally, a child born in France of Turkish migrant parents first begins learning to speak in Turkish. The language spoken around the children in the majority of Turkish families is only Turkish. Surrounding family, neighbors and parents speak to them in Turkish. Even though the children are living in France, they will thus develop their Turkish-language capacities. Their first babbling, sounds and words are in Turkish. The lexicon develops according to parental interaction with the child, and also according to the cultural and linguistic environment. To our knowledge, up to now, no studies have been carried out on babies born following Turkish immigration to France.

The children born in France thus develop their language and their linguistic abilities in an exclusively Turkish-speaking environment. The first contact with French language for these children will be done only with the entry to nursery school around the age of two-and-a-half or three. However, young children have obviously already heard French around them in the neighborhood, at supermarkets, on television, without needing to adopt French as a means of communication.

The entry to nursery school is a major turning point in several respects: children leave the safe environment of their family to enter a new space where they will first need to find their ways around. They find themselves in an unknown environment with peers and adults who do not speak the same language as them and with whom they will spend long hours during school days. This new situation will represent for them a rupture in the language learning process. In an ordinary and monolingual situation, the school should constitute the place where the child increases his knowledge of the language. As for children with a Turkish background, since the linguistic continuity of Turkish is not ensured by the school, they will then be confronted with a new situation in which they have to speak French. Language development thus occurs on two levels, in two different areas. In her study, Tinelli (2004: 49) reports what a seven-year-old Turkish girl answered when asked whether she liked French: 'not too much because when I was baby, I could speak a little bit Turkish. Then I went to nursery school, and after I learned French. Then for me, my head speaks in Turkish', she continued, 'I spoke with nobody at school, I understood nothing, nobody played with me'.

Parents' motivation and a child's personality play an important role in how to deal with this new environment and language, and determine the speed of progression in French and the child's integration into

the class. As our purpose is not to describe in a theoretical perspective the acquisition and learning styles of French (see Bates *et al.*, 1988) or the various adaptation phases the Turkish-speaking child goes through in nursery school (Tabors & Snow, 1994),¹ we do not go into details of these processes that are already described elsewhere.

In our previous studies (e.g. Akıncı, 2001), we showed that for Turkish children, French very quickly becomes their dominant language by the age of five or six, which matches with the beginning of primary school. Even if their Turkish continues to develop, their mother tongue becomes their weak language. Then, there exists two types of Turkish children: those who are beginning to learn academic Turkish in the second year of the French primary school (within the framework of mother tongue education) and those who do not have the chance to learn Turkish and are satisfied with what their parents can transmit to them. For the first group, Turkish will continue to develop, whereas for the second group, we can speak about fossilization of the language of origin. However, for both groups with French schooling, the effect is that they have better control of French than Turkish and feel more comfortable speaking French. According to our previous studies (Akıncı, 1996; see also Akıncı, 2008), 68% of Turkish children would use only French with each other, 23% use both languages and 9% use only Turkish. In addition, we also showed that Turkish children mostly speak only Turkish with their parents. There are very few who interact only in French. These results are supported by findings of previous research carried out in France (Akıncı *et al.*, 2004; Gautier-Kızılyürek 2007; Irtis-Dabbagh, 2003; Yagmur & Akıncı, 2003), in which children from Turkish immigrant families and adolescents in France report that they almost exclusively communicate in Turkish with their parents but mostly in French with their siblings.

As has been described in many studies, with schooling, the language of school enters homes and, as described above, children use this language with each other and sometimes with parents.

According to the observations of many people involved with parents and children from migrant families (Steib, 2006; Tinelli, 2004), and also of teachers with whom we have done training on bilingualism in schools, Turkish parents fear that their children will give up their mother tongue and culture.² According to our own experience of Turkish parents in France, this is not true for all cities where Turks are living. In some places, French is seen as a utility language without emotional load.

Schooling of Turkish children in France therefore raises problems not only for teachers in nursery schools but also for those in primary schools who underestimate the Turkish community and as a result the children to whom they teach French. One day, I received a phone call from a nursery school teacher who found my work on the internet. She complained about Turkish children in her class who have considerable difficulty learning

French, contrary to other children with immigration origins, such as Maghrebi or Portuguese children. Then, she asked me if their difficulties might not be linked to their genetic heritage. One can imagine my distress and anger about such unfounded thoughts. But does the fault lie with the teacher who repeated what she knew or that of the national policy that did not provide sufficient teacher training?

The following section summarizes, to our knowledge, the very few existing background studies of language impairments in Turkish children in France.

Background Studies of Language Impairments in Turkish

France is a country with a strong monolingual culture. The acknowledgment of regional languages is recent; this is even truer for languages of immigration (see in particular the Cerquiglini report – April 1999, published in 2003). For a major part of the population, including the majority of those working in education and health, bilingualism is still regarded as a marginal phenomenon, monolingualism being standard. However, the census of 1999 showed that 26% of adults living in Metropolitan France had had parents usually speaking to them in a language other than French, and from this census 400 languages were identified (Deprez *et al.*, 2002).

Attitudes and behavior toward bilingualism vary according to the languages involved: for some languages, bilingualism will be encouraged, while for others – and in particular a number of languages of immigration – the use of the mother tongue could be stigmatized. This is also the case for Turkish. Not very long ago, it was recommended that parents refrain from using Turkish with children at home.

In this context, studies relating to speech difficulties of immigrants are poorly developed. There are no studies to our knowledge concerning speech difficulties in Turkish. Some rare studies are concerned with speech therapy for young Turkish patients and difficulties encountered in French by children from Turkish immigrant families. These studies concern especially Turkish children in the Alsace region where, as we said above, 15% of the Turkish community lives; indeed, this region has a well-established Turkish population. For the moment, no statistical studies relating to linguistic disorders of Turkish children exist. The two studies presented below consist of case studies by two speech-therapy students in Strasbourg (the capital of Alsace).

Fanny Steib (2006) bases her analysis in particular on an interview with one speech therapist of Strasbourg.³ About 30% of this speech therapist's patients are of Turkish origin. According to her, 'one can observe the same speech difficulties in Turkish-speaking children as in working-class French children; and the disorders are roughly similar' (Steib, 2006: 87, authors' translation).

The second study conducted by Alexia Tinelli (2004) relates to children from Turkish communities living in and around Strasbourg. Twenty speech therapists answered her inquiries, having followed 100 Turkish background children during two years preceding the investigation. She concludes, from answers to the questionnaire, that Turkish children present specific difficulties in oral and written language.

In spoken language, these difficulties are as follows (Tinelli, 2004: 109–111):

Difficulties due to linguistic differences between Turkish and French: Pronunciation, articulation (some sounds are pronounced differently in Turkish), gender of nouns (no gender in Turkish), disorders of syntactic structuring (the structure of Turkish sentences is different).

Difficulties due to the introduction of the French language: Some Turkish children lack the desire and need to learn French, as this language is less spoken within Turkish families.

Disorders of communication: Speech therapists observed that some Turkish children speak little, almost do not communicate and are sometimes selectively silent. Disorders of comprehension, a poor and approximate lexical stock and phonological disorders are common.

In written language, speech therapists note

Orthographical consequences of speech difficulties: Children are often confronted with agreement errors; they are also unable to notice word relations, segmentation of words, and show lack of vocabulary, and spelling disturbances.

Disorders of comprehension: As their vocabulary is reduced in French, written sentences are not understood.

Instrumental disorders: The prerequisites for writing have not yet been established (i.e. spatio-temporal orientation, handedness, audio-verbal structuring, and visuo-spatial perception).

Difficulties with starting to read: In the beginning, reading is often difficult. Some speech therapists suspect word blindness; access to books is not commonly available in Turkish families.

Late arrival in rehabilitation for the written language is observed.

Except difficulties possibly due to linguistic differences between Turkish and French, other disorders mentioned can however not be regarded as specific to Turkish children: the question was indeed the following one: 'According to you, what are the most frequent difficulties presented by Turkish children coming for oral language difficulties; for children coming for written language difficulties?' This study thus gives an indication of perceived reasons for the referral of Turkish children, of some types of interference, but does not permit any specific conclusions. Santelli (2007: 228) notes the same problem concerning migrants coming from the Maghreb: 'assessment tools do not exist that are devised to detect possible specific difficulties and consequently, standard tools are used. Such a

report is much more detrimental than knowledge, even superficial, of the mother tongue or language of origin which could make it possible, on the other hand, to understand certain linguistic constructions and, consequently, to deal in a more effective way with the difficulties encountered by these children' (authors' translation).

