# Bilingual Education in the Basque Country: A Model of its Influence 

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#### Abstract

Rioja Alavesa is a largely Spanish-speaking monolingual region in the Basque Autonomous Community, in which a process of language change is occurring. The Basque language is being reintroduced in the area, mainly through the education system. The aim of the research is to examine the effects of language revitalization efforts in Rioja Alavesa and, particularly, the part played by three different models of bilingual education.

A general description of Rioja Alavesa is provided, and the context in which the research was conducted is introduced. In the research investigation, a detailed questionnaire assessed secondary school students' language competence, use and attitudes. The questionnaire was organized in six parts: student's language profile; student's social language network; language use and language domains; attitudes towards bilingualism and Basque; perceptions of language vitality; and ethnolinguistic and ethnocultural identity and intergroup relations.

The research is built around an exploratory model of language contact in Rioja Alavesa. This model attempts to reflect the relationship between a set of variables, of which bilingual education is a key element, and was analysed using structural equation modelling. Bilingual education is shown to particularly affect language ability in Basque, confidence in the use of Basque, Basque cultural identity and use of Basque outside the family.


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## Introduction

The Basque country, the country of Euskara, has been traditionally the term used by the Basque people to refer to the area occupied by the Basque speech community. Some 2.9 million people live in the Basque country, of whom about 90 per cent live in the Spanish side and 10 per cent on the French side.

The Basque language has attracted, for several reasons (such as its antiquity, unknown origin or revival), the attention of a great number of linguists and language researchers. Being the only non Indo-European language in west Europe, Basque has proved an especially fertile land for speculation about its origins (Trask, 1997: 359). However, the Basque language has been, and remains, a source of controversy and, occasionally, conflict.

The Spanish Civil War (1936-9) and the subsequent post-war period were years of persecution and prohibition for the Basque language. Many language loyalists were killed or arrested, others were forced into exile. Public use of Basque was forbidden. Through laws and punishment, Basque was expelled from public life (Basque names of people, shops and hotels, for example, were banned), official life (for example, the registry office), the church (for example, services, doctrine), the streets (use of Basque was forbidden in the market, the bars or the bus) (Euskaltzaindia, 1978). Spanish was imposed as the sole language through the institutional tools of the dictatorship: the administration, the media and the school (Fernández, 1994: 50). Basque was mainly confined to rural areas, and it failed to create a wide urban base of speakers in the cities.

In the latter half of the 1950 s, Basque society started to show signs of recovery. A new enthusiasm and activity in defence of Basque emerged, and the Basque culture started to flourish. In the late 1950s, the idea of re-establishing Basque schools (ikastola) was discussed. Elbire Zipitria created the first ikastola in this period in San Sebastian, answering the expressed needs of a small number of Basque-speaking parents to provide mother-tongue education for their children (Fernández, 1994: 43). Apart from the administrative obstacles created by the Spanish Department of Education, the ikastolas had to face many problems, mostly related to the lack of resources: money was scarce, school materials home-made, the teachers were fully committed but often not properly qualified, and the schools were arranged in private houses, garages and attics. Moreover, the schools lacked a suitable legal status, although as time went by they were grudgingly tolerated (Gardner, 2000: 40). In the northern Basque country (NBC), the first ikastola
was opened in 1968, in Arcangues. The classes were entirely financed by the parents, gathered around a federation of schools, Seaska (Etxeberria, 1999: 70).

At the height of the movement, in 1986, the ikastolas had 80,000 pupils, containing 12.8 per cent of the students in the Basque Autonomous Community (BAC). In the subsequent years, most of them were integrated in the public system, although in many cases they retained their original name as well as some of their original peculiarities.

By the turn of the twenty-first century, the Basque language had gained legal protection and widespread access to education. In the Basque country (especially in the BAC), 'language-in-education' planning (Kaplan and Baldauf, 1997) is now playing a key role in language revitalization (Zalbide, 1998). Indeed, the differential education systems in the BAC, Navarre and the NBC partly explain the success or failure of language revitalization efforts in each territory.

