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Language Revitalisation Policy: An Analytical Survey, Theoretical Framework, Policy Experience and Application to Te Reo Maori

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TREASURY WORKING PAPER

98/6

Language Revitalisation Policy: An Analytical Survey

Theoretical Framework, Policy Experience and Application to Te Reo Maori

Francois Grin & Francois Vaillancourt*

(Contract to New Zealand Treasury, managed by Ron Crawford)

ABSTRACT

PART I develops an analytical framework where language policy is viewed as a form of public policy. The framework is based on the economic approach to language and language planning, with a strong inter-disciplinary orientation.

PART II reviews policy experience. Four revitalisation policies are examined (two in Wales, one in Euskadi, one in Ireland). Its goal is to assess the cost and effectiveness of these policies, and to identify conditions that have made them successful.

PART III builds on the framework and findings for Parts I and II to derive implications for the revitalisation of te reo Maori.

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Executive summary

This study is divided in three parts and 15 chapters. Each part starts with an introductory chapter. Part I develops an analytical framework; Part II reviews policy experience in other minority language situations; Part III derives implications for policies aiming at the revitalisation of te reo Maori.

PART I develops an analytical framework where language policy is viewed as a form of public policy. The framework is based on the economic approach to language and language planning, with a strong interdisciplinary orientation.

Chapter 2 presents some key sociolinguistic results on minority language dynamics, and then links them up with the principles of the language economics approach.

- Language shift occurs in cases of languages in contact, involves complex dynamics and generally reflects asymmetry between languages.
- Language shift reversal can be implemented more or less easily depending on the conditions of each language.
- These processes must be made amenable to policy analysis; where policies can be evaluated in terms of cost-effectiveness and of their impact on welfare. This requires a "macro" level of analysis rather than a detailed sociolinguistic study of language behaviour.
- However, the framework must allow for the inclusion of relevant detail information on language behaviour, in order to select and design the specific aspects of policies.

Chapter 3 presents the analytical tools.

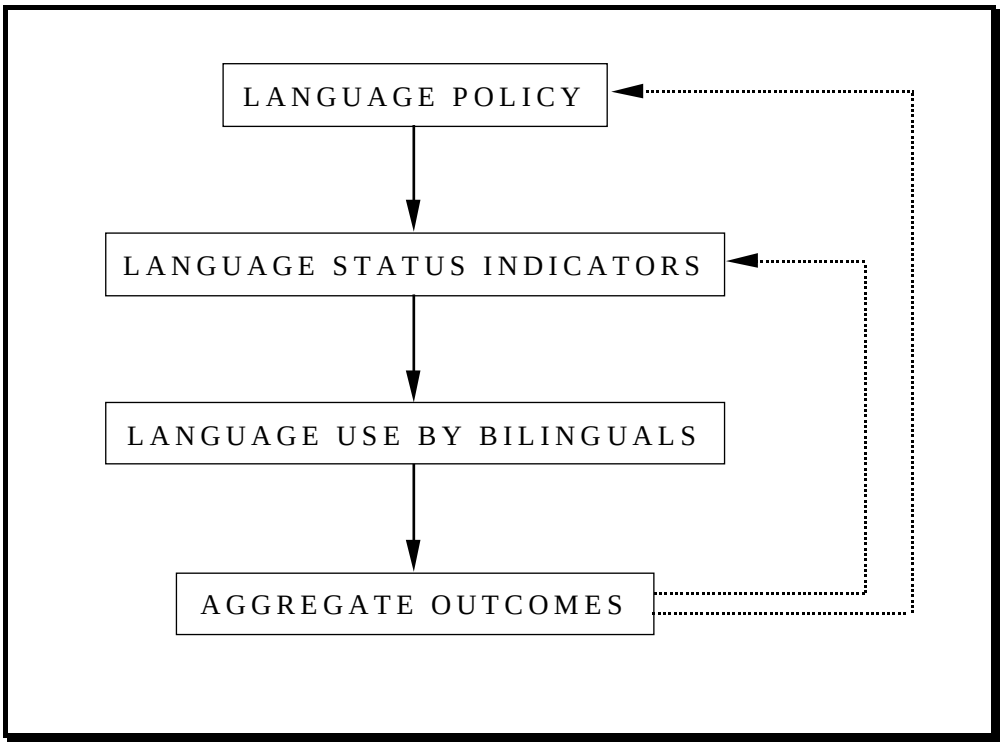
- The economics of language refers to the paradigm of theoretical economics and uses the concepts and tools of economics in the study of relationships featuring linguistic variables; it focuses principally, but not exclusively, on those relationships in which economic variables also play a part.
- The language economics approach does not preempt perspectives based on political or historical considerations. Rather, different perspectives complement each other.
- Quite apart from political and historical justifications, language revitalisation can be justified from an economic standpoint. There are four types of benefit to language policies: private or social / market or non-market.

- In the case of minority languages, benefits are mostly of a non-market nature. More precisely, they are akin to the benefits derived from the presence of a "public good" exhibiting impossibility of exclusion and non-rivalry of consumption. By contrast, private goods can be produced by the private sector and sold on a market, and their market price will provide a reliable indicator of value. Linguistic environments present striking similarities with the environment. The chief consequence of the above is that minority language maintenance and revitalisation are not supplied by markets.
- There are redistributive implications in language policy. Not engaging in minority language maintenance amounts to a redistribution from the minority to the majority.

Chapter 4 develops a formal model linking policy measures to language revitatlisation.

- The emphasis is placed on cause-and-effect relationships. The goal is to provide an integrated and systematic instrument that is general enough to allow for macro-level policy analysis, yet detailed enough to allow for the later inclusion, in a structured fashion, of terrain information.
- The following figure summarises the structure of the framework.

GENERAL CAUSAL STRUCTURE



- In the extended causal structure (Fig. 1.8 in the text), classes of *language policy measures* (provision of Maori language services, educational planning, direct Maori

language promotion) are shown to influence *language status indicators* (supply-side factors of the linguistic environment, skills development, number of speakers, language attitudes). These, in turn, affect patterns of *language use by bilinguals*, which are analysed with a formal model of language choice (provided in the appendix). Bilinguals' language behaviour translates into *aggregate outcomes* in terms of language use—which is the main object of a language revitalisation policy.

Chapter 5 draws the policy implications from the theoretical modeling.

- We first examine four policy measures:
  (i) direct language promotion;
  (ii) education planning focusing on increasing the number of speakers ("acquisition planning");
  (iii) education planning focusing on the average level of competence of speakers ("skills development");
  (iv) provision of Maori-language services.
- For each measure, we formally derive the necessary and sufficient conditions for minority language use to increase as a result of the policy.
- We then discuss the selection of the three communities whose language policies are studied in Part II, namely the Welsh, the Irish and the Basque.

PART II reviews policy experience. Four revitalisation policies are examined (two in Wales, one in Euskadi, one in Ireland). Its goal is to assess the cost and effectiveness of these policies, and to identify conditions that have made them successful.

Chapter 7 presents the methodology used. It outlines the eight steps followed, in Chapters 8 to 11, for the analysis of each of the four policies..

Chapter 8 examines road and traffic signs in Wales.

- This chapter first presents data on the percentage of people who speak Welsh in Wales (18.7% in 1991). Since 1971, there has been an increase in the percentage of Welsh speakers in the 3-14 age group (e.g., from 17% to 27% in the 10-14 age group). It then outlines the bilingual road signs policies which followed the 1972 Bowen report. As of 1997, practically all road signs are bilingual, giving Wales a clearly Welsh-plus-English profile.

Chapter 9 examines Welsh language television in Wales.

- Welsh language TV went on the air in 1982, substantially increasing the availability of Welsh-language programmes (which had, since 1964, consisted of a meagre 6 hours per week). In 1996, an average of 32 hours per week Welsh TV was on the air with an average viewership of 100,000 per hour or 20% of Welsh speakers.

Chapter 10 examines language education planning in the Basque region of Spain.

- In 1991, Basque was known by 26% of the population (35% of the 5-17 age group), which represents a marked increase. The key finding is the following:

ENROLLMENT IN BASQUE-MEDIUM EDUCATION

% pre + primary school enrollment in	1982/1983	1996/1997
- Bilingual schools	10	29
- Basque schools	15	43

Chapter 11 examines direct language promotion in one of the Gaeltacht (Irish-speaking) regions of Ireland.

- This policy stresses the relevance of the minority language to the local economy. Irish gives it a profile, attracts tourism and provides access to public funds for the support of the language.
- The promotional programme encourages private firms to use bilingual signs and written material as well as to increase the use of Irish in oral communication.

Chapter 12 assesses the policies.

- Policies are first evaluated in terms of cost-effectiveness, as summarised in the Table below:

ENROLLMENT IN BASQUE-MEDIUM EDUCATION

Policies	Per-hour cost of minority language use (NZD)	Overall impact index	Best practice index
Welsh road signs	4.40	8	9
Welsh-medium television	1.10	3	3.5
Basque education planning	0.22	2	2
Irish business signs	0.04	7	4

Index values run from highest (1) to lowest (10)

- Seven success conditions are then derived from the analysis of these policies. These conditions are:
    1. the avant-garde condition;
    2. the redistribution condition;
    3. the normalcy condition;
    4. the technical effectiveness condition;
    5. the shadow price condition;
    6. the individual language maintenance condition;
    7. the strict preference condition.

PART III builds on the framework and findings of Parts I and II to derive implications for the revitalisation of te reo Maori.

Chapter 14 describes language policies in New Zealand.
Practices over the last 40 years can be summarised as follows:

SUMMARY EVOLUTION OF LANGUAGE POLICIES IN NEW ZEALAND

Key points	Education	Broadcasting	Public sector	Courts
1950s	English education predominates following urbanisation and conscious choice by some Maori.	English only.	Declining use of Maori.	English only.
1960s	Same as 1960s.	English only.	Only Maori Affairs Department provides services in Maori.	English only.
1970s	1978, first bilingual school.	English only.	Same as 1960s.	English only.
1980s	1982, ECE - Kohanga Reo begin. 1985, first Maori schools, Kura Kaupapa established.	Maori radio broadcasting begins (experimentally). 1987, establish-ment of some radio stations.	1987, Maori Language Act adopted. Impact is unclear.	1987, Maori Language Act gives the right to speak Maori in court.
1990s	Use of Maori-medium education increases.	1993, Te Mangai Paho (funding agency) estab-lished. 1996, Aotearoa trial TV broad-casts begin, some Maori program-mes on national TV.	1994, of 87 De-partments /agencies, only 8 have a meaning-ful Maori lan-guage policy.	Same as 1980s.

The status of the seven success conditions in New Zealand is then examined, yielding the following evaluation:

STATUS OF SUCCESS CONDITIONS IN NEW ZEALAND
(MAX=5, MIN=1)

Avant-garde	*mostly met*	4
Redistribution	*partly met*	3
Normalcy	*partly met*	3
Technical effectiveness	*mostly met*	4
Shadow price	*? and mostly not met*	? / 2
Individual language maintenance	*? and not met*	? / 1
Strict preference	*mostly not met*	2

Chapter 15 examines the selection of policy orientations.

- The issue of policy sequencing is examined in order to identify the cost structure of a policy plan combining specific measures.
- Structural recommendations are the following:
  (i) create a full-fledged language policy unit;
  (ii) carry out regular cross-sectional surveys to monitor the evolution of the seven success conditions;
  (iii) disseminate the information.
- suggesting specific policies does not belong to the goals of this report. However, the following *indicative proposals* are made in closing Section 15.4. They suggest:
  (i) increasing the supply of Maori-medium education (proposals P1 through P5);
  (ii) incentives for increasing the demand for Maori language use (proposal P6);
  (iii) the setting up of a separate national TV station for Maori-language broadcasting (proposal P7);
  (iv) additional measures that indirectly aim at strengthening demand for Maori language use in New Zealand (proposals P8 through P10).

Acknowledgements

Many people have provided information and advice that have significantly contributed to the production of this report. We are particularly indebted to Ron Crawford, who apart from commissioning this work, has made available a large selection of documents, coordinated a useful study visit, passed on reviewers' comments, and added extremely helpful comments of his own.

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Contents

PART I
THEORETICAL FRAMEWORK

1. Introduction

1.1 The position of te reo Maori in language policy perspective

The current position of Maori, whether in terms of language corpus, language status, demolinguistic figures, existing policy initiatives, etc., has already been the subject of a large body of research, usually by New Zealanders themselves (*e.g*. Waite, 1992a, 1992b; Kaplan, 1994; Benton, 1995; Chapple, 1997; Keegan, 1997; the reports of Te Taura Whiri, various years; a significant number of reports on various aspects of Maori language education and the use of Maori by recipients themselves, along with policy recommendations). Much of this work was commissioned by the Te Taura Whiri, Te Puni Kokiri or the Ministry of Education, as the government agencies most directly concerned with the situation of te reo Maori.

This report in no way attempts to duplicate, update, criticise or otherwise comment on this impressive body of work. Obviously, such an endeavour would far exceed not only the time available for this study, but also our competence, and New Zealand has no lack of distinguished scholars, civil servants or other persons directly involved in promoting the use and status of Maori, who are far more knowledgeable than we are about the actual situation.

The aim of this report is threefold.

First, we shall attempt to provide an *analytical framework* to help structure a *language policy* aimed at promoting the *use* of the Maori language. Our focus is language, not ethnicity. The end goal of such a policy should be to recreate a natural and self-priming mechanism for the long-term existence of a Maori-speaking language community. This goal includes a certain degree of *normalisation*, a term that gained currency in one of the great success stories of minority language promotion, that is, Catalan: *normalisation* denotes the fact that the *use* of the target language is viewed and experienced as a *normal* state of affairs, rather than an exceptional or artificial one. The development of this analytical framework, which adopts a policy analysis perspective and posits a connection between policy interventions and actual language use, is the object of Part I of our three-part report. Its objectives and limitations are discussed in Section 1.2 below.

Second, we shall examine selected measures in other cases where language policy has been used to promote the use of minority language, generally in the context of the revitalisation of a threatened language. This includes a description of the measures adopted, some considerations of their impact on language revitalisation, and a discussion of the costs involved. Although hard data are very difficult to come by, our goal is to approach as best we can a cost-efficiency perspective on these selected measures. This is the object of part II of this report.

Third, the analytical work in Part I and the evaluation of policy measures in Part II will be combined to discuss possibilities and priorities for language policy measures in favour of te reo Maori in New Zealand. This is the object of Part III, whose chief goal is to provide instruments for an operationalisation of the analytical framework in the actual New Zealand context, keeping in mind the experience observed in other cases. According to the mandate given by Treasury, this report focuses on Maori and its interaction with English. It does not examine the role of other languages spoken or known by New Zealanders.

This study, however, does not start in a complete vacuum, and our research work was preceded by a short fact-finding visit to New Zealand by one of the consultants. This introductory section reports our first off-the-cuff impressions. The latter are not meant to constitute a synthetic characterisation of the language policy problems that New Zealand has to address; however, they may be useful in that they indicate some of the features that we consider to be significant and, as such, have influenced subsequent work.

(1) *The demolinguistic position of Maori is a matter for concern*. Although 1996 census returns indicate that over 523,000 people identified with the Maori ethnic group, up 20% from 1991, and some 580,000 claimed some Maori ancestry, only a little more than 150,000 claimed to speak Maori. This is similar to the NMLS (National Maori Language Survey) results for 1995, where the number of speakers of Maori reported is 162,276 (adults only). A little over 22,000 respondents were considered highly fluent. Waite (1992b: 30) indicates that some 50,000 people "have managed to maintain Maori as their first language against considerable odds." The more conservative figure is likely to be closer to the truth, unless competence in Maori has really gone from strength to strength in just a decade. In addition, competent speakers of Maori appear to be concentrated in the higher age brackets. This is why we believe that there is, at this time, no reliable self-priming mechanism for the reproduction of the Maori-speaking community.

(2) *The socioeconomic position of Maori is, on average, significantly less enviable than that of Pakeha*. In 1991, average Maori income per head (including social welfare benefits) was 58.6 of European average income per head; the unemployment rate among Maori was 2.7 times higher than among non-Maori, whether for men or women (Chapple, 1997: 79, 81). Maori also appear to have been hit harder by restructuring in the postal service, the railways and agriculture resulting from the programme of economic reforms put in place since the mid eighties. These socioeconomic facts can hardly be expected not to have a detrimental effect on the position of the language; the corollary is that a proactive policy is indispensable.

(3) *In comparison with other minority language situations, it appears that rather little has been done so far in terms of language maintenance and language revitalisation policy*. Recent evolution on the policy front nevertheless appears to represent a rapid and positive change in attitudes *vis-à-vis* Maori language and culture. The experience with a Maori-language television network, the increased visibility of Maori, symbolic as it may be, and the fact that language issues generally receive more attention than before are hopeful signs; in other words, the context now appears more favourable to change—and to a promotional policy.

(4) *The scope for policy measures, however, is limited, at least in the short term*. Constraints appear to fall in three categories: the first are political "tolerability" constraints, suggesting that the support of majority opinion to revitalisation policies has limits, and that such limits could be quickly met, should promotional policies appear to be too bold, too costly, or likely to put recipients in a position that some segments of public opinion would consider unduly cosseted. The second group of constraints is financial: the resources available are also limited, suggesting that only *some* of the measures that should ideally be taken can actually be adopted—at least in the short run. This reinforces the importance of choosing well, and of prioritising those measures which, for a given level of expenditure, are likely to bring about the highest return in terms of revitalisation. The third group of constraints is "technical", and has to do with the lack of trained personnel with an adequate command of Maori. This lack is particularly apparent now in the teaching profession, and the demand for competent speakers could increase in the future if promotional measures are adopted. If adequate resources are made available, however, the excess demand could be met with a lag of a few years, which suggests that the "human resource constraint" is, to some extent, just a consequence of the financial constraint. To sum up, the range of policy measures that appear to be feasible in the short term is significantly less than many of those now in place in other contexts like Wales, Ireland or the Basque country—not to mention, of course, Catalonia or Quebec.

(5) *The preceding point speaks in favour of a step-wise approach to language policy*. Hence, in addition to giving precedence to cost-effective promotional measures, language policy will have to begin by introducing those measures which, apart from being politically easier to implement, pave the way for additional promotional policies in the future. To some extent, this already is the case in New Zealand.

(6) Although we can in no way hope to have caught more than a glimpse of Maori representations and culture, *we believe that particular problems are likely to be raised by the links between attitudes to the Maori language among Maori on the one hand, and specific traits of Maori cultural heritage on the other hand*. The existence of these specificities will probably require language planners to tackle explicitly the question of the extent to which promotional measures should be defined within the context of received cultural heritage, or prioritise Maori language use in a way that sets less store by culture and traditions (as western European minority communities increasingly do), or whether both strategies should be pursued at once. Experience suggests that the promotion of languages such as Irish has for a long time been hampered by an excessive reliance on traditions as the legitimate locus and justification of language policy; current evidence of increasing language vitality appears to be closely associated with modernity rather than tradition or heritage. The fact that this question will not be discussed further in our report does not mean that we view it as secondary, but that we consider it to be for specialists of Maori culture, including Maori themselves as language users, to decide.

1.2 Objectives and limitations of Part I

Part I of this report develops an analytical framework for minority language revitalisation. It is grounded in the economic approach to language and language planning, but it is explicitly connected with perspectives developed in other social sciences. Following this introductory chapter, we shall proceed as follows.

Chapter 2 contains some conceptual groundwork, addressing the notion of language shift (Section 2.1), a sociology-of-language model of reverse language shift (Section 2.2), and general considerations on the operationalisation of linguistic variables for the purposes of policy analysis (Section 2.3).

In Chapter 3, we move on to the analytical issues. Section 3.1 is devoted to a brief overview of economic approaches to langauge and language planning, while Section 3.2 addresses the economics of language policy. In Section 3.3, we explore the economic rationale for engaging in minority language revitalisation, even when the economic benefits thereof are not obvious. Section 3.4 introduces a distinction between market and non-market benefits on the one hand, private and social benefits on the other hand. Section 3.5 addresses the problem of the appropriate sharing of the costs of language policy.

Chapter 4 constitutes the core of our framework. It starts out (section 4.1) with a description of a general causal structure combining language policy and planning with language behaviour, in order to posit a systematic link between policy interventions and language revitalisation outcomes. The components of the general structure are then detailed in the following sections. Section 4.2 therefore discusses language policy; Section 4.3 connects these with language status indicators; Section 4.4 presents a model of language choice by bilinguals where patterns of language use respond to policy interventions that affect language status indicators; Section 4.5 is devoted to a discussion of aggregate outcomes and their feedback effect on other parts of the causal structure.

Chapter 5 opens with a section (5.1) presenting the comparative statics of the model, in order to ascertain the technical conditions under which specific policy measures can be expected to yield the desired policy outcomes. Section 5.2 contains a discussion of the limitations of, and possible extensions to our model. On the basis of the main results obtained in Part I, Section 5.3 derives priorities for the next step of this research, namely, the examination of policy experience in the revitalisation of other minority languages.

2. Some conceptual groundwork

2.1 Language decline, maintenance and revitalisation

Language attrition, language decline, language maintenance and language revitalisation have long been an area of research in sociolinguistics and in the sociology of language (Fishman, 1988, 1991; G. Williams, 1992). These issues have also attracted the attention of geographers (C.H. Williams, 1988, 1991) and political scientists (Pool, 1991a; De Swan, 1993). Economists have recently begun to take an interest in these issues as well (see Section 3.1).

The terminology in this field is still in a state of flux; it is important, therefore, to posit definitions of some of the most important background concepts in this study.

Much of the literature examines "language shift", that is, the process whereby a particular language community, which traditionally used some language *X* in the various activities of life, gradually reduces its use of the language and replaces it by some distinct language *Y*. Language decline, maintenance and revitalisation are usually defined as changes in patterns of language *use*, although decline, maintenance and revitalisation can also be observed in terms of other dimensions, such as purely demolinguistic figures on the ability to speak the language, or indicators of language *status*.

The empirical literature on language shift is extensive, but neither purely deductive theory nor generalizations inferred from actual cases have yet yielded a general theory of language shift (Appel and Muysken, 1987). Nevertheless, patterns of language shift generally exhibit the following key features.

(1) Language shift occurs in cases of "languages in contact". Although one can imagine a situation where a language community decides to stop using its traditional language in favor of one with which members of the community are not in regular contact (say, Esperanto), it would represent an exceptional, if not unique case. Language shift occurs *because* languages come into contact with one another through their speakers.

(2) Language shift is a phenomenon involving complex dynamics, where cause-and-effect relationships necessarily comprise many feedback loops. The rich variety of causations involved reflects the range of variables that come into play. Language shift is not just a linguistic process; its dimensions are also sociological, political, economic, psychological and cultural, to name only the most general.

(3) Language shift generally reflects an asymmetry between language communities. The shift from language *X* to language *Y* by members of the *X*-community (defined in good measure by its use of *X*) usually occurs in cases where communities *X* and *Y* are in sharply unequal positions, in terms of one or more of demographic weight, political and military power, economic influence, cultural prestige, etc.

(4) Strictly speaking, there is no such thing as "language shift", because changes in the use of a language reflect patterns of behaviour by language users, that is, individuals that belong simultaneously to a variety of implicit or explicit social groups. Speaking of language shift therefore could be interpreted as a reification of language; if unchecked, reification runs the risk of introducing a bias in policy analysis, and to yield inappropriate policy recommendations. Caution requires, therefore, that all stages of a policy analysis on language problems be structured around an explicit theory of speakers' and non-speakers' behaviour. Nevertheless, we shall often mention "language shift", it being clear that the term is used for shorthand only.