We think that other studies using protocols allowing a comparison of Turkish and French language levels of children who consult for speech therapy would be necessary to support our knowledge of Turkish children's speech difficulties. The following is an attempt to fill this gap providing baseline research on children without SLI.

Biliteracy Competences of Turkish-Speaking Children and Adolescents in France

In order to characterize the Turkish and French acquired by Turkish-French bilingual children and adolescents in France, we investigate here, in the following paragraphs, two types of syntactic phenomena: the use of connectives and the use of anaphors in written texts in both languages. For *connectives*, we will first measure differences between clauses containing coordination and those containing subordination, then we will look for types of semantic link (temporal, additive, causal and adversative). Recent studies (Akinci, 2006; Blanche-Benveniste, 1995; Gayraud *et al.*, 2001; Verhoeven *et al.*, 2002) show that the use of subordinate clauses is more frequent in written texts of adults than in those of young pupils, while the use of juxtaposition is more frequent in spoken discourse. The quantity and the type of syntactic connectivity constitute a good index of language development.

Anaphors are traditionally defined as any repetition of a previous element in a text (Riegel *et al.*, 1994: 610). An anaphoric relation can be defined as the relation between two elements, where the interpretation of one element (the anaphor) depends in some way on the interpretation of the other (the antecedent). Two types of anaphors can be distinguished: sentence-internal and discourse anaphors. The first type of anaphor refers to an antecedent within the same sentence, while in the second type the antecedent must be sought in another sentence. Finding the antecedent of a discourse anaphor is much more difficult because that depends not only on syntactic, but also on pragmatic and semantic aspects (Aarssen, 1996: 30).

Methodology

In our study, participants in three age groups (11-, 13- and 16-year-olds) were asked to produce two types of text (personal narration and expository) in two modalities (spoken and written).⁴ The texts were elicited in two successive sessions. In Session I, participants were asked to tell and write a

Table 15.1 Order of presentation across the tasks and groups

<i>Session</i>	<i>I</i>	<i>II</i>
Order A	Narrative spoken/Narrative written	Expository spoken/ Expository written
Order B	Narrative written/Narrative spoken	Expository written/ Expository spoken

story about an incident of interpersonal conflict that they had experienced personally. In the following session, expository discussions were gathered, where participants were asked to give a talk as if they were in front of their class, or write an essay or composition discussing the issue of interpersonal conflict. All subjects produced both the narrative and expository texts in two modalities of speech and writing. The mode of presentation was balanced across the tasks, so that half of the subjects performed the spoken task first, and then produced a written text, while the other half started with the written text and continued with the spoken task. The sessions and the texts elicited in these sessions are depicted in Table 15.1.

In the remaining part of this paper all of the analyses will be based on written texts of monolingual and bilingual children.

The research groups of bilingual and monolingual subjects were organized according to their school-grade level. The texts were elicited from one group of primary school children, one group of secondary school children and one group of high school students. Each group consisted of at least 20 subjects. Table 15.2 illustrates the information about number and age of the bilingual informants in each group.

Table 15.2 Age, number, mean age and range of ages of bilingual and monolingual informants

<i>School type</i>	<i>Primary</i>		<i>Secondary</i>		<i>High</i>	
Group	A	B	A	B	A	B
Population	Turkish-French bilingual					
Number of subjects	11	13	12	12	9	13
Mean age	11;00		13;01		16;01	
Population	French monolingual					
Number of subjects	11	12	11	11	11	12
Mean age	11;01		13;04		16;03	
Population	Turkish monolingual					
Number of subjects	11	12	10	12	10	10
Mean age	11;00		12;09		15;06	

The bilingual informants for this study were selected from the Turkish immigrant community living in Rouen and Grenoble. In order to control the gender factor, we included equal numbers of males and females. They are sons and daughters of first-generation immigrants to France all of whom were born in France. The French monolinguals were raised and educated in French with low educational and socio-economic family backgrounds. They attend the same schools and live in the same neighborhoods as the immigrant children mentioned above. Data from Turkish monolinguals were collected in 2003 in Denizli (in western Anatolia) that matched the place of origin of the parents of the bilingual informants. In terms of socio-economic status, these monolingual groups can be compared to our bilingual group.

The fathers of all of the bilingual informants, except one, are unskilled workers and freelance building workers. Compared to the parents of monolingual informants, they are under-represented in the categories of farmer or in very qualified jobs such as technician, trade or office workers. The French monolinguals' fathers belong much more often to the middle-class professions, or are qualified technicians, or trade or office workers. The Turkish monolinguals' fathers are often farmers, craftsmen, storekeepers or teachers, or are retired.

As far as the mothers' occupation is concerned, we observed that mothers of bilinguals and Turkish monolinguals are much more often housewives than those of French monolinguals. This situation concerns respectively 72% and 73% of the bilingual and Turkish monolinguals' mothers. In contrast, the mothers of French monolinguals are represented in almost all occupations. They most often work as managers or as cleaning ladies.

Like other children whose native language is not French, the children in our study acquired their home language, in this case Turkish, exclusively within the family up to the age of seven. From that age on, some of these children have the possibility of attending the HLI classes (Home Language Instruction) in France until the end of secondary school. In HLI classes, the children are given the possibility of reading and writing in Turkish. Children also learn Turkish history and geography in these classes. All of our subjects attend HLI classes.

Before the data -collection phase began, the background information of our subjects was collected with a literacy questionnaire filled in by the child. With the help of that questionnaire, we tried to get information about the demographic variables and the literacy-related activities in and outside the subjects' homes. All subjects in France and in Turkey were given similar motivational instructions.

Connectives in Turkish and French written texts

This part of our paper aims to characterize the developmental profile of connective use in written texts of Turkish-French bilingual children and

teenagers. In a linear sequence of oral and written texts, connectives contribute to the structure by marking semantic relations between clauses or sequences (Halliday & Hasan, 1976). From a cognitive viewpoint, it is necessary for a speaker or a writer to analyze beforehand the event as an association of two or several components and to perceive that two situations can be built as belonging to only one event (Fayol, 1997). That is why acquiring competence in combining clauses in order to produce oral texts and coherent writing is a sign of development that extends well beyond childhood (Jisa, 1987; Verhoeven *et al.*, 2002).

Authors have different views concerning the role of connectives. For some, a relation expressed by a connective (i.e. a marked relation) is an equivalent variant of a relation expressed without a connective (unmarked). This is the case, for example, in 'I get up, I wash, I get dressed', where a simple juxtaposition is sufficient for both the speaker and the listener, unless stated otherwise, to consider that the events occur in succession. For other authors, marked and unmarked relations are not equivalent (for a detailed presentation of the various viewpoints, see Rossari, 2000; Segal *et al.*, 1991). As noted by McCabe and Peterson (1991), in comparison with other types of text, narratives have a very high density of these markers of discourse cohesion, even if, for example, it is unnecessary for inter-propositional temporal links to be present for the narrative to be understood.

Our previous studies on connectives used by 5-, 7-, 10-, 12- and 14-17-year-old bilingual Turkish-French children and adolescents in France (Akıncı, 2006; Akıncı & Jisa, 2000)⁵ showed that for Turkish texts, overall, about 50% of all connections are simple juxtaposed sentences. If the subjects mark the connection with syntactic means, they mainly use coordination. Significant differences between all groups concerned deictic expressions (5- and 17-year-olds use more deictic forms than others) and subordination (adolescents use more subordinate sentences than the younger children). Temporal deixis is used to ground the story in a temporal framework by the majority of high school students. The development of complex means (subordination) appears to stagnate until the age of 12, but after this age, there is a real development.

In both languages, the majority of subjects use juxtaposition to connect sentences. When they connect with syntactic means, coordination is the preferred means. Statistical tests⁶ reveal significant differences between the younger and older groups only for subordination. The 5- and 7-year-old children show a much lower proportion of subordination in comparison to students of other ages.

This study allowed us to conclude that the Turkish texts produced by the bilingual French-Turkish children were sometimes weaker in terms of clause linkage. Until the age of 10, in Turkish texts children employed more juxtaposition and coordination than subordination, whereas for French texts, the percentage of subordination was higher and this began at a very young age and developed rapidly at the age of 10.