In the BAC, the Decree of Bilingualism published in July 1983 defined the bilingual teaching models to be used in the future. Three main models were established (the fourth one, the Spanish-only model, called X, takes less than 1 per cent of the pre-university students) (Etxeberria, 1999):

- Model A:Almost all teaching is completed in Spanish. Basque is taught as a subject.
- Model B:Teaching is completed half in Spanish and half in Basque. Both languages are thus medium as well as subject.
- Model D: Almost all teaching is in Basque.
(Note:There is no Model C, as C is not a letter in the Basque language.)
The evolution of these models in the last twenty years has been as shown in Table 2.1. In Navarre, due to the linguistic division of the territory, the possibility of obtaining a Basque-language medium and subject education varies from the north to the south. The models are similar to those in the BAC. Models B and D are available in the most northerly area. In the mixed zone, model D is optional, subject to parental demand and government approval. In the southernmost zone, the Basque language as a subject is optional, but Basque-medium teaching is not available. Model G, the most popular of all, is equivalent to Model X in the BAC. Model B is almost nonexistent in Navarre. Model D is available in the northern and central areas (zona vascófona and zona mixta), both in public schools and private ikastola schools. The difference between these two areas is that in the northern area Basque has to be either a compulsory subject or the language of instruction;

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Table 2.1
The distribution of students in primary and secondary schools in the BAC in two years

|  | $\mathbf{1 9 8 2 - 3}$ | $\mathbf{1 9 9 8 - 9}$ |
| :--- | :---: | :---: |
| $\%$ | $\mathbf{\%}$ |  |
| Model A | 61 | 41 |
| Model B | 8 | 20 |
| Model D | 12 | 38 |
| Model X | 19 | 1 |

Source: Adapted from Gardner (2000: 66).
that is, the same as in the Basque Autonomous Community (in practice, model B is very unusual). In the mixed area you can have G (the most popular), A, B (almost non-existent) or D. In the south, Basque is not available, even as a subject in the public system, and Basque-medium teaching is available only in private ikastola schools; that is, only model G is available unless children attend a private ikastola.

In the NBC, the situation is entirely different. In France, French is still the only official language. Education is under the control of the Republic, despite some timid attempts of decentralization in the 1980s. The 1951 Deixonne Law, which promoted, albeit in a limited way, the teaching of the Basque language and culture, seemed to have opened some possibilities to advance Basque language revitalization. However, the pro-Basque movement has never overcome its initial difficulties. The ikastolas have historically suffered from economic problems, and that fact has deprived them of developing a truly autonomous policy. In 1986, for example, the ikastolas, included initially in the private sector, had to adopt the public model (twelve hours in Basque and twelve hours in French per week) in order to survive. Nevertheless, some advances have been made in the public schools. In 1983, following the actions of the parents gathered around Seaska, the Federation of Basque Schools, the first public bilingual class was opened in Sara. This initiative was developed in some other locations, and in 1986 the parents' association of students in the bilingual education, Ikas Bi , was created (Etxeberria, 1999: 68-72). Although there is a lack of resources, the parental demand for bilingual models of education is on the increase (Gardner, 2000: 72).

This section concerns the methodology and procedures of research conducted in Rioja Alavesa, to the south of the Basque province of Alava. Rioja Alavesa is a borderland region which forms part of the Ebro river valley, a fertile zone internationally known for the excellence of its wines. Spanish is the everyday language of the majority of the population.

The main aim of the research was to create a representation among secondary pupils of the linguistic situation in the area, with bilingual education as a key theme. For that purpose, many aspects were examined, such as language competence and language use, language attitudes, ethnolinguistic and ethnocultural identity, and the role of education in Basque maintenance and revival.

Survey questionnaires were used with secondary and upper-secondary school students. Such questionnaires were supplemented with interviews, observation methods and documentary sources, although only the questionnaire analyses are presented in this article.

## Context for the research

Basque was lost in the area by the end of the Middle Ages, but in the last twenty years it has experienced a remarkable recovery, mainly through the schools in the area. In 1981 there were 80 Basque-speaking bilinguals in Rioja; by 1986 there were 307 and, by 1991, 662 (Intxausti, 1994). There are currently estimated to be 978 Basque speakers in Rioja Alavesa, accounting for 10.31 per cent of the population. Another 8.76 per cent have some knowledge of the language, while 80.92 per cent remain Spanish-speaking monolinguals.

The recovery of Basque in the region is essentially being delivered through the education system. At present, around half of the students in the nursery and primary levels ( 52.4 per cent) are enrolled in model D (almost all teaching is completed in Basque), a quarter ( 26.3 per cent) in model B (teaching is completed half in Spanish and half in Basque; both languages are thus medium as well as subject) and one-fifth ( 20.6 per cent) in model A (almost all teaching is completed in Spanish; Basque is taught as a language). As for the students in secondary and upper-secondary levels, almost half of them (48.2 per cent) are completing their studies in model D , and the rest in models A (39.5 per cent) and B (12.2 per cent). Moreover, in towns like

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Samaniego, Eskuernaga and Mañueta, where only one bilingual teaching model is on offer, all the children start nursery school in model D. Apart from that, 162 people are enrolled in euskaltegi schools (adult Basque schools).

