

Developmental Speech Problems and Bilingualism: The Difficulties of Identification

Sotiria Tzivinikou

Aristotle University of Thessaloniki, Greece,
Psychology and Special Education department of TEPAE *sotitzivi@hotmail.com*

The developmental speech problems and the speech problems derived from bilingualism could have some similar characteristics but they need different intervention. So, distinguishing between them is essential. The present, multi-method (methodological triangulation), case study aimed to investigate whether it is possible to identify developmental speech problems of an eight-year old Albanian boy who attended a public primary school in Greece. The identification of his speech problems had some specific difficulties, mainly related to the lack of IQ, psycholinguistic and school performance standardised tests for bilingual children.

Bilingualism, identification, developmental speech problems

INTRODUCTION

Diagnosis of Speech Problems

Developmental speech problems are initially retardation in the development of first oral and later in written language, without sensory, kinetic or phonological problems. The problem is rather related to a specific intellectual structure that prevents the reception or even the expression of speech and it can be divided into two types: receptive and expressive developmental speech disorder.

The linguistic characteristics of receptive type vary depending on the severity of disturbance and the age of the child. Initially, the child cannot react when hearing familiar words, and later on, he cannot comprehend simple orders or may have difficulty in the comprehension of certain categories of words, such as words for space and time and even more, in complex utterances. In more severe cases, the child may exhibit multiple difficulties, such as weakness in the comprehension of basic vocabulary or simple utterances and insufficiencies in various aspects of the hearing process, such as discrimination of sounds, combination of phonemes and symbols (Tzouriadou, 1992).

Otherwise, the linguistic characteristics of expressive type speech problems are evident from the early years of life. Thus, two-year old children may be incapable of producing single words and three-year olds are unable to use telegraphic speech. Later, they present limited vocabulary, difficulty in learning new words, vocabulary errors such as substitutions, transpositions, overgeneralisations, and falsifications. The length of their utterances is short, their syntax is simple, and the variation of different grammatical types is limited. In some cases, basic elements of utterance are absent, the order of words is wrong or they give atypical responses. During the first grades of primary school, these difficulties in oral speech are reflected in the written speech too (Tzouriadou, 1992). Moreover, the mild types of difficulties could be obvious later in puberty, when the requirements for speech are increased and the used speech becomes more sophisticated. Often, some children have difficulties in both, expressive and receptive speech, so their problems

become more complex, and this is an accepted and reliable indicator for learning disabilities at school age.

Assessing level of speech can be very difficult, since single speech quotients are rare and perfect measures for the various parts that constitute overall speech do not exist. However, since speech is connected to a variety of other operations in the central nervous system (CNS), the estimation of these operations can help obtain a global picture of operations of speech and at the same time provide information about other functions of the CNS.

According to Michelogianni, and Tzenaki, (2000), the estimation of speech can include: (a) estimation of speech regarding mainly articulation and vocabulary, (b) estimation of writing regarding speech or the motor ability of the hand, (c) estimation of perception and expressive speech with respect to hearing, and (d) determination of whether the speech disorder is organic or psychological. So, the assessment team should be interdisciplinary one.

Consequently, it is accepted that children referred for speech assessment should be assessed for intelligence, reading and spelling as well. The verbal subtests of these, should give some useful information. It is important to point out that the verbal score on an intelligence test is low as well in the cases that the full intelligence score is generally low. In these cases, a differential diagnosis is essential in order to be clear if the speech disorders are a result of a low IQ or they are developmental ones.

The tests usually used are for sound discrimination, perception of speech related to words and utterances, expressive speech related to the whole spectrum of speech and also, tests for memory related to words and utterances. A widely accepted test used in speech evaluation is the Illinois Test of Psycholinguistic Ability (ITPA), as well as the Detroit Test that is available in Greek (Tzouriadou, 1989, cited in Markovitis, and Tzouriadou, 1991).