(5) Cases of language shift, in the sense of language attrition ultimately resulting in the demise (or, metaphorically, "death") of language are frequent. Boseker (1994) reminds us that out of an approximative 6,000 languages, up to half are no longer being learned by children, and as many as 90% may be lost. Putting aside cases of genocide, this drop in the number of languages spoken reflects language shift as characterised here, showing that it is not a rare occurrence.

(6) By contrast, cases of *reverse* language shift (or "language revitalisation") are much less common. Even though the issue is fraught with definitional problems (for example, as long as we do not have an accepted general theory of language shift, it may be difficult to decide what constitutes an example of its reverse), we can say that the only documented case of "total" language revitalisation, from "(almost) zero natural use of the language" to "natural use of the language in all areas of human activity" is that of Hebrew.[1]

[1] In the case of Hebrew, Fishman (1991: 245) notes that it would be more appropriate to speak of *revernacularisation*.

(7) If reverse language shift stands for an evolution that results in bringing a language back to a safer situation where there is natural reproduction over time of the language community, it is useful to distinguish this case from that of *turnarounds* in language shift. A turnaround in language shift means that the decline has been halted, and that symptoms of a successful reverse shift process are visible. By contrast with full-fledged successful language shift, examples of turnarounds in language shift are not uncommon; they can also be interpreted as examples of incipient *revitalisation*, although less dramatic than that of Hebrew. Of course, the observed extent and import of such turnarounds vary according to the type of indicator chosen. For example, an increase in the *absolute number of speakers* of language *X*, though impressive, can be deemed to have little significance if it goes along with a decline in the *relative number of speakers*, or in the *number of domains* where the language can be used. Minority languages such as Basque (Euskera), Welsh (Cymraeg), Irish (Gaeilge) currently exhibit strong *symptoms* of turnaround. Its robustness (as would be evidenced by the long-lasting character of such symptoms) then becomes a separate issue.

Possibly owing to the fact that cases of robust reverse language shift are comparatively few, making it presumably easier to single out key causal links and to arrange them in a broad explanatory framework, *theoretical* perspectives on reverse language shift are stronger than theoretical work on language attrition and decline, or on language maintenance. Joshua Fishman's book *Reversing Language Shift*, published in 1991, constitutes an important milestone. The model of language revitalisation developed in it will provide the sociology-of-language backdrop against which our own (and simpler) causal model, derived from the *economics of language and language planning*, will be presented.

2.2 Fishman's model of reverse language shift

Fishman's model of *reverse language shift* (hereafter: "RLS") rests on four basic principles: (i) RLS can be implemented without compulsion; (ii) it need not interfere with majority rights; (iii) bilingualism is beneficial for members of both communities; (iv) RLS efforts must be tailored to the specific conditions of each case.

RLS is organised around eight stages of "threatened-ness" that make up the *graded intergenerational disruption scale* (GIDS). RLS can then be seen as a process whereby a minority or threatened language community moves up from stage 8 (extreme disruption) to stage 1, where a self-priming mechanism for the reproduction of the language community has been restored. The eight stages of the GIDS are characterised as follows:

- Stage 8, representing the lowest rung of the ladder, describes the situation of a language that only has vestigial speakers (and often no written standard).
- Stage 7 represents the case where speakers of the threatened language are socially integrated, but are mostly past child-bearing age, meaning that "they can no longer contribute to the number of {minority-language} users demographically" (1991: 90).
- In stage 6, there is reappearance of the intergenerational family functioning in the minority or threatened language. This is a strategically key stage, because, as Fishman puts it, "the lion's share of the world's intergenerationally continuous languages are at this very stage and they continue to survive and, in most cases, even to thrive, without going on to subsequent ('higher') stages" (1991: 92). Stage 6 is crucial to "home-family-neighbourhood-community" reinforcement, a cluster that Fishman considers to be the core of RLS.
- Stage 5 includes minority language *literacy* in the home, school and community, but such literacy remains restricted to the confines of the community, that is, it enjoys virtually no official recognition and support. Reaching stage 5 allows a minority language to remain intergenerationally secure, provided, however, there is sufficient ethnocultural separation from the dominant/majority culture and the pull it may represent.
- Stage 4 represents a major break, because it is the stage in RLS where the minority language gains some official recognition and moves into mainstream formal education.
- In stage 3, use of the minority language is relegitimised in the "lower work sphere", thereby recovering one more domain.[2]
- Stage 2 represents the case where the minority language is used in "lower governmental services" and the mass media, but "not in the higher spheres of either". It clearly represents an important step towards full recognition in formal domains.

[2] "Domain" is an important construct in sociolinguistics, defined by Fishman as a "prototypical cluster of interactions" that can be characterised in terms of the language used; language use in a given domain depends on participants, setting and topic. For a more extensive presentation, see e.g. Holmes (1992), pp. 23-31. In this report, we use the concept of domain without necessarily referring to the various aspects into which it can be parsed.

- At stage 1, the minority language is used in higher education and in the higher reaches of government, media and professional life. It does not mean that RLS is complete and that language planning is no longer necessary; nevertheless, reaching stage 1 ensures that RLS has by and large succeeded in recreating a natural, self-priming mechanism for the reproduction of the language community.

Fishman's GIDS assigns a key role to language group *reproduction* in RLS. In our view, this indicates significant overlap between his analysis and that developed in the *Euromosaic* report on "the production and reproduction of the minority languages groups in the European Union" (Nelde, Strubell and Williams, 1996), although its authors claim to "reject the concept of domain" (1996: 5). Their query is that domain "focuses excessively upon context rather than upon the interactional point of reference". Although this is certainly a useful warning, we believe that domains can be very appropriate as parameters in the study of language production and reproduction.

Fishman's study of RLS includes a chapter on Maori; in his view, the language straddles stages 4, 5 and 6, with more weight on (less advanced) level 6. The issue of a reconsideration of the positioning of Maori on the GIDS, in the light of recent developments such as the successful experiment of the Aotearoa Television Network (which can be seen as a foray into stage 2) will be taken up again in Part III of this report. For the purposes of this theoretical framework, the main lesson to be learned from *Reversing Language Shift* is that language revitalisation requires tackling problems on many fronts, yet in an orderly fashion, lest a lopsided order of priorities result in a waste of effort. This means, for example, that schools and the media are a key pillar of revitalisation, but that they cannot replace the home-family-neighbourhood-community complex, although they certainly influence what happens within it. *Creating conditions for minority language use to be normal and usual in this complex* therefore emerges as a key objective of language revitalisation policy.

New Zealanders generally warn against unduly optimistic assessments of the position of Maori, pointing out that Maori si far from being intergenerationally secure.

2.3 Key features of an analytical framework for operational language policy

As indicated in Section 1.2, our goal in Part I of this report is to provide decision-makers with an analytical framework—which means, if the framework is sufficiently specific, a model—lending itself to the derivation of policy proposals aiming at the revitalisation of te reo Maori. Insisting on operationality imposes particular requirements, which some of the existing sociolinguistic models may not always meet. The nature of these requirements, as well as how they translate in analytical terms, are discussed in this section.

Choice of variables

The diversity and interrelation of effects is such that the analytical representation of reality needs to be much simpler than reality. Reasoned simplification is of the essence in all modelling exercises, no matter whether they are rooted in sociology, economics, or some other discipline. The problem then is how best to simplify our representation, and first of all to choose which variables to keep and which variables to omit.

(1) We take it that the prime concern of New Zealand authorities is to increase the *use* of te reo Maori; the analytical framework must therefore include, as a key dependant variable, one or many indicators of the degree or extent of its use.

(2) Among the variables that should be present in the framework, some should reflect agents' *choices*. The reason is that patterns of language use, in democratic states, cannot be mandated, or only in part. While it is possible to decide that citizens can approach the administration in English or Maori, using one or the other will presumably remain the citizens' choice. Moreover, making television or radio programmes available in a given language is no guarantee that these programmes will be watched. Rather, language use can be *influenced* through a variety of policy measures, ranging from the simple provision of services in a language to direct incentives to using it, and it is, to a large extent, agents' *behaviour* that will make a particular measure successful or not.

(3) Some of the variables included in the framework must be amenable, directly or indirectly, to an interpretation in terms of *policy measures* adopted as part of a *language policy*. In some way or other, all variables do. However, precisely because the number of variables must be limited in order for the framework to lend itself to the derivation of policy proposals, priorities must be set when selecting variables, and they will favour those variables whose policy interpretation is clearest, and relevant to the current New Zealand context.

This may lead us to omit some variables that are sociolinguistically relevant. Obviously, this does not mean that they are deemed to be unimportant; the assumption, however, is that the relationships retained hold for a given set of (other) conditions, including the state of the variables not mentioned.

Aspects of the relationship between variables

A model developed for policy analysis purposes will have to devote particular attention to the *gradient* of the relationship between the variables concerned. If variable *a* is considered to be a function of variable *b* (that is, if a change in *b* normally causes *a* to change as well), the gradient of the function *a=f(b)* is simply, in algebraic terms, the first derivative of *a* with respect to *b*. For example, if we assume that an increase in the percentage of speakers of Maori (variable *b*) will normally tend to increase the total number of times per year that te reo Maori will be used, say, in the House of Representatives[3] (variable *a*), then the derivative *f'* will be *positive*, because both variables move in the same direction, that is, both increase. In addition, of course, it is useful to be able to ascertain the absolute size of the impact, but his does not automatically follow from the modelling exercise.

The gradient is only one aspect of a multi-faceted reality, and many more could be considered. For example, the link between the percentage of speakers of Maori and the frequency of its use in parliament is likely to have a qualitative side as well: increased use in a setting where legislation is discussed may generate a need for new terms in Maori to be coined; it is also likely to increase the *mana* of the language. However, the gradient of the relationship is crucial, and in a policy context, it is not enough (and often self-evident) to say that "*a* depends on *b* (and on *c*, and on *d*, etc.)" What is needed is some perspective as to whether the changes in *a* and *b* are likely to go in the *same* or in *opposite* directions, given a set of prevailing conditions. Keeping the focus on this particular issue requires us to omit other aspects of the link between variables, lest the analysis become intractable. Hence, the simplification of relationships is not to be interpreted as a summary dismissal of their true complexity, but as a constraint imposed by our main goal, that is, to develop an operational model for language policy purposes (for an eloquent argument in favour of modelling language problems, see Pool, 1991b).

Measurement

The preceding requires that the variables considered be of the quantitative kind, or that they lend themselves to a reasonable quantitative interpretation. At least, all the variables must be such that for each of them, it is conceptually feasible to distinguish "more" from "less", or "better" from "worse".

[3] Waite (1992b: 47) indicates that the use of either language is possible, under Standing order 150 of the House of Representatives.

2.4 On the scale of the analysis

Our analysis is located at a fairly general level. Its chief aim is to provide a structured way to think about the relationship between policy interventions and language outcomes, it being understood that whatever knowledge is gained about the effectiveness of specific policies must be integrated in a framework where intervention is recognised as a form of public policy, designed and implemented at the national level. This has three main consequences.

The first is that we will be reasoning at a fairly *macro level*, because our unit of analysis is New Zealand as a whole. The type of questions to be addressed is different from those that would arise if we were concerned with an iwi-level policy plan. More generally, one cannot design a language policy framework on the basis of the observation of patterns of bilingual interaction between two individuals in a specific village in Papua New Guinea.

The second is that the framework must yield instruments for *decision-making*. Hence, "welfare" is a relevant construct, which, however, is generally absent from the mostly micro-level analyses that typically are the outcome of more "ethnographic" approaches. Referring to a macro-level concept of welfare implies that costs and benefits have to be identified, evaluated and compared. Therefore, in our empirical work (Part II), costs are evaluated and expressed in NZ dollars, making use of information on total cost and total hours of language use resulting from various language policies. Efficiency is assessed by examining four types of impact of language policies. Cost and efficiency are then considered jointly, yielding a "best-practice index" found in table 2.23 (Chapter 12).

The third consequence of our methodological choice is that it defines a *relationship* between the broader framework and micro-level knowledge. Ours is a general model within which terrain knowledge can be introduced; even the rationality hypothesis which underpins our sub-model of language use by bilinguals is a flexible perspective on behaviour, which may translate into very different motivational patterns. Thus, the results of anthropological and sociolinguistic work can, and should, be used in the design of specific policies, such as the outputs of TV programmes which must be attractive to minority language children. To make such integration easier, the underlying formal model, presented in the appendix, features variables that are normally ignored by mainstream economic analysis, but that are commonly referred to by specialists from other disciplines. We give these variables a fairly *general* interpretation, but there is nothing to prevent policy makers and their advisors from giving them a more *specific* content, on the basis of their precise knowledge of actual conditions.

3. Analytical tools

3.1 Economics of language: an overview

The economics of language is a relatively recent area of study. It will, however, be given more importance in this report, because it provides the guiding thread of our analytical framework.

The beginnings of the economics of language are conventionally traced back to the publication of Marschak's (1965) article titled "The Economics of Language", which, paradoxically, has had little influence on the subsequent development of the field.

Much of the initial work in language economics was produced by Canadian and American economists. Their contributions have used analogies that usually fall in three categories:

(i) The earliest studies viewed language as an ethnic attribute, which allowed a statistical treatment similar to that of sex- or race-based earnings differentials.

(ii) Following an entirely different line of reasoning, some authors have attempted to develop the language-as-currency analogy. It yields some interesting results bearing on the rationale of second-language learning. It must be pointed out, however, that the analogy does not bear on language and currency, but on *differences between (national) languages and (national) currencies*, which can both be seen as elements of cost in international trade. Other parallels between language and money are often misleading (such as Rossi-Landi's (1977) assertion that words circulate "like commodities do") and are not used by economists.

(iii) Finally, language can be seen as an element of individuals' human capital. Language skills, just like any other skills, have to be acquired (which entails a certain level of expenditure), but will at a later stage yield monetary returns in the form of higher labour income (that is, for most people, a higher wage rate) accruing to those who have mastered a second or third language to an adequate level. This economic perspective on language, which grew out of empirical analyses of the economic performance of Spanish-speaking migrants on the US labour market, was later combined with the first, and the dual nature of language as ethnic attribute and element of human capital (which clearly reflects the

mainstream sociolinguistic view that language serves identity *and* communication functions) is now used in most of language economics.

These three ways of representing language dominate in the contributions of Canadian and U.S. economists. European research, which is generally of more recent vintage, has typically put more emphasis on the economic determinants of observed language status in contact settings. This has often extended into discussions of the economic aspects of language policies. A sizeable proportion of this work deals with minority language isues, calling for the development of a different set of assumptions. For example, language can be seen as a consumption commodity, because the *activities* of everyday life can be performed in one or another language. The cost of carrying out an activity in a given language, set against the satisfaction derived from it, makes language use (as well as patterns of language reproduction, once the relationship between "use" and "reproduction" is defined) amenable to standard microeconomic analysis; this line of reasoning is used in our framework. That an activity can be conducted in one or another language is the general rule for speakers of minority languages, who are overwhelmingly bilingual because they speak the majority language as well. However, the argument can be generalised, since unilinguals represent limiting cases where the cost of performing an activity in another language tends to infinity. Language-based activities are a key ingredient in our framework. Current developments in the economics of language planning, particularly when it is seen as a form of public policy, stress the analogy between language itself and public goods and services.

Finally, there has always been an interest in the effect of language on production processes, sometimes using the assumption that language itself can be a production factor; this has prompted some incipient Australian research into the value, for businesses, of employees' second language skills as instruments in accessing foreign markets (ALLC, 1994).

It is convenient to break down the literature by themes, each of which corresponds to a relatively more integrated subset of research; more extensive descriptions of the latter can be found in survey papers (see e.g. Vaillancourt, 1985; Grin, 1994a, 1996b; Grin and Vaillancourt, 1997):

(1) Language, employment income and socioeconomic status;
(2) Theoretical models of language-based inequality;
(3) Language and nationalism;
(4) Language learning and the socioeconomic progress of migrants;
(5) Theoretical models of language spread, maintenance and shift;
(6) Language and economic activity;
(7) Intergroup communication;
(8) Selection, design and evaluation of language policies.

Obviously, there is considerable (and increasing) overlap between these various areas of research, and assigning contributions to one or the other can be a moot point. Research is also expanding into other areas, such as the economics of language teaching and learning. The economics of language-based industries, paradoxically, is not central to the economics of language, because the issues examined there are not markedly different from those addressed in the standard microeconomic analysis of the production of generic commodities. Finally, the whole area of *the language of economics*, which analyses economic discourse from a linguistic standpoint, constitutes a separate and essentially unrelated field of research.

Let us clinch the notions presented so far with the following definition of the economics of language (Grin, 1996a: 6):

> *"The economics of language refers to the paradigm of theoretical economics and uses the concepts and tools of economics in the study of relationships featuring linguistic variables; it focuses principally, but not exclusively, on those relationships in which economic variables also play a part."*

The theoretical framework proposed here fits into this general definition for the following reasons.

(1) It develops a causal model where speakers' behaviour, including language use, is seen as the result of an optimisation procedure; people will tend to use one or another language depending on their *preferences* or *tastes*, which contribute to the definition of their *objectives*; however, their behaviour is *constrained* by limits on available resources. In our framework, the scarcity of resources also includes time: the obvious interpretation is that time spent on activities carried out in English cannot be spent on activities taking place in Maori. Further, we assume that agents use their limited resources rationally, given their preferences. This places us squarely in the paradigm of neo-classical economics. We insist, however, that the ends and means (or, in other words, the constrained resources and the preferences that actors seek to satisfy) are not confined to narrowly financial or materialistic ones; further, rationality is not a normative concept, but a working hypothesis on the way in which ends and means are connected in human behaviour.

(2) Some methodological aspects of the choice of variables have been discussed briefly in Section 2.3. What holds in the case of this particular study, whose aim is clearly related to policy purposes, generally holds in language economics as a whole. In addition, conforming to the above definition and to the point just made, we will be using variables that usually play no part in mainstream economic modelling, because they pertain to the linguistic aspects of reality that are central to the issue at hand.

3.2 On the economic analysis of language policy

The preceding section helps to clarify the way in which economics can be brought to bear in the study of language policy and planning—for a discussion on the respective meanings given to these terms in the literature, see e.g. Daoust and Maurais (1987). Until we introduce our own distinction, we shall use the following definition, slightly adapted from Cooper (1989):

> *"Language policy (or planning) is a systematic, rational, theory-based effort at the societal level to solve language problems with a view to increasing welfare. It is typically conducted by official bodies or their surrogates and aimed at part or all of the population living under their jurisdiction."*

It may well be the case that a given set of language policy interventions neither targets nor calls upon standard economic variables; for example, a language revitalisation programme can focus on the visibility of the language as a way to increase its prestige. The price of goods and services, the level of wages or interest rates hardly need to be featured in the relationship between "visibility" and "prestige". However, each policy (including doing nothing, which *is* a policy in itself) entails costs and benefits. To a large extent, the economic analysis of language policy is about the *identification*, *measurement* and *comparison* of the costs and benefits of the various policies under consideration.

However, we wish to stress that this approach must not be equated with narrow reductionism. This is particularly important when dealing with language issues, whose many aspects are not easily captured by quantitative variables connected through simplified relationships. More precisely, policy analysis applied to language matters should pay attention to the following four points:

(1) Although the economic tradition of modelling tends to iron them out, issues of power pervade social reality, including its linguistic aspects. As pointed out above, language shift generally occurs where there is an asymmetry, or even an imbalance, between communities that traditionally speak different languages. This asymmetry must be built into the analytical framework. For the same reason, the framework must not overlook the question of who stands to gain, and who stands to lose (financially or otherwise), as a result of the implementation of a given policy. In other words, we regard distributional aspects to be relevant issues in policy analysis, which is therefore not limited to its allocative dimension.

(2) The framework itself cannot dictate which social values are legitimate and relevant (and hence, which are not) when weighing the pros and cons of specific language policies. There are no such things as rational or irrational values; only the ways of striving for some given objectives (which reflect values) can be rational or not. Social values must be debated, and policies subsequently adopted, in a democratic process. Nevertheless, a wide selection of values, including fairly unusual ones, can be accommodated into a rational choice framework, as shown in Sections 3.3 and 3.4 below. The point made here is simply that the legitimacy of values is for citizens to establish.

(3) It follows that an analytical framework is not meant to dictate solutions. Even if the analysis leads us to suggest particular measures, whether for any language revitalisation programme or in the particular case of te reo Maori, such proposals are only meant to assist in the democratic quest for solutions. In other words, policy analysis as we see it is not a technocratic exercise that could replace the normal political process; it is merely an ingredient in it.

(4) Finally, the economic paradigm that underpins our approach to language policy issues is a springboard; it need in no way imply the omission of theoretical or empirical input from other disciplines. In the context of this study of limited scope and duration, we obviously do not intend to cover what would be a staggering amount of material, but to keep the door open to the combination of outputs from various disciplines. This could prove particularly important in the event of a set of promotional measures being adopted, possibly on the basis of investigative reports such as this one.

3.3 Minority language revitalisation: frankly, why bother?

The current context in New Zealand (see Section 1.1) requires policy interventions aiming at the promotion of te reo Maori. In a sense, the provocative question chosen as a title for this section (which echoes the title of a paper by Thieberger, 1990) has already been answered in the case of Maori in New Zealand: historical and political reasons, many of them resting on legal considerations derived from article 2 of the Treaty of Waitangi, mandate the introduction of policy measures in favour of Maori. In this section, however, we would like to posit the question in the policy analysis framework. Hence, our aim is not so much to list reasons for actively promoting Maori; this has been done before, for example by Waite (1992a: 13-17), who holds up Maori language revitalisation as the top priority for New Zealand language policy (1992a: 18).

Generally, there are many arguments rooted in law, political philosophy, or various disciplines in the humanities that justify policy efforts aiming at the preservation of threatened languages. Although we consider such arguments to be legitimate, discussing them is not our point. Rather, we wish to examine briefly how a goal such as minority language promotion can be introduced into an framework grounded in an economic perspective.[4] Before we do so, it is useful to distantiate our argument from the oft-repeated view that language is a "resource".

Possibly because they sense that in order to muster support for promotional policies, their case must rely on arguments *other* than (necessarily subjective and debatable) values, many advocates of minority language promotion present language as a "resource" or a "form of wealth". In some cases, the use of such phrases clearly represents a metaphor, which is, *per se*, a perfectly acceptable expository device. In some cases, the metaphor has deep historical and cultural connotations, as in the case of te reo Maori, which has been recognised as a *taonga*, whose preservation is, as such, warranted by the Treaty of Waitangi. However, there are other cases where the analogy appears to hint at some concept of value in a much narrower sense, somehow (and rather mysteriously) connected with, if not identical to, value in an economic sense. However, what is exactly meant in such cases usually remains vague. *Either* it is, indeed, metaphorical, but metaphor does not provide enough of a link to justify policy measures, which must then be justified through other means (such as the usual arguments rooted in, say, history or political philosophy); *or* language (more specifically: "minority language maintenance") really constitutes a store of value in the economic sense—a proposition which then needs to be demonstrated. The problem is that little is offered in the way of demonstration, thereby undermining the credibility of the argument.

[4] Previous work devoted to this very question has sometimes come under criticism on the grounds that studying issues like language maintenance in an economic perspective was per se reductionnist. Critics apparently failed to see that using economic reasoning does not imply a narrowly materialistic outlook where language survival would be downgraded to the level of some mundane market good. Besides, this kind of analysis can help to make promotional measures more acceptable, precisely because an effort is made to justify them not just in terms of beliefs (which ultimately, eschew rational debate), but in terms of broader objectives concurring to social welfare.