All members of the youngest generations have, therefore, access to a knowledge of Basque, and a significant number of students are enrolled in bilingual teaching models, where the Basque language is, to different degrees, the medium of instruction. At the same time, most of the parents of these students are monolingual Spanish-speaking. In this changing linguistic situation, the research aimed to examine how these attempts at language revitalization, mainly delivered through the schools in the area, are regarded by both the young and their parents in Rioja Alavesa.

## Survey questionnaires

The research tool employed in this study was a structured questionnaire with attitude scales, using 232 third- and fourth-year secondary school and upper-secondary school pupils (14-18 years). The general structure of the questionnaire was drawn from Azurmendi and Bourhis (1998) and Bourhis, Giles and Rosenthal (1981), whereas the attitude statements were adapted from Baker (1992). Questions concerning language use and language networks were adapted from the Welsh Attitude Survey (Welsh Language Board, 2000).

The questionnaires elicited information on gender, year of birth, place of birth and the language the respondent learnt first. Students were also asked about the place of birth of their parents, and how long they had been living in the BAC. Further questions provided a language profile of each individual, in terms of both language competence and language use across a range of domains, attitudes towards bilingualism, attitudes towards the Basque, Spanish and English languages, ethnolinguistic vitality, ethnolinguistic and ethnocultural identity, and perceptions of intergroup relations between Spanish-speaking monolinguals and Basque-speaking bilinguals.

## Research sample

The sample was drawn from the three schools offering secondary and uppersecondary levels in Rioja Alavesa, located in three different towns: Biasteri,

Lapuebla de Labarca and Oion. In the secondary school of Biasteri, A and B bilingual teaching models are taught. The schools in Lapuebla de Labarca and Oion are ikastola schools, where only model D is on offer. To make this study as fully representative as possible, all pupils in the third and fourth years of secondary levels and upper-secondary levels present in the schools at the time of the study completed the questionnaire. In Biasteri, one group from the Oenology module was not used, as a considerable number of the students in the module were not born in Rioja Alavesa.

A total of 133 students from Biasteri completed the questionnaire. Fortyfive students ( 34 in model A and 11 in model B) from the third year of secondary school filled in the questionnaire, 25 students ( 15 in model A and 10 in model B) from the fourth year, 41 from the first year of uppersecondary school and 22 from the second year. All the students in the upper-secondary level were taught in model A. The number of females answering the questionnaires was 85 , and the number of males 48 .

A total of 85 students from Lapuebla de Labarca filled in the questionnaire. The number of students from the third year of secondary school who completed the questionnaire was 21 . Nineteen students from the fourth year filled in the questionnaire. In the upper-secondary level, 25 students from the first year and 20 from the second completed the questionnaire. Of the 85 students who completed the questionnaire, 47 were male and 38 female.

A total of 14 students from Oion completed the questionnaire, 7 of whom were in the third year of secondary school, and the remaining 7 in the fourth year. Of the respondents, 8 were female and 6 male.

In Tables 2.2, 2.3 and 2.4 the percentages of the distribution of pupils by schools, grade and bilingual teaching model are provided.

## Research protocol

It was particularly stressed that the questionnaire was anonymous and confidential, and that there were no right or wrong answers. The instructions also requested respondents to tick the box next to the option they considered to be the most fitting. Before the questionnaire was handed out, a brief oral explanation (about five minutes long) was given to the respondents, which included introducing the researcher and defining the purpose of the study. Respondents were also encouraged to fill in the questionnaire as freely and honestly as possible. Finally, they were invited to address to the researcher any doubts or questions they had regarding the completion of the questionnaire.