In our new study, each occurrence was assigned a two-part code. The first indicated the type of connectivity: coordination or subordination (Kornfilt, 1997; Topbaş & Özcan, 1995). The second indicated the type of semantic link; these types are as follows (Vion & Colas, 2005: 48):

- (1) *Additive*: Two simultaneous or consecutive elements, objects, events or states, often enumerations. Each element is semantically independent, and the meaning is the same when the two are combined or taken separately.
- (2) *Temporal or chronological*: Two elements related by temporal succession.
- (3) *Causal*: Relations of cause, consequence or effect. The cause is a sufficient cause of the consequence. One proposition refers to a planned or current action or state, and the other gives a reason or a result.
- (4) *Adversative*: A relation of contrast between two events and/or states. The expected outcome of what is described in the first proposition is not what is described in the second. The relation between the propositions is opposition, where one proposition refutes or opposes the other, or one proposition qualifies or restricts the other.
- (5) *Others*: Includes other semantic functions such as results, manner, condition and alternation.

Examples given in Turkish (1) and in French (2) illustrate encoded connectives; the categories are shown in Tables 15.3 and 15.4.

(1) Ben eve gidecektim **çünkü** saat beş bucuğa geliyordu. İki gün **sonra** bir Cumartesi günü, bir daha yüzmeye gittim, **o anda** (o kızı) gördüm benlen arkadaşlık yapan kızı gördüm. **Ama** onlan oynamayaya gittiğimde beni (boğuyordu) **yani** benlen oynamıyordu. Şimdi o kızıdan nefret ediyorum.

I'll go to home because it was around half past five. Two days after one Saturday, I went to swim again, at this moment I saw (this girl) I saw the girl who was friends with me. But when I went to play with her (she was choking) me that is to say she was not playing with me. Now I hate this girl (TB-S07B-WN).⁷

(2) **Quand** j'étais en vacance dans un Camping je me promener une fille est arrivée elle commencer a parler sur moi a ces copains **alors** j'ai était là voir **et** je les prevenue que si elles recommencer à parler sur moi je la defoncerer **après** elle commencer a me traiter **Donc** j'ai était la voir **et** on ces battu.

When I was on holiday at a Campsite I was walking a girl came and started to talk about me to her friends then I went to see her and I warned them that if they began again to talk about me I would smash her after she started to call me names So I went to see her and we fought. (FM-S09B-WN).

Tables 15.3 and 15.4 summarize all connective forms observed in our data according to their semantic meaning in Turkish (Table 15.3) and French (Table 15.4).

Table 15.3 List of the conjunctions according to their meaning in Turkish

	Additive	Temporal	Causal	Adversative	Others
Most frequent	ve (and) da (and, and then) [-Ip] (and)	sonra (after) ondan sonra (and then) {-dİgİndE} (when) {-İncE} (when, as soon as, although) {-kEn} (as, when, while, although after which)	çünkü (because) için (so) bunun/onun için (so that)	ama (but)	- Result: Diye (for, so that, in order to) - Condition: {-sA} (if) - Alternative: yani (that is to say)
Less used		daha sonra (after then) {-dikten sonra} (after, subsequent to) {-dİg'İ zaman} ilk önce o zaman o sırada (meanwhile) birden bire/birden {-mEdEn+önce} (before) {-E deg'in/-E dek, -E kadar} (until) {-dikçe}(as, as long as, whenever)	{-E göre} bu yüzden (because of, due to) {-dEn dolayı} {because of, due to} {-dİgİndEn} {because of...} {-dİgİ için} (as, because, whereas) {-mEk için} (because of, due to)	fakat (but, though) ancak (but, except), {-E rağmen}	- Result: ki (that, as, though...) {-sIn diye} (lest) - Manner: {-ErEk} ((in, by) -ing) {-E ... -E} - Condition: {-sA bile} (even if) - Alternative: veya (or), ya da (either ... or) öyle (so, that) Böylece Örneğin Mesela

Note: List taken from Akıncı & Jisa, 2000; Slobin, 1995; Topbaş & Özcan, 1995; Vion & Colas, 2005

Table 15.4 List of the conjunctions according to their meaning in French

	<i>Additive</i>	<i>Temporal</i>	<i>Causal</i>	<i>Adversative</i>	<i>Others</i>
Most frequent	et (<i>and</i>)	puis (<i>after</i>) alors (<i>then</i>) quand (<i>when</i>) après (<i>then</i>) et puis et après et alors (<i>and then</i>)	parce que (<i>because</i>) car (<i>because</i>) donc (<i>so</i>)	mais (<i>but</i>)	si (<i>if</i>) ou (<i>or</i>)
Less used	pendant que (<i>while</i>) lorsque (<i>when</i>) depuis que (<i>since</i>) dès que (<i>as soon as</i>) avant que (<i>before that</i>)	puisque (<i>since</i>) peut-être que (<i>perhaps that</i>) à cause de (<i>because of</i>) pour que (<i>so that</i>)	au lieu que (<i>instead, but</i>) mais sinon (<i>but if not</i>) mais dès fois (<i>but sometime</i>)	même si (<i>even if</i>) en fait (<i>in fact</i>) et que (<i>and that</i>) aussi que (<i>also that</i>) tant que (<i>as long as</i>) déjà que (<i>already that</i>)	pendant que (<i>while</i>) lorsque (<i>when</i>) depuis que (<i>since</i>) dès que (<i>as soon as</i>) avant que (<i>before that</i>)

Results for connectives in Turkish

Before presenting the results concerning connectives across language groups (bilingual versus monolingual) and across school grades, the length of the texts produced will be discussed. In this study, the unit of analysis is 'the clause', which is defined by Berman and Slobin (1994) as a unified predicate describing a single situation (an activity, event or state). Table 15.5 gives the length with total number of clauses and mean number of clauses per subject for each group and the range of clauses.

Table 15.5 shows that monolingual subjects produced longer texts than the bilingual group. The differences in terms of text lengths are statistically significant for all groups except for the narratives of primary school children. We can also observe that for bilinguals, the only students that produce longer texts than the others are high school children. When we look at the range of clauses produced by both populations, again, interpersonal differences become important. For example, in the expository texts of the last group, one student produced 32 clauses out of 115. These results show that monolinguals produced longer texts than bilinguals and there is a continuing development in text production abilities in Turkish monolinguals. However, such a development is not observed until high school among bilinguals.

Length is not necessarily a sign of development. As was found in earlier research (e.g. Akıncı, 2001; Berman & Slobin, 1994), young children generally give elaborate descriptions of single pictures, without creating cohesive and coherent texts. Older children develop the skills to analyze situations into components and, hence, to relate events into a narrative. They are able to encode these events into multiclausal constructions, creating compact, and thus shorter, stories.

Table 15.5 Total text lengths in Turkish written texts

<i>Text type</i>	<i>Narration</i>			<i>Expository</i>		
<i>School type</i>	<i>Primary</i>	<i>Secondary</i>	<i>High</i>	<i>Primary</i>	<i>Secondary</i>	<i>High</i>
Population	Turkish-French bilingual					
Total clauses	180	238	415	184	174	332
Mean clause/ subject	7.2	11.9	20.7	7.3	8.7	16.6
Range clauses	2-15	2-24	8-46	3-20	3-27	5-32
Population	Turkish monolingual					
Total clauses	234	458	651	376	478	775
Mean clause/ subject	14	20.8	32.5	16.3	21.7	37.7
Range clauses	4-31	10-40	12-56	6-38	4-48	22-69

Table 15.6 presents the total number of connectives as well as the percentage of coordination and subordination in Turkish written texts of bilingual and monolingual informants.

First, the comparison of the total number of connectives for both populations shows similar use for both types of texts. Differences are not significant for any group except for expository texts of high school students.⁸ As compared to high school students for both populations, primary and secondary school children show lower total numbers of connectives. However, a developmental schema can be observed with age: both in narratives and in expository texts, the mean of connectives increases from 4 (primary school pupils) to 13 (high school students).

Secondly, in an analysis of the types of connectors, despite a significant increase in the use of subordination with age, coordination dominates bilinguals' texts, regardless of group or type of text; for monolinguals, results show differences depending on type of text: if coordination is more common for narratives, use of subordination is clearly high in expository ones.