Available evidence suggests that what gains there may be in the preservation of minority languages are predominantly of a non-market nature, that is, not reflected in market prices such the prices of oogds and services or wages Thus, changes in the cost of production of un-priced services such as publicly provided education would generally not be cases of *market* benefits. For example, "greater efficiency of bilingual education" can be construed as a "market benefit" only at the cost of a considerable detour, some bold assumptions, and a bit of a logical leap. *Assuming* that we treat publicly provided education as a commodity, *then* we can assimilate such increased efficiency as bringing about a decline in the unit cost of the production of bilingual education. A decline in production costs would be reflected, under additional assumptions about the degree of competition on the education market in a broad sense, in a subsequent drop in the average price that people pay for [bilingual] education. This is, indeed, a market benefit. If education is supplied by the state, then we would need the state to reduce taxes in order for a drop in production cost to result, eventually, in an increase in people's net spending power. This is a *detour*, which relies on the heroic *assumption* that not just costs, but *prices* would actually fall. Of course, if the price of bilingual education does not fall, for lack of adequate competition or political will, then providers of education (private or public, as the case may be) could perhaps use the surplus to keep down the price of other services they provide. This is becoming *so* indirect that you will no doubt understand why we don't bother with such effects in the framework. For sure, everything is connected with everything, but if we started including such tenuous causal links, imagine the range of *other*, not much flimsier connections we would then need to include too!

However, a more serious confusion needs to be avoided. In the type of analysis used in our study, bilingual education is a tool, or a *production factor* of "minority language maintenance". It is not a "final" good or service. Market benefits, however, must be evaluated in terms of final goods and services, and some given change in the cost of some intermediate good (i.e., a production factor) must be translated in terms of the induced effect on *final* commodities; *this* effect then enters the balance as a cost or benefit. This is, implicitly, the path outlined in the preceding paragraph, which has shown how roundabout it is. In any event, this would be relevant only if the members of a given group have a better grasp of their minority language than of the majority language used in schooling when they enter school. This may not be the case for Maori.

The following section discusses the distinction between market and non-market values; for now, suffice it to say that market values hinge on barter or on the exchange of goods and services for money, while non-market values emerge independently of participation in market exchange. To be sure, some market effects can be associated with minority language maintenance. To wit, the recent increase in the use of Irish, Scottish Gaelic or Welsh in business (particularly advertising) can be viewed as an indicator of their market value, which would, somewhere down the line, translate into market benefits, both private and social (see e.g. Price, 1997; Bord na Gaeilge, n.d.). In addition, standard multiplier

analysis applied to language promotion measures shows that the latter can give a significant boost to the local economy (see e.g. Sproull, 1996, on Scottish Gaelic). However, these are recent developments which it is too early to consider as a standard effect. It follows that economic justifications for minority language revitalisation policies should primarlily be sought in terms of non-market benefits.

The benefits derived from language maintenance are akin to the benefits derived from the presence of what is usually called a "public good" exhibiting *impossibility of exclusion* and *non-rivalry* of consumption. Impossibility of exclusion means that access to or use of a commodity cannot be restricted to those who pay compensation for it; non-rivalry means that consumption of the commodity does not reduce the availability of the commodity to another consumer. The classical example of a *pure public good* is street lighting. Public goods are cases of *market failure*, because a private company will never get into the business of selling them. For instance, given the existence of "free riding", there would be no way for a private company producing street lighting to make sure that consumers actually pay for the service. Street lighting can only be financed through taxation, and taxation is a prerogative of the state. Whether a state company provides street lighting, or whether the state contracts out provision of the service to a private company, is another matter entirely—the important point being that in the absence of state intervention, there would be *no* public lighting.

By contrast, private goods (for example, a chocolate bar) can be produced by the private sector and sold on a market, and their market price will provide a reliable indicator of value, at least if the market is reasonably competitive; however, there is no observable market price for public goods, implying that it is not possible to infer value from a straightforward indicator such as price (for a more extensive discussion of market failure and its application to language, see e.g. Grin and Hennis-Pierre, 1997; on language and price, see Grin, forthcoming).

Linguistic environments present striking similarities with "the environment", and there are reasons to think that ensuring the survival of a minority language is akin to providing a public good, and more specifically a category of public goods, namely, environmental quality.

First, the continued existence of a minority language creates a specific *linguistic environment* at the national level; there is no way to use a price mechanism to bar people from access to this broad linguistic environment (as opposed to language itself, or precise language-specific activities). Limitations are thinkable only under extreme and rather unlikely circumstances. Of course, *some* segments of a linguistic environment can be insulated through price mechanisms: for example, access to

some minority language services could be restricted to those paying a user fee. Quite apart from the delicate political issues such a procedure would raise (to our knowledge, there is no example of a promotional language policy operating with user fees), the fact remains that this option is ruled out for a whole range of policy measures, such as those aiming at language visibility.

Second, the use of the language by one person does not reduce the availability of the language to another person; in fact, language adds an interesting twist to the standard public good case, because the use of language by person *j*, by increasing its presence in the linguistic environment, will actually increase the availability of the language to person *k*. Hence, language can be said to be a *super-public good*. The theoretical implications of "super public-ness" are only beginning to be explored, generally using the theory of network externalities (see e.g. Sabourin, 1985; Church and King, 1993). Of course, some aspects of a linguistic environment can present rivalry of consumption—for example, minority language services provided individually.[5] However, for the most part, linguistic environments are much closer to public goods than to private goods.

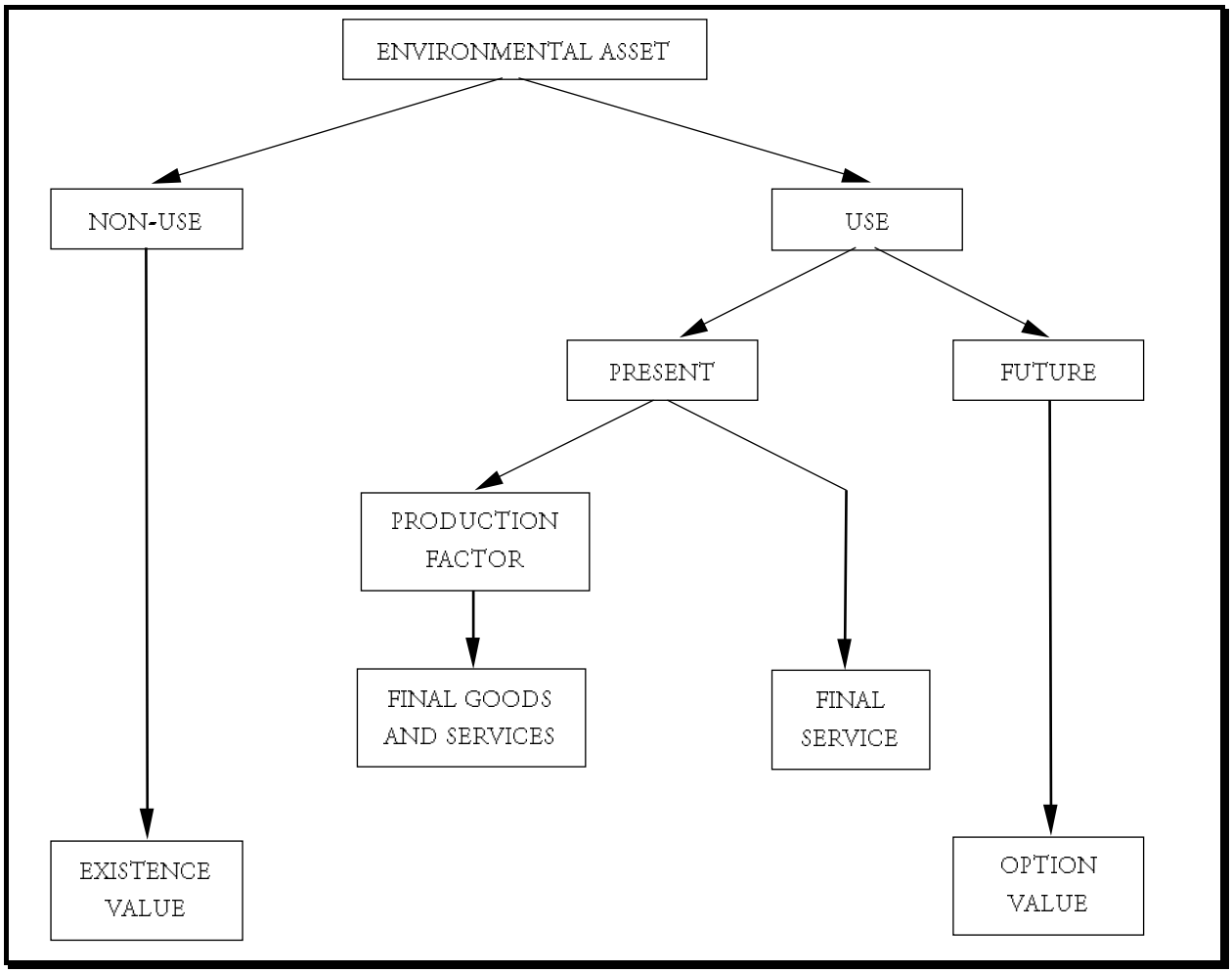
The chief consequence of the above is that minority language maintenance or revitalisation is not supplied by markets, and that there is no directly observable market price for language revitalisation. How then to assess its value? Methods developed in *environmental economics* for the valuation of commodities such as "clean air" or "relaxing on an unspoilt lakeshore" are the most obvious candidates. Describing these tools (along with their limitations) would exceed the scope of this study, and the reader is referred to textbooks in the field (e.g. Pearce and Turner, 1990; for an application to language policy, Grin, 1994b). However, it is useful to describe the types of "environmental values" to be considered. Fig. 1.1 provides a bird's-eye view (adapted from Baranzini, 1990):

The value of environmental commodities as final goods and/or services is, in theory, captured through market values; one language example is the use of a given linguistic environment where a minority language has been preserved as a selling argument for touristic services. Hence, this aspect of value attaching to minority language maintenance will normally be integrated in market prices. Our concern in this section, however, is non-market values. Many of the "final services" in Fig. 1.1 are *not* marketed; besides, there is no market price for "option value", which denotes

[5] But there again, the *fact* that one lives in an environment where individually provided state services are available in the minority language, even for a fee, has the characteristics of a pure public good.

the value attaching to the *possibility* of using the commodity at some future time; neither is there a market price for "existence value", which refers to individuals' valuation of the fact that a commodity is in existence, although they do not use it, and have no particular intention of doing so.

FIGURE 1.1
TYPES OF ENVIRONMENTAL VALUES



Indirect pricing methods can be applied to estimate these values. One example is the transportation cost method, where the value of swimming or fishing in a clean lake can be approached (by default) by estimating how much people spend on transport and fishing supplies to enjoy the lake. A more direct method, which poses methodological rather than conceptual difficulties, is the "contingent valuation method" (CVM). Essentially, people are asked how much they would be willing to pay to enjoy a given commodity (such as clean lake in the vicinity of their home), or how much they would be willing to pay to avoid a nuisance (such as a nuclear waste dump in the vicinity of their home). In principle, the

same method could be applied in order to assess peoples' valuation of the preservation of a minority language (Grin, 1993a). In short, there may well be a "willingness to pay" for: (i) the present non-market use of a linguistic environment where Maori survives; (ii) the precautionary chopice to keep the language alive for future uses; (iii) and the recognition of a value attaching to its mere existence, even by people who never use Maori. To our knowledge, however, CVM or indirect valuation have not been applied to minority language promotion, and the political process is generally used as the chief tool of preference revelation, with little explicit consideration of value as described here. This, for example, has been the case recently (March 1996) when Swiss voters agreed by referendum to constitutionally upgrade Romanche, Switzerland's fourth *national* language spoken by less than 1% of the population, to the status of an *official* language, along with German, French and Italian: the inference is that voters' valuation of improved safeguards for the survival of Romanche is worth at least the amount of additional expenditure that this constitutional change will entail.

Our main point, nevetheless, is that it is conceptually possible to discuss minority language promotion in terms of value in the economic sense, even in the absence of financial benefits. Let us now move on to a more general look at the benefits and costs of language policy measures, in order to clarify their links with policy analysis.

3.4 Market and non-market, private and social: definition of costs and benefits

One of the chief assumptions made in policy analysis is that policies should increase *welfare*. The concept of welfare, however, poses one major problem: a famous result in economic theory, known as the "impossibility theorem" established by Kenneth Arrow in 1963, is that there is no straightforward way to derive a (collective) welfare function on the basis of individual utility (or "satisfaction") functions. A classical welfare function in the Benthamite tradition represents a common alternative, where the individual utilities derived from each policy option are simply summed, before being compared to the relevant total cost; the best policy is the one with the highest net value, as indicated by the sum of individual utilities minus total cost. The key issue, therefore, is whether a language policy can be expected to yield a net welfare gain. This calls for an identification of costs and benefits, and then for some measurement thereof, even tentative.

Let us consider the hypothetical case of a state (which is the usual level of analysis of the costs and benefits of language policies) with two language communities, using respectively languages *A* and *B*[6]. For the sake of the argument, we can think of English and Maori in New Zealand, or French and Breton in Brittany. In other words, *A* is a majority language, and *B* is a minority language undergoing long-term attrition; all speakers of *B* also speak *A*, while almost no member of the *A*-language community knows *B*. Assume that sociolinguistic research strongly suggests that in the absence of countervailing measures, members of language group *B* will no longer pass on the language to the next generation, and that the frequency of use of *B* will further decline; a *laisser-faire* policy would therefore hasten the demise of language *B*. By contrast, assume that a set of promising policy measures has been identified, and that they are expected to result in the revitalisation of language *B*, thereby (re)creating a *linguistic environment* where the use of language *B* is "normal"—this notion of normalcy reflects the concept of *normalització* of Catalan language policy, which precisely aimed at making Catalan once again the *normal* language of use in Catalonia (Bastardas Boada, 1987). Let us call these policies "laisser-faire" and "promotion" respectively.

Both entail costs and generate benefits, which can be broken down using the two-way table below (Fig. 1.2)[7]: However, the break-down of costs is less conceptually straightforward than the break-down of benefits. For the sake of the argument, we shall concentrate on the latter, and assume costs to represent one aggregate amount.

FIGURE 1.2
FOUR TYPES OF BENEFITS

	Private	**Social**
Market	MP	MS
Non-market	NP	NS

Suppose we are evaluating the "promotion" policy, as opposed to a status quo policy characterised by "laisser-faire".

[6] Of course, one could also carry out analyses for subgroups such as the minority or majority, or groupings of states.

[7] The following discussion is adapted from Grin and Vaillancourt (1997), pp. 50-51.

Cell MP contains *private market benefits*. In this case, private market benefits will mainly consist of earnings differentials accruing to individuals; such differentials can appear as a result of living in an environment where language *B* has survived. These benefits need not accrue only to speakers of *B*. Using the same example as before, they may comprise additional revenue from tourism generated by the unique linguistic make-up of the country considered. They could also include higher purchasing power resulting from a lower price of goods and services. This effect could obtain if bilingualism encourages members of community *B* to acquire more training (in any type of skill) than they would have in the absence of the promotional policy: to the extent that, as predicted by the standard labour market model, training makes people more productive, overall productivity levels will increase, and (all other things being equal, and assuming the goods and services markets to be reasonably competitive) drive down market prices.

Cell NP refers to *private non-market benefits*. They include the satisfaction directly derived from engaging in activities in two languages, as opposed to just one, or even the mere possibility of doing so. It is possible to model language use in non-work activities (Grin, 1990a, 1990b, 1992), as we do in Chapter 4 of this report. Some versions of this class of models generate "shadow prices" for language-specific activities; these shadow prices can serve as indicators of non-market benefits and values. Alternatively, direct assessment through contingent valuation methods (see Section 3.3) can be used. To our knowledge, however, neither method has been applied to language policies so far. It is important to note that, if we simply compare "promotion" to "laisser-faire" *and* assume that laisser-faire is the current policy, then private non-market benefits should include some indicator of reduced psychic distress (the converse of the "psychic costs" mentioned in Breton (1978)) accruing to members of the *B* community whose language is re-legitimised by the policy.

Cell MS comprises *social market benefits*. As mentioned above, social benefits are often computed as the sum of private benefits. This is standard procedure in the economics of education for the estimation of the social rates of return to schooling, and it is appropriate to the extent that benefits observed at the private level indeed capture the total value created. However, the presence of *externalities* may drive a wedge between the sum of private benefits and actual social benefits. If externalities are *positive*, social market benefits will exceed the sum of private market benefits.

Positive externalities are benefits that result from the behavior of actors, but without the latter being able to fully appropriate them; in other words, positive externalities can be seen as unintentional gifts from the individual to the community· Suppose for example that some unilingual individual *j*, who speaks language *A* as a mother tongue, becomes bilingual by virtue of learning language *B*. Her knowledge of language *B* (in addition to *A*) will increase the usefulness of the language skills of some already bilingual individual *k*, because the latter's language skills will now be usable with an additional person. This may have a

positive (if marginal) effect on *k*'s wage rate, if the increased social relevance of language *B* translates as an increased labour market demand for people who speak it. Of course, the opposite effect may dominate: if labour market demand for such skills remains unchanged, the added supply of *B*-speakers will make competence in *B* less of a rarity, and drive down the corresponding labour market returns. In this case, we would have a negative externality.

Finally, **cell NS** includes *social non-market benefits*. Benefits can be computed as the sum of private non-market benefits, but there again, externalities may drive a wedge between the simple sum and the more complex aggregate. The social non-market benefits of bilingualism arise from more harmonious inter-community relations, a stronger sense of social cohesion, or the value of diversity in its own right (all things that, by definition, an individual living in isolation cannot enjoy).

The total benefits of the promotional policy, in this framework, are the sum of MS and NS.

Total **costs** will primarily include the expenditure by the state (presumably out of tax revenue) on goods and services whose aim is to ensure the continued presence of *B* alongside *A*. Examples are state provision of multilingual education, social services in *B* and a whole range of promotional measures increasing the public visibility and legitimacy of the language. Depending on the goods and services considered, it is not always clear if these costs ought to be assigned to the "market" or the "non-market" row of Fig. 1.2, hence our handling them as one lump sum. Additional elements of cost can include forgone tax revenue to the state, higher prices of goods and services to consumers and lower corporate profits, *if the promotional measures do have an adverse effect on these indicators of economic activity*.[8]

Finally, the costs of the "promotion" policy could, in theory, include the psychic costs incurred by those people who are distressed by diversity, and would rather see language *B* disappear. Whether such elements of costs should *actually* be taken into account at all is, of course, a political choice; and if the decision is made that they should not, the policy selection procedure should be closely scrutinised to avoid their being included, albeit unconsiously, in the weighing of costs and benefits.

[8] Although the presence of such effects is frequently invoked as a reason for not engaging in a promotional policy, we know of little supporting evidence on this count.

It is important to understand, however, that the *laisser-faire* policy entails costs and benefits too. A full identification and measurement of the costs and benefits of the promotional policy would, in theory, save us the need to do the same for *laisser-faire*, if we confine ourselves to an *allocative* perspective. Nevertheless, this should not obscure the fact that even if the net value (benefits minus costs) of "promotion" as compared to "laisser-faire" is negative, *distributive* considerations may still make the promotion policy relevant. This, in particular, may be the case if "laisser-faire" can be described as a *regressive*, and promotion as a *progressive* redistributional policy; this point is taken up again in the following section.

Parsing the policy problem in terms of benefits and costs can be criticised as a shockingly mundane way to address issues relating to culture, human rights and individual and collective sense of self. This objection is well-taken. However, an appeal to intangible values may fail to impress people who do not share them. In other words, there is a strategic, as opposed to purely analytical, justification for addressing language policy evaluation as we do: operationalising language issues extends the terrain where the rational weighing of pros and cons is relevant, and correspondingly reduces the role of preferences and values, which are diverse and ultimately not a matter for debate.

3.5 Spreading the cost: on efficiency and fairness

In the preceding sections, we have established two important facts. The first is that the decision to devote social resources to the promotion of a threatened language is, at heart, a *political* choice resulting from an ethical and political debate. Hence the latter can, in itself, provide sufficient logical justification for engaging in language promotion. We have also pointed out, however, that there may be more narrowly economic reasons, which can be expressed in terms of costs and benefits, for doing so: if the sum total of benefits (which *must* include non-financial ones) exceeds the sum total of costs, then devoting resources to language policy is economically justified, just as it is in the case of education, health, urban planning or environmental policy.

Such policies are normally financed out of tax revenue, and hence imply a significant degree of redistribution, because residents may not personally benefit in exact proportion to their tax payments from the services provided by the state or its surrogates and financed through taxes. For example, a certain share of the latter is spent on expanding the road system or on maintaining community golf courses; these amenities primarily benefit car drivers and golf players. Some of the redistribution inherent to public policy may be of a regressive nature, for example when state coffers subsidise opera houses that are overwhelmingly patronised by the rich; it is generally accepted, however, that from a political philosophy perspective or for reasons of social justice, the redistributive effects of public spending should be negligible or progressive.

These considerations are usually formulated with respect to social classes or income brackets; they can, however, be transposed in terms of language communities, although the literature provides very little in this way.

First, the traditional principle stating that there should be "no taxation without representation", which can be seen as an indirect safeguard of the redistributive *neutrality* of government intervention, could arguably be transposed into a language-based rule, such as "no taxation of speakers of language *X* without provision of services to them in language *X*", if language *X* is, indeed, these speakers' first language and if language *X* is historically and culturally legitimate in the territory placed under the jurisdiction considered.

Second, the *absence* of such a rule (implying that speakers of *X* and *Y* are taxed according to the same tax schedule, but that services are provided only or primarily in language *Y*) clearly implies a *redistribution* of resources from *X*-speakers as taxpayers to *Y*-speakers. If *Y* is a threatened language and *X* a dominant one, such a state of affairs can be described as progressive; conversely, if language *X* is in the dominated position, the absence of *X*-language services clearly represents a *regressive* policy.

This brings us back to the traditional issue of the relationship between efficiency and fairness. We have been arguing that in the case of minority language promotion, such a trade-off problem need not arise; if it does, however, simple logic indicates that policy selection is wholly outside the bounds of economic analysis, and is ultimately a political problem of arbitration between the diverging interests of socially, economically and politically unequal groups of actors. If, however, a promotional policy is justified on allocative *and* on distributive grounds, economic theory (or, more precisely, *rational choice theory*) has a contribution to make when looking for ways to combine allocative efficiency and distributive fairness.