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Table 2.2
Distribution of pupils by schools

| School | \% of pupils | N |
| :--- | :---: | ---: |
| Biasteri | 57.3 | 133 |
| Lapuebla de Labarca | 36.6 | 85 |
| Oion | 6.1 | 14 |

Table 2.3
Distribution of pupils by grade

| Grade | \% of pupils | $\mathbf{N}$ |
| :--- | :---: | :---: |
| Third, secondary school | 31.5 | 73 |
| Fourth, secondary school | 22.0 | 51 |
| First, upper-secondary school | 28.4 | 66 |
| Second, upper-secondary school | 18.1 | 42 |

Table 2.4
Distribution of pupils by teaching model

| Model | \% of pupils | $\mathbf{N}$ |
| :--- | :---: | ---: |
| A | 48.2 | 112 |
| B | 9.1 | 21 |
| D | 42.7 | 99 |

Most respondents posed few or no questions while filling in, and after having completed the questionnaire.

Practical and operational reasons meant the questionnaires were in a single language. Students in D and B bilingual teaching models were allocated the version in Basque, whereas the general lack of knowledge of Basque of students in model $A$ required them to complete the questionnaires in Spanish.

The model to be tested
The composition of the questionnaire related to an original model to be tested, presented in Figure 2.1, showing both direct and indirect effects. The

Figure 2.1

model presents four independent variables which are conjectured to affect directly and indirectly all the other variables: gender, age, type of school and language environment. Gender and age tend to be relatively 'fixed' inputs. Similarly, language environment and type of school attended comprise 'fixed' contexts. A second set of variables is regarded as (inter)mediatory outcomes: attitude to Basque, attitude to bilingualism, ability in Basque, confidence in the use of Basque, ethnolinguistic vitality and a perception of intergroup relations. These variables act as both dependent and independent variables, as they are affected by the first set of variables and, at the same time, influence a third group, that comprises the following: actual use of Basque in various social domains, fluent bilingualism, Basque language identity, Basque cultural identity and potential use of Basque. The latter set of variables are regarded as outcomes of the model, and are directly or indirectly affected by all the other variables in the model.

## Latent variable analyses

Latent variable analyses were conducted on different sections of the questionnaire to reduce multiple scale items to one or more dimensions. The aim of this procedure is to locate underlying structure to multiple items, reducing an initial scale to a single score.

The raw data was submitted to the SPSS (Statistical Package for the Social Sciences) for analysis. Each latent variable analysis used the Principal Axis Extraction method, with a Varimax rotation that grouped items into categories of highly related statements. The number of factors to be extracted was determined by inspection of a Scree graph, with the eigenvalue plotted against the factor number (Kline, 1994). Statements with significant loadings

[^2]were arranged in order, starting with the highest loading and were then interpreted. Low loadings may be a sign of statements lacking reliability or are specific, idiosyncratic or unique (Child, 1990; Kline, 1994).

## Students' social network

Students were asked to assess the competence in Basque of their family members. Likewise, they were requested to report the ability to speak Basque of their friends, neighbours, classmates and people who served them in local shops and pubs. The responses were submitted to a latent variable analysis. Analyses of the Scree plot and of the different rotated solutions suggested the presence of two dimensions. The dimensions are listed in Tables 2.5 and 2.6, with weightings above 0.40 .

Actual use of Basque
Students were requested to report their use of Basque at home, at school, watching television and outside home at school. Analyses of the Scree plot

Table 2.5
Dimension 1 (Factor 1): Family language background

| Ability to speak Basque: mother's mother | 0.783 |
| :--- | :--- |
| Ability to speak Basque: mother's father | 0.771 |
| Ability to speak Basque: father | 0.682 |
| Ability to speak Basque: mother | 0.677 |
| Ability to speak Basque: father's father | 0.579 |
| Ability to speak Basque: father's mother | 0.513 |

Table 2.6
Dimension 2 (Factor 2): Language environment

| Ability to speak Basque: friends | 0.797 |
| :--- | :--- |
| Ability to speak Basque: students | 0.731 |
| Ability to speak Basque: neighbours | 0.697 |
| Ability to speak Basque: siblings | 0.488 |
| Ability to speak Basque: in local shops and pubs | 0.473 |

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and of the different rotated solutions suggested the presence of two dimensions, which are listed in Tables 2.7 and 2.8, with weightings above 0.40.

## Potential use of Basque

Students were also asked to assess how often they would use Basque in the same situations, if they had the opportunity to do so. Analysis of the Scree plot and of the factor matrix suggested the presence of just one dimension, which is listed in Table 2.9, with statements loading above 0.40 .

## Confidence in the use of Basque

Students were asked about their confidence to use Basque in the same set of situations. Analysis of the Scree plot and of the factor matrix suggested the presence of one dimension, which is listed in Table 2.10, with loadings above 0.40 .