As far as the semantic link expressed by connectives in narratives is concerned, Table 15.7 shows that bilinguals use more additive relations. Monolinguals, however, prefer also temporal conjunctions for this type of text. We do not observe any big differences for causal and adversative relations. Expository texts' results show the contrary: monolinguals use more additive links than bilinguals, who use more causal ones. Even

Table 15.6 Total number of connectives and percentage of coordination and subordination in Turkish written texts

<i>Text type</i>	<i>Narration</i>			<i>Expository</i>		
<i>School type</i>	<i>Primary</i>	<i>Secondary</i>	<i>High</i>	<i>Primary</i>	<i>Secondary</i>	<i>High</i>
Population	Turkish-French bilingual					
Total connectives	112	154	311	109	118	271*
Mean/subject	4.4	7.7	13.5	4.3	5.9	13.5
Coordination	77	77	63	62.5	63	57.5
Subordination	23	23	37	37.5	37	42.5
Population	Turkish monolingual					
Total connectives	117	179	262	114	157	354*
Mean/subject	5	8.1	13.1	4.9	7.1	17.7
Coordination	55.5	62.5	57.5	52	51	52.5
Subordination	44.5	37.5	42.5	48	49	47.5

*Significant difference: $F(1,41) = 7.42, p < 0.009$.

Table 15.7 Percentage distribution of marker occurrences by semantic link in Turkish written texts

Text type	Narration			Expository		
	Primary	Secondary	High	Primary	Secondary	High
Population	Turkish-French bilingual					
Additive	47.5	51	47.5	38.5	30.5	27.5*
Temporal	29.5	27	25	24	7.5	14.5
Causal	3.5	6	8.5	16.5	22	17.5
Adversative	8	9	10	6.5	6	8.5
Others	11.5	7	9	14.5	34	32
Population	Turkish monolingual					
Additive	39.5	44.5	38	42	39	43*
Temporal	36.5	39.5	35.5	22	27.5	18.5
Causal	5	4.5	10.5	9	9	7.5
Adversative	12	8.5	9.5	6	8	5.5
Others	7	3	6.5	21	16.5	25.5

*Significant difference: $F(1,41) = 11.92, p < 0.01$.

though bilinguals differ from monolinguals for causal links in percentage terms, the differences are not significant.

Results for connectives in French

Table 15.8 gives the lengths of written texts for French. It shows that both populations produce texts of nearly the same lengths. When we look closely, the texts of young bilingual are often longer than those of monolinguals. Statistical analyses showed significant differences for bilingual secondary school subjects for narratives and bilingual primary school subjects for expository texts: in these cases, bilinguals produce longer texts than monolinguals. There is a continuous development in text production capacities in French for all, since for narratives, for instance, the mean clause per subject increases from seven (primary school bilingual children) to 18 (high school students); we see the same developmental pattern for French monolinguals: from 8.3 to 21.1.

Table 15.9 presents the total number of connectives as well as the percentage of coordination and subordination in French written texts.

Comparison of groups by age for the total number of connectives shows significant differences for narratives of secondary school children and for expository texts of primary school children. In both of these groups, bilingual subjects use more connectives than monolinguals.

Table 15.8 Total text lengths in French written texts

<i>Text type</i>	<i>Narration</i>			<i>Expository</i>		
<i>School type</i>	<i>Primary</i>	<i>Secondary</i>	<i>High</i>	<i>Primary</i>	<i>Secondary</i>	<i>High</i>
Population	Turkish-French bilingual					
Total clauses	170	353*	398	258*	242	285
Mean clause/ subject	7	14.1	18	10.7	9.7	13
Range clauses	2–15	6–24	3–34	4–42	3–29	5–25
Population	French monolingual					
Total clauses	192	192*	486	126*	188	365
Mean clause/ subject	8.3	8.3	21.1	5.4	8.1	15.8
Range clauses	3–22	1–17	8–53	2–12	3–15	5–37

*ANOVA test is statistically significant.

Table 15.9 Total number of connectives and mean per subject and percentage of coordination and subordination in French written texts

<i>Text type</i>	<i>Narration</i>			<i>Expository</i>		
<i>School type</i>	<i>Primary</i>	<i>Secondary</i>	<i>High</i>	<i>Primary</i>	<i>Secondary</i>	<i>High</i>
Population	Turkish-French bilingual					
Total connectives	98	192*	234	173*	161	175
Mean/subject	3.9	7.7	10.6	6.9	6.4	8
Coordination	80.5	65.5	48	35	43	35.5
Subordination	19.5	34.5	52	65	57	64.5
Population	French monolingual					
Total connectives	100	112*	290	87*	108	204
Mean/subject	4.3	5.1	12.6	3.8	4.9	8.9
Coordination	70	66	47	43.5	42.5	41
Subordination	30	34	53	56.5	57.5	59

*Significant difference: $F(1,45) = 7.83, p < 0.007$; $F(1,46) = 9.15, p < 0.004$.

Table 15.10 Percentage distribution of marker occurrences by semantic link in French written texts

Text type	Narration			Expository		
	Primary	Secondary	High	Primary	Secondary	High
Population	Turkish-French bilingual					
Additive	55.5	46	45	29	36	35
Temporal	32	33	28	20	7	9
Causal	4*	9	14.5	37*	24.5	28.5
Adversative	6	10	9	2	7	15
Others	1	2	3.5	12	25.5	10
Population	French monolingual					
Additive	55.5	52.5	45	41.5	40.5	38
Temporal	19	25.5	20	18.5	11	14.5
Causal	16.5*	9	11.5	23.5*	25	16
Adversative	7	6	14.5	10	9.5	14.5
Others	2	7	9	6.5	14	17

*Significant difference: $F(1,45) = 6.15, p < 0.01$; $F(1,45) = 7.67, p < 0.008$.

As for type of text and type of connectives, coordination is used more often in narrative texts than in expository texts for all age groups and both populations, except for both bilingual and monolingual high school subjects who prefer subordination in narratives. However, for expository texts, subordination is clearly the form that all groups use predominantly. Nevertheless, this preference for subordination over coordination in expository texts is stronger in all bilingual groups than in the French monolinguals.

As shown in Table 15.10, comparing the use of categories by semantic role of the conjunctions, bilinguals and monolinguals shows similar results. The only statistical difference concerns the use of causal connectives by primary school children: for both types of text, bilinguals use more than French monolinguals.

To summarize, whatever the population (bilingual or monolingual), age (primary, secondary or high school informants) and type of text (narratives or expository texts), using connectives in Turkish and French written texts follows the same path. If we have to make a distinction, this should be between young subjects (primary and secondary students) and the older ones (high school students). Indeed, the former use more coordination, while the latter use more subordination. This does not mean in any way that the young subjects do not have full control of subordination. In

French expository texts, we find subordination occurs three times more frequently than in narratives.

Anaphors in written texts in French

In order to succeed in school, children must master different types of texts. These texts have to be cohesive and coherent. One important indicator of mastering cohesion and coherence is anaphoric reference.

Discursive functions of languages, implying command of the reference system at various levels of coherence and cohesion, appear late, around seven years old, and continue to evolve up to 10 years and older (Hickmann, 2004). In the field of reference maintenance, non-anaphoric repetitions are prevalent at a young age, while anaphoric repetitions increase until the age of 8 or 9, with stabilization from a quantitative point of view at the age of 9–10 years, the age at which almost all repetitions have an anaphoric status.