DIFFICULTIES IN ASSESSMENT OF BILINGUAL CHILDREN

A bilingual person can be considered anyone who knows and systematically uses two, or more, languages. So, the emphasis is given in the criterion of use and least in the degree of possession of two languages, but in any case, it is admissible that the bilingual individual should get to know at least one of the two languages to a level comparable to those of a monolingual speaker (Agiakli and Chatzidaki 1999). A good knowledge of maternal language constitutes the base for learning the second language, because thought already has been developed through the maternal language (Kanakidou and Papagianni 1997).

Bilinguals and multilinguals, however, include an extremely heterogeneous population. They can vary along a significant number of dimensions, including (a) sociolinguistic background, (b) type of bilingualism, (c) degree of proficiency, (d) age and sequence of acquisition of the languages, (e) method of acquisition of the second language, (f) language-specific factors, and (g) anatomical dimensions (Ardila, et al., 2000). Although there is extensive research on bilingualism, it remains a poorly understood phenomenon.

The use of language of a cultural minority negatively influences the possibility of absorbing social goods and facilities (for example, education) and the possibility for social and economic integration of emigrants and refugees (Anthogalidou et al., 1998). It is widely accepted that many bilingual children, particularly those who came from low socio-economic familial environments, are disadvantaged in the acquisition of the required abilities for a high level of performance in the state educational system. Education is the main factor that can contribute to the awareness of their identity and to feel adequate as members of the new society. Nevertheless, some problems in education decrease its effectiveness.

Research has shown that at least five to six years of school attendance are required for any bilingual to reach the level of his monolingual schoolmates (Cummins, 1984). This takes into account that (a) for a bilingual student a difference in level of language knowledge during the first years of school is expected, and (b) his surface fluency in the second language should not constitute a criterion for making a decision about the need of further educational support.

Any assessment procedure should recognise that culture is not a single entity that every child acquires equally, because each child is unique and confronts the environment in unique ways. The child brings past experiences to the learning situation, as well as individual ways of interacting with the world. The school adds new sets of experiences, but these experiences are uniquely assimilated by each child. The acquisition of knowledge, or cognitive development, is a phenomenon that occurs throughout the years and is not limited to the classroom (Omark, and Watson, 1983).

Research (such as, DeBlassie, and Franco, 1983) has shown that the children of minorities: (a) were over represented in special education classes, (b) education became the means of conservation in the situation from which the children came, and obtained a profit and reward from their society, not from the wider and prevailing cultural, (c) the tests in which they were submitted, increased the difference, (d) the low expectations of schoolteachers led the children to corresponding low performance according to the self-fulfilling prophecy, (e) when they were placed in a special class, they almost never come out from it, (f) the results of IQ tests were neither valid nor reliable.

One of the most important educational problems is the diminished ability of bilinguals to perform well in official and standardised tests (DeBlassie, and Franco, 1983). It is important that standardised tests do not include corresponding norms for the comparison of scores, thus there are problems in the interpretation and evaluation of scores based on the comparison with norms from different cultural and linguistic populations. So, these tests are in doubt regarding to their validity and reliability. If everybody is different, the logical approach to testing would be to design individual assessments that would examine each child in terms of the child's ability to function within his or her own world. So, for the bilingual exceptional child the critical question is not, How does this child compare with national norms? but rather, How does this child compare with the local bilingual population? (Omark and Watson, 1983).

In Greece, although various institutions have made scientific studies to identify knowledge of Greek as second language, for example, the Pedagogic Institute, the National Kapodistriako University of Athens (Prof. Markou and Prof. Fragoudaki), the Centre of Greek Language (Agiakli and Chatzidaki 1999), only a few empirical studies of bilingualism have been recorded, particularly for Albanian emigrants (Tsimploulis, 2002). However, recently, Tzouriadou and her colleagues' studies on bilingualism and speech problems have found that in Greek special and integration classes many students from minorities have attended without cognitive impairments (Tzouriadou, et al. 1999, Tzouriadou, et al. 2000).

The aim of the study

The approach mentioned above, that the cultural diversity and bilingualism should not stand as an obstacle to intellectual growth, as well as the social and psychological potential of bilingual children, is adopted by the present research. The present study extensively examined and assessed the potential of an eight-year-old child whose maternal language was Albanian and who was in second grade of primary school. The intervention program based on this assessment was presented in another publication (Tzivinikou, in preparation).