Table 2.7
Dimension 1 (Factor 1): Actual use of Basque outside the family

| Actual use of Basque: at school, with classmates (classroom) | 0.761 |
| :--- | :--- |
| Actual use of Basque: at school, with classmates (playground) | 0.713 |
| Actual use of Basque: outside home and school, with friends | 0.700 |
| Actual use of Basque: at school, with teachers | 0.618 |
| Actual use of Basque: at home, with siblings | 0.538 |
| Actual use of Basque: outside home and school, with neighbours | 0.519 |
| Actual use of Basque: outside home and school, in pub or café | 0.455 |

Table 2.8
Dimension 2 (Factor 2): Actual use of Basque within the family

| Actual use of Basque: at home, with mother | 0.812 |
| :--- | :--- |
| Actual use of Basque: at home, with father | 0.728 |
| Actual use of Basque: at home, with grandparents | 0.697 |
| Actual use of Basque: outside home and school, in the market | 0.541 |
| Actual use of Basque: outside home and school, with local doctor/hospital | 0.459 |
| Actual use of Basque: at home, at mealtimes | 0.448 |
| Actual use of Basque: at home, with siblings | 0.440 |

[^3]Table 2.9
Dimension 1 (Factor 1): Potential use of Basque
Potential use of Basque: in pub or café ..... 0.945
Potential use of Basque: in the market ..... 0.933
Potential use of Basque: in local shop ..... 0.929
Potential use of Basque: with neighbours ..... 0.915
Potential use of Basque: with local doctor/at local hospital ..... 0.909
Potential use of Basque: in leisure/sport/cultural activities ..... 0.885
Potential use of Basque: with friends ..... 0.870
Potential use of Basque: with priest (in church) ..... 0.795

Table 2.10
Dimension 1 (Factor 1): Confidence in the use of Basque
Confidence in the use of Basque: in local shop ..... 0.915
Confidence in the use of Basque: in pub or café ..... 0.900
Confidence in the use of Basque: in the market ..... 0.880
Confidence in the use of Basque: with neighbours ..... 0.855
Confidence in the use of Basque: with local doctor/at local hospital ..... 0.834
Confidence in the use of Basque: in leisure/sport/cultural activities ..... 0.828

## Attitudes towards bilingualism

This section consists of twenty-three statements regarding attitudes towards bilingualism. Analysis of the factor matrix and the Scree plot suggested the presence of just one dimension, which is listed in Table 2.11, with statement weightings above 0.40 .

## Attitudes towards the Basque language

This section contains twenty-four statements concerning attitudes towards bilingualism. Analysis of the Scree plot suggested the presence of two dimensions. The dimensions are listed in Tables 2.12 and 2.13, with statements loading above 0.40 .

Table 2.11
Dimension 1 (Factor 1): Positive attitudes towards bilingualism

| V20 | If I have children, I would want them to speak both Basque and |  |
| :--- | :--- | :--- |
|  | Spanish. | 0.719 |
| V10 | There should be more people who speak both Spanish and Basque |  |
|  | in the government services. | 0.697 |
| V13 | Public advertising should be bilingual. | 0.671 |
| V19 | All people in the BAC should speak Spanish and Basque. | 0.664 |
| V1 | It is important to be able to speak Spanish and Basque. | 0.653 |
| V9 | Children in the BAC should learn to read in Basque and Spanish. | 0.652 |
| V5 | Being able to write in Spanish and Basque is important. | 0.622 |
| V7 | Road signs should be in Spanish and Basque. | 0.597 |
| V18 | In the future, I would like to be considered as a speaker of Basque |  |
|  | and Spanish. | 0.591 |
| V23 | All the civil servants in the BAC should be bilingual. | 0.590 |
| V16 | Both Basque and Spanish should be important in the BAC. | 0.523 |
| V15 | Young children learn to speak Spanish and Basque at the same time |  |
|  | with ease. | 0.513 |
| V14 | Speaking both Basque and Spanish should help people get promotion |  |
|  | in their job. | 0.507 |
| V8 | Speaking two languages is not difficult. | 0.450 |
| V4 | Speaking both Spanish and Basque helps to get a job. | 0.428 |

