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ABSTRACT

This report aims to characterize, in greater detail, the delicate psychological processes children go through when facing two languages and two cultures. In doing so, it is suggested that bilingualism can play an important role in cognitive and linguistic growth. Data used in this study is taken from a larger study involving 30 Italian bilingual children attending a British school in Italy. In that study the linguistic development of these two groups of bilingual students are compared with that of monolingual students. The environment in which bilingual children learn language is emphasized. The present discussion focuses on the psychological and social aspects of bilingual development of 9 children: seven compound bilinguals and two coordinate bilingual. (JL)

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Maria Rosaria D'Acierno

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Neurological, psychological and emotional aspects related to bilingualism.

Generally speaking, communication, especially oral communication, is intimately linked to the speaker's emotional state.

Even when the speaker tries to control his / her verbal expression, paralinguistic and kinetic features at times betray the subconscious. Stress, intonation, gestures play an important role during informal as well as formal speech and the speaker's attitude towards the topic, the audience, the environment is expressed not only through the linguistic

performance but also through the many emotional correlatives which occur during an act of oral communication (slips of the tongue, swallowing, red spots on the face and neck etc.) (S. Freud-E. Sapir-R. Brown). Where bilingualism is involved, these psychological manifestations are often viewed as deviant within communicative acts, since the observers tend to attribute any deviant status to bilingualism itself.

In child bilingualism emotion can be evaluated from two points of view: that of the bilingual subject and that of his/her parents. In fact the child has to adjust his

behaviour in accordance to the inputs he receives, and his reaction very often depends on parents' emotional attitude towards the two languages and cultures.

Obviously, it is not the child's decision to become bilingual; rather it is a condition which depends either on the parents' personal situation or choices (father and mother speak different languages; mother and father are monolingual with favorable attitude towards bilingualism) or on the social context (bilingual countries; immigrants). In either case, bilingual development is heavily influenced by psychological reactions towards the home and the social context.

The decision to give a child a bilingual education, as I have said, is principally determined by parents' feelings and by their reactions towards the cultural environment around them. In the first case—that of elective familiar bilingualism—the decision comes when the mother speaks a different language from that of the environment and from that of her husband. She may find that speaking her own language to her baby makes her feel less lonely. But she may also be influenced by another emotion, which prevents her using her own language with her baby, that is to say, she may feel reluctant to exclude her husband from

the world she builds up with the child in order not to increase the isolation fathers usually face after the birth of a baby. (M. M. Davies-E. Lloyd-A. Scheffler 1987).

Cooperation between the parents can help to attenuate these psychological problems by preventing the husband's isolation. (G. Sanders 1988).

The immigrant situation, on the other hand, is full of emotional implications which are determined also by the many social problems the immigrants have to overcome once established in the foreign country. As the data I shall be discussing were not collected in such settings, however, I will not be going into

these in this paper. (G. Marino 1982).

Bilingualism, then, is a process which requires very detailed analysis not only on a linguistic but also on a psychological level. If a monolingual child, exposed to the mother tongue, automatically acquires it once he is provided with enough stimuli and is favoured by a totally natural environment, a bilingual child has to reckon with a context not perfectly natural, which tries to balance two cultural and linguistic inputs.

Thus, in many ways, a bilingual child is more vulnerable than a monolingual one. He is very accurate in observing the context in which the two languages are employed as well as the

persons involved in it. Furthermore, the bilingual child analyses the persons not only when they interact with him but also when they interact with other members of the social group involved.

He also observes people's psychological reactions when changing language and behaviour to respond to the two different contexts.

This analysis helps him to choose the right language for the context, a decision which is only apparently suggested by intuition. Children generally require security; they need to feel well accepted by both social groups. If for one reason or another the child perceives that there is a

certain degree of antagonism between the two cultural communities, his bilingual development may show negative effects. (J.W. Berry 1987).

This paper aims to characterize in greater detail the delicate psychological processes children go through when facing two languages and two cultures. In doing so, I hope that the positive role of a bilingual situation for cognitive and linguistic growth will emerge.