The aim of this study was to investigate whether it was possible to identify speech problems derived from bilingualism, and developmental problems, either expressive or receptive type, using

a case study. The subject was an eight-year old Albanian boy who was in the second grade of primary school in Greece.

METHOD

The present study was a case study, focused on an only child, as a target subject of the bilingual school-aged population in Greece. It was a methodological triangulation, involving qualitative and quantitative approaches. The triangular techniques in the social sciences attempt to map out, or to explain more fully, the richness and complexity of human behaviour by studying it from more than one standpoint (Cohen and Manion, 1994). The present triangulation was between methods, which means it involved the use of more than one method in the pursuit of the chosen objective. So, it has used psychometric measures, teacher's ratings, interviews, and informal observation in order to build up an overall and complete assessment of the child.

Tools and Data Collection

The following methods were used for data collection:

- a semi-structured interview of the child's parents to obtain information about the developmental history of the child;
- child's assessment using the Detroit Test, (DTLA-2) that is a formal psycho educational test, not standardised but adjusted by Tzouriadou (1992) in Greek;
- assessment of reading and spelling using informal tests (These tests were structured and used in the doctoral thesis of the researcher (Tzivinikou, 2002));
- educational assessment of the child by the teacher using a specific tool (a questionnaire) structured for the needs of the present study named "Teacher's Assessment", making a detailed qualitative and quantitative evaluation of the school performance of the child, with emphasis on the linguistic lessons;
- a questionnaire filled in by the teacher in order to obtain information on some personal characteristics and the behaviour of the child, named 'Teacher's Questionnaire', and
- observation of the child in the school setting and out of the school.

Procedure

Initially the study involved an informal screening process by the researcher in co-operation with the schoolteacher of a primary school in a suburb of Thessaloniki, in order to locate any students that presented any specific problems in their school performance in relation to their linguistic development. Four students met these criteria. One of these is a student with soft cerebral palsy, the second had specific reading difficulties, the third student some orthographic and mild reading difficulties, and the fourth student, was a bilingual child, of Albanian origin, with speech problems. None of these had any formal diagnosis. For the present research, the latter student was chosen on the basis of his family consent and the interest that he presented as a case.

Interview

The parents' interview about the developmental history of the child was held at their house, and during the interview all the members of the wider family were present (for economic reasons, two small families with narrow related bonds lived together in this house).

Formal and informal tests

The Detroit Test (DTLA-2) was administered to the child, at the child's home, because the process is particularly time-consuming, using the most suitable space of the house that was kindly offered by the parents. On the other hand, the informal tests for reading and spelling assessment as well as the comprehension, were administered at the child's school, in a quiet classroom, that was kindly offered by the headmaster of the school.

Teacher's Assessment

A detailed, qualitative, as well as quantitative assessment of the school performance of the child was made by his teacher.

Teacher's Questionnaire

A questionnaire was filled in by the teacher giving some information about the socio-economic status of the child's family. Additionally, it gave information about the child's behaviour at school based on the peers' social relations.

Systematic Observation

The child was observed by the researcher for two weeks. The observation took place mainly in the school setting and at his home as well. More specifically, it was done in the classroom during Language and Mathematics, outside the classroom during the break, and at his house. The observer used a protocol of observation including the following sections: (a) the way that the child answered the questions of the schoolteacher, right, wrong, hesitantly (b) spontaneous speech during the lessons, (c) his spontaneous speech to his classmates of his work group, (d) his schoolmates speech to him, (e) his reading, and (f) his comprehension of text after silent reading, (g) during the break, emphasis was given to the social relations of the child, for example, if he played alone or with others, if he had friends, if his friends were Greeks or Albanians, (h) finally, during the observation at the child's home, emphasis was given mainly to his behaviour and his spontaneous speech.