Table 2.12
Dimension 1 (Factor 1): Positive attitudes towards Basque
V14 I like speaking Basque. ..... 0.735
V3 Basque is a language worth learning. ..... 0.722
V8 It is particularly necessary for the children to learn Basque in the schools to ensure its maintenance. ..... 0.714
V23 The Basque language is something everybody should be proud of. ..... 0.713
V7 I like to hear Basque spoken. ..... 0.709
V21 I enjoy learning Basque. ..... 0.683
V18 Basque should be used more in the government services. ..... 0.682
V12 I would like to learn as much Basque as possible. ..... 0.675
V24 I like listening to TV/radio programmes in Basque. ..... 0.655
V19 I dislike learning Basque. ..... -0.585
V10 I should like to be able to read books in Basque. ..... 0.580
V5 I don't want to learn Basque as I am not likely to ever use it. ..... -0.558
V4 There are far more useful languages to learn than Basque. ..... $-0.507$
V17 Learning Basque is a waste of time. ..... -0.499
V2 It is more important to know English than Basque. ..... $-0.467$

Table 2.13
Dimension 2 (Factor 2): Negative attitudes towards Basque
V11 Learning Basque is boring but necessary. 0.557
V5 I don't want to learn Basque as I am not likely to ever use it. 0.523
V17 Learning Basque is a waste of time. 0.520
V9 Basque is an obsolete language. 0.491
V19 I dislike learning Basque. 0.487
V1 Basque is a difficult language to learn. 0.541
V22 Basque is a language to be spoken only within the family and
with friends.
V20 I am learning Basque because my parents want me to. 0.412

## Vitality of Basque

Students were asked about their perceptions of language vitality, both in the Basque Autonomous Community and in Rioja. In this section, perceptions of vitality regarding the Basque language and the Basque-speaking bilingual group were submitted to a latent variable analysis. Specifically, the dimensions analysed include strength of the Basque-speaking bilingual groups at present, twenty years ago and twenty years from now; prestige of the Basque language, and prestige of the Basque-speaking bilingual groups in the BAC and Rioja; and the presence of Basque in the education system in the BAC. Analysis of the Scree plot and of the factor matrix suggested the presence of just one dimension. The dimension is listed in Table 2.14, with statements loading above 0.40.

Table 2.14
Dimension 1 (Factor 1): Vitality of Basque

| Prestige of Basque bilinguals in Rioja | 0.780 |
| :--- | :--- |
| Strength of Basque bilinguals in Rioja now | 0.764 |
| Strength of Basque bilinguals in Rioja 20 years from now | 0.758 |
| Prestige of Basque in Rioja | 0.695 |
| Strength of Basque bilinguals in the BAC now | 0.670 |
| Prestige of Basque in the BAC | 0.604 |
| Presence of Basque in the schools of the BAC | 0.574 |
| Strength of Basque bilinguals in the BAC 20 years from now | 0.572 |
| Prestige of Basque bilinguals in the BAC | 0.557 |
| Strength of Basque bilinguals in Rioja 20 years ago | 0.413 |

## Intergroup relations: Basque

Students were requested to report to what extent they would like to have members of Spanish-speaking monolinguals or Basque-speaking bilinguals as best friends, classmates, neighbours, and husband or wife. The choices were 'not at all', 'not much', 'no difference', 'quite' and 'very much'. In this section, the items regarding the Basque-speaking bilinguals were submitted to a latent variable analysis. Analysis of the Scree plot and of the factor matrix suggested the presence of just one dimension, which is listed in Table 2.15 , with statements loading above 0.40 .

Table 2.15
Dimension 1 (Factor 1): Intergroup relations: Basque
Like Basque bilingual as classmates 0.933
Like Basque bilingual as neighbours 0.928
Like Basque bilinguals as best friends 0.887
Like Basque bilinguals as husbands/wives 0.747
Once the factor analyses were completed, the initial model was extended to include all the factors extracted. The overall model to be tested is presented in Figure 2.2.

Figure 2.2
Initial model of Basque language in Rioja Alavesa (with factors included)


Results of the Structural Equation Modelling
The model was analysed using structural equation modelling, which allows the researcher to assess the importance of each of the independent variables

[^4]in the model and to test the overall fit of the model to the data available. A model is a 'best guess' at paths of relationships, but alternative path diagrams may be explored.

A flow chart (path diagram) of the estimated relationships in the model was analysed by the EQS program. A path diagram showing the relationships of 0.20 and more is presented in Figure 2.3.