The data for this paper are taken from a larger study involving 30 Italian bilingual children attending a British school in Italy. In that study, following the children in question over a period of 6 years, I compared

the linguistic development of these children with two groups of monolinguals: monolingual Italian children attending the Italian school system, and monolingual English children attending the same British school as the bilingual subjects. Observations over this period were carried out using video tapes, recordings and the children's copybooks, which permitted an accurate evaluation of their oral and written language development as well as an analysis of their psychological reactions. I followed the compound bilinguals since birth and the coordinate bilinguals from the age of three.

(In coordinate bilingualism, the person learns the languages in separate environments, and the words of the two languages are kept separate with each word having its specific meaning. An example would be a person whose first language is English, who then learned French later in school. By contrast, in compound bilingualism the person learns the two languages in the same context, where they are used concurrently, so that there is a fused representation of the languages in the brain. Thus, a child, for example, who acquired both French and German in the home would know German BUCH-'book' and French LIVRE, but would have one common meaning for them both)

(S. Romaine 1989).

The present discussion of the psychological and social aspects of bilingual development focuses on 9 of these children: 7 compound bilinguals and 2 coordinate bilinguals. The 7 compound bilinguals were:

a) a child whose mother is English and whose father does not know his wife's language (Scipione) - negative oriented subject;

b) a child whose mother speaks English, the father speaks Italian with a good knowledge of English (Steven) - positive oriented child;

c) children whose parents are Italian but the mother knows English quite well and uses it

with her two sons also providing them with regular visits to England and with English baby sitters(Ralfi and Roby);

d) boys whose father talks good English and all the family goes frequently to the States for the father's research in medical studies(Massimo,Alberto and Riccardo).

The two coordinate bilinguals were:

a) children whose parents are Italian and did not know English,so their children acquired first Italian as a home and environment language,then,at the age of three,English in an English school in Italy(Fulvia and Carla).

All the children except Fulvia and Carla encountered English and Italian from

birth. Even if their knowledge of English had reached different levels when the children started attending the British school, since for Fulvia and Carla it was a totally new experience, after two years there was no evident difference between them and the other children; except for Scipione to whom we will return later, the children had all achieved a balanced bilingualism in spoken as well as in written language.

A fundamental difference in the language learning environments of the compound and coordinate bilinguals lay in the social contexts in which they were exposed to the languages: the compound bilinguals were exposed

to both languages in the home and school environments, while the two coordinate bilinguals were exposed to English only at school. Among the aspects of bilingual development undoubtedly linked to this difference in exposure, one which would appear to have both psychological and emotional correlates, is the tendency of the compound bilinguals to remain at the fused system phase longer than the coordinate bilinguals.

For example, one of the compound bilinguals, Steven, stayed quite a long time in this fused phase from when he realized, at the age of 3, that his mother and his father spoke two different languages.

During Steven's bilingual development, his mother and his father used to ask him many questions in order to stimulate both language and cognition.

When the question was formulated in Italian, for instance: "Dove sono gli uccelli?", the answer was: "Uccelli there"; "Dove sono gli occhi?", "Occhi there"; "Dove è la luce?", "Luce there".

Conversely, if the question was in English: "What are those?", the answer was: "I balloons", "I teeth"; "Where are the birds?", "Birds li".

On the other hand, the two coordinate bilinguals, Fulvia and Carla, immediately

realized that the language used during school hours was a foreign language; they were mature enough to perceive the difference and they showed a good degree of assimilation of the new language. This behaviour can be interpreted as a desire to integrate with the foreign group. At the beginning of their experience in English, when they could not immediately find a word for the sentence they wanted to utter, they spontaneously transformed the Italian equivalent into a potential English equivalent and inserted it into the English sentence. For instance they said: "Mammy give me a matit".

Language is strictly linked to its

environment; it is an important part of culture, and ethnic identity seems to be the child's most important motivating factor. Belonging to a social group involves psychological choice on the part of the child, who mostly refers to it when building his/her own cognitive entity (J. Dewey-B. Malinowsky). The process that leads to communication is a fascinating one; it starts from the moment of birth, reaches an important step when a child first produces speech and lasts the whole life. The environment and the "interior teacher" (M. Montessori 1: 49) provide the children with the necessary tools to overcome the dramatic phase in which the

child is impeded from fully expressing his ideas.