This problem has been analysed formally by Pool (1991a). His recommendations focus on the problem of selecting an appropriate number of official languages in a multilingual polity, such as a nation-state or a supranational entity. The model requires language planners to choose, among various alternatives, the one that minimises total cost (an alternative rule could be to maximise net benefits), thereby officialising an (allocatively) efficient number of languages. The spreading of the cost can then be made (distributively) fair by allocating it over language communities in proportion to their relative demographic weight (with no loss of generality, some alternative fairness criterion, where additional dimensions are also taken into account, could be devised). At this time, there appears to have been very

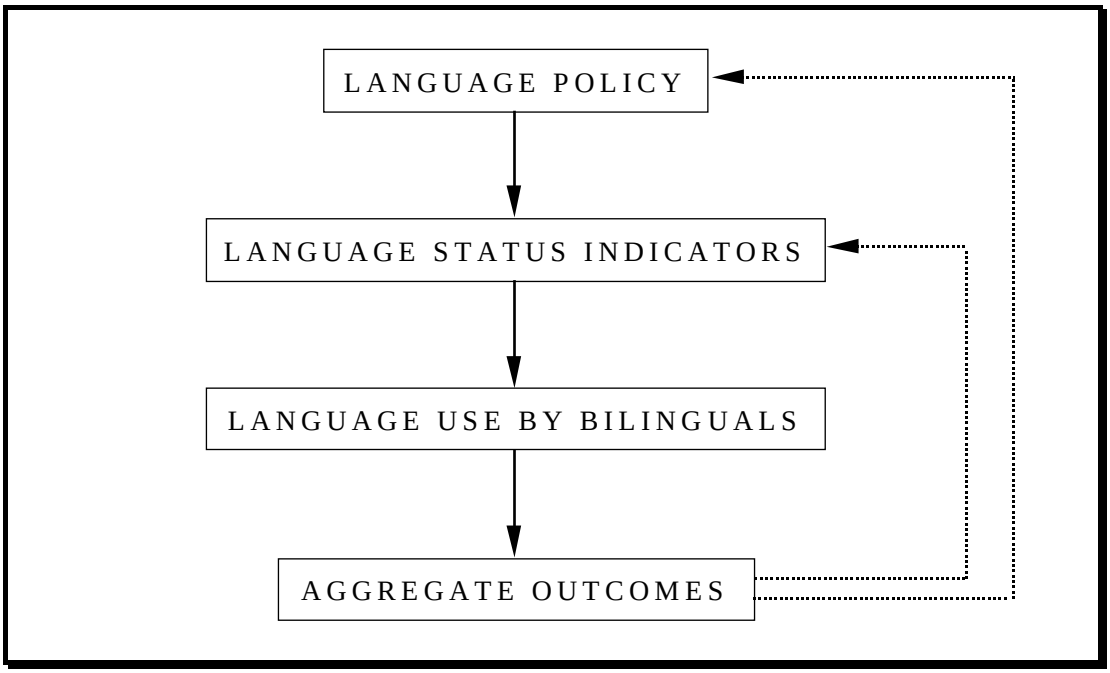
little work done in the way of extensions to, or implementations of Pool's rather technical model. We believe, however, that it provides valuable analytical groundwork for exploring a variety of cost-distribution principles in language policy. Besides, it can be combined with other approaches, such as Grin's (1996c) model of territorial multilingualism, which can be seen as a shortcut approach for the allocation of language rights in multilingual states.

4. Modelling language use

4.1 General causal structure

The general causal structure presented below has been designed specifically for this report. It brings together concepts and results found in separate strands of research, whether in the economics of language or in the language planning literature. The causal structure can be represented by a flow chart connecting the following four classes of elements, which we shall detail later: *language policy*; several *language status indicators* influenced by policy; a *model of language use by bilinguals*, where behaviour is affected by language status; and a set of *outcomes* resulting from individual behaviour, and which can be expected, in turn, to have a feedback effect on language status. This structure is presented graphically in Fig. 1.3.

FIGURE 1.3
GENERAL CAUSAL STRUCTURE



In Fig. 1.3, an arrow denotes a unidirectional cause-and-effect relationship. The nature of these relationships is discussed in the following pages. Of course, Fig. 1.3 is a general and simplified depiction of the links between policy, language status, individual behaviour and macro-level outcomes. Several additional arrows could have been included, and our reasons for prioritsing some relationships and omitting others are presented in Section 5.2.

Nevertheless, we should already point out that Fig 1.3 features no arrow linking "language policy" with "language choice" or with "outcomes" directly. This reflects our choice to rule out mandatory language use policies, particularly those affecting non-state actors. Such policies, however, are commonplace in the history of language planning, as when schoolchidlren were explicitly forbidden to speak Breton or Maori, even in private conversations; Quebec's francisation programme of firms, which does not ban a language, but requires (with a number of exceptions) the use of French in the internal communication of business firms of 50 employees or more, is another example. In the current New Zealand context, and in line with Fishman's observation that reverse language shift can be implemented without compulsion, we think that only those policies stressing incentives and availability are relevant.

Let us now examine the various elements of this structure more closely.

4.2 Language policy

In Chapter 3, we have introduced a general definition without distinguishing between policy and planning. The distinction will be introduced now. Let us begin with "policy", which refers to the general enterprise of trying to modify the linguistic environment, that is, the set of characteristics describing the position of languages in society with respect to each other.[9]

Language policy contains *language policy objectives*, possibly selected selected out of a *list of (theoretical) policy options*, and is subject to a variety of *constraints*. These constraints are of a very diverse nature; in addition, they take on a very different meaning and stringency depending on the time horizon considered. At a given point in time, they normally include financial resources (how much money has been set aside for

[9] A linguistic environment is not restricted to the "language status indicators" (the second box in Fig. 1.3), since individual patterns of language use as well as various aspects of policy (such as the objectives pursued by it) also concur to define the linguistic environment in which we live.

language policy), human resources (for example, how many minority language teachers are available and operational in the short, mid and long term), technical constraints (for example, does the lay of the land allow minority language broadcasts to be watched/listened to everywhere) and legal/political constraints (what *must* be done politically; how much *can* be done given the possibly diverging interests of various segments of society?).

In this report, we do not explicitly model these elements of language policy, that is, we treat them as *ex ante* exogenous. We will, however, suggest modifications to these policies in Part III of this report. At this point, we start out from a general perspective on the objectives of New Zealand language policy regarding te reo Maori. Some considerations to this effect have already been made in the first section of Chapter 1. We take it that the overarching objective of Maori revitalisation policy is to increase the *use* of the language, and that there are limitations to the range of promotional measures that can be countenanced at this time, whether by the New Zealand government, the general public (that is, majority opinion) and, possibly, Maori speakers or potential speakers themselves. In the same way, we shall assume that the funding available is exogenously set. This in no way implies that we consider such constraints to be intangibles; rather, the nature and level of the constraints result from the political process.

We define the combination of objectives and constraints in language policy as *language planning*. Language planning, in our vocabulary, is the core of language policy, and results in the selection and implementation of *language policy measures*.

In this report, we consider three categories of language policy measures. Several more could be considered, but appear not to be relevant in the New Zealand context (see Sections 1.1 and 5.2). The analytical framework is simplified accordingly, and features: (i) *direct Maori language promotion*; (ii) the *provision of Maori language services* that display *either* public good *or* cultural good characteristics, or both; (iii) *educational planning*, comprising *acquisition planning* and *skills development*.

Direct Maori language promotion

Direct language promotion seeks to influence *language attitudes*. Language attitudes can be described as "a disposition to respond favourably or unfavourably to an object, person, institution or event [...] An example would be a language as an object being seen as favourable or unfavourable" (Baker, 1992: 11). Promotion can then take a variety of guises, the most direct being explicit messages encouraging people to use the language. One well-known example is Singapore's "Speak Mandarin" campaign, which pursued the dual goal of promoting the use of Mandarin and reducing the use of southern "dialects" like Cantonese or Hokkien.

Provision of Maori language services

The term "service" is used here in a rather broad sense, and "Maori language services" can be arranged in five groups. In describing them, we shall use concepts such as "exclusion" and "rivalry" introduced in Section 3.3.

A/ Some have public good characteristics and are normally supplied by the public sector. They include:

(i) bilingual signage for road and street signs;
(ii) bilingual billboards, information and safety recommendations for government services visible in the public domain;
(iii) bilingual billboards, information and safety recommendations for transport services, even if provided by private companies.

B/ Some have public good characteristics, but are generally supplied by private sector, and include:

(iv) bilingual packaging of consumer goods;
(v) bilingual instructions for use;
(vi) bilingual safety instructions.

Cases (i) to (vi) directly affect the *visibility* of the language and play an important part in defining the linguistic environment.

C/ A third category concerns semi-private goods where exclusion is possible; it includes principally media services, particularly:

(vii) Maori language radio programmes;
(viii) Maori language television programmes.

D/ A fourth category covers services provided by the public sector or its surrogates, but which are normally consumed like private goods; it includes:

(ix) bilingual official or semi-official documents (or the choice of having those documents in either language);
(x) bilingual service in the service points of the authorities or their surrogates.

E/ Finally, some of the services considered here are essentially private goods (i.e. they can, in theory, be provided by the market) or semi-private goods where exclusion is possible, but their cost structure makes it unlikely that the market would actually supply them. In general, they are goods with explicitly *cultural* contents and characteristics. They are analytically close to services (vii) and (viii); however, we list them under a separate heading, because the way in which they affect speakers or potential speakers is quite different. They include:

(xi) Maori language publishing of books and magazines;
(xii) Other Maori language cultural goods such as films-making or performing arts.

Before moving on to the case of education planning, some comments are in order.

First, it is possible to introduce a geographical differentiation, particularly in the provision of services (i) through (x), that is, to provide them only in those regions where the absolute or relative share of minority language speakers reaches a certain level.[10] This amounts to a restriction that would make little sense (and might indicate reluctance to actually engage in a revitalisation programme) for those measures that have comparatively low start-up costs and negligible marginal cost, particularly measures (i) through (vi) and measure (ix). Considerations of cost, however, may be sensible with respect to measures (vii), (viii), (x), (xi) and (xii), particularly if expenditure saved there can finance other, better-targeted measures.

Second, services (vii) through (xii) (and, to some extent, services (iv) through (vi)) can be interpreted as *subsidies* that alter relative costs. However, the analogy can only be taken so far, because many of these services would simply not be provided at all in the absence of policy

[10] It is also possible to introduce such differentiation for services (xi) and (xii), for example by subsidising the *distribution* (as opposed to the production) of minority language books and magazines in certain regions only.

intervention. In this framework, we do not consider the possibility of subsidising language-specific goods that would be supplied by the private sector anyway, albeit at a higher cost. The effect of subsidies to these categories of goods, however, has been analysed in another theoretical model (Grin, 1990a, 1990b).

Education planning

We make a distinction between *acquisition planning* (a term introduced by Cooper, 1989) and *skills development*. This distinction is useful for two reasons. First, because they operate through different channels in the analytical model that presents the formal link between policy measures and language outcomes (see appendix); second, it is also useful when studying the sequencing of policies (see Section 15.2). We are aware that our use of these terms foes correspond in all respects to that found in the writings of other authors, e.g. Cooper (1989).

Acquisition planning refers to the provision of Maori language education aiming at increasing the number of people able to function in the language. In the meaning given to the term here, acquisition planning can cover the provision of Maori language instruction throughout the school system, from elementary to university level, as well as language courses for adults. Given that all speakers of Maori have a good command of English, or acquire such knowledge at an early age, acquisition planning increases the number of *bilinguals*; hence, it increases the number of people to whom our model of language choice by bilinguals (the third box in Fig. 1.3) is applicable.

Skills development refers to the offer of courses targeting people with a given degree of command of the language, but with a view to increasing this command. Although we find it useful to treat it as analytically distinct, skill development is intimately connected with other promotional measures. On the one hand, it will be furthered by the provision of a wide range of Maori language services, because the latter will increase exposure to the language, preventing decline through non-use; on the other hand, skills development from a zero to a positive level is *per se* a case of acquisition planning. However, it is useful to distinguish between them, because they correspond to different specific planning measures, and because their role in our analytical model is also not the same.

The top panel in Fig. 1.3 can now be presented in its extensive version, yielding Fig. 1.4 (see next page).

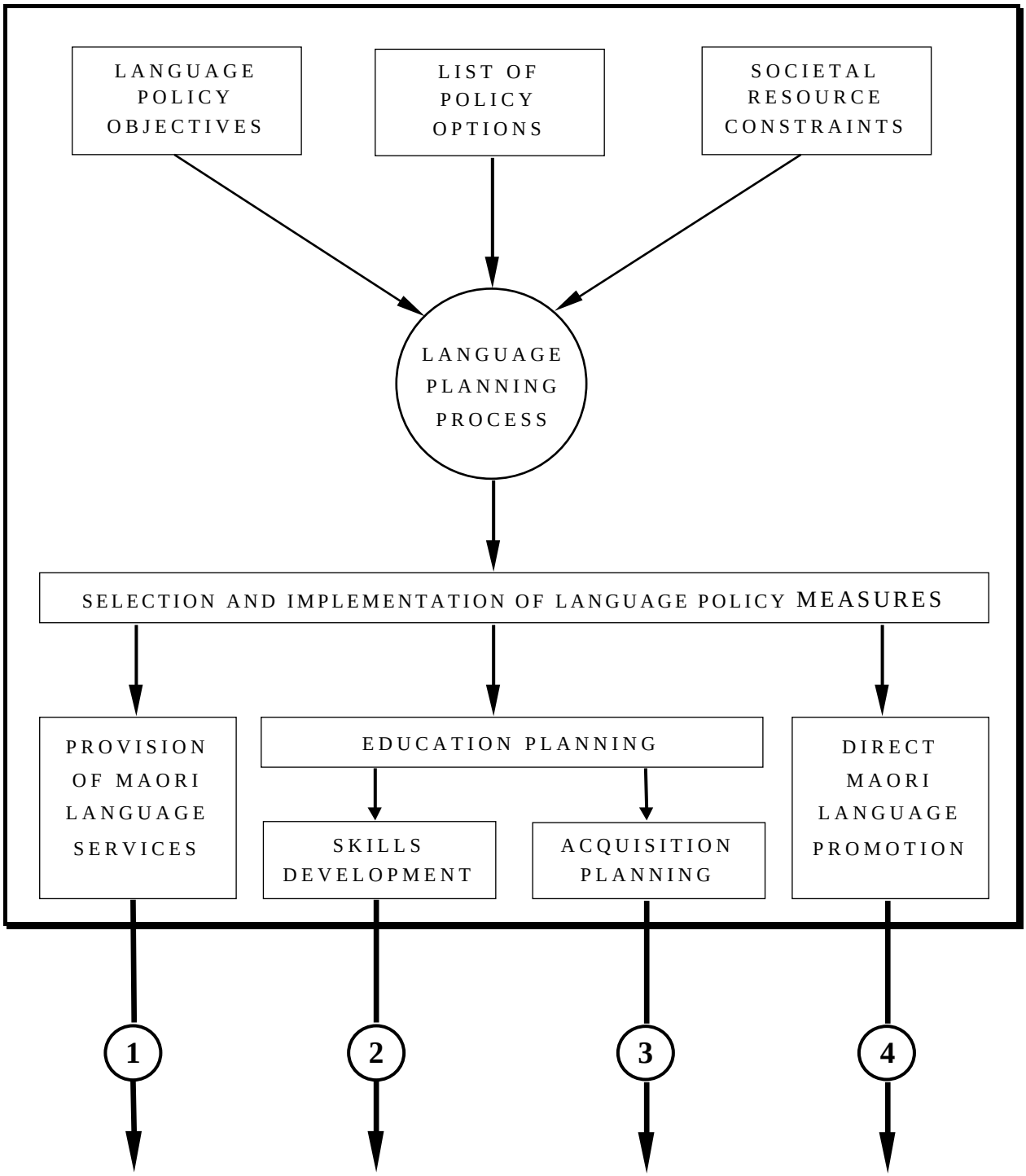
4.3 Language status indicators

The distinction between language *status* and language *corpus* is due to Kloss (Kloss, 1969). Language corpus refers to features internal to the language (e.g., the development of its vocabulary), while language status describes the position of language in society in relation to other languages. In our terminology, "status" is not just a legal concept. For example, describing Maori as a "minority" language is a reference to the demographic dimension of the status of Maori.

We view corpus planning, such as terminology and lexical creation, as a necessary aspect of language policy. However, we consider it as an instrument used in the pursuit of the main goal, namely, language revitalisation. Our model makes the assumption that the development of language corpus brought on by corpus planning has revitalising effects, but that these will by and large be embedded into educational planning; hence, the role of corpus planning does not need to be singled out analytically in our causal structure, although it is possible, in a more detailed representation of language policy in relation to language use, to feature it explicitly. Of course, an incomplete corpus is likely to be an impediment to language use.

Our language status indicators therefore include *language attitudes*, *supply-side factors of linguistic environment*, the *competence level of speakers*, and the *number of speakers*. The study of language status, its links with macro-level societal traits (cultural, political, historical, etc.), its evolution in response to speakers' and non-speakers' behaviour, and its effect on the latter is the concern of large portions of sociolinguistics and psycholinguistics. Any in-depth discussion would far exceed the scope of this study. However, it is worth locating them in this framework, in order to stress their importance in the interlocking of policy and behaviour, as well as to facilitate subsequent linkages between this framework and the relevant research from various disciplines, particularly sociolinguistics. For our purposes, however, it will suffice to recall the following.

FIGURE 1.4
LANGUAGE POLICY



Language attitudes

These have already been defined in the preceding section, and in our framework, they represent one of the main links between language policy and language behaviour: changing attitudes in favour of the minority language is the chief goal of direct minority language promotion.

Supply-side factors of linguistic environment

This term subsumes the visibility and availability of the language. Improving both is the chief goal of the category of policy measures described as "provision of Maori language services" in the preceding section.

The reference to the concept of *supply* would warrant a longer discussion, which will, however, not be entered here. In short, our framework is, in essence, a theory of *demand* for minority language use; however, the *actual* level of use results from the demand behaviour of bilinguals given some *constraints* that lend themselves to a supply-side interpretation (Grin, 1992, 1997).

Competence level of speakers

Increasing the competence level of speakers is the main goal of educational planning focusing on skills development.

The term "competence level" is self-explanatory. In our model, it denotes the proficiency of the "typical" bilingual, a theoretical construct comparable to the "agent" in neo-classical economic theory. In the real world, the concept of competence (or "skills") is, of course, considerably more complex, since competence is a multidimensional concept (we would typically distinguish four types of skills, simultaneously contrasting written and oral on the one hand, active and receptive on the other hand; using a two-way table, this yields the standard breakdown in reading, listening, speaking and writing skills). Moreover, each of these four skills will lend itself to a simple, quantitative interpretation in terms of "higher" or "lower" levels only at the cost of heroic simplification. These problems, however, hark back to major issues in language didactics and the evaluation of language skills, and they will not be considered further. For the analytical purposes of this study, however, we consider it acceptable to view competence as a unidimensional quantitative variable. Nevertheless, it is important to stress that competence refers to the capacity of using the language; whether this capacity is used or not is a separate question

handled in our model of language choice. Competence is simply a condition of adequate "performance" in the Chomskyan sense.

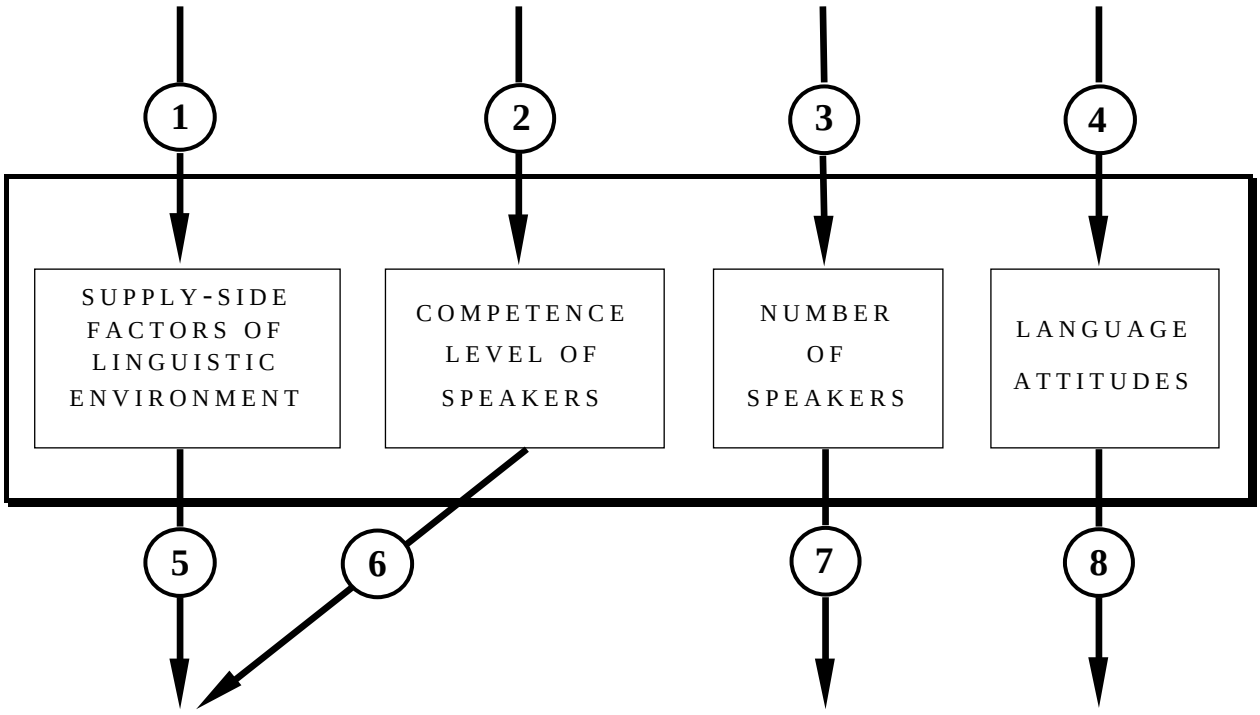
Quite apart from its intrinsic complexity, actual language competence is only one point in the *distribution* of competence found in a given population. We make the further assumption that this distribution is normal, so that its mean, median and modal value coincide; our "typical" speaker's competence corresponds to this measurement. Skills development resulting from education planning simply shifts the entire distribution to the right.

Number of speakers

This key demolinguistic figure could, in general, be replaced by a relative measurement, that is, the model could also be couched in terms of the proportions of speakers in a given territory. There are advantages and drawbacks to both interpretations, although simplicity leads us to favour the notion of absolute number of speakers. Increasing the latter is chief aim of acquisition planning; it increases the number of people to whom the utility-maximising model of language choice used in this study applies.

Panel 2 of Fig. 1.3 can now be extended, as we do in Fig. 1.5.

FIGURE 1.5
LANGUAGE STATUS INDICATORS



4.4 Model of language choice by bilinguals

We can now move on to an essential part of the framework, which focuses on the decision, by speakers of Maori (just about all of whom also have a good command of English), to engage in activities in one or another language. This component of the framework is crucial, because actors' choices define the level of use of Te Reo Maori.

The following model has been designed especially for this study, but many of its ingredients are quite standard constructs in economic analysis. They include a *utility function*, a *time constraint*, and a *financial constraint*. In addition, we shall take account of *language-related constraints* and posit a *technology* combining them all. The *constrained utility maximisation process* yields an optimal *individual allocation of time* to activities taking place in English and Maori, thereby determining the actual *individual practice of activities in either language*. Our framework will be almost complete by then, since it proposes an explanatory model of language use, given preferences and constraints, including parameters influenced by language policy.

In this section, we describe these components and their interaction in plain English. The model is backed up by an algebraic formulation and a simple graphical representation, both provided in the appendix.

Utility function

The utility function is a basic ingredient in practically all microeconomic models. The word "utility" could be replaced by the word "satisfaction"; generally, people are assumed to prefer more satisfaction to less. We further assume, as all microeconomic modelling does, that agents are "rational", in the sense that they will use their resources in such a way as to maximise their satisfaction, given prevailing conditions—which are nothing but additional constraints.[11] The *arguments* of the utility function are simply "doing things in English" and "doing things in Maori". The contribution of either family of activity to the utility level need not be symmetrical, that is, we can decide to build in a preference for doing things in English or in Maori; this implies, of course, that the direction and strength of the asymmetry can be modified exogenously, as will be the case if policy makers engage in direct language promotion (see Section 4.2) affecting attitudes (see Section 4.3). The formal expression of the utility function is provided in the appendix (equation 1).