The strong effect of positive attitudes to Basque on most variables stands out. Indeed, this variable is the single strongest influence on Basque language and Basque cultural identity, and also on actual use of Basque outside the family and potential use of Basque. Regarding Basque language identity, positive attitudes to Basque (0.347) prevail over ethnolinguistic vitality $(-0.179)$ and ability in Basque (0.173). The influence of the 'positive attitudes to Basque' variable is even stronger, concerning Basque cultural identity ( -0.502 ). In this latter case, the type of school (0.233) also exerts an influence, followed by language environment (0.196) and negative attitudes to Basque (0.134).

Positive attitudes to Basque are also the strongest influence on actual use of Basque outside the family (0.280). However, this latent variable proves a

Figure 2.3

## A model of the Basque language in Rioja Alavesa, showing paths with a coefficient above 0.20


complex one, as it is affected to a considerable extent by a number of factors, including type of school ( -0.271 ), confidence in the use of Basque (0.202), negative attitudes to Basque ( -0.147 ), intergroup relations ( -0.130 ), ethnolinguistic vitality ( -0.128 ), ability in Basque ( 0.115 ) and age ( -0.113 ). On the other hand, potential use of Basque is mainly affected by, again, positive attitudes to Basque ( 0.422 ) and confidence in the use of Basque ( 0.333 ), and, to a lesser extent, family language background ( 0.121 ) and negative attitudes to Basque ( -0.100 ).

As regards actual use of Basque in the family, it is, rather predictably, strongly influenced by family language background (0.698), while the effect of the type of school (0.118) is remarkably lower. Another expected result concerns fluent bilingualism, which is strongly influenced by ability in Basque (0.601). To a much lesser degree, this latent variable is also affected by language environment ( 0.167 ), negative attitudes to Basque ( -0.127 ) and gender (0.115).

As for the factors influencing the (inter)mediatory outcomes, language environment emerges as the strongest single influence. As regards the attitudinal latent variables, language environment is the main factor affecting positive attitudes to Basque ( 0.442 ) and attitudes towards bilingualism (0.317), followed, in both cases, by gender ( 0.187 and 0.134 , respectively). On the other hand, gender ( -0.224 ) is the strongest influence on negative attitudes to Basque, accompanied by age ( -0.156 ).

Nevertheless, the strongest variable influencing ability in Basque is type of school ( -0.421 ). Language environment also strongly affects ability in Basque (0.396), while family language background (0.135) is a less influential factor. Concerning confidence in the use of Basque, the main influences are, in the reverse order, language environment ( 0.280 ) and school $(-0.236)$.

Finally, language environment prevails as the strongest influence regarding intergroup relations $(-0.216)$ and ethnolinguistic vitality $(-0.358)$. In the former, type of school (0.126) and family language background also exert a considerable influence, whereas in the latter gender, $(-0.183)$ is an influential factor.

However, some reservations need to be expressed with the structural equation solution.
a) The sample is relatively small $(\mathrm{n}=232)$ whereas a minimum ratio of ten people to one variable is often regarded as minimal if the multivariate distribution is not normal (which is usual). The EQS results gave a Mardia's coefficient of 11.80 for normality of the multivariate distribution ( 2.58 or lower is preferred).
b) The Bentler-Bonnet Fit Index is 0.76 ( 0.95 is preferred). No individual variable (from the residuals) suggested exclusion or reduced paths.

Overall, this suggests that further explorations of the model are needed with a larger sample size. This analysis is thus exploratory and needs further research.

## Discussion

Education plays a fundamental role in language planning (Cooper, 1989). According to Fishman (1991, 1993, 2001), the key elements for the intergenerational transmission of a language are the family and education. That is, if families do not reproduce a language at its current density in the population, pre-school, primary and secondary bilingual education and adult language learning are essential in the supply line (Baker and Jones, 1998; Baker, 2001). As Azurmendi, Bachoc and Zabaleta (2001) indicate, in the Basque country this has been recognized in language planning, with some success. Wales has followed a similar pattern (Baker, 2003).

The salience of schools is particularly evident in areas such as Rioja Alavesa, where Basque is barely spoken within the family. In this sense, a major point of this study was to analyse the effects of the implementation of bilingual teaching models in the student's competence in Basque.

Predictably, the results in this study show a correlation between bilingual teaching models and competence in Basque. Students in model A (almost all teaching is completed in Spanish; Basque is taught as a subject) reported the lowest competence in Basque, especially regarding an ability to speak Basque. Model B students (teaching is completed half in Spanish and half in Basque; both languages are thus medium as well as subject) claimed a considerably higher competence in Basque than those in model A, but lower than those in model D (where almost all teaching is completed in Basque). Nevertheless, even model D students reported a considerably lower competence in Basque than in Spanish, especially as regards productive skills.