In this context, our purpose is to answer the following question: do 10-year-old Turkish-French bilingual children differ quantitatively and/or qualitatively in their use of anaphoric units compared to their monolingual French peers? Following De Weck's (1991) classification of anaphors, we propose to study anaphoric density units and to analyze distribution of anaphors on both the quantitative and qualitative levels.⁹

Pronominal anaphora

- (1) Third-person pronouns
 - (3) Je me suis batut avec sébastien quart il mernever
I fought with Sebastian because he irritated me (FM-P04A-WN)
- (2) Demonstrative pronouns (simple and compound)
 - (4) ca sert à rien
It is not useful for anything (TB-P01A, WE)
- (3) Third-person possessive pronouns and adjectives
 - (5) Ma mère devait partir en Turquie pour son père qui était malade
My mother had to go to Turkey for her father who was sick (TB-P09B-WN)
- (4) First- and second-person possessive pronouns and adjectives
 - (6) Mon ami a dit qu'il n'en avait pas
My friend said that he did not have any (TB-P02A-WN)
- (5) Relative pronouns
 - (7) Il y en avait qui comme Thibault et Sacha me supportait pour que je la tape
There were [some people] such as Thibault and Sacha who defended me because I beat her (FM-P01B-WN)
- (6) Indefinite pronouns
 - (8) Si l'autre fait une erreur
If the other one makes an error (TB-P04A-WE)

Anaphoric nominal processes

(7) Repetition

(9) Moi je pense que **la violence** ce n'est pas une chose très bien car: les problèmes ne se règle jamais avec **la violence**

Me, I think that violence is not a good thing because: problems never fix themselves with violence (TB-P08B-WE)

(8) Definitivization

(10) **un grand** à demander ... et après **le grand** a dit ...

An older one asked ... and then the older one said (TB-P02A-WN)

(9) Textual exophoric reference

(11) **Ma** grave **maladie** (...) j'avais 6 ans quand j'ai eu **cette maladie**

My serious illness (...) I was 6 years old when I had this disease (FM-P11B-WN)

(10) Lexical substitution

(12) j'ai reçus dais coup de pied par **un garçon** (...) je l'ai dit au maître et il a puni **l'élève**

I got kicked by a boy (...) I told the teacher and he punished the pupil (FM-P06B-WN)

(11) Nominalization

(13) Etant petite, chez **mon tonton**, **mon grand frère** jouait à la pétanque, **tout le monde** disait de pas passer derrière eux

When I was young, with my uncle, my elder brother played games of bowls, everyone said not to pass behind them (FM-P10A-WN)

Others

(12) Mainly adverbs of place

(14) A l'école et **dehors**, les choses bien et pas bien

At the school and outside, good things and not good ones (TB-P11A-WE)

In order to classify anaphoric occurrences in one of the categories illustrated above, we have taken as a starting point the first mention of a referent. Calculation of anaphoric density makes it possible to obtain an evaluation of its ratio according to the type of text and the modality, by neutralizing the length of texts. This calculation will be applied to (1) all kinds of anaphors to get total density; (2) pronouns; (3) nominal anaphors; and (4) the category of 'others'. We will then study types of anaphors used in texts and try to describe the specificities of each type of text on both the quantitative and qualitative levels.

Analyses of anaphors

Before presenting the results on the number of anaphors in texts, Table 15.11 gives text length in terms of number of words for the primary school

Table 15.11 Text lengths based on number of words in French written texts for primary school children

<i>Type of text</i>	<i>Narratives</i>		<i>Expository texts</i>	
<i>Population</i>	<i>Bilingual</i>	<i>Monolingual</i>	<i>Bilingual</i>	<i>Monolingual</i>
Text lengths (word number)	1149	1303	1792	866

children in French. Table 15.8 illustrated differences in French text lengths in clauses; however, here we have chosen to display text lengths in words.

For French monolinguals narratives are longer than expository texts, while the quantitative relation is reversed for Turkish-French bilingual children. Moreover, the number of words in expository texts provided by bilinguals is higher than that of their monolingual peers. A qualitative analysis of written expository texts shows differences in terms of content. Whereas monolingual children produced expository texts on the topic of violence in schools or between people, as we expected, Turkish-French bilingual children relied more on support from videos we showed them before data collection. Many bilingual children's expository texts thus contain references to episodes showed on video, instead of discussing the issue of interpersonal problems.

We then calculated anaphoric density according to two parameters: (1) population (monolingual versus bilingual) and (2) type of texts (narratives versus expository texts).

We expect to find higher anaphoric density in narratives than in expository texts, whatever be the population. Indeed, anaphoric operation is mastered earlier for narratives than for discursive text types, which are mastered at around 14 years (De Weck, 1991). We also think that bilingual children will achieve similar anaphoric density as concerns the comparison according to type of texts (narrative versus expository). Table 15.12 shows anaphoric density in French written texts provided by the 10-year-old primary school children of both populations.

For both populations, these results demonstrate the strong correlation between text length and anaphoric density. With respect to French monolinguals, anaphoric density is quite a bit higher in narratives compared to expository texts. As for bilingual children, we get the opposite

Table 15.12 Anaphoric density^a (in %) in written texts of monolingual and bilingual children

<i>Type of text</i>	<i>Narratives</i>		<i>Expository texts</i>	
<i>Population</i>	<i>Bilingual</i>	<i>Monolingual</i>	<i>Bilingual</i>	<i>Monolingual</i>
Anaphoric density	12.1	11.44	11.94	6.81

^aThis calculation consists of a ratio of number of anaphors to number of words in text.

result: expository texts contain more anaphors than narratives. We can therefore wonder how relevant the differences in anaphoric density are. Although differences are in favor of bilingual children, their anaphoric density is at least equivalent to that of monolinguals.

In a second stage, we studied the distribution of types of anaphors for both types of texts and both populations. Our hypotheses for this were

Hypothesis 1: For narratives, we will find more pronominal anaphors than noun phrases. Indeed, because of disjunction related to referent and autonomous discursive mode, we should find more third personal pronouns, possessive pronouns and adjectives and relatives. Concerning expository texts, we expect more pronominal anaphors, followed by nominal ones and then others.

Hypothesis 2: We expect no differences in use of anaphors between Turkish-French bilingual children and French monolinguals.

Table 15.13 presents the percentages obtained for each category of anaphor.

In both types of text, pronominal anaphors are strongly represented. As we predicted in our second hypothesis, percentages are very close between both populations, with, however, a small advantage for bilinguals concerning the use of nominal anaphors. The category 'others' is hardly used by either population. Concerning pronominal anaphors, we observe a small percentage difference between narratives and expository texts. We need a deeper analysis of types of anaphor in order to explain the different uses with types of texts. Indeed, pronominal anaphors comprise six types of anaphors. The total percentage of pronominal anaphors can thus hide differences in types of pronominal anaphors between narratives and expository texts. Nominal anaphors are slightly more common in expository texts, whatever the population. In this case, it will also be necessary to perform qualitative analysis of type of nominal anaphors in order to understand the mechanisms involved.

As we already stressed, bilingual children from an immigration background are often stigmatized and bilingualism is considered to

Table 15.13 Percentage of types of anaphors in French written texts of primary school children

<i>Type of text</i>	<i>Narratives</i>		<i>Expository texts</i>	
	<i>Bilingual</i>	<i>Monolingual</i>	<i>Bilingual</i>	<i>Monolingual</i>
Pronominal anaphors	78.5	86	89.5	90
Nominal anaphors	21.5	13.5	10	8.5
Others	0	0.5	0.5	1.5

be responsible for school failure. School success requires control of particular linguistic competences, both in written and oral language; abilities are often related to de-contextualized situations and require a high cognitive level in the standard language. Anaphors appear to be a good indicator of linguistic control levels compatible with school requirements.

Previous studies of anaphors primarily involved narratives. However, texts produced within the school framework at primary school level are expository or argumentative texts as often as narratives. It thus appeared judicious for us to compare the use of anaphors in these two types of texts. Our first results linking anaphoric density to text type show that Turkish-French bilingual subjects' results for narratives are equivalent to those of monolinguals. Anaphoric density also appears higher in expository texts from bilingual children. We must relate this finding to the characteristics of expository texts written by bilinguals. Comparison of each type of anaphor (pronominal, nominal and other anaphors) leads us to conclude that bilingual and monolingual children use the same amount of anaphors. This result should obviously be supplemented by detailed and qualitative analyses of anaphors in writings. Also, comparing oral versus written modalities of texts should enable us to validate these conclusions.

Implications for SLPs Working with Turkish Clients in a Clinical Setting

The SLP process in a French multilingual setting for Turkish people

Speech therapy as a profession was legally recognized in France by the law of July 10, 1964, which instituted a national diploma: the Certificate of Competence of Speech-therapy (Certificat de Capacité d'Orthophoniste).

Speech therapists are medical auxiliaries, which mean that they intervene on medical prescription. The first step in the SLP process is the speech assessment, which is divided into two parts: the anamnesis (or preliminary case history) and the assessment itself.