The monolingual child faces a great battle in order to conquer the social context around him. He knows that language and environment influence each other. The bilingual child has to phase two battles if he wants to be accepted by two social contexts; he, too, perceives that language and context are firmly linked together.

The monolingual English and Italian groups were the ones with whom the bilinguals had to compete; with the English during the whole year and with the Italians at the end of the

academic year when the bilingual children, after private preparation with an Italian teacher who met them three times a week, had to sit for exams in the Italian school. As regards the first of these two situations-interaction with the monolingual English children at school-it is useful to note that the bilingual children studied had all internalized both the British and the Italian cultural behaviour. Compared to the monolinguals the bilingual children showed much more flexibility in adapting their behaviour to different contexts. They could change language and behaviour

according to the situation without losing their identity. They used this ability unconsciously as a reaction to some external situations. These reactions sometimes influenced their linguistic expressions as well as their behaviour. For example when they entered into conflict with some monolingual English children during the school hours, the bilinguals immediately formed a group which showed hostility towards the English monolinguals by using the Italian language and the Italian behaviour. Conversely if a conflict arose between two bilinguals, one of the two would immediately join the English children and pretend to ignore the Italians.

By about the age of 6 or 7 the bilingual children examined were able to develop specific cultural perceptions. These cultural perceptions emerged clearly during the end of the year exams the children had to sit for the Italian school system.

During the exam days the children's reaction changed from time to time; sometimes they felt oppressed by the curiosity of the Italian children, sometimes they felt irritated at the inquisitive attitude of the Italian teachers who ironically asked why they attended an English school instead of the Italian classes. At times they tried to do their best to be accepted, but very often they felt irritated

by the fact that someone seemed not to accept their parents' unusual choice. By this age, most of the children perceived the English-speaking group in a positive way, so that they were motivated enough to be identified with those members. (J. Gumperz 1973).

In one of Fulvia's composition in Italian, for example, she describes her emotions during her exams in the Italian school. She identifies herself so deeply with the English system that she criticizes the behaviour of Italian children by saying that in "her" school that situation would never have happened.

"I bambini gridano come qualche volta succede anche nella mia scuola, ma mai, mai, mai si

picchierebbero”.

In this group of bilingual children I have isolated two cases for further examination: the most positive and the most negative oriented child.

I now wish to emphasize the importance of the environment and how much this affected the children. I start by analysing the positive oriented case: Steven.

Steven belongs to a family where mother and father cooperate closely and follow their child's intellectual and linguistic development. They are very responsible about the problems related to bilingualism and they have always closely observed their little

boy, because they were determined to bring him up as a bilingual subject. They both stimulate their child by reading him stories, nursery-rhymes, songs and trying to let him repeat and sing them. The regular alternation of the two languages offers Steven the opportunity to experience Italian and English with the same intensity.

Steven, like all bilingual subjects, goes through different phases where one language prevails over the other according to the stimuli received by the environment. At the age of 18 months, because of the close relationship between Steven and his mother, his Italian seemed poor compared to English. It was used as

a kind of linking language. In fact when turning the pages of a book, Steven was pretending to read, he linked the sequence of the story by saying: "allora", "poi", "basta".

The fused system phase, previously described, followed this one and was principally used to fill in the gaps in English and in Italian. Conversely at that age, his English vocabulary contained about 100 words, which he could pronounce very clearly.

He knew words from different contexts but above all they came from the story books his mother read him. For this reason he knew the name of many animals and also he was able to repeat the sound of most of them. He could not

utter clearly long words like "giraffe" or "helicopter", but his intonation, when trying to repeat them, was perfect. He pronounced very well sentences like: "Kick the ball", "A cup of tea", "Water, please" and exclamation like "Oh dear, dear,".

He has always been influenced by the environment, so when he lives in England he talks much more English than Italian and vice versa. Again the identification with a social group remains the child's main stimulus in language use.