The introduction of bilingual teaching models in the local schools is a fundamental factor influencing language change in the Basque country, and particularly in Rioja Alavesa, where the language is closely associated with the school environment. Nevertheless, many factors determine the efficiency of such bilingual methods, as well as language behaviour in general.

In this sense, one aspect that deserves mentioning here is the relationship between competence and use of Basque in the region. There is thus a
distinct gap between the knowledge of the Basque language and its everyday use in the street, shops and sports. According to the results of this research, the gap is even wider in Rioja Alavesa, where a very low out-of-school use of Basque was reported. Only in the school environment is the use of Basque relatively high. In such a context, the teaching model has a great influence on the students' use of the language. Thus, there is a strong correlation between the teaching models and the levels of the students' use of Basque with teachers and in the classroom. This is hardly surprising, as it reflects the centrality each model gives to the teaching and promotion of Basque.

The correlation between language use and the students' experience of a particular bilingual teaching model is relatively small. Again, a general low use of Basque may explain this. Even model D students speak little Basque outside the school. This phenomenon is not exclusive to Rioja Alavesa, as it is possibly replicated in many areas in the Basque country. Moreover, it reflects one general limitation of immersion bilingual education: for many students, the second language can be a school-only phenomenon (Swain and Johnson, 1997). This problem can partially be explained by the sociostructural and psycholinguistic factors examined before. Zalbide (1998) adds some other factors related to the internal dynamics of school life:

- The time a student spends in school lessons is very limited. In model D, the students spend only around 14 per cent of their waking hours in Basque-language classroom activity. This percentage decreases to 8 per cent in model B, and 3 per cent in model A. The influence of the school lesson is, therefore, also potentially rather limited.
- The natural dynamics of the classroom tend to favour the learning of the receptive skills, listening, reading and, to some degree, writing. Students have relatively fewer opportunities to speak, or interact in 'natural' one-to-one or small-group communication.
- Within the classroom, the most formal registers of language tend to be learnt. As a consequence, a new type of Basque speaker has emerged, one who is relatively at ease in formal discourse but more awkward in informal discourse, and finds it difficult to communicate and express feelings or intimate issues. Cummins $(1984,2000)$ related these discourses to two different (if simplistic) types of language proficiency: cognitive/ academic language proficiency (CALP) and basic interpersonal communication skills (BICS).
- Sometimes, the insufficient competence in Basque of peers, and even that
of teachers, hinders communication in that language. In schools in the BAC, alongside highly proficient native speakers (and, to a lesser extent, non-native speakers), some native speakers display a limited command of the more formal registers. At the same time, there are many non-native speakers with a moderate or even poor command of Basque, especially in the more informal registers.


## Implications of the results

In many schools in the BAC, promoters of Basque can be dismayed by the continuing presence or even dominance of Spanish within the school environment. To counteract this, some measures are being adopted to increase the quality and use of the Basque language within individual school communities. For example, the government of the BAC created the Ulibarri programme, which covers over a third of the students in primary and secondary schools in the BAC (see Aldekoa and Gardner, 2002). Typical objectives of this programme include, for instance, establishing rules on which language is to be used by the staff, ensuring the presence of Basque on entering and leaving school, or organizing activities (such as Basque weeks, extra-curricular sport or cultural activities). Such activities can be helpful in maintaining or even increasing the levels of competence acquired through education and in encouraging use, especially in the most Spanishspeaking sociolinguistic areas. They give an opportunity for linguistic and social interaction in Basque outside the school walls, in a positive and natural atmosphere.

One of the great dangers for language revitalization may be that those new speakers who have learned Basque in school see no instrumental or affective reasons to retain their competence or use it. For this reason, it is especially important to design strategies aimed at ensuring that bilingual speakers for whom Basque is not the first language can consolidate and improve their language competence. This would, in turn, encourage them to use Basque more often in their daily lives. In this sense, it is crucial that new Basque speakers consider Basque to be as useful and rewarding as Spanish in specific and significant domains of their adult life, such as their working environment, leisure time, sports and the media. It is important that Basque extends its scope beyond the school environment and that the normalization of its use is secured in as many areas as possible. Likewise, it is important that Basque is valued in symbolic and affective areas, such as interpersonal, social
and cultural relationships, and, in general, in all those areas which serve people to identify themselves as Basque citizens.

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