During anamnesis, speech therapist asks parents about the reason for seeking services, symptoms, and medical and academic history of their child. Parents are questioned about the language spoken with the child, the child's language development (age of first words, which language is used by the child, with whom and so forth) and any history of language impairment in the family. At this stage, speech therapists may be confronted with the problem of the language spoken by the parents. There will be no problem if the parents speak French, or if the speech therapist speaks Turkish. However, if the parents speak only Turkish or Turkish with low levels of French and the speech therapist cannot speak Turkish, anamnesis will be difficult to conduct. In this case, parents often come with an interpreter (a family member or a neighbor who speaks French). In some cases, one of their older children acts as an interpreter. However, when there is an

interpreter, the anamnesis may be more difficult because parents may feel uncomfortable answering certain private questions in the presence of the interpreter. Speech therapists who answered the questionnaire established by Tinelli (2004: 107–109) mentioned four types of difficulties encountered:

- (1) *The linguistic barrier*: Many Turkish families are not fluent enough in French and rely on the help of siblings who will act as interpreters.
- (2) *A lack of understanding about speech therapy*: Speech therapy is not often understood by Turkish families. Not knowing about speech therapy, the parents imagine it as support with school work. The parents are not very motivated because they are not aware of the child's difficulties and, in a sense, they do not understand the point of long-term monitoring.
- (3) *A difficulty in accessing the history of the pathology*: During the anamnesis, it is often difficult to recapture the child's medical or language history.
- (4) *A cultural barrier*: Cultural references, religion and traditions are factors that can appear complicated to anyone who does not belong to the community. Speech therapists misread the cultural references of families, and families often do not necessarily understand the job of the speech therapist.

It is necessary to have these difficulties in mind in order to try to prevent them. Concerning the first point, the linguistic barrier, the only answer, apart from turning to an interpreter, is to find a bilingual speech therapist, which may be difficult. Indeed, we do not have at our disposal any index of bilingual speech therapists. Nevertheless, some solutions might be taken into consideration. As for the second point above, it is necessary to take time to explain what speech therapy consists of. Through developing bilingual questionnaires and gathering documentation on the cultural environment of Turkish families, the speech therapist will be able to reduce these barriers. Speech therapists working with bilingual patients have to integrate the patient's family as a real partner in the therapy, even if it seems difficult because of linguistic and cultural barriers.

After anamnesis, the speech therapist proceeds to an assessment. Its clinical modalities depend on medical prescription, age of the child and his or her level of participation. A speech therapist has at his or her disposal the following:

- Many assessment tools: standardized tests that make it possible to get quantitative results in terms of age (lexical age for example) or of standard deviation in reference to a statistical standard.
- Clinical experience that allows a qualitative analysis of a child's production and behavior.

However, as Chevrie-Muller (2007: 95) points out, 'beyond the modular approach it is essential that the child has to be considered as a whole'.

Assessment tools used for language disordered Turkish children in context

In France, there are no specific assessment tools used for language disordered Turkish children. The Turkish child will be asked to take tests in French. If the speech therapist speaks Turkish, he or she will be able to conduct a qualitative analysis of the child's Turkish language, but no standardized tests in Turkish are published in France. If the speech therapist does not speak Turkish, the only way to approach the specificities of the child's Turkish will be to ask parents or the interpreter, keeping in mind the problems noted above.

Calbour (2006) uses a table that allows analyzing the particular linguistic situation of the child who comes in for consultation (see Table 15.14). It is a useful aid to help adapt the therapy for the particular client and to measure linguistic development during therapy.

As for the French language, many assessment tools can be used, according to age and language components. We present in Table 15.15 a non-exhaustive list of the existing materials divided into three categories: tools for oral language, those for written language and those for both.

These assessment tools are only a small part of those used by speech therapists in France. Furthermore, as we saw before, the most important aspect of the assessment is the meeting between the child, their family and a speech therapist.

After the anamnesis, which involves similar questions for all children, assessment must be age appropriate. Three age ranges can be considered:

- before starting schooling (i.e. before the age of three years),
- between the start of schooling and the entry into primary education, and
- after entering primary education (usually after the age of six years).

The assessment is adapted to the age and capacities of the child; for example, the use of standardized tests is restricted to children of school age.

- (1) **Before schooling:** It is rare that children consult speech therapists, except for children with specific handicaps, or in the case of a child without language who also presents behavioral problems. In these cases, consultation is often done on the advice of a 'Maternal and Infantile Protection' physician (PMI) or of a pediatrician. This is unfortunate as, at this age, preventive intervention can be most effective, especially for children with bilingualism resulting from immigration.

Table 15.14 Bilingualism typology of the child

	Mother				Child			
					Mastery of the language			
	Mother tongue		Second language		Mother tongue		Second language	
	Compre- hension	Produc- tion	Compre- hension	Produc- tion	Compre- hension	Produc- tion	Compre- hension	Produc- tion
Oral language								
Written language								
Bilingualism typology of the child According to the linguistic abilities of the mother and the child (Calbour, 2006).								

Table 15.15 Some assessment tools classified according to oral or written modality (details of these tests are presented in the appendix)

Oral Language	Written language	Oral and written language
Batterie d'évaluation psycholinguistique (BEPL-A, BEPL-B), Chevrie-Muller et al. (1985a, 1985b)	Epreuve d'évaluation de la compétence en lecture Lecture de mots et compréhension – Révisée (LMC-R), Khomsi (1999)	Batterie « Langage oral et écrit, mémoire – attention » (L2MA), Chevrie-Muller et al. (1997)
Nouvelles épreuves pour l'examen du langage (N-EEL), Chevrie-Muller and Plaza (2001)	Bilan de lecture informatisé (BLI), Khomsi (2002)	Une batterie cognitive d'examen du langage oral et écrit (EXALANG 5-8), Helloin et al. (2002)
Epreuves verbales d'aptitudes cognitives (EVAC), Flessas and Lussier (2003)	Alouette-R, Lefavrais (2005)	Une épreuve de compréhension syntaxico-sémantique (E.CO.S.SE), Lecocq (1996)
Évaluation du langage oral (ELO), Khomsi (2001)	Analyse du savoir lire de 8 ans à l'âge adulte (ANALEC), Inizan (1998)	Batterie prédictive de l'apprentissage de la lecture (BP/BL), Inizan (2000)
Epreuve d'évaluation des stratégies de compréhension en situation orale (O-52), Khomsi (1987)	Vol du PC, Boutard et al. (1997)	Outil de dépistage des dyslexies – version 2 (ODEDYS – version 2), Zorman and Jacquier-Roux (2005)
Test de Langage Oral Complexe pour collégiens (TLOCC), Maurin (2006)	Test de Compréhension Syntaxique (T.C.S.), Maeder (2006)	
Sacré Nestor, Crunelle et al. (2004)		
Test de vocabulaire en images (VOCIM), Lége and Dague (1976)		
Protocole d'évaluation rapide (P.E.R. 2000), Ferrand (2000)		
Une batterie cognitive d'examen du langage oral (EXALANG 3-6), Helloin et al. (2006)		

In the case of children below the age of three years, speech therapists will primarily center their assessment on

- Observations by parents of the language used by their child in daily life. In French, there is the IFDC (French inventories of communicative development) adapted from the MacArthur-Bates communicative development inventories by Kern (2003, 2004) and the French Association of Ambulatory Pediatrics (<http://www.afpa.org>). Parents fill out analysis charts, which are distributed by the pediatrician during a consultation or by a speech therapist. These inventories have the advantage of being calibrated but are difficult to use with bilinguals since they are available only in French. The Standing Liaison Committee of EU Speech and Language Therapists and Logopedists propose analysis charts dealing with 18-, 30- and 54-month-old children. These charts are less elaborate, but they have the advantage of being translated into several languages including French and Turkish.
- An observation of the child when playing freely.
- Use of standardized tests such as the Batterie d'évaluation psycholinguistique (BEPL-A, BEPL-B) of Chevrie-Muller *et al.* (1985a, 1985b) for children of at least 2;9.

The major difficulty at this age lies in the fact that before schooling, children of Turkish origin are only exposed to the Turkish language: the standardized tests in French will be thus difficult or even impossible to use with them and speech therapists who do not speak Turkish have to rely on the observation of non-verbal communication and on the assistance of parents or interpreters. This assessment, therefore, will not necessarily lead to a therapeutic intervention plan, but advice and support could be suggested in order to allow favorable development of language.