[11] It is easy to misinterpret the rationality hypothesis of neo-classical economics by portraying it as more reductionist than it actually is. On this point in relation to language issues, see Grin (1996a).

Time constraint

The formal choice problem is centred on the proper allocation of *non-working waking time*. This means that we disregard sleeping time, and hence do not examine the language in which people dream. More importantly, the language of working time is assumed to be exogenously determined. Our main reason for doing so is that, to most intent and purposes, English-Maori bilinguals are not in a position to choose their language of work, and the work sphere appears to be widely dominated by the use of English. This, of course, does not apply to the few providers of the same goods and services currently available in Maori. However, there is nothing in the model to stop us from adding the working time of those (relatively few) speakers who do work in Maori to the non-working waking time spent on other activities in Maori, in order to obtain an estimate of the total waking time they spend using Maori. The model could also be modified to allow for the choice of language in working time. This is not done here because this does not appear relevant to the New Zealand situation in the short or medium term.

Total non-working waking time T must be therefore apportioned between "time spent doing things in English" t_b and "time spent doing things in Maori" t_a. By choosing time units appropriately, we can impose $T=1$, implying that t_a and t_b stand for the percentage of available time that bilinguals spend doing things in English and Maori respectively.

Financial constraint

Since everybody's day has neither more nor less than 24 hours, and since individual sleep needs are roughly similar, all individuals working a given number of hours per week face the same time constraint. However, their financial constraint will differ even if the number of hours they spend at work is comparable, simply because people do not all earn the same wage rate. For any given individual j, disposable income Y is given by the product of his or her average wage rate w_j and the number of working hours t_w.

Both variables will be treated as fixed and exogenous. In more general versions of this type of model (e.g. Grin, 1990a), working time is flexible. This assumption is realistic only in the long run, and is an interesting one when studying patterns of labour supply. This, however, is not the point here; rather, we are interested in patterns of language use given certain existing conditions; working time simply is one of them. As regards the wage rate, treating it as fixed reflects the fact that in the current context of New Zealand, manipulating the wage rate is unlikely to be used as a

language promotion instrument. It could, however, be used as such (Grin, 1990b). Of course, the model in the version presented here can lend itself to the examination of cross-sectional differences in language use by bilinguals, according to their respective wage rate and the numbers of hours worked.

Language-related constraints

Language-related constraints reflect some of the language status indicators (Section 4.3). We have seen that *language attitudes* affect the *utility function*, and that the *number of speakers* (which is influenced by *acquisition planning*) affects the number of people to whom our model of language choice applies. The two remaining variables in our set of language status indicators are the *competence level of speakers* and the *supply-side factors of the linguistic environment.* In other words, these are variables that are affected by language policy measures, and which, in turn, circumscribe the extent of what people can do in Maori. These language-related constraints will be symbolised in negative form, with a term denoting the *absence* of constraints. We shall therefore use the terms g_a (for English) and g_b (for Maori). Generally, $g_a > g_b$, that is, language-related constraints are more favourable to English than to Maori. With no loss of generality, we shall assume that there are *no* such constraints for English, whereas there *are* some for Maori.

Language-related technology

The point just made provides a natural bridge to the key concept of language-related technology, that is, the way in which inputs are combined to produce activities that take place in one or another language. The problem there is to define just how the amount of activities that actors can perform in English or in Maori are influenced by the three constraints.

Given a certain level of fluency, the greater the amount of time devoted to activities in one language, the more will actually be done in this language. However, since total time available is fixed at $T=1$, spending more time on Maori-language activities implies having less time available for doing things in English, and vice-versa. Higher income also makes it possible to enjoy more of a given activity in either language, for any given time input[12]. Finally, we assume that higher competence of speakers in Maori and/or more favourable supply-side factors for Maori activities make it possible to achieve more in Maori, for any given income and any given

[12] For example, richer individuals can travel faster to an activity (e.g., by car instead of public transit) and thus, within a given time slot such as a Saturday night, spend more time enjoying themselves with friends, at a bar, etc.).

time input. Obviously, a symmetrical interpretation holds for English. In this framework, however, we assume that speakers' competence in English does not pose a problem in non-work activities, and that the supply-side factors, in the case of English, are just about as favourable as they can be. Hence, the level of these two parameters will be treated, in the case of Maori, as *unfavourable deviations from the norm* constituted by the level of these parameters in the case of English; this is simply another way of stating that $g_b < g_a$.

Without entering algebraic detail (which is supplied in the appendix), it may help fix ideas to write the explicit form of the technology, which can be interpreted as a *production function*. Let Z_a stand for "doing things in English", Z_b for "doing things in Maori", while g_b is the synthetic indicator of the more or less favourable state of supply-side linguistic factors affecting Maori, and *s* is any positive parameter. We can now simply write:

$$Z_a = t_a + sY$$

and

$$Z_b = g_b t_b + sY$$

Obviously, in the case of Maori, g_b is smaller than 1, whereas by implication, the symmetrical variable for English, g_a , is equal to 1. Parameter *s* can have any positive value; the latter need not be the same in both languages (see appendix).

The utility maximisation process

All the above ingredients enter the *constrained utility maximisation* process. The corresponding calculus is provided in the Appendix. With appropriate specification of the functions, this procedure yields *demand functions* for t_a and t_b.These functions tell us how bilinguals are expected to apportion their time between English- and Maori-language activities, assuming that they behave rationally, that is, in such a way as to get as much satisfaction as possible given the various constraints they face.

Optimal individual allocation of time

By introducing the values of the various parameters into the demand functions, we obtain the optimal time input into activities that bilinguals perform in Maori and in English, noted t_a* and t_b* (the use of the asterisk to denote the optimal level fo some variable is a time-honoured practice in economic modelling). The utility and production functions are specified in such a way as to reflect the following causal pattern: when the supply-side

factors of the linguistic environment and the competence level of speakers improve, the language-related constraints affecting the practice of activities in Maori improve. When these constraints improve—that is, when they become less stringent, placing Maori and English in less unequal positions than before—the optimal time input into Maori-language activities increases. Conversely, the optimal input into English-language activities goes down. In other words, the gradient (or first derivative) of t_b* with respect to g_b is positive, while the gradient of t_a* with respect to g_b is negative.[13]

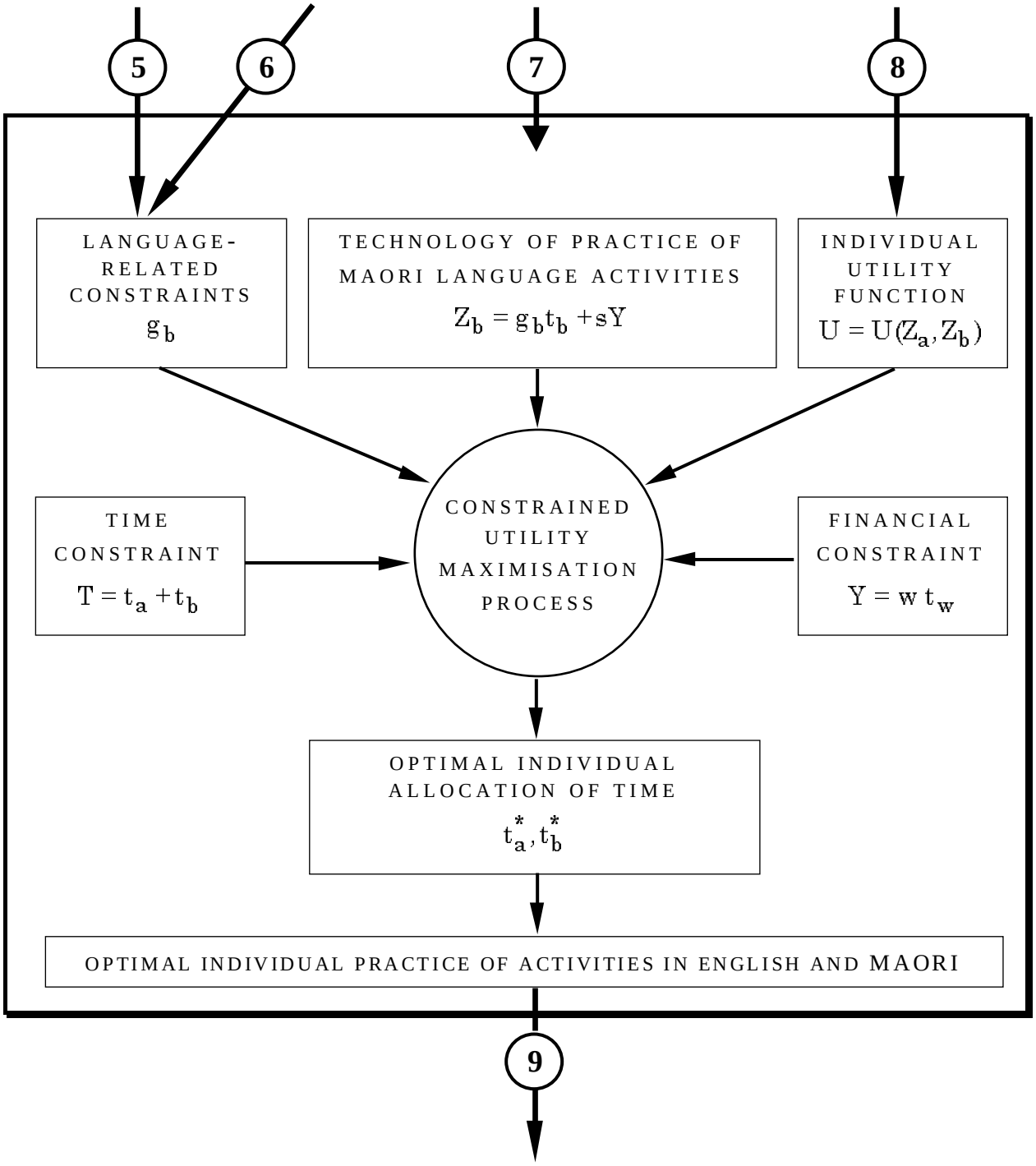
Optimal individual practice of English- and Maori-language activities

By substituting the optimal values t_a* and t_b* into the productions functions Z_a and Z_b, we get the optimal level of practice of activities in either language, given preferences and constraints. They will be written Z_a* and Z_b*.

Panel 3 of Fig. 1.3 can now be extended, as we do in Fig. 1.6 .

[13] Formal analysis shows that this result does not necessarily obtain; this problem is taken up again in Section 5.1.

FIGURE 1.6
LANGUAGE USE BY BILINGUALS



4.5 Aggregate outcomes

We can finally move on to the last box in Fig. 1.3 and discuss aggregate outcomes. The *aggregate practice of activities* taking place in English and Maori is simply the sum of optimal individual practices obtained in the preceding section; in theory, observed practice should reflect private optimal values; they are only optimal *given the set of constraints under which actors operate.* This, of course, raises an interesting measurement problem, because there is no *a priori* unit for counting "activities". It is then up to language planners to define one, or (which is probably simpler) to revert to the optimal time allocations to activities in either language, that is, to compute aggregate practice in time units.

Moving on from the aggregate practice of activities (however they are measured) to the *aggregate societal use of te reo Maori* raises an interesting problem that has already been hinted at in Section 3.3. To the extent that people carry out various activities in Maori, they create occasions for one another to function in Maori. An appropriate characterisation of "aggregate societal use" may therefore require analytical elaboration over and above the concept of "aggregate practice of activities". To our knowledge, neither economics nor other disciplines, including the specialist language planning literature, has yet come up with a satisfactory solution to this problem. Solving it would require an operational, yet necessarily interdisciplinary definition of "aggregate social use". There are good reasons to believe that it would raise rather complex conceptual problems, not to mention formidable technical difficulties regarding the precise nature of its link with "aggregate practice".[14] It stands to reason, however, that both variables are almost certainly positively related to each other. We can therefore complete our framework by representing Panel 4 of Fig. 1.3 in extended form, as we do in Fig. 1.7.

[14] In our view, the most promising leads are to be found in models that use the concept of "network externalities".

FIGURE 1.7
AGGREGATE OUTCOMES AND FEEDBACK EFFECTS

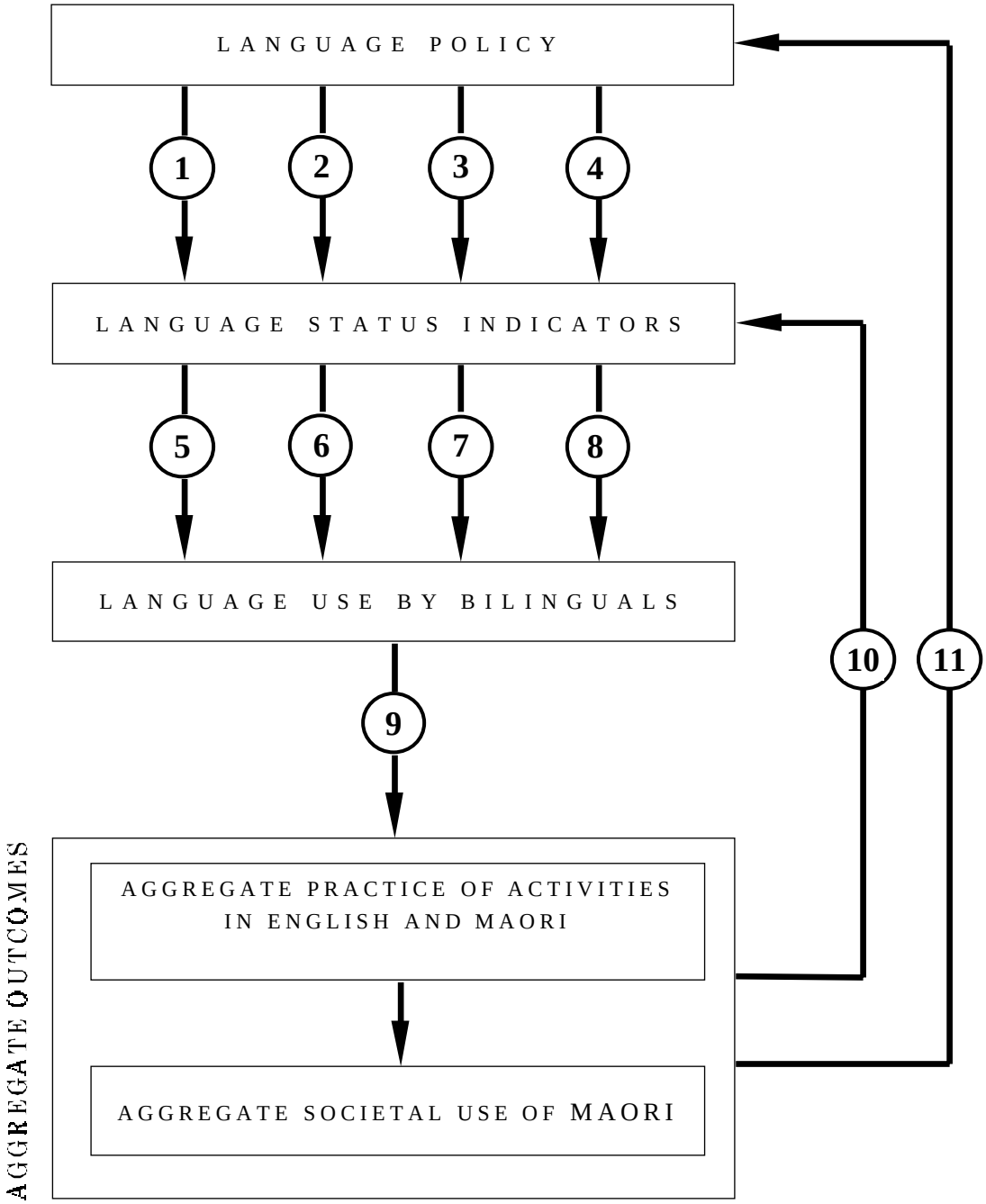


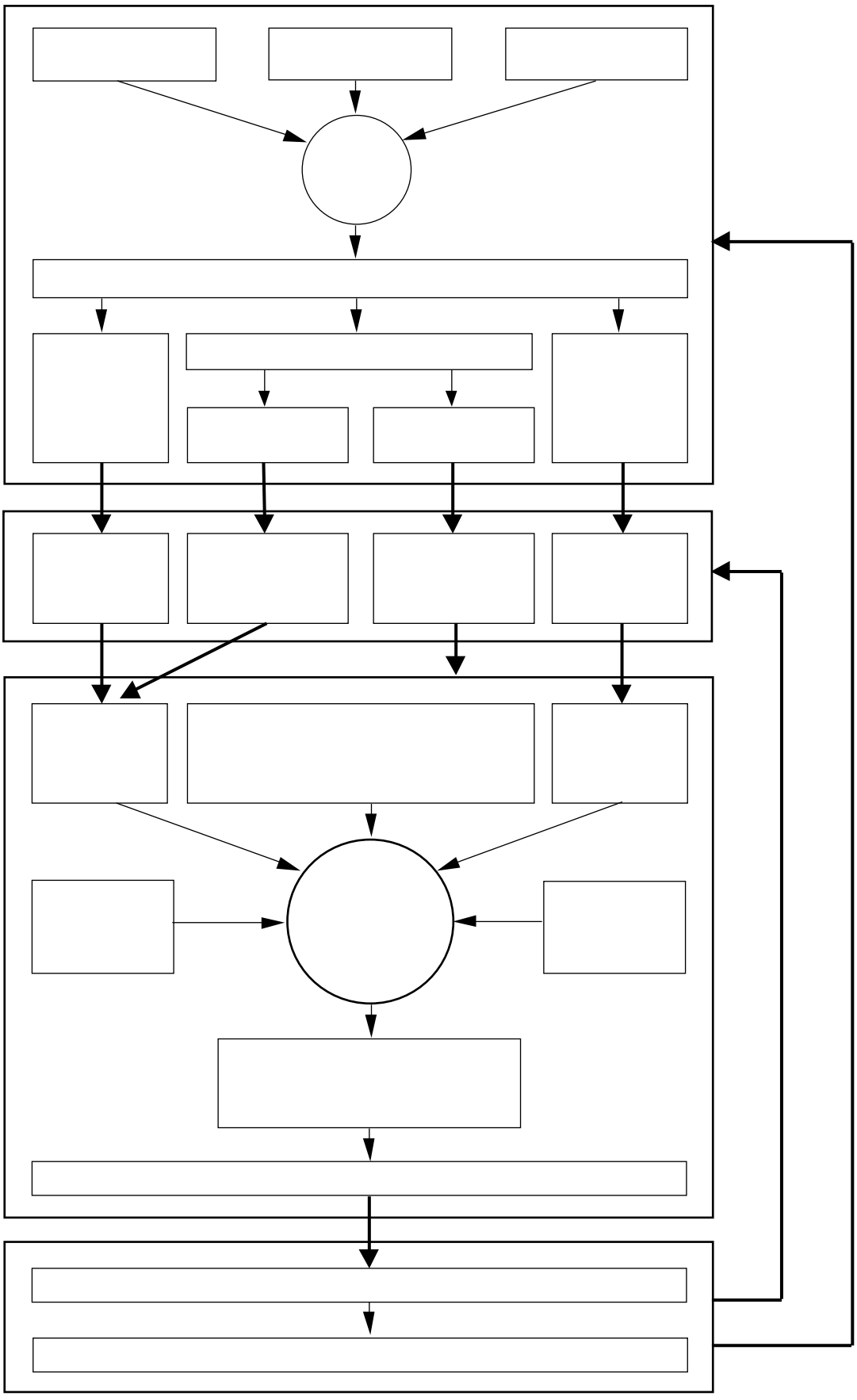
Fig 1.7 also introduces two important feedback loops.

First, if the aggregate outcome includes a higher aggregate practice of activities in Maori and an accordingly higher societal use of the language, it will normally concur to improve language status indicators. In this model, success will generally breed success. The presence of this positive feedback loop, however, is not necessarily a guarantee that the revitalisation programme will be sufficient to achieve successful reverse language shift (Grin, 1992).

Second, the higher aggregate practice of Maori is also likely to alter the policy sphere itself. More specifically, the constraints on the set of policy measures that can be envisaged will probably become less stringent, thereby broadening the range and scope of policy options. It follows that language policy must be seen as an evolutive process.

Before we take a closer look at the conditions for successful policies, the reader is invited to look at Fig. 1.8, which combines Fig. 1.4 to 1.7 and affords a bird's-eye view of the complete analytical framework.

FIGURE 1.8: EXTENSIVE CAUSAL STRUCTURE



5. From theoretical modelling to policy implications

5.1 Comparative statics

The framework models four types of policy measures which have been presented in Section 4.2:

(i) Direct language promotion;
(ii) Education planning focusing on increasing the number of speakers ("acquisition planning");
(iii) Education planning focusing on the average level of competence of speakers ("skills development");
(iv) Provision of Maori-language services.

Let us consider each in turn, starting with the increase in the number of speakers.

Acquisition planning

This measure has not been modelled formally; the reason is that quite obviously, if the use of Maori *by speakers* is to increase, there must be some people to speak it. Hence, *acquisition planning*, as it is called here following Cooper's (1989) taxonomy, hardly needs additional justification. The chief consequence of its *sine qua non* character is that it cannot be approached in terms of a trade-off: *if* the policy goal is to increase the *use* of Maori (rather than, say, its symbolic recognition as a legitimate aspect of New Zealand's cultural heritage), there is little sense in discussing possible trade-offs between acquisition planning and other promotional measures.

The concept of trade-off becomes valid, in relation to language acquisition, only after a sufficient number of people have adequate command of the language. When such a stage has been reached, the question indeed arises of whether revitalisation would be better helped by a *further* increase in the number of speakers, or by a different set of measures aiming at better conditions for speakers to use the language.

We shall address, in Parts II and III of this report, the question of what a "sufficient number" of speakers can mean. From a theoretical standpoint, we warn against mechanistic projections of some minimum demolinguistic threshold (on this problem, see Grin, 1992), but from an empirical

standpoint, it is clear that a larger pool of speakers generally bodes well for the future of the language in a given territory. In a policy analysis perspective, however, a variety of measures deserve to be studied; given that they make sense only if there is good cause to believe that there is a sizeable number of speakers who can *produce* the degree of language use aimed at by language policy, we assume acquisition planning to be part and parcel of the general policy.

Acquisition planning primarily targets the full-time and part-time school-going population; it requires the generalised teaching of the language to this target group. In the case of languages where the teaching of the language to the young has been inadequate for several generations, a large adult population is also in need of means to improve its language skills. Hence, the provision of adult language classes is part of acquisition planning as defined here. We make no distinction, however, between the myriad ways in which this kind of policy can be implemented. More specifically, we omit the following four dimensions of variability:

(i) Minority language instruction can take the form of language courses (where the language is one subject in the curriculum), through increasing degrees of partial immersion, all the way to the other end of the spectrum, where the target language is the exclusive medium of instruction; the continuum therefore spans the entire range of varying degrees of immersion.
(ii) Any of these systems can be offered in different types of institutions, that is, it can be decided that an individual school should offer only one of these systems, or offer several (in theory, full Maori immersion in a given educational stream could be offered in a school where partial Maori immersion or fully English streams are also available; in practice, however, this appears not to be the recommended option by Canadian immersion specialists; see e.g. various contributions in Hébert (1993)).
(iii) The target population can include the entire school-going population, irrespective of ethnic and cultural self-identification, or the entire Maori-identified public, or a subsection of the latter; moreover, if the entire school-going population is concerned, differentiated degrees of exposure to, and learning of Maori can be considered.
(iv) Acquisition planning can be implemented over the entire national territory, or be implemented only in those areas where the target population (whichever way it has been defined) reaches a certain absolute number or a certain share of the resident population.