ETHICAL CONSIDERATIONS

The study was conducted under rigorous ethics, in order to protect the child and his family. Therefore, the first principle involved informed consent, which allowed the parents, the teacher and the headmaster of the school to choose whether to participate in the present study, after being informed of the purpose and the procedures of the study. Diener and Crandall (1978) defined 'informed consent' as involving four elements: competence, voluntarism, full information and comprehension. Additionally, the informed consent of children presents further problems. Even if they can reasonably be expected to understand fully what it is they are agreeing to, the researcher needs to make sure that he or she has the consent of a parent or guardian. On the other hand, the privacy, confidentiality and deception were the ethical matters that were fully under consideration.

RESULTS AND DISCUSSION

According to the reported information referring to the child of the study, he came from a family of economic emigrants from Albania. Their economic level was particularly low, and worsened because all emigrants and refugees were accustomed to having social relations mainly with a closed society of Albanians in Greece and according to Anthogalidou et al. (1998) that influences negatively the possibility of absorbing social goods and facilities. The education level of the parents was mid-level for the Albanian population, but exceptionally low for the Greek population. A member of their wider family (an uncle of the child) was a teacher in Albania until

a little time ago, and he appeared to have had an important, positive effect on the parents with regards to the upbringing, education and their expectations of their child.

On the other hand, according to the child's medical background-history information from the semi-structured interview of parents, some serious problems from his birth until his fourth year of age were reported. The most important of these was the problem of the refusal of food, and the developmental problems based on it. The results of this problem are visible even now, with the child, not presenting the expected growth, for example, very low height and weight. Another basic problem was related to an extensive burn that happened at the age of around two years that created a malformation in the left side of his body.

The parents also reported problems of speech that they observed in the child, in his maternal language as well. For the quality of oral speech in his maternal language, the information came only from his parents, there was no other information, especially from any type of assessment. Another important aspect was that the child had not been taught to write the Albanian language.

However, according to the results of the Detroit test, the child's intellectual ability was average, his total score was 105, while in the linguistic subtests he had lower scores. Thus, in subtests (a) sequence of words, (b) conceptual cross-correlation and (c) completion of words, his scores were below average, and particularly in the completion of words considerably under the average score (score 5, Poor). These findings were consistent with the views of DeBlasie and Franco (1983) that bilinguals have difficulties in performing well on official and standardised tests. On the other hand, the study had an important limitation, as described by Omark and Watson (1983), that the bilingual individual child has to be compared with the local bilingual population from which it has come, not with national norms. But as was mentioned above, in Greece as well as in many other countries, there are no such formal and standardised tests.

According to the standardised scores of the test manual, the ratio of his linguistic ability (verbal aptitude) and his non-linguistic one was 5/10.7. The very big difference in linguistic and non-linguistic ability may show some problem in oral speech (in expressive speech). According to the informal tests and the observation, the child presented the following characteristics:

Language Development

As was reported by the child's parents, his knowledge of the Albanian language was perfect and of Greek very good. The findings from informal observation at school and at his home showed that sometimes (not often) the boy had very mild stuttering, mainly when he was at any stressful situation. During reading he did not stutter at all. So, the study of his stuttering was not part of the purpose of the research, because according to his teacher and his parents, the stuttering did not influence his speech, psychological, or other aspects of behaviour. From the formal and informal test it was found that his knowledge about the syntax and grammar of Greek was at a low level, although his comprehension (receptive speech) was perfect.

The child made many grammatical errors and he could not generalise the suitable forms of words and moreover made a lot of pauses, gestures, repetitions of words and had a limited available vocabulary. Sometimes he could produce generally sufficient grammatical forms, at other times he presented problems in the recall of the right order of the words. Moreover, the child had difficulties in the production of utterances, in his spontaneous speech or when he was asked by someone (like his teacher), he often presented problems finding or recalling the suitable words. These results created a profile that met the criteria for expressive type developmental speech disorders as described by Michelogiannis and Tzenaki (2000), and Tzouriadou (1992).

School Performance Assessed by Informal tests and Observation

Regarding the boy's school performance assessed by informal reading and spelling tests, as well as observations of his performance, his reading ability was slightly lower than that of the other students in his classroom. Although he read fluently enough, his reading had some specific characteristics, such as monotonous rhythm, lack of punctuation (no full stops), and conjunct words. Generally, all the other students (except three of them) in his classroom were better readers than he was.