- (2) Between the beginning of schooling and the entry into primary education (usually from three to six years): It is often at this age, as we saw, that a child will start a prolonged contact with the French language. It is also often at this period that an assessment is required for children of Turkish immigrant families. The referral often comes from a PMI physician, the school physician and/or the teacher. Parents do not always consult a speech therapist at this stage: the second author often met children for whom a referral had been made at this age but whose parents, for cultural reasons, came for a consultation only when an older sibling encountered great difficulties in written language.

Between three and six years, the assessment of oral language will comprise

- An observation of the child in a play situation and of its behavior throughout the assessment (the desire for communication, nonverbal communication, communication strategies).

- Standardized tests: Standardized tests are numerous and make it possible to explore wide-ranging competences, in particular articulation, phonology, both lexical expression and comprehension, semantics and syntax, pragmatics, attention and memory.

Among test batteries concerning this age range, speech therapists have at their disposal

- *Batterie d'évaluation psycholinguistique (BEPL-A, BEPL-B)*, Chevrie-Muller *et al.* (1985a, 1985b)
- *Protocole d'évaluation rapide (P.E.R. 2000)*, Ferrand (2000)
- *Nouvelles épreuves pour l'examen du langage (N-EEL)*, Chevrie-Muller and Plaza (2001)
- *Évaluation du langage oral (ELO)*, Khomsi (2001)
- *Épreuve d'évaluation des stratégies de compréhension en situation orale (O-52)*, Khomsi (1987)
- *Test de vocabulaire en images (VOCIM)*, Lége and Dague (1976)
- *Une batterie cognitive d'examen du langage oral (EXALANG 3-6)*, Helloin *et al.* (2006)

With these tests, speech therapists can build up an inventory of competences and difficulties in the French language of the child. In comparison with this profile in French, it will be advisable to get as precise information as possible about the child's competences and difficulties in the mother tongue by questioning parents or the interpreter. Interpretation of French tests should balance both quantitative and qualitative analyses; it must also be remembered that norms obtained from these different tests are those for monolingual children and not for bilingual ones. That is why tests should be used cautiously. Qualitative analysis will allow speech therapists who assess the mother tongue of the child to differentiate interference from pathology.

- (3) After entry into primary education (usually after six years old): As we saw, at this age, the French language becomes dominant for Turkish children. At this age, children learn to read and write in French. Some of them will, furthermore, benefit from supplementary mother tongue education.

Children who have difficulties are identified by teachers. They refer for speech and/or writing difficulties and physicians will specify the type of assessment needed.

Assessment of oral language

The same competences as previous described are examined by means of tests appropriate to the age and capacities of the child:

- *Nouvelles épreuves pour l'examen du langage (N-EEL)*, Chevrie-Muller and Plaza (2001)

- *Evaluation du langage oral (ELO)*, Khomsi (2001)
- *Epreuve d'évaluation des stratégies de compréhension en situation orale (O-52)*, Khomsi (1987)
- *Test de vocabulaire en images (VOCIM)*, Légié and Dague (1976)
- *Epreuves verbales d'aptitudes cognitives (EVAC)*, Flessas and Lussier (2003)
- *Sacré Nestor*, Crunelle et al. (2004)
- *Test de Langage Oral Complexe pour collégiens (TLOCC)*, Maurin (2006)

Assessment of written language

The aim is to test the following competences (some or all of them according to the age of the child):

- knowledge of letters and graphemes,
- speed and quality of reading aloud,
- quality of lexical addressing and phonological assembly in reading,
- reading comprehension,
- lexical and syntactic spelling (under dictation and in spontaneous production) and
- text competences.

Some of the tests used for both oral and written language of children over six years old are listed in Table 15.15 and detailed in the appendix.

It would also be interesting to ask children about their use of written Turkish. As for oral language, we do not have at our disposal specific Turkish-French bilingual tests.

Therapeutic implications

In France, we have only recently begun to take into account the variable of bilingualism. Lack of information and specific assessment tools leads many speech therapists to unsatisfactory classification of clients. Because of this, they often seek advice from professional forums about bilingualism on the internet, trying to get information from each other. There is still a long way to go, but studying bilingual children's language development may be the first step in helping speech therapists in their work with this population.

In this study about Turkish-French bilingualism, some elements should help us to understand the Turkish-French bilinguals' language development. One very important discovery is that at the age of 10, their abilities in French are similar to those of monolingual French children. Speech therapists should bear this in mind when they carry out an assessment of the language of a Turkish-French bilingual child.

Another implication concerns prevention. The provision of informative materials about language for Turkish families may help these families to manage their particular language situation, with benefits for their

children. Such documents have begun to be developed, notably by the CPLOL (Standing Liaison Committee of Speech and Language Therapists/Logopedists in the European Union, 1988–1998).

In any case, as Calbour (2006) points out, 'As it is impossible for a speech therapist to learn all the native languages and cultures with which he is confronted, he must integrate the family in the therapeutic process with its linguistic, cultural and social referents, specific to its original ethnic group. He acts with coherence and efficacy when he respects the child's linguistic roots'. More than any other case, speech therapy with a Turkish child requires cooperation with the family. Rosenbaum's work in Switzerland (1997) gives some interesting ideas of what form this cooperation should have. She proposes the realization of a 'genogram': it begins by drawing, with the help of the child's family, a family tree of three generations. The location of different family members (in our case in France or in Turkey), comparison of first names and different information about each member (age, dead or alive) are discussed with the child. This work should help children to write their own history and to situate themselves.

General Discussion and Conclusion

While for some children the two languages develop independently and simultaneously, leading to early almost balanced bilingualism, our previous results have shown the status of strong and weak language changes for Turkish-French bilinguals in their development. While children show Turkish as a dominant language in early childhood, their mother tongue stagnates or fossilizes until the age of 10 and it becomes close to the language used by Turkish monolinguals at the age of 14 (Akıncı, 2001). Our previous research also showed that French becomes dominant at the age of six. However, bilingual children's abilities in French are not similar to those of monolingual French children until the age of 10. Figure 15.1 shows the development of the two languages for Turkish-French bilingual children in France.

Usually, nursery school is an emotional shock for a child, and each child adopts strategies corresponding to his or her personality to manage this new situation. The first months are a sensitive period, because teachers with little awareness of the processes involved put pressure on bilingual children, judging them negatively. We believe that it is essential to allow the child a period of silence without engaging in false interpretations such as 'language delay' or 'refuses to speak'. Some children with a Turkish background probably do need speech therapy, but in any case we should not generalize this practice.

Recent studies (see Backus, 2004, for reviews of this work) on the language of Turkish bilingual children in European countries point to the fact that these children face important problems in learning the language of the country in which they live. Our results show, however, that text

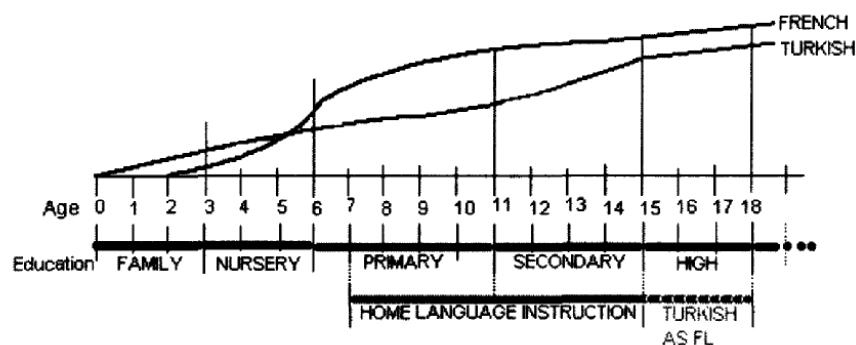


Figure 15.1 Acquisition and development of French and Turkish by Turkish second-generation children and adolescents in France with schooling and age

production abilities in Turkish and French continue to develop through high school in Turkish-French bilingual children and adolescents. If methodological precautions are taken, both bilingual and monolingual populations behave the same, despite myths circulating about lower competencies in the mother tongue and in French, that contribute to school failure. These myths, which are often due to a widespread bilingualism deficit approach in the educational framework, influence the educational relationship and the expectations regarding the performance of pupils.