At the other extreme there is the negative oriented subject: Scipione, who refused to become bilingual. His reaction towards

bilingualism should be carefully considered, since it carries both psychological and neurological consequences.

An important detail seems linked to this negative situation: the child's mother did not use the two languages according to the situation, furthermore she did not use the strategy "one person one language".

This behaviour has been attested as a very negative feature by many authors, who suggest that it is an attitude which should be avoided as it greatly disturbs bilingual development. (J. F. Hamers - M. H. A. Blanc 1989).

There are many questions related to this problem subject. Was his refusal a

psychological reaction against his mother, who made it impossible for him to integrate with the social group of the community where the boy lived? I think so. In fact she was viewed by the whole family as an outsider and she was often in conflict with her husband's relatives. She had many problems related to socialization, and unconsciously she transposed her own troubles to her son. Her choice of sending Scipione to the English school was the subject of much dissention within the whole family. For this reason she behaved ambiguously, and gave uncertainty not security to the little boy.

The family of this boy was always in a panic

and was very worried about the fact that the child could be disturbed during his process of constructing his personality by the continuous switching from one language into another. This feeling affected the boy's attitude towards English so much that it seems he lost his power of decision. In order to receive protection he chose the language accepted by the majority of the family, who also appeared to him to be a well organized group in a well established society.

This tense atmosphere had forced Scipione's mother not to use some psychological and didactic features which instead are very

useful during the growth of a bilingual state. In addition she could not rely on her husband's cooperation and on a number of aids which parents have to utilize in order to develop their children bilingualism.

Neurological studies have shown how the acquisition of language starts in the posterior part of the left frontal convolution . It extends to the anterior segment as soon as the child develops the ability to speak and to write. In a bilingual situation the cerebral organization becomes more and more sophisticated, since, neurologists suggest, it involves interaction between right and left hemisphere. (M. L. Albert-K. Obler 1978; G. Cossu

1988; M. Danesi 1987). This interaction should not disturb the psychological and physiological growth of the child as instead appears to have occurred in the negative oriented case. In fact, the boy started to confuse his right with his left part of the body and he suddenly used his left hand when writing or drawing and also used his left leg when he was asked to do an exercise with the right leg.

A number of psychosomatic consequences were caused by a deep conflict within the child's personality. Scipione, in short, was unable to recognize himself as belonging to a specific group and had difficulty in switching from one

language to another.

He did not succeed in creating his own identity since he lacked the necessary flexibility to compensate the feeling of anxiety which pervaded him every time he had to choose the right language for the context. These personality and emotional disorders generally lead to anomie. This is a complex psychological state implying feelings of alienation, isolation and disorientation, which can arise when the subject is asked to act in two different social groups. But anomie is not the general consequence of bicultural experience, but results mostly from the pattern of the social

conditions in which the child grows. The ambiguous context in which Scipione lived, had exasperated the child's twofold cultural heritage and this ambiguity was affecting his physical balance.

His incapacity of choosing one precise identity or the incapacity of adapting himself to the environments in which he was asked to act, was causing a state of severe disorder.

At the age of 5, Scipione started showing difficulty in keeping balance; this happened especially when his mother talked in English. One morning he had to cross a pond on a small wooden bridge. He fell down many times

after his mother's command: "Cross it slowly". He did not succeed and in the end he refused to cross the pond almost terrified. He achieved a certain security when his mother uttered the same sentence in Italian. That was the last time she talked English with her son, she had realized that it was not possible for her to insist with two different linguistic systems.

Notwithstanding the negative case of bilingualism just described, the knowledge of two languages and two cultures very rarely causes an ambivalent personality. Many studies suggest that "there is no basis in reality for the belief that becoming bilingual or

bicultural necessarily means a loss or dissolution of identity". (W. E. Lambert 1971).

In most of the bilingual subjects observed in the present study, bilingualism produced a predisposition to easily accept different ways of living; that is to say, most of the subjects acquired a high degree of mental and psychological flexibility. This confirms the commonly held opinion that learning a foreign language at an early age has many advantages. Not only does it seem to enlarge mental processes but the personality also becomes more pliable and more open to acquiring new behaviour.