Of course, these four choices have a significant impact on the way in which an acquisition policy is implemented. Moreover, a more ambitious

acquisition policy is likely to cost more, but also to increase more effectively the number of speakers. However, these choices reflect questions which are largely outside our framework: on the one hand, they reflect preferences about who should be affected by the acquisition programme, that is, who should be encouraged or required to learn Maori. This, in final analysis, is a political question to be settled through political debate, and about which we have little to say beyond the obvious remark that a higher number of potential users can only do good to the assumed policy goal, that is, increasing language *use*. On the other hand, these questions also are technical matters of language didactics, which are studied by language teaching specialists and exceed both the scope of this study and the competence of its authors.[15] To us, what matters is simply that the language be taught, that it be taught to a sufficient number of people, and that the latter include the largest possible proportion of the target population.

An increase in the number of speakers increases the number of people for whom the model of language choice is relevant. However, it includes feedback effects that we do not include formally in the model. First, through its re-legitimising effect on the language, it may have positive induced effects on language attitudes; second, the number of speakers will also affect the way in which aggregate use of the language translates into the societal use of the language: the larger the pool of speakers, the more likely it is that an appropriate indicator of aggregate societal use will exceed the value of the aggregate practice of the language.

Education planning: skills development

The implementation of policies aiming at skills development is not markedly different from the implementation of acquisition planning, because it also takes place in the wider school/education complex, although it probably puts more store on adult education. In addition, skills development is likely to be greatly aided by general exposure to the language, as can be provided through quality Maori-language media—the latter category of measures will be discussed later. In the context of our framework, however, skills development works quite differently from acquisition planning.

Skills development targets speakers and aims at increasing their average competence level. A higher competence level among speakers creates more favourable language-related constraints; in our model, this translates

[15] For psycholingustic aspects, readers are referred to contributions in edited volumes such as Lüdi (1987) or Py (1994); on various forms of bilingual school systems, see various contributions in Allemann-Ghionda (1994).

as an increase in the value of indicator g_b. An increase in the value of g_b increases the *productivity of the time spent on doing things in Maori.* Hence, the *relative unit cost of doing things in Maori* (which we could also call the "shadow price" or "implicit price" of such activities) as opposed to doing them in English, will decline. If Maori-language activities respond normally to the price structure, we would expect the optimal amount of activities taking place in Maori to increase.[16] In our formal model, this will also be associated with an increase in the optimum percentage of time spent on Maori-language activities, that is, we assume that $\partial Z_b^*/\partial t_b^*>0$.

These two changes, by the way, do not automatically follow from one another. The fact that the practice of Maori-language activities is a positive function of the time put into it (that is, $\partial Z_b/\partial t_b>0$, as posited in Section 4.4) does not necessarily mean that a reciprocal relationship holds for the *optimum* value of these variables, i.e., that $\partial t_b^*/\partial Z_b^*>0$. We would normally expect the optimum values of both variables to move in the same direction; besides, since we want to retain the freedom to evaluate outcomes in terms of activities, or in terms of (more easily monitored) units of time, it is important to make sure that an increase in one is accompanied by an increase in the other. This result, which is demonstrated in the Appendix, is borne out by experience; it is important to note, however, that it does obtain under certain specifications of the utility and production functions, but not all. This provides a good example of possible effects that may go unnoticed in the absence of formal modelling. The reason is that even though the practice of Maori-language activities would increase as a result of the decline in their relative shadow price, it *could* obtain even with a drop in t_b, if the increase in g_b is sufficiently large and if substitutability between them is sufficiently large. Such a combination, of course, appears empirically unlikely. Policy analysis and interpretation also are considerably easier if the optimum values of Z_b and t_b change in the same direction in response to revitalisation measures.

Provision of Maori-language services

The list of measures aiming at the provision of Maori-language services has been provided in section 4.2. These visibility and availability measures improve the supply-side factors of the linguistic environment and, just like skills development, they alter favourably the language-related constraints

[16] For this outcome *not* to happen, we would have to consider that Maori-language activities belong to the family of what economists call "Giffen goods", which have a *positive* demand curve, that is, consumption of such goods increases when their price goes up, and decreases when their price goes down. Examples of such goods are extremely few, and we can safely rule out the assumption that Maori language activities belong to them.

that affect bilingual's language behaviour. Hence, the comparative statics are identical to those developed in the preceding sub-section on skills development, and the corresponding technical implications are the same. The reader is therefore referred to the preceding sub-section for a discussion of the technical implications of such measures. Formal derivation of the result is provided in the Appendix, along with a graphical interpretation in Fig. A2.

Direct language promotion

Direct language promotion is the fourth and last category of policy measures considered here. It targets language attitudes, primarily among speakers themselves, although it is advisable to organise promotion in such a way that positive attitudinal changes also occur among non-speakers. Positive language attitudes modify the *relative attractiveness* to bilinguals of carrying out activities in Maori and in English, in favour of the former. In terms of our model, this affects the "distribution parameter" in the utility function. Let the relative attractiveness of Maori-language activities be defined by the symbol μ. The model predicts that $\partial Z_b^*/\partial\mu>0$ and that $\partial t_b^*/\partial\mu>0$. Hence, positive attitude changes are expected to increase the practice of Maori-language activities *and* the proportion of available time spent on them; again, it is important to note that this empirically sensible result obtains in theory if utility and production functions are appropriately chosen. Formal derivation of the result is provided in the Appendix, along with a graphical interpretation in Fig. A3.

5.2 On limitations and extensions

Section 3.2 on the economic analysis of language policy has expressly stated some epistemological and political limitations of the kind of approach developed here. In policy terms, they come down to one general rule of thumb: formal modelling does not dictate policy measures; it simply helps think about the policy problems in an orderly and systematic way. We do believe the foregoing pages to be useful in that they provide an integrated framework combining language policy, key sociolinguistic variables, a formal analysis of language behaviour, and resulting outcomes; these various levels are connected with each other in a systematic fashion, and many points of articulation with the contributions of language disciplines, particularly sociolinguistics and language education, are explicitly featured in the framework.

In addition to the limitations already discussed in Section 3.2, the following points deserve mention.

(i) Our framework is posited at a *given degree of detail*, as discussed in Section 2.4. It could have been less as well as more detailed.

Obviously, additional relationships could be made to appear, should the framework be rewritten with a higher level of detail. There is, however, a trade-off between the degree of detail that can be introduced into the analysis and the degree of rigour that the latter can guarantee. If "everything" were to be taken into account, it would become practically impossible to infer cause-and-effect relationships and to steer language policy. However, it is generally possible to add a variety of bells and whistles to a model; indicators of the quality of the model then are (i) the ease with which such additions can be made and (ii) the fact that a model retains its structural robustness after such additions have been made. Additional work, some cited and some done for this project but not shown here, confirms the robustness of the model.

(ii) Within any given degree of detail, an important issue is that of the *selection of variables and relationships*, briefly discussed in Section 2.3. The type of approach used here can be derided for its reductionism ("scientism" being an often-used, if rather worn, invective). However, we know of no theory framework, whether derived from economics or any other discipline in the social sciences, that does not single out some features while leaving others in the background. The real issue then is to be aware of this selection process and to have convincing arguments to justify the selection actually made; in this framework, we have attempted to deal with these points carefully. It follows that no model can be complete, but also that not many approaches can be summarily dismissed on those grounds: rather, different approaches help us to think about different aspects of reality.[17]

(iii) The formal expression of relationships in the model reflects two concerns: one is to have intuitively sensible links (for example, we do expect an increase in the relative attractiveness of Maori language activities to be beneficial, and not detrimental, to language use, all other things being equal); the other is to rough out a reasonably straightforward path connecting policy interventions with language outcomes. However, other specifications could have been considered (and some have); discussing them would then require a much more involved assessment of the empirical reasons for choosing one or the

[17] This problem can be exemplified in relation to *variables* and *relationships*. As regards the former, we have mentioned the role of language corpus (e.g. lexical creation, etc.). Corpus development could be included alongside the policy measures discussed above, and form an item in its own right in boxes 1 and 2 of the overall causal structure (Fig. 1.3). As regards the latter, there may well be mutually reinforcing effects between various language status indicators. They have been omitted not because we consider them to be unimportant, but because their inclusion would not alter the gradient of the cause-and-effect relationships featured in the framework.

other. Hard evidence is by and large insufficient to mandate the use of one or another set of functional forms, and the functions chosen should be seen as logically and intuitively satisfactory options, not as definitive ones. Only the progressive accumulation of evidence can ultimately validate our choices.

(iv) Our model only indirectly considers the problem of possible, or even necessary complementarities between language policy measures. One has been pointed out at the outset, namely that no language promotion measures *other* than acquisition planning make much sense (if the overarching goal is increased language *use*) unless there are people able to speak the language. It may well be the case, however, that other complementarities exist. For example, direct promotion affecting attitudes may be pointless without skills development, and skills development may be useless if visibility and availability measures are not taken at the same time. Formally modelling these linkages would make for a much more complicated analytical structure. Besides, this problem remains, to a large extent, an empirical question, which will be informed by the observation of other language policies in Part II. Given the predictable paucity of hard empirical evidence, circumstantial evidence and common sense will have to guide us when addressing the problem of complementarity.

(v) The policy context has also influenced the modelling exercise, and led to the exclusion of some variables and relationships. The issue there is distinct from that of the degree of detail (because the analytical choice was made *within* the chosen degree of detail) as well as from the selection process discussed in the preceding paragraph. Some of the variables or relationships omitted can be expected to make an analytical difference, contrary to some mutually reinforcing effects between various aspects of language status. The main example is the *price of language-specific goods* used in minority language activities. The reason for their exclusion is mainly that in the current New Zealand policy context, the scope for manipulating such prices through subsidies appears to be limited (see Section 1.1), with the exception of goods and services who have a more or less pronounced public good and/or cultural good nature. The latter are considered relevant language policy instruments in New Zealand, and their role has been analysed in terms of supply-side factors affecting the language constraints. Even though they could be interpreted as cases of subsidisation of language-specific goods, we consider their visibility and availability aspects to be more important. Nevertheless, extending the model to study the effect of such policy measures remains possible.

(vi) Our approach is mostly a mid-term one. The range of policies considered is accordingly limited. This must be seen in relation with two separate questions. First, the longer the time horizon considered, the more hazardous analysis and recommendations tend to be, beyond general statements that may be intellectually compelling, but of limited practical usefulness. There again, the problem is one of trade-off. The priority that has guided the elaboration of this framework has been to aim at a degree of generality high enough to encompass a broad range of issues, yet also specific enough allow the operational analysis of precise policy measures. As indicated earlier, we believe the model to be robust enough to accommodate a significantly larger set of policy interventions. Second, the mid-term approach is compatible with an evolutive perspective on language planning. Prevailing policy objectives and constraints will be altered by the outcomes of the initial round of policy measures. A broader range of policy measures will then become relevant, and deserve closer scrutiny. These extensions are left to future work, in stride with the developments of Maori language policy.

(vii) Finally, the cost of policies have mostly remained in the background. The reason is that cost only makes sense in relation with the outputs of policy, and clarifying the latter issue is analytically much more important. Once we are in command of a framework for the study of outputs, we can assess the relative effectiveness of policy measures. It is then a separate problem to estimate the cost of such policies. Abstracting from the *interplay* of policy measures (which *may* require some particular policies to be adopted jointly), it becomes possible to rank-order proposed policy measures by decreasing effectiveness/cost ratio. Once measures are fully described, the costing of measures is very much an accounting problem, best handled by the agencies who would be in charge of implementing them (for example, in the case of New Zealand, Te Mangai Paho is best placed to provide estimates of the cost of a full-time Maori-language television network). Foreign evidence can be informative if the *ex post* observed costs of particular language policy measures are significantly higher or lower than *ex ante* estimations of similar measures considered in New Zealand, thereby justifying a verification of the costing method used.

5.3 Priorities and choices for empirical investigation

Part I of our report is primarily intended as a reference document to structure thinking about minority language promotion. Part II studies elements of policy experience in other minority language contexts, with

particular attention to those cases that have *a priori* relevance for the development of Maori language policy. The ground covered so far suggests the following priorities:

(i) identifying real-world cases of *selected language policy* measures that belong to the list presented in Section 4.2;
(ii) gathering detailed information about the precise *contents* of these policy measures, and checking their convergence with the families of policy measures featured in box 1 and their links with box 2 in Fig. 1.3;
(iii) gathering evidence about *patterns of language use*, particularly quantitative indicators thereof, in order to establish correspondence with variables appearing in boxes 3 and 4 of Fig. 1.3;
(iv) examining the *possible causal links* between the selected policy interventions and the evolution of these indicators, in accordance with the general causal structure;
(v) discussing the *possible complementarities* between policies in relation with their effectiveness;
(vi) obtaining, where possible, information about *expenditure* on these policy measures.

Experience shows that although information is plentiful, little of it lends itself to a ready interpretation in terms of relative effectiveness, and that most of the evidence available is of a circumstantial nature. This is particularly true of data on expenditure. These limitations reinforce the importance of the analytical framework, as a reference point for generating assumptions that will be necessary to bridge informational gaps.

This raises the question of the minority language cases where elements of policy experience will be studied.

At this time, the minority languages that have been the object of the largest body of work (sometimes integrative) are *Western European minority languages*, particularly languages spoken in the member countries of the European Union. Given our report's emphasis on policy analysis, we have therefore decided to examine selected elements of policy experience in the European context. Nelde *et al.* (1996) have studied the macro-sociolinguistic situation of 48 language communities. The actual number of *languages*, of course, is smaller than the number of *communities*, because a distinction is made between, say, Basque in France and Basque in Spain, owing to significant differences in the respective social and political contexts.

Nelde *et al*. combine seven variables which we consider to be fairly standard macro-sociolinguistic constructs describing status aspects. Language revitalisation policies, however, are not central in their analysis and are closely correlated with only one of their variables, namely the "institutionalisation of language use". Combining scores on these seven status variables, Nelde *et al.* construct a rank-ordering of language communities, according to their more or less successful degree of *production* and *reproduction*. Clearly, the higher a community's degree of success, the closer it is to enjoying a *self-priming mechanism* for its reproduction. The analysis results in a grouping of language communities in five clusters.

The first (or top) cluster includes very four successful communities, such as the 290,000 speakers of German in Northeastern Italy, or the 4 million speakers of Catalan *in Spain*—this latter figure does *not* include the 1.9 million of speakers of very closely related Valenciano, or speakers of Catalan in the Balearic Islands, Aragon, France and Sardinia; these communities are to be found in clusters 2, 3 and 4). Communities in cluster 1 are in a much more favourable position than Maori, and we doubt that they would represent relevant cases.

At the other extreme, language communities in the fifth, or bottom, cluster are in a perilous situation; typically, these communities (including the 75,000 speakers of Slavo-Macedonian in Greece, or the 11,000 speakers of North and East Frisian in Germany) enjoy little or no promotional policy; hence, there would be no policy experience to draw on.

Consequently, our choice of language communities must be made among the three central clusters. If we also exclude those minority languages that are a majority language in another nation-state, as well as some that are in close linguistic relation with the locally dominant language (such as Frisian with respect to Dutch), we end up with the following list of languages, by decreasing order in the aggregate scale: Basque (in the Comunidad Autonoma Vasca [CAV]), Ladin, Occitan (in Spain), Welsh, Irish, Scottish Gaelic, Friulan, Sorbian, Basque (in Navarra), Basque (in France), Occitan (in Italy), Occitan (in France) and Breton.

Out of these, some language communities such as speakers of Corsican enjoy very little support, and have correspondingly little promotional policy experience to vouch for; others, like the Sorbs, reflect extremely specific historical circumstances—in their case, location in Eastern Germany until German reunification; some, like Occitan, live in different nation states, with considerable differences in social and political context

(one shared commonality in this case, however, being the lack of revitalisation policies); yet others, such as speakers of Ladin, all live in the same nation-state, but straddle provincial boundaries, which results in marked differences in treatment. We also found it advisable to take account of the dominant language against which these minority communities are competing; given that English plays this role in the case of Maori, at least one of the policy contexts considered in our study should exhibit the same feature. Finally, other aspects that are important in the current New Zealand language policy situation, such as the strategic role of television, also had to be taken into consideration. Hence, the list very naturally narrows down to three well-known language communities with a relatively extensive body of documented policy experience: the Welsh, the Irish, and the Basque in the CAV. The policies examined in Part II of this report therefore draw on the experience of these three language communities.

The numbers of their speakers are admittedly higher than in the case of Maori, with 508,000, 1,095,000 and 544,000 speakers respectively). These figures, however, are on the optimistic side (particularly for Irish) and are not out of line with the potential number of speakers of Maori, as indicated by the size of the Maori-identified population in New Zealand. Besides, and notwithstanding the lack of detailed and *integrative* information sources on language policy (particularly revitalisation measures) in each of these cases, the sheer amount of existing material (even if it proves only indirectly germane to the concerns of this report), suggests that the Welsh, Irish and Basque cases can be of assistance in the evaluation of policy options for Maori in New Zealand.

PART II
POLICY EXPERIENCE

6. Introduction to Part II

6.1 Quick reminders

In part I of this report, we have developed an analytical framework connecting various aspects of the language revitalisation problem. Its main points are briefly recalled below.

- The framework proposes a combination of issues that are, most of the time, addressed separately in the literature. It draws mainly on the *economic approach to language and language policy*, but is directly connected with more standard sociolinguistic perspectives; the conceptual and methodological background has been presented in Chapters 2 and 3.

- The framework establishes *causal relationships* between (i) language policy and planning, (ii) the sociolinguistic context, (iii) a model of language use by bilinguals and (iv) aggregate language use outcomes, which are likely to have a subsequent feedback effect on the "policy" and "context" levels. The causal structure of the framework, developed in Chapter 4, is summarised in Fig 1.8.

- The families of policy interventions considered include *provision of minority language goods and services*, *education planning* and *direct minority language promotion*. They can be broken down into more specific policy measures detailed in Section 4.2. We have seen in Section 5.1 that under fairly general assumptions, it is possible to provide logical proof that various policy interventions can be expected to yield desired language use outcomes.

- Just like any analytical instrument, no matter what discipline inspires it, our framework has *limitations*, which formal modelling helps to recognise; they are discussed in Section 5.2. Our deliberate choice has been to prioritise logical *consistency*, even if this implied omitting some dimensions of the language revitalisation problem; every attempt has been made, however, to justify the methodological choices and to show that priority has been given to what are arguably some of the most fundamental aspects of the problem, namely, its policy analysis dimensions.

Part II of the report is devoted to an overview of some policy experience that can be of help in selecting appropriate measures for the revitalisation of Maori in New Zealand. This raises the question of the relevance of such experience to the situation of Maori; this question, which is taken up again in the following chapter, was first approached in Section 5.4, where we explain our reasons for choosing Basque (Euskera), Irish (Gaeilge) and Welsh (Cymraeg) as the settings where, given the time constraints under which this report had to be drafted, experience with specific policy measures will be examined.

6.2 Objectives and limitations of Part II

Part II of this report is devoted to the analysis of selected policies. Its chief aim is to derive relevant information about the *effectiveness* of measures that could be adopted for the revitalisation of Maori in New Zealand. Owing to the limited time available to carry out the entire project, a general overview of the effectiveness of promotional policies in favour of a wide range of minority languages across the world had to be ruled out from the outset. More precisely, the obstacles were the following:

- First, the sheer amount of literature (scientific or not) on minority languages, including more or less focused or extensive considerations on actual policies, is staggering; analysing and reporting on this literature, even in a strictly descriptive perspective, would have far exceeded the resources at our disposal.
- Second, policy evaluation remains an underdeveloped side of language planning, and we are not aware of any detailed comparative work in this area. A considerable amount of literature certainly exists, particularly in the case of minority language education, offering detailed analyses of the organisation and performance of teaching activities. However, such exercises are mostly confined to issues of "internal efficiency", and fall short of actual policy analysis. The latter requires an "external efficiency" perspective (on this distinction, see Section 10.2), which implies answering the question of why any resources at all should be devoted to a particular set of policies, and studying the effects of these policies outside the particular sphere—for example, the education system—where they are implemented.
- Third, little of this literature provides the elements from which an evaluation of policy *effectiveness* (let alone *efficiency*) could be derived: hard data are very few, and even language planning bodies with high-level expertise and a solid experience in research, implementation and evaluation, such as Euskadi's Deputy Ministry for Language Policy (*Hizkuntza Politikarako Sailordetza*), do not necessarily have or publish

quantitative data that could lend themselves to a full-fledged investigation of the effectiveness of their policies. We have found no example of an evaluation connecting a particular policy on the one hand, and an indicator of the amount of time during which bilinguals use their minority language, let alone its unit cost, on the other hand. In other words, much of the readily available information is of a qualitative nature, and may at best constitute circumstantial quantitative evidence.[18] Generally, the task is a difficult one. Even in the case of Quebec, which is the one most extensively studied by economists, it has been impossible to demonstrate an indisputable link language policies and the use of French in the workplace, whose main statistical determinants are the ownership of firms and the markets (in Quebec/outside Quebec) served. Indeed, it is only in the case of the language of schooling that one can show clearly the impact of language policies, with the share of immigrant children attending French school increasing from 25% to 75% in the 1970-1995 period as the access to English language school—with the exception of private establishments—was made illegal.

- Fourth, even if the perfect data set were available, caution would be required when using it in a statistical evaluation of policy effectiveness, because little is known about the exact *cause-and-effect* relationships between specific policy interventions and language use outcomes. When such relationships are discussed in the sociolinguistic literature, it is often the case that little attention is paid to the logical conditions under which desired outcomes can be expected, or actually obtain; as a consequence, no systematic empirical testing of policy models is possible, precisely because of the absence of models in testable form. The formal model developed in chapter 4 is intended as a step towards filling this gap, at least for the purposes of this study. However, we have insisted that its main function is to offer a point of reference, in that it helps think about the links between policy and outcomes, but that it is not to be taken as an exact representation of real-world links.
- Fifth, not all types of quantitative information would lend themselves to a quantitative analysis of efficiency. Suppose that for some 50 minority language policy contexts, we had reliable and comparable data the

[18] With respect to the problem of the adequacy of data in minority language research, it is useful to quote the recent *Euromosaic* report: "Language surveys are not new in the study of minority language groups, and some of them are of a very high quality. However, it is surprising how few of them have been constructed by reference to the rigour of an explicit theoretical perspective as is customary in survey research. Rather, they have often consisted of little more than a check list of language use contexts sprinkled with questions concerning attitudes which are not theoretically contextualised. In this respect the investigators appear either to be working intuitively, or to be deploying some form of inductive method." (Nelde, Strubell and Williams, 1996).

following variables: the percentage of speakers *m*, the percentage *t* of their time that they spend on minority-language activities, the number *d* of domains in which the language can be used, and an indicator *r* of the relative attractiveness of minority-language relative and majority-language activities; suppose in addition that information were available about per capita spending *s* on language policy, broken down by type of measure, for *n* different types of intervention. Even in such an ideal situation, 50 observations would be too low a number to allow anything but the most basic statistical treatment; in particular, this would rule out any econometric estimation of the relative effectiveness (in terms of language use) of the various policy interventions (as opposed, presumably, to "laisser-faire"). What would be required is individual data, making it possible to regress individual patterns of language use on a variety of independent variables, including individual control variables, macro-level sociolinguistic context and policy indicators.