‘The most important thing is not to teach a child to speak a new language differing from his usual one well, but to create for him the desire to explore and learn a new language in interaction with his environment. (...) Taking into account the specificity of the environment is especially even more important for a child from a migrant background since he is often rejected by the environment into which some people want to integrate him and since the only language feeding his roots is the one of his parents’ (Calbour, 2006: 6; authors’ translation).

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Notes

1. Tabors and Snow (1994) have identified four stages of sequential acquisition of a new language. The stages describe the learning process for children after the

- age of three, whose first language is partly established and who are now in a setting where the second language is predominantly in use.
2. Even if by the age of 5/6 years, French becomes the dominant language for children, attachment to mother tongue remains a strong marker of identity for those families. Confronted with acculturation, migrants feel threatened in their identity; there are values that they try to perpetuate such as language, religion or culture. Besides, it is not rare for some Turkish parents to impose French as the language of the home in the belief that this will somehow improve their children's chances at school.
 3. In order to learn more about Turkish families who have a child who is being monitored for speech language disorders, Steib (2006) also conducted interviews with four Turkish mothers in the same city. She asked them their views on a number of issues concerning the Turkish community in France, concepts such as language abilities, their contact with books and school, speech therapy, religion, transmission of traditions, marriage and, finally, television.
 4. The conceptual and methodological basis for this study is derived from a crosslinguistic research project on the development of text production abilities as a critical indicator of literacy across and beyond school ages (Berman & Verhoeven, 2002).
 5. The data of concern here are spoken stories based upon the picture book '*Frog Where Are You?*' (Mayer, 1969) coded following the procedures outlined in Berman and Slobin (1994) (for details, see Akinci, 2001).
 6. The dataset was subjected to Analysis of Variance (ANOVA) tests: the values of these tests were accepted as significant for $p < 0.05$.
 7. Each subject was assigned a code. The first letters indicate the group: TB = Turkish-French bilingual and FM = French monolingual. The letter following the group code indicates the child's school level: P = primary school. The number codes the student individually in a school group, and A or B after the number indicates the presentation group in each school level. The final letters code modalities (W = written texts and S = spoken texts) and types (N = narrative texts and E = expository texts).
 8. The values of these tests were accepted as significant for $p < 0.05$.
 9. This study is part of the work done by N. Decool-Mercier toward her master's degree thesis (Decool-Mercier, 2008).

Appendix: Details of Assessments

Oral language

Batterie d'évaluation psycholinguistique (BEPL-A, BEPL-B),
Chevrie-Muller *et al.* (1985a, 1985b)

The BEPL is a module made up of 23 different subtests for Part A, and observation of the child's play for Part B. It provides standardized scores. This test can be used with children aged from two years, nine months to four years, three months. Part A evaluates oro-facial motility, articulation, visuo-spatial organization, immediate verbal retention and phonological, lexical, semantic and syntactic capacities (expression and comprehension). Part B is a situation where the child is playing; the speech therapist observes spontaneous linguistic expression through which the richness of the vocabulary, the morphosyntax and the psycholinguistic and pragmatic aspects can be studied.

Protocole d'évaluation rapide (P.E.R. 2000), Ferrand (2000)

This test allows for quick evaluation of the linguistic capacities of a child between 3;5 and 5;6. The 'P.E.R. 2000' includes several tests that explore the child's abilities in the following fields: hearing, reproduction of rhythmic structures, instrumental abilities (except language), auditory-perceptive aptitudes, articulation of phonemes, speech and oral language (comprehension, syntactic complexity of the speech).

Nouvelles épreuves pour l'examen du langage (N-EEL), Chevrie-Muller and Plaza (2001)

This test has two forms: the P-form intended for younger children (aged 3;7-6;6) and the G-form for older children (aged 6;6-8;7). Some tests are common to both forms, while others are specific to one or the other of the two forms. The various components evaluated are phonology, expression (lexicon - morphosyntax), comprehension (lexicon - morphosyntax), memory and cognitive capacities.

Epreuves verbales d'aptitudes cognitives (EVAC), Flessas and Lussier (2003)

This test evaluates the mental strategy and the linguistic abilities used in the school context for children aged from 8 to 13 years.

Evaluation du langage oral (ELO), Khomsi (2001)

This test evaluates different aspects of oral language of 3-10-year-old children: lexicon in reception (LexR), lexicon in production (LexP), repetition of words (RépM), comprehension (C), utterance production (ProdE) and utterance repetition (RépE).

Epreuve d'évaluation des stratégies de compréhension en situation orale (O-52), Khomsi (1987)

This test of picture recognition is used with 3-7-year-old children. It allows for the evaluation of syntactic comprehension strategies in oral situations.

Sacré Nestor, Crunelle et al. (2000)

This test evaluates detailed oral comprehension. After hearing a story, children aged from 7 to 10;11 years have to retell the story, answer some detailed questions and place pictures in the correct order of the story.

Test de vocabulaire en images (VOCIM), Légié and Dague (1976)

This test examines receptive vocabulary. It can be used with children aged from three to nine years. The child is asked to point to one of the four pictures to identify which illustrates the word that was presented.

Une batterie cognitive d'examen du langage oral (EXALANG 3-6),
Helloin et al. (2006)

This computerized battery is for children aged from 2;8 to 5;10 years. It evaluates lexical competences (expression and reception), morpho-syntactic competences (expression and reception), non-verbal competences, phonology, attention and memory.

Test de Langage Oral Complexe pour collégiens (TLOCC),
Maurin (2006)

This test is a clinical tool that evaluates the complex oral language level of school children: vocabulary (comprehension and expression) and sentences (morphology and meaning).

Written language

Epreuve d'évaluation de la compétence en lecture. Lecture de mots et compréhension - Révisée (LMC-R), Khomsi (1999)

This test, for children from first year infants' class to third grade form, is composed of three parts: reading in one minute, word identification and reading comprehension.

Bilan de lecture informatisé (BLI), Khomsi (2002)

This computerized test is modeled after LMC-R. It is designed for children from the second year to the fifth year of primary school and measures reaction times.

Alouette-R, Lefavrais (2005)

This is a test of text reading speed for 6–16-year-old children. Its objective is to provide indications of performances in a situation of reading texts aloud. It contains elements on the speed and the correctness of the reading.

Analyse du savoir lire de 8 ans à l'âge adulte (ANALEC), Inizan (1998)

This is a set of tests on reading and writing abilities for eight-year-old children to adults: silent reading (speed and comprehension), reading aloud (speed and correctness), spelling with aural input (dictation) and spelling with visual input, analysis and synthesis.

Vol du PC, Boutard et al. (1997)

This test provides a functional evaluation of the reading of subjects from 11 to 18 years, by measuring text reading speed, analyzing types of errors (there are some nonsense words in the text) and comprehension.

Test de Compréhension Syntaxique (T.C.S.), Maeder (2006)

The T.C.S. is a test designed for children and teenagers aged from 8;6 to 15;5 years. The purpose is to evaluate morpho-syntactic comprehension on the level of written utterances in isolation.

Oral and written language

Batterie prédictive de l'apprentissage de la lecture (BP/BL),
Inizan (2000)

The predictive set of tests determines if the child is ready to begin learning to read, and it predicts in addition the time necessary to conduct this training. The reading battery used with children in their first and second year of primary school measures their reading ability.

Outil de dépistage des dyslexies - Version 2 (ODEDYS - version 2),
Zorman and Jacquier-Roux (2005)

ODEDYS is a tool for the detection of dyslexia, which concerns children from the second year of primary school to second year of secondary school. The tests are l'Alouette, word reading, word dictation, sentence dictation, repetition of words and nonsense words, fast denomination, metaphonology, memory and visual tests.

Batterie 'Langage oral et écrit, mémoire - attention' (L2MA),
Chevrie-Muller *et al.* (1997)

This test concerns children aged from 8;6 to 11;6 years. It tests oral and written language, memory, attention and visuo-motor aptitudes.

Une épreuve de compréhension syntaxico-sémantique (E.CO.S.SE),
Lecocq (1996)

This test can be used with 4–12-year-old children in oral and/or written modalities. It allows for the measurement of syntactic and semantic comprehension.

Une batterie cognitive d'examen du langage oral et écrit (EXALANG 5-8), Helloin *et al.* (2002)

This computerized test is designed for children aged from five to eight years. It evaluates oral language, metaphonology, memory and written language.