On the other hand, his spelling ability was characterised by many grammatical errors (mainly at the end of the words), and specific letters replacements (Φ - B - Θ - Ξ - Ψ). Very often, he transmitted the oral speech difficulties in written language (e.g. same syntactic structure). Generally, his performance of spelling was low in comparison to his classmates. On the other hand, in Mathematics, his performance (according to the assessment of his teacher), was above average.

Behaviour

According to classroom observations, the child's behaviour in school was very good. He was particularly quiet, and very hesitant, and did not create problems. His basic personality characteristic was low self-confidence and self-concept. When he apprehended his errors, he was fearful and he was very angry with himself. Although the teacher dealt with him in a sensitive and understanding way and gave more time and chances to him, the child could not utilise them.

Regarding his relations with his schoolmates, observations found that he did not interact with his schoolmates to any degree. During work in groups, other students did not speak to him at all, they behaved as though he did not exist. This occurred even when they were particularly energetic and uneasy often causing the teacher to react. Generally, communication with his classmates seemed to be insufficient for various reasons, including mainly his speech difficulties and additional social problems deriving from his personality.

On the other hand, from the observation of familial environment and the behaviour of the child at home, it was evident that he was a good-natured, well-mannered boy, with innate politeness, who had been brought up well by his parents. He was a withdrawn child and the lack of self-confidence was perceptible even when he was in his familiar environment.

The multi-method of data collection showed that the child had an average intelligence level with a developmental speech disorder. He met the diagnostic criteria of DSM-III for expressive type developmental speech disorder (Tzouriadou, 1992). Of course, it was obvious that these difficulties were made worse by bilingualism. In addition he did not have other academic chances except that provided by the school, and came from a quite deprived environment. So, he did not have many opportunities to improve his speech.

The child in this study appeared to have already developed a satisfactory knowledge of his maternal language. Consequently, the findings of the present study were not in agreement with Kanakidou and Papagianni (1997), because the child had developmental speech problems in Greek despite a good knowledge of his maternal language. A possible explanation could relate to the fact that a detailed history of linguistic development of the child, and his knowledge of the Albanian language was certified only by his parents, and their estimation was not considered very reliable, because of their lack of special knowledge about these matters. Thus, it would be possible that the developmental speech problems were present in both languages.

CONCLUSIONS

Summarising the findings, the bilingual child in this study appeared to be of average intellectual ability with developmental speech discords, expressive type in Greek. Although it was reported that he had a good knowledge of his maternal language, this information was provided only by his parents without any scientific basis, and so it was not considered reliable. It is possible that the developmental speech problems were present in both languages.

The lack of standardised and formal tests for bilingual populations is well known from various scientific studies, (for example, Omark and Watson, 1983, DeBlassie and Franco, 1983). On the other hand, the new situation in Greece, whereby a large number of emigrants have moved into the country, created an imperative need for the development of such tests in the Greek language as well. Because of a lack of appropriate reading, spelling, and IQ tests for bilingual Albanian-Greek children, the present study used informal tests created for the purpose. Thus, the evaluation of school performance of the child, even if it were supported by a set of different methods, complementary to each other, could not be considered to be fully valid and reliable. Therefore, a clear distinction between developmental speech problems and speech problems derived from bilingualism was not strongly supported.

The difficulties of identification were related to the causes of the problems. The child clearly faced various problems other than those of speech, such as developmental ones, very low socio-economic and educational status of family, deprived linguistic environment, and the lack of educational occasions beyond attendance at school. All these problematic situations could create speech difficulties and the co-existence of causes could create more serious and accumulative ones.

FURTHER RECOMMENDATIONS

The findings of the present study showed that there was need for further research in the topic, because the population of such children is continually increasing. The creation of standardised, formal IQ, reading, spelling and mathematics tests for bilingual children is a major need, as it would help to diagnose if speech problems were related to both languages in order to be characterised as developmental.

Professionals should take into consideration the low reliability and validity of measures of assessment, to minimise the adverse discrimination of bilingual children. Only with such an approach, would both the cultural diversity and bilingualism not stand as an obstacle in these children's growth in intellectual, social and psychological potential.

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