The decision to raise one's children

bilingually involves emotions and passions much deeper than those involved in the acquisition of the mother tongue alone. In fact, when husband and wife speak their own language to their children they show a deep attachment to their mother tongue; neither of the two wants to renounce his/her own language and culture, and both wish to transmit this heritage to their children. Likewise, when those parents, who know a foreign language, decide to teach it or have it taught to their children, their decision is suggested above all by the affinity they feel for the language and the people who speak that language. A cold decision, based only on the practical purposes

of giving two languages to their children, is not sufficient to involve the children emotionally. In fact, when I asked the Italian parents in my study, why they decided to send their children to the British School, their first answer was that they loved English people and English society so much that they wanted to provide their children with the marvellous experience of being bilingual in these two languages.

To sum up, the study of bilingualism can, I believe, provide support for the theory of the famous Italian psychiatrist S. Piro, who says: "Language is used to decode our own life

and that of the others". Language, after all, is not merely a succession of pre-fixed words but the expression of our deep unconscious feelings, and the emotional meaning of a sentence does not depend only on linguistic conventions but also on the empathic relationship between speaker and hearer. Since our emotions are influenced by what we experience in our culture, a primary aim in bilingual development should surely be to help children acquire such a plasticity which permits them to shift from one cultural context to another without losing their identity. (A. Tosi 1987-M. R. D'Acerno 1984)

Bibliography

Adler, M. (1977): Collective and Individual Bilingualism, Hamburg: Helmut Buske Verlag.

Albert, M. and Obler, L. (1978): The Bilingual Brain, New York, Academic Press.

Bates, E. and Macwhinney, B. (1981): Second language acquisition from a functionalist perspective: Pragmatic, semantic and perceptual strategies/In Winitz, H. ed. Native language and foreign language acquisition. New York: New York Academy of Science.

Berry, J. W. and Kalin, R. and Taylor, D. M. (1978): Multiculturalism and ethnic attitudes in Canada, Ottawa : supply and

services, Canada.

Blanc, M. and Hamers, J. F. (1989): Bilinguality and Bilingualism, Cambridge, C. U. P. .

Cossu, G. (1988): Struttura modulare e frazionabilità della funzione verbale in età evolutiva. Saggi, 14(25-38).

Cummins, J. (1984): Bilingualism and Special Education: Issues in Assessment and Pedagogy, Clevedon, Avon, Multilingual Matters.

D'Acerno, M. R. (1984): Quel bambino a due dimensioni , Il Mattino, 20-6-1984.

Danesi M. (1987): La ricerca in neurolinguistica e la didattica delle lingue, in La glottodidattica oggi, a cura di R. Titone, Oxford

Institutes Italiani.

Davies, M. M. and Lloyds E. and Scheffler A.
(1987): Baby Language, Unwin, London.

Ervin, S. and Osgood, C. (1954): Second Language
learning and bilingualism, Journal of Abnormal
and Social Psychology, Supplement 49, 139-46.

Gumperz J. (1973): The communicative
competence of bilinguals: Some hypotheses and
suggestions for research. Language in
Society, 2, 143-154.

Lambert, W. E. (1977): The Effects of Bilingualism
on the individual: cognitive and socio-cultural
consequences, In Hornby P. ed., pp. 15-28.

Marino, G., (1982): Problemi sociolinguistici

dell'immigrato italiano nei paesi di lingua francese, inglese e spagnola, Editrice Carcavallo, Napoli.

Montessori M. (1952), La mente del Bambino. Garzanti.

Peal, E. and Lambert W.E. (1962): Relation of bilingualism to intelligence, Psychological Monographs, 76, 1-23.

Romaine S., (1989): Bilingualism, Oxford, B. Blackwell.

Sanders, G. (1985), Bilingualism for parent, New York: Academic Press.

Weinreich, U. (1952): Research Problems in Bilingualism, with Special Reference to Switzerland .Ph.D. dissertation , Columbia University.

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