- Sixth, even extensive individual *cross-sectional* data, as described in the preceding paragraph, would only provide indirect evidence on the relative effectiveness of particular policies, because the exercise would rely on a comparison of patterns of language use in *different* communities, each of them characterised by the set of policies in force where they live. A preferable option would be to have individual panel data covering subsequent years, in the same way as censuses taken on a regular basis.

In short, there was no obvious or easy approach to an effectiveness evaluation exercise, there was no conceivable way to collect the necessary data, and an extensive piecing together of heterogeneous data scattered in a plethoric literature was impracticable. As a result, we have chosen a strategy whose goal is not to maximise the number of cases about which unprocessed information could be presented, but to focus on a limited number of useful inferences that can be derived from a selected body of information. More precisely, we have proceeded as follows:

In Part I, *three types* of policy have been identified as meeting the following requirements

- they were shown to yield, in theory, the type of outcomes desired;
- there are some instances of corresponding policies in specific minority language contexts, which are sufficiently well-known for *some* informational elements to be available;
- they appeared to represent relevant policy options in the New Zealand case.

Yet, one of our families of policy interventions, namely, the "provision of minority language goods and services", contains a wide range of measures with distinct implications, suggesting that it was advisable not to lump together what appeared to be different forms of practical policy intervention, even if the *way* in which they are expected to affect outcomes is similar. Hence, we have chosen to investigate not three, but four different policies, illustrating each of them with one actual policy experiment.

When selecting the latter, one important criterion has been the apparent success of the policies pursued. One of the main objectives of this study is to show what *can be done* to revitalise a minority language; the policy interventions chosen here provide examples, and we have attempted to ascertain the conditions that have made these policies successful. The policy cases selected are *Welsh-English bilingual signs* in Wales, *Welsh-language television broadcasting* (Sianel Pedwar Cymru), *educational planning* in Euskadi, and *direct language promotion* in the city of Galway (Ireland).

Obviously, a symmetrical strategy could have been adopted, that is, we could have studied examples of failure, in order to find out the reasons for such unhappy outcomes, and to identify pitfalls rather than assets in revitalisation processes. However, information about the reasons for the failure of some policies is likely to be even more difficult to obtain; besides, our goal is first and foremost to see what is possible, not what appears to be impossible.

Part II is therefore divided as follows. In Chapter 7, we discuss methodological options. Chapters 8 and 9 are devoted to the Welsh experience in bilingual signs and television broadcasting respectively. Chapter 10 presents the Basque experience in minority language education, and Chapter 11 is devoted to the Irish case. Chapter 12 contains a general discussion on the conditions that have made these policies effective.

7. Method

7.1 Type of information

Each of the following case studies comprises the following eight steps.

They start out in **step one** with some basic information about the case considered, in order to provide the essential demolinguistic, geolinguistic and historical background. We wish to stress that these brief introductory elements are *in no way* intended as a full-fledged account, sociolinguistic or otherwise, of these language contexts; they should, however, provide the general reader with a few essential data.

In **step two**, we briefly position the policy to be studied with respect to the analytical framework developed in Part I.

In **step three**, the case studies move on to a brief account of the emergence of the policies considered, with key dates on the initiation of the policy and the implementation of its major steps, including possible reorientations.

In **step four**, we identify the agency (or agencies) responsible for the selection, design and implementation of the policy. These agencies are usually part of governmental political and administrative structures, but as regards the delivery of the products that are instrumental in the implementation of some policies (for example, the production of television programmes), private companies also have an important role to play. The participation of the private sector is important in direct promotion policies, which seek to persuade users (including businesses) to use the minority language more often.

Step five focuses on a description of the actual policy measures and their implementation, where public and private sector agents sometimes both intervene.

Step six presents information about total expenditure on the policy considered. For each of them, we also compute an estimate of unit cost per person-hour of language use. To our knowledge, this type of information is nowhere provided in the language planning literature. These estimates must be understood as orders of magnitude, and their chief usefulness is to

provide a common unit of measurement to assess the respective cost-effectiveness of different policies, in terms of the latter's ultimate target, that is, minority language use.

In **step seven**, we discuss the outcomes of each policy, in terms of indicators such as the prevalence of bilingual signs or the percentage of school-age children enrolled in schools where the minority language plays an important or even dominant role, the ratings of minority-language TV programmes, or indicators of the public's attitudes towards the use and/or visibility of the language. Of course, as pointed out in the preceding chapter, limited knowledge of the exact cause-and-effect relationships between policies and outcomes and lack of precise or relevant data, makes it risky to interpret patterns of language use, or changes in the latter over time, as the direct *outcomes* of policy measures; rather, the interpretation is that observed patterns are likely to have been aided by policy measures.

In **step eight**, we propose an overall judgement of the policy in question, focusing on the conditions that appear to have made it a more or less successful one.

7.2 Data sources

As a general rule, the data that would have been necessary for a statistically sophisticated assessment of the effectiveness of different language policy measures simply do not exist. For the most part, since time and money limitations ruled out from the start any *ad hoc* gathering of data, this study makes use of secondary sources, most of them books, papers and reports from the data base that the authors have been accumulating over recent years. In addition, we have ordered some recent reports and documents from various language planning authorities.

The various types of secondary sources used here therefore include:

- publications, reports and web pages of language planning authorities;
- publications, reports and web pages of public, semi-public or private bodies in charge of providing the goods or services instrumental in a given policy;
- publications, reports and web pages from international organisations or non-governmental organisations active in the field of minority language promotion;
- publications, reports and web pages from research bodies specialising in the study of minority language use and teaching;
- books and articles from scientific journals.

In addition, we have consulted with other researchers, experts and well-informed professionals, including actors in the language policy field in each of the three language communities considered.

The agencies and official bodies whose materials were used in this study are:

- The European Bureau of Lesser Used Languages, Dublin & Brussels;
- Office des publications officielles des Communautés Européennes, Luxembourg;
- The Council of Europe, Strasbourg;
- Bwrdd yr Iaith Gymraeg / Welsh Language Office, Cardiff;
- The Welsh Office / Y Swyddfa Gymreig, Cardiff;
- The Mercator Media Project, Aberystwyth;
- Menter a Busnes, Aberystwyth;
- The Mercator Education Project, Ljouwert / Leeuwarden;
- Bord na Gaeilge / Irish Language Board, Dublin;
- Comhdháil Náisiúnta na Gaeilge, Dublin;
- An tÚdarás na Gaeltachta / Gaeltacht Authority, Na Forbacha;
- Hizkuntza Politikarako Sailordetza / Deputy Ministry for Language Policy, Vitoria/Gasteiz;
- Hezkuntza, Unibersitate eta Ikerketa Saila / Department of Education, Universities and Research, Vitoria/Gasteiz;
- Direcció General de Política Lingüística, Barcelona.

Some of these agencies, such as the Welsh Language Office, also publish documents drawn up by other bodies, such as progress reports from different Welsh counties on the development and implementation of language planning schemes that fall within their purview.

7.3 On relevance versus resemblance

Although this study aims at providing analytical tools and information that can be of assistance in the selection and design of policies in favour of the Maori language, it is not a report *about* Maori, but a report whose aim is to assist in the drafting, *at a later stage*, of a revitalisation policy for Maori. This point, which applies to our approach as a whole and to Part II in particular, has been emphatically stressed in the opening Section of Part I, and bears repeating here, before we start examining selected cases of policy experience.

In Sections 5.3 and 6.2, we have presented our reasons for looking at policies adopted in the case of Basque, Irish and Welsh. Each of these cases is markedly different from the others, and probably even more so from Maori. This is a deliberate choice based on the following considerations.

The *positive* reasons for choosing to study policy experience from these three minority language cases are the following - in no particular order save the last one: (i) the demolinguistic orders of magnitude are comparable to that of Maori; (ii) they exhibit some important geolinguistic traits in common– particularly the absence of some other independent country where the minority language actually is a dominant or majority language–; (iii) they are neither in a highly secure nor in a particularly dire position, hence eschewing comparison with extreme cases that would have limited relevance to Maori; (iv) the associated majority language, that is, English, is the same as in the case of Maori for both Irish and Welsh, information is available; (v) these cases provide examples of *successful* policies; and, most importantly, (vi) some information on the policy experience is available.

There are also fairly compelling *negative* reasons for *not* choosing other cases: in Section 5.3, we have seen that many other European minority language communities: for example, the German-speaking minority in Eastern Belgium, whose immediate neighbour is Germany, hardly faces the same predicament that Maori does; but, at the other end of the scale, neither do the Pomaks of Greece. However, what about other minority language communities?

Prima facie, one likely group of candidates is made up of Native American languages in the United States and Canada, whose long-term survival is also threatened by the spread of English. However, most members of these language groups, as well as those who are ethnically identified with them without necessarily speaking the language, live in isolated and scattered communities, and are significantly further down on the GIDS (Graded intergenerational disruption scale; see Section 2.2) than Maori is. There is very little language policy experience to speak of, numbers of speakers are very small, the legal status of the languages in question is typically very low, and there is virtually no formal recognition by or connection with a Nation-state—nothing, at least, comparable to the situation Maori occupies as a result of its elevation to the rank of an official language.

As regards Polynesian languages such as Tongan, Tahitian or Hawai'ian, which could also have been viewed as "natural" points of comparison, two major negative factors were the objective lack of well-developed *language* policies (as opposed to nationality- or ethnicity-based regulations with possible linguistic implications), as well as the difficulty of retrieving data.[19]

[19] This difficulty would obviously have been compounded by distance, since the the authors of this report were working from Europe and North America. Finally, our lesser familiarity with the case of Pacific languages would have detracted from our ability to locate the most relevant information on those situations.

However, we wish to question at a more fundamental level the apparently sound assumption that Polynesian languages, or the broader range of Pacific islands languages, would necessarily provide a "natural" or useful point of comparison for Maori language policies. Quite apart from the relative underdevelopment of policy experience in those cases, such a view appears to rely on two more or less conscious assumptions. One of them is addressed in next section. The other one is that *geographical* proximity (despite the large physical distances between the languages in question), *or linguistic resemblance*, *or* possibly some degree of *commonality of cultural values*, somehow make for *relevance*.

If the goal of this study had been a sociolinguistic analysis of patterns of language attrition and shift, or of the culturally-determined attitudes of Maori-identified residents towards their language, the assumption would certainly have been a valid one; in a policy analysis context, however, we fail to see any compelling reason why this should be so. This should be clear if the issue of the differential scales of analysis is borne in mind (see Section 2.4). This reports poses the language policy problem at a fairly high level of generality, where selected (but hopefully essential) features are, in Pool's (1991a) words "abnormally vivid", but where specificities are deliberately omitted. While valid if the analysis is carried out at a (mostly local) scale, some detail is of secondary importance when the scale of the analysis is a more general one. In other words, detail is not always *analytically* relevant.

It follows that *relevance* and *resemblance* are not synonyms, particularly if resemblance manifests itself with respect to traits that are not of primary importance in the perspective of language policies. Only at a later stage, when the implementation of language revitalisation programmes requires detailed inquiry into the Maori values complex (for example, in order to calibrate appropriately direct promotional messages), does reference to linguistically or culturally close communities become useful; even then, however, we believe that what is required then is an in-depth understanding of specifically *Maori* history and culture, and that the examination of the language policy experience of other Pacific islands language communities, though interesting, would not constitute a priority.

7.4 On "minorities" and "peoples"

The belief that the perspectives for Maori revitalisation policies should primarily be assessed on the basis of a comparison with the experience of Pacific islands languages *rather than* with the more targeted minority language policies of Western Europe may be connected with the fact that

minority issues are typically addressed from four rather different, if not completely separate perspectives, each of which is associated with its respective set of scientific concepts and references, international legal instruments, and, of course, policy priorities. An in-depth characterisation of these four perspectives, which can be also viewed as distinct *frames of reference*, would require rather involved analytical work, which it is not possible to undertake here, and which would exceed the authors' competence. It can be useful, however, to contrast them briefly; we beg the reader's forbearance for what can only be a highly summarised, somewhat rough-and-tumble look at complex issues.

The four perspectives in question can be described with keywords, which will be used here as shorthand. These are (1) *language minorities* or *minority languages*; (2) *national minorities*; (3) *indigenous* or *autochthonous peoples*; (4) *migrant communities.*

Our work derives principally from the first of these four perspectives, and stresses *manifestations of identity*, first and foremost languages. This perspective is well-represented in research in sociolinguistics, psycholinguistics, political science and, to a lesser extent, economics; other elements of minority experience, such as "race" (a term used here in quotation marks if only because of its definitional ambiguity) are treated as secondary in this perspective. We consider the other perspectives, particularly the second and the third, to be more *essentialist*, because they set relatively greater store by the notions of ethnicity and identity, and presuppose an *a priori* distinction between groups, which generally happen to belong to a majority or a minority; work within these two frames of reference is well-represented in anthropology, ethnography, international relations, law and history. The fourth perspective is a more recent one, and has been gaining recognition as a result of the increase in international migration flows; major contributing disciplines are sociology, economics, and some specialisations in the educational sciences, particularly "intercultural education".

Of course, these four perspectives are connected, as evidenced by recent work that builds bridges between them (see e.g. Skutnabb-Kangas and Phillipson, 1994). However, we consider such linkages to be only at their initial stages. The fact that our work proceeds from the first of these four frames of reference further explains our choice of Basque, Irish and Welsh, rather than Tongan or Tahitian, as the locus of relevant policy experience for Maori. This in no way implies that we consider any of these perspectives to be intrinsically superior to another. However, choosing one over others has direct implications for the analysis and for the resulting policy recommendations.

We cannot help notice that the approach to Maori issues appears to have been strongly influenced by the "indigenous peoples" approach. The latter has been primarily directed at smaller communities living outside Europe (with the exception of the Sámi people in northern Finland, Sweden Norway, and Russia). These peoples share a history of domination by erstwhile colonial powers and settlers. This is probably one of the reasons why it has become usual to think about the Catalan or Frisian communities as "linguistic minorities", not "indigenous peoples", while the reverse is true of the Mapuche in Chile or of Torres Straits Islanders. By way of consequence, there may be an automatic expectation that Maori, to the extent that they are identified with an "indigenous people" rather than with a "linguistic minority", should be compared with other "indigenous peoples". It is not obvious, however, that this categorisation, as well as the breaking down of approaches to what remains, at least in structural terms, a *minority* experience, is analytically helpful (particularly in the context of language policy analysis); besides, we are not convinced that some of its logical implications are ethically unproblematic.

An approach based on the concept of linguistic minority could be questioned on the grounds that such a characterisation obliterates the fact that many of the communities concerned are *peoples*, and that this aspect structurally precedes the *historical* conjunction wherein they happen to find themselves in a minority position. This objection is well-taken, and nothing in this report must be interpreted as negating the recognition and identification of Maori as a people. Our point, however, is a different one: drawing upon the experience of communities that are primarily identified (and often self-identified) as *minorities* makes it possible to take advantage of language policy experience accumulated in these contexts. It must also be pointed out that large segments of the Welsh and Basque population, quite apart from their personal patterns of language competence and use, view their communities as *nations* (with political parties like the Plaid Cymru and Herri Batasuna explicitly putting the notion forward), a notion which is much closer to that of *people*. In the case of Ireland (where the existence of a nation-state and the identification with the notions of nation and people are associated with an overwhelming recognition of the relevance of language as a marker of identity), directly explains why a minority-based approach is appropriate.

8. Language visibility: road and traffic signs in Wales

8.1 Background on the Welsh language[20]

Welsh (Cymraeg) is a Celtic language of the Brythonic branch, closely related to Breton (Brezhoneg), and more distantly to the Celtic languages from the Goidelic branch, that is, Irish (Gaeilge) and Scottish Gaelic (Gàidhlig). The Celtic languages, which form a branch of the vast Indo-European family, include the now extinct Cornish and Manx, which are currently the object of revival efforts (Walter, 1994), were the dominant languages of Western Europe from the 5th century B.C. to the 5th century A.D. approximately (Katzner, 1975). Speakers themselves often disagree about the extent to which, with some effort, Welsh and Breton are mutually understandable, but Welsh is not readily understandable from English, the locally dominant language.

The Acts of Union passed in 1535 and 1542 incorporated Wales into England, and made English the only language of the courts in Wales, and banned all use of Welsh from public office. The local elite progressively shifted to English, and any association with the Welsh language came to be regarded as a social and economic hindrance. It is no surprise that under such circumstances, the position of Welsh relative to English declined steadily. English became the sole language of schools and any use of Welsh was actively discouraged by teachers and parents themselves; county councils were forbidden to keep minutes in Welsh. The social and economic changes brought on by the industrial revolution, the development of mining and industry in the southern valleys and in the North East attracted Welsh speakers from more remote areas as well as English-speaking immigrants, but English was unavoidably the language of communication, putting the entire burden of language adaptation on the Welsh themselves.

The first population census in Wales was taken in 1801, but although some language information was collected in small-scale surveys in the second half of the 19th century, it was not until 1891 that a language question was included in an official census. Comparability between successive census questions is not perfect (Pryce and Williams, 1988), but the decennial censuses taken since then (except in 1941, when it did not take place) report a pattern of continuing attrition of Welsh, with the decline of the language spreading westwards from the border area, and outwards from

[20] The information in this section is in large part based on the recent survey by Elis-Thomas (1997) and on the Welsh Language Board's *Strategy for the Welsh Language* (Bwrdd yr Iaith Gymraeg, 1995).

Pembrokeshire, where English immigrants had settled at an early stage. This decline was particularly manifest in *relative* terms, that is, on the basis of the percentage of the resident population able to speak Welsh; up until the turn of the 20th century, the *absolute number* of speakers increased to 977,000 in 1911, but decreased sharply in the 1911-1981 period. This decrease reflects massive outmigration, including from the Welsh strongholds of Dyfed and Gwynedd, in the wake of the Great Depression.

The survival of Welsh to the present day despite these hostile circumstances has been credited in large part to the use of the language in religious practices, which was relayed by a broader cultural struggle, including Welsh debating societies, literary production, and the *eisteddfodau*, the yearly culture and music festivals revived in the 19th century. Some timid policy measures alleviating the pressure on Welsh were taken in the middle of the 20th century; use of the language in the courts was allowed in 1942; Welsh-medium education was authorised in 1944; the BBC started a Welsh service in 1937 and introduced some Welsh-language radio programming.

The first major positive change in the legal status of Welsh took place with the passing of the Welsh Language Act in 1967, but the improvements it offered were still rather modest, being essentially confined to making the use of Welsh in the courts a legal right. In 1988, however, the Welsh Language Board (*Bwrdd yr Iaith Gymraeg*) was established in order to provide advice on language matters to the British Secretary of State for Wales. Apart from undertaking a variety of promotional measures in favour of Welsh, notably a system of grants used to promote the language, the Board issued a series of *Recommendations for a New Welsh Language Act* (Bwrdd yr Iaith Gymraeg, 1991). A New Act was passed and came into force in December 1993.

The 1993 Welsh Language Act provides that Welsh and English are to be treated equally in the conduct of public business, confirms the establishment of the Language Board as a statutory body, but stopped short of policy measures taken in other cases, such as Quebec's 1977 *Charter of the French Language*, which remains to this day, despite recent simplifications, one of the most extensive examples of legislation on language status. The Act is less extensive than the draft bill submitted by the Board, and, for example, employers are not allowed to specify positions as requiring the ability to speak Welsh.

Nevertheless, the 1993 Act reflects positive changes of considerable import for the position of Welsh. Welsh is now part of the National Curriculum for every child in Wales, and some secondary education streams do not require students to demonstrate competence in English. In 1991/92, 26.1% of primary schools in Wales were defined as "Welsh-speaking schools", and a further 7.2% used Welsh as a medium for part of the curriculum. At the secondary level, 15.9% of the school-going population attended schools that taught

anywhere from 5 to 16 subjects through the medium of Welsh; however, at the end of the same cycle, only 4.5% of students passed their *General certificates* in Welsh (Packer and Campbell, n.d.). County and local authorities have set up *Welsh language schemes* in order to be able to serve the public in Welsh. Private initiatives encourage the use of Welsh in business and commerce. Welsh television (*Sianel Pedwar Cymru*, usually simply known as S4C) has been described as a "classic example of what can be achieved" for a minority language in the media sphere.

According to the 1991 Census, 508,098 (18.7%) of the Welsh population (aged 3 years or older) declared to be able to speak Welsh. Although this represents a small drop in the *absolute* number of speakers since the 1981 Census, the percentage of speakers in the younger cohorts has markedly increased, as shown by Table 2.1 below:

TABLE 2.1
PERCENTAGE OF PEOPLE ABLE TO SPEAK WELSH, YOUNGER COHORTS
FIGURES IN THOUSANDS, PERCENTAGES IN PARENTHESES

AGE GROUP	CENSUS YEAR		
	1971	1981	1991
5-9	32.6 (14.5)	33.6 (17.8)	44.6 (24.7)
10-14	35.2 (17.0)	41.9 (18.5)	47.1 (26.9)

Source: Bwrdd yr Iaith Gymraeg, 1995.

Attitudinal figures are encouraging too, as evidenced by the results of a 1995 opinion poll that reported that 88% of the population felt pride in the Welsh language, 83% considered that public bodies should be able to operate bilingually, and 68% of *non*-Welsh speakers agreed with the goal to "enable the language to become self-sustaining and secure as a medium of communication in Wales".

Despite these positive figures, there is also cause for concern, since the prevalence of Welsh in its traditional strongholds of Gwynedd and Ceredigion/Cardiganshire[21] is waning, and Welsh remains associated with traditional contexts much more than English does.[22]

[21] Ceredigion (Cardiganshire) is the most Welsh part of the former County of Dyfed; county boundaries were redrawn in 1996.

[22] There is a clear geolinguistic pattern in Wales, with some areas (roughly, the eastern slice of Wales along the English border, including densely populated Gwent/Monmouthshire, the Glamorgan region around Cardiff, and Pembroke), are deeply anglicised, while Gwynedd, Ceredigion, small pockets of Powys, and the hinterland of Caerfyrddin/Carmarthen have higher percentages of Welsh-speakers.

8.2 Bilingual signs as language policy

Bilingual signs belongs to a broader area of intervention, which could be called the "visibility of the language". The relevance of language visibility as an analytical category in language policy is well established, and constitutes one of the keystones of well-known language planning cases, such as Quebec's *Charter of the French* Language.

Language visibility can be enhanced by all manners of public signs put up by the authorities or agencies acting on their behalf, notably road and traffic signs, street names, designation of official buildings, information, and safety recommendations for government services visible in the public domain. Generally, language visibility takes the form of *bilingual signs*, although some language legislation, such as Quebec's, specifically exclude languages other than the official language (in this case, French) from certain public signs.

Bilingual road or traffic signs generally fall into three categories, namely (i) regulatory, (ii) warning and (iii) informatory signs. They are but one expression of language visibility in the official sphere, and the latter represents one form among many of the provision of minority-language services. However, it is worth examining for three reasons: first, it can be a powerful tool of language religitimisation; second, it is a conceptually and technically simple measure; third, it is relatively inexpensive, if bilingualisation of signs takes place as normal wear and tear require it. Of course, its effect on language use is indirect, but in an evolutive approach to language policy, it helps prepare the ground for additional measures taken at a later stage.

In terms of the analytical framework developed in Part I, the provision of such services in the minority language will have a positive effect on the *supply-side factors of the linguistic environment.* This, in turn, reduces the *language-related constraints* which, along with the financial and time constraints, impact on people's allocation of time between majority and minority language activities. We have seen that, all other things being equal, the lifting of such constraints should have a positive effect on minority language use, whether measured in time units or in "activity units".

The rationale is the following: by making more accessible those ingredients that are part and parcel of conducting activities in the minority language, the policy reduces the latter's *relative* price. Optimal practice of these activities is therefore likely to increase. This result, however, obtains under the condition that the practice of activities are sufficiently strongly

responsive to price changes.[23] The reader is referred to Fig. 1.8 in Chapter 4 (or to the appendix, for the algebraically-minded) for a more detailed description of the relationships between these variables, including the proof that more favourable supply-side conditions result in an increase in the practice of minority language activities.

Characterising "reading bilinguals signs" or "reading the Welsh version of bilingual signs" as an "activity" in the sense of the formal model is admittedly a moot point. However, we suggest looking at the possibility to read bilingual signs in two distinct perspectives. In the first one, we view bilingual signs as one (possibly secondary) component in the practice of complex activities such as "road travel" or (if other forms of public display are taken into account, such as the designation of official buildings), "conducting business with the authorities"). Within each individual complex activity, the time impact, in terms of language use, of the availability of bilingual signs is likely to be small; however, given the frequency of such activities in the aggregate, the overall resulting "welshification"—or "maorisation"—is probably far from negligible, and it becomes appropriate to interpret the provision of minority language visibility as a policy measure that brings down the relative price of minority language activities.[24]

Second, language visibility is an important policy measure because its official use and the generalisation of minority language visibility has a powerful *(re)legitimisation* effect, which, in turn, impacts on people's *attitudes*. Research on language policy, no matter what discipline it hails from, confirms that positive attitudes are a *sine qua non* condition of language revitalisation. In a significant way, the visibility of the language contributes to it.

This chapter is concerned with *official* language visibility, that is, it does not address minority language signs or bilingual signs put up by private

[23] In economic jargon, this would be expressed by saying that the substitution effect dominates over the income effect, and this will be the case with the constant elasticity of substitution utility function we have chosen, if the elasticity of substitution is strictly greater than one. If all the available time were devoted to *j*-language activities, the amount of activities that can be carried out in language *j* is:

$$Z_j = g_j + s_j Y$$

Let us define Π_a and Π_b as the *shadow prices* of activities in English and Maori respectively, and normalise Π_a to unity. Since we have also assumed (see appendix) g_a to be equal to one, the relative and absolute shadow price of Maori language activities can be expressed as: $\Pi_b=(1+s_aY)/(g_b+s_bY)$, which clearly declines if g_b goes up.

[24] We can also suppose that bilingual signs are an important element of language exposure for young children just learning to read.

businesses. This, however, will be studied in Chapter 11, which deals with direct promotional efforts in favour of a minority language, where visual manifestations such as bilingual signs are often targeted.

8.3 The development of bilingual road signs in Wales

Bilingual road signs are by now so much a matter of course in Wales that the practice has become fully integrated into the normal operations of traffic administration. As a result, the linguistic aspect of these operations cannot be singled out, and there are practically no written documents on bilingual signs, apart from the Bowen report, which is already 25 years old (Bowen, 1972). As regards more recent documents, the question is addressed in passing in leaflets on proper language practices for the public sector (e.g., Bwrdd yr Iaith Gymraeg, n.d.1) or on much broader language schemes (e.g., Welsh Office, 1996; Bwrdd yr Iaith Gymraeg, n.d.2; n.d.3, n.d.4, n.d.5); most of the information reported here was gathered through informal interviews.[25]

According to our informants, lobbying by Welsh language organisations in the sixties played an important part in persuading the authorities to reconsider the legal status of Welsh; this resulted in the production of the Parry Report in the mid-sixties.[26] The momentum was maintained through the activism of the *Cymdeithas yr Iaith Gymraeg* (Welsh Language Society) and the *Plaid Cymru* (Welsh Nationalist Party), which canvassed in favour of an extension of the visibility of Welsh, particularly along roads. A petition presented in November 1970 to the Secretary of State for Wales appealed "to make a clear declaration [...] that the government recognises in principle that all road-signs in Wales without exception must be bilingual (with the language of Wales before or after the English), and that it intends to act immediately in accordance with this principle and urges all local authorities in Wales to do likewise" (Bowen, 1972: 2).

Indeed, the visibility of Welsh has been among the early language planning measures adopted in Wales. It deserves the label because language visibility was generally not advocated on technical or utilitarian grounds, but as a means to enhance the position of Welsh in Wales. Provision for the use of Welsh on a "limited number of traffic signs" was first made in 1970, but until then, "local highway authorities could make

[25] We are particularly indebted to Ifor Gruffudd and Gwyn Jones (Welsh Office), Alan Wynne Jones (Menter a Busnes & European Bureau of Lesser Used Languages) and Dylan Roberts (Welsh Language Board) for their help.

[26] *Legal Status of the Welsh Language. Report of the Committee under the chairmanship of Sir David Hughes Parry*, October 1965.

individual applications to erect some kinds of local informatory signs in both English and Welsh and on a few occasions such applications had been made and authorised, but bilingual traffic signs were not allowed in any other case" (Bowen, 1972: 10).

Following the thrust of the Bowen Committee's recommendations, the Welsh Office decided that bilingual signs should be placed along trunk roads, which are under its responsibility, as well as along side roads or secondary roads, which are under the authority of County councils. However, county councils acting as agents of the Welsh Office were put in charge of the practical implementation of the policy measure on all roads.[27]

Neither the 1967 nor the 1993 Language Acts explicitly require road signs to be bilingual. Counties, however, were free to do so, and bilingualisation proceeded at an unequal pace depending on the county concerned, with counties with a higher percentage of Welsh-speaking population such as Gwynedd and Dyfed taking a lead. At this time, practically all road and traffic signs are bilingual, with occasional exceptions, for example in anglicised parts of Wales were old signs on secondary roads have not been replaced for a long time. Eventually, however, bilingualism should be complete.

8.4 Agencies responsible

The setting up of bilingual road signs is placed under the responsibility of County councils. For secondary roads, this coincides with counties' legal authority; for trunk roads and motorways, which are under the jurisdiction of the Welsh Office, Counties are acting as agents of the Office. Counties enjoy a large degree of autonomy in the practical implementation of bilingual signs. First, it was considered impracticable to issue extremely precise regulations, because they would have run the risk of not doing full justice to local conditions; second, the Welsh Office realised that punctilious guidelines were more likely to cause resistance than to significantly enhance the effectiveness of the scheme (for example, imposing system-

[27] The Committee pondered the question of the order of precedence of the two languages on bilingual signs. They noted that "First, [...] the wording placed on top or on the left is likely to be assimilated more quickly. The great majority of road-users in Wales will look for the English rather than the Welsh wording in following traffic signs, and the findings of the Road Research Laboratory experiments with bilingual signs are that there is generally less increase in reading times if the English wording comes first. Secondly, a number of the advocates of bilingual signs attach great importance to placing the Welsh first because it is the indigenous language of Wales. We believe that this view carries excessively strong emotional overtones, but its existence has to be recognised [...] We gave close consideratiuon to the question whether Welsh or English should be first [...] but finally decided by a substantial majority to *recommend* that the Welsh wording should be shown first on all bilingual traffic signs." (Bowen, 1972: 72).

atic precedence of Welsh over English or vice-versa could have created some antagonism); third, it was considered reasonable, for demolinguistic reasons, to expect some areas to prioritise Welsh, while other would put English first.[28]

Tracing responsibilities for current practices, however, is made more complicated by the fact that the administrative units of Wales were re-drawn twice. The 1974 reform reduced the number of administrative units to 8; the 1996 one raised it to 23. In some cases (e.g., Powys), geographical boundaries were left untouched; in others (e.g. Dyfed), the existing county was broken down into geographically smaller units (Cardigan, Pembroke and Carmarthen). The new units are *Unitary Authorities* combining the competencies of the erstwhile counties and districts. Typically, all the units created as a result of the breaking up of larger former counties simply carried on the inherited practice.

8.5 Current policy practices

At this time, practically all road signs in Wales are bilingual, whether for motorways, trunk roads or side roads. Exceptionally, some old signs on minor roads may still be monolingual and remain so until they are re-placed. In addition, the Welsh Office allows for unilingual signs (unilingual meaning English only, not Welsh only) in "cases where road safety or technical considerations make it impossible to have fully bilingual signs" (Welsh Office, 1996: 8). For trunk roads and motorways, the Welsh Office would normally expect the English text to precede the Welsh one. Bilingualism, however, remains unusual in the case of "variable signs", notably electronic displays indicating the destination and stops of a train or bus. In such cases, only English is always present.

Bilingualisation generally proceeds apace with the normal replacement and refreshment of old signs, so that the cost of the bilingual sign policy is kept down.

Though not explicitly regulated by the new Language Act, bilingual signs are consistent with the latter's objectives, and the conditions of its implementation appear to be influenced by some of the key principles of the Act. In particular, this implies that the policy is subject to the test of what is "appropriate in the circumstances and reasonably practicable", which is set out in Section 5(2) of the Act. In its 1991 proposals towards a

[28] Occasionally, London-based administrations will be required to provide bilingual information. This is the case of the Department of Transport, whose Drivers' Licensing Agency is responsible for the Highway Code, which needs to be amended in order to reflect the existence of bilingual traffic signs in Wales.

new Act, the Welsh Language Board extensively discusses the legal implications of this criterion, concluding that it would not result in a toothless piece of legislation. It was considered that language requirements actually made under the Act would be presumed to be appropriate and reasonable, and that the burden of proof to show otherwise would fall upon the authority refusing to implement it. In the case of bilingual signs, the technical and conceptual simplicity of the measure, its increasingly non-conflictual nature, and its negligible cost ensured that it was never questioned—at least not on those grounds.

Another implication of the new language Act as regards bilingual road signs is that policy on the latter has now been swallowed up into the broader concept of *Welsh language schemes*. Under Section 21 of the 1993 Welsh Language Act, official bodies (particularly the *unitary authorities*) are required to prepare a document (a "scheme") on the various measures they intend to take in order to guarantee that English and Welsh in Wales are treated on a basis of equality in the conduct of public business and the administration of justice. Schemes, drafted bilingually by the authorities concerned, must be submitted to and approved by the Welsh Language Office.

8.6 Costs

In its early days, responsibility for bilingual signs was left to the discretion of County authorities. When the Welsh Office decided to generalise the practice, it was understood that bilingual signs would replace unilingual ones as the former would need to be replaced or refreshed anyway, or as new signs were put up along new or redesigned roads. No figures are available regarding the cost of the policy, and according to our informants, almost no additional funds were necessary to implement it. However, this perception is not wholly correct. The direct *marginal* cost of bilingualisation comprises:

(i) *Material costs*. These are the result of: (a) the larger surface of sheet metal used for directional signs that feature two place-names instead of one (of course, this did not apply to place-names that exist in one language only, such as Aberystwyth); examples include the transformation of signs merely indicating "Cardiff" into signs mentioning both "Caerdydd" and "Cardiff", or "Glamorgan (Rhoose) Airport" to "Maes glanio (Rhws) Morgannwg" and the anglicised version just mentioned; (b) added surfaces of sheet metal, particularly for informational signs where each separate sheet is used for one language; an example could be "Cadwch mewn gêr isel", added to the

sign instructing motorists to "Keep in low gear"; and (c) additional support costs.

(ii) *Labour costs*. Because more words have to be painted, a slightly larger amount of work is involved, while larger or dual signs require more time to be installed.

Can we establish these costs? Let us examine the available evidence. The Bowen Committee estimated that, if all signs had to be replaced at once, total cost would be in the region of £3,275,000. This cost estimate was made up, in almost equal proportions, of two parts:

(i) the cost of providing signs to current standards wherever bilingual signs would be needed and where no sign to current standards already existed;

(ii) the additional cost of providing the bilingual element for the signs in (i), together with the cost of providing bilingual versions where applicable to replace existing monolingual signs which were already to current standards.

The minority report (opposing the recommendations of the Commission, and appended to the Bowen report) states (Bowen, 1972: 90) states that the cost increase for directional signs would stand at approximately £135 per sign for the (relatively expensive) directional signs with lettering of a minimum size of 4 in.; no estimate of cost increase for the relatively smaller warning and informational signs was provided. Taking account of the existence of these non-directional signs, we consider a per-sign marginal cost of £100 to be reasonable. Given that an estimated 77,000 signs would have been affected by the immediate bilingualisation policy (Bowen, 1972: 26), the cost would then amount to £7,700,000. This is far in excess of the £3,275,000 reported above estimated by the majority report (yielding a marginal cost per sign of £42.50). In this evaluation, we accept as a reasonable figure the mid-point in this range, that is, £75 per sign on average.

This amount must be corrected in order to express it in 1996 £ and to annualise it. Let us address each issue in turn:

(i) *Inflating to 1996 £*. We multiply this amount by the increase in the producer price index (output of all manufactured products) from 18.4 in 1972 to 123.8 in 1996, that is, 6.73, yielding £75 x 6.73 = £505.[29]

[29] 1972 data fom *Economic Trends Annual Supplement, 1996-1997*, p. 152, Table 2.1. 1996 data from *Economic Trends*, January, February 1997, p. T26, Table 3.1, published by the Office of National Statistics of the UK. In the absence of relevant information, we have assumed that there

(ii)*Annualising*. The other programmes examined in this report increase mainly current expenditures (wages for the most part) on an annual basis. In this case, we are incurring a capital expenditure with a finite life. Thus, its annual cost is made up of: (a) the annual yield of that capital (in real terms) and (b) the annual depreciation obtained by assuming straight-line depreciation of the sign over its useful life. In this study, we use a real yield of 7%, which is in the mid-range between riskless real rates of return (3-5%) and estimates used in cost-benefit analysis of the opportunity cost of capital (10%), and a depreciation rate of 0.05%, that is, a useful life assumed to be 20 years.

Thus, 505 x (0.07+0.05)=£60.0, the annual cost per sign.

The total annual cost is then given by the number of signs multiplied by the cost per sign. We will assume an increase of 10% in the total number of signs since 1972. This estimate, once rounded, yields 85,000 signs and a total annual cost of bilingual signs in Wales of £5,100,000 (or NZD 11,200,000 with an average 1:2.2 exchange rate for 1996). Clearly, this represents the cost, in 1996, of the *completed* policy.

In addition to these direct costs, modifications to a limited number of documents (such as the Highway Code) required spending money on translation. These, however, are modest and once-and-for-all expenditures and are not accounted for here.

The *direct* benefits of these bilingual signs depend on their usage, and this depends on the number of Welsh speakers (strictly speaking, readers), on their amount of travel time and on the share of the travel time allocated to reading signs. We use the following figures:

- *Number of Welsh speakers*. This is set conservatively at 500,000, slightly less than the 508,000 reported in the 1991 Census.

- *Travel time*. In 1992-1994, each UK resident spent 360 hours on travel, on average, of which 80% was in car travel. Given shorter commuting time in Wales, we calculate an average car travel time in Wales of 240 hours per year.[30]

- *Share of travel time spent reading signs*. No data are available on this question, but a reasonable upper bound is 2%, i.e., 5.8 hours rounded

had not been productivity changes that may have led to changes in the real production costs of signs.

[30] Travel time and share of car travel are provided by *Social Trends 1996*, p. 204; average commuter time in Wales is 20 minutes and in the UK as a whole, 24 (*Social Trends, 1997*, Table 12.4, p. 201). Thus, 360x0.8x0.833=240 hours.

off to 5, especially since Welsh users are more than proportionately local area residents who are likely to use signs relatively less.

We obtain a total of 2,500,000 person-hours of Welsh usage for a cost of £5,100,000, yielding a cost per person-hour of £2, that is, NZD 4.4.

These estimates, however, do not take into account a whole range of non-use impacts. These are mostly connected with the relegitimation of the language and the subsequent positive image change. This affects not just Welsh-speakers, but anglophone residents and visitors from the outside as well.

8.7 Outcomes

If the policy of having bilingual signs in Wales is to be evaluated in terms of the visibility of Welsh, it must be considered a success, since bilingualism along all roads is now the rule. However, the notion of equal treatment of English and Welsh implies that Wales has not been given a "Welsh face", but a "bilingual face" where both language are visible and English comes first more often than Welsh does.

82% of respondents in the NOP Survey (NOP, 1995) agreed that bilingual signs were a good idea. Positive views were stronger among young people, with 94% of those under 35 agreeing, among Welsh speakers (96%) and people with children (87%). Support for bilingual signs was lowest among respondents aged 65 and over, where it still reaches a very respectable 71%. Respondents were also asked to rank-order a variety of visibility-increasing measures; 21% of respondents mentioned bilingual signs as the most important of the measures proposed (Table 2.2).

TABLE 2.2
PERCENTAGE OF PEOPLE WHO CONSIDERED EACH ACTIVITY TO BE THE MOST IMPORTANT

Badges showing who are the Welsh-speaking staff	49%
Providing bilingual signs	21%
Producing bilingual forms and leaflets	10%
Making bilingual adverts	8%
Bilingual packaging on goods	5%
Don't know	2%

N=815. Source: NOP, 1995: 59.

One interesting implication of these figures is the large difference (28 percentage points) between the percentage of people who consider the first and second activity respectively to be the most important. The very high

share of respondents who would like Welsh-speakers among staff in the private or public sector to be readily identifiable suggests that many would like to use the language, but feel constrained in doing so. Reasons may be fear of rejection by an anglophone interlocutor, or the wish not to come across as a militant for the language—if this latter factor does play a part, it could also indicate that the use of Welsh is still far from *normalised* in the Catalan sense. In either case, this finding is consistent with another from the same survey, showing that 39% of respondents who can speak at least a few sentences would "like more chance" to use Welsh when contacting public services, 395 when contacting privatised services, 36% when shopping, 31% in social situations, 21% at work, and 21% at home.

The Welsh Office reports no complaints about the policy; fear that people might get lost (a sometimes mentioned, though implausible argument against *bilingual* signs) have proved unfounded. The only occasional complaints came from residents criticising the fact that the English version appeared above the Welsh one, particularly in areas where the percentage of Welsh speakers is high. If any ambiguity arises from the policy, it may be that people often believe that the visible presence of Welsh is much more of a legal obligation than is actually the case; this goes to show that practice has gone further than the law towards increasing the visibility of the language.[31]

The success of a policy, however, must also be evaluated in terms of less obvious and more general outcomes, first and foremost language use.

As indicated above, the hypothesis that there is a positive relationship between the provision of bilingual road signs (or language visibility more generally) and the long-term fortunes of the language appears sensible; however, the precise workings of such a causal link have not, to our knowledge, been explored in detail. At the empirical level, the data that would be required to test a statistical association between both simply do not exist.[32] Still, it stands to reason that the visibility of the language on road signs and other forms of public signs increases the average welshness

[31] It is not without interest to briefly mention those arguments that what put forward by the Minority Report, appended to the Bowen Committee findings, against bilingual signs. The first regarded road safety, which experience has proved to be unfounded; the second claimed a "detrimental effect on landscape, townscape and amenity", and this argument has now proved counterfactual, with the Welsh Tourist Board recognising that the visibility of the language makes a positive contribution to the identity of the place, and has now become a selling point for tourism in Wales; the third warned of excessive cost, but was rendered pointless by the progressive bilingualisation of signs.

[32] As an indirect measurement, the total sample of 815 used in the NOP Survey could be used to perform an adjusted residuals analysis of the correspondance between the relative importance given to bilingual signs and patterns of language use.

of the practice of an activity such as "road travel", and over time, this effect is probably not negligible, as suggested by our estimates in the preceding section.

Subsequent judgement on the effectiveness of the policy can vary according to the units of measurement used. In comparison with other policy measures, the time impact of the policy is not high, given the small share of travel time devoted to reading signs. This, however, is also subject to assumptions about the homogeneity of time units (the latter may not have the same subjective value and significance, and even a small amount of time can have major significance; see Winston, 1987). More importantly, the effect on language use can be an indirect one, and be mediated through language attitudes.

First, all informants agree that bilingual signs have a considerable psychological and symbolic importance. Its visible presence alongside English was perceived across Wales as a clear message on the relevance and legitimacy of the language. Second, the practice of bilingual official signs has had an important incentive effect on the private sector. Many businesses decided to put up bilingual signs out of sympathy for the language and a wish to be perceived as being part of a more general trend. It also appears that some businesses (particularly those run or owned by non-Welsh speakers) assumed that the generalisation of bilingual signs reflected not good will, but some legal obligation they should comply with as well (in itself, the implicit assumption that there could be no other good reason for using a minority language is a telling one), and set about putting up bilingual signs of their own, thereby further advancing the visibility of Welsh. The *Bwrdd yr Iaith Gymraeg* subsequently decided to support private initiatives, and gives small grants for putting up private bilingual signs; as a rule, such grants cover 50% of the cost of the new sign. An effort is made by the Board to favour "cluster schemes", for example when the businesses of a whole neighbourhood apply together for such grants; clusters are considered to have a stronger visual impact than isolated bilingual signs.

The Welsh Tourist Board sees additional benefits in bilingual signs, and uses their existence as a selling point, contributing to the "sense of place" that Wales offers to its visitors, from England or elsewhere (see Bwrdd Croeso Cymru & Menter a Busnes, n.d.).

8.8 Evaluation

There is something self-evident about the generalisation of bilingual signs as a policy measure. Its technical and conceptual ease, its reasonable total

cost, and the facility with which it can be advocated on a variety of grounds (economic, legal or political) make it a favourite of language planners. Compulsory or non-compulsory schemes exist in other minority language contexts; in most cases, they result in the generalisation of bilingual signs, though in some, only the minority language is mentioned (for example in Quebec).[33]

However, the symbolic and psychological impact of bilingual signs, as well as the induced effects of the kind described in the preceding section, must not be underestimated. In the words of Allan Wynne Jones, currently President of the Council of the European Bureau of Lesser Used Languages, bilingual road signs in Wales not only have made a major difference, but the latter is "out of proportion entirely" with the negligible amounts of money it has cost. Nevertheless, as we shall see later by comparing its cost with that of other policies, bilingual signage turns out to be a relatively expensive measure in terms of the unit cost of language use created. It follows that its indirect effects through language attitudes must be considerable, if it is to be judged cost-effective in comparison with other policies.

Circumstantial evidence suggests that these indirect effects are, indeed, important; hence, increasing and *generalising* the visibility of the minority language on road and other signs, whether they are bilingual or use the *minority* language only, is natural component of any revitalisation policy. Taking the issue the other way around, the *absence* of minority language visibility, or authorities' refusal to increase such visibility, is difficult to defend on human rights grounds; it may also be interpreted as a clear sign that they are not genuinely committed to the promotion of the language in question. We have shown elsewhere (Grin, 1992) that under a set of plausible technical assumptions, the commitment of authorities can prove indispensable to promotional policies, because this commitment may help counter pessimistic expectations about the future of a minority language.

Among the conditions that make bilingual signs a successful policy instruments in the Welsh context, the demand side has played a crucial role. The drive for the introduction and generalisation of bilingual signs was largely initiated by members or sympathisers of the *Plaid Cymru* or the *Cymdeithas yr Iaith Gymraeg*, whose stand on the matter progressively gained credence with larger segments of the Welsh-speaking

[33] Some authors or politicians insist that in Quebec, French is the majority language, and English the minority languge. This should not obscure the fact that in Canada (or even North America), French is in a minority position with respect to English, and that this more obviously justifies Quebec's language policies.

public, and then the non-Welsh speaking population as well. Bilingual signs were not put up as the result of a spontaneous choice by British authorities to give Welsh more visibility; like most other positive measures or concessions in favour of the language, it had to be wrested from the government. This confirms the overwhelming importance of *attitudes* (which, using the jargon of economic analysis, are very close to the structure of *preferences* that lie at the root of *demand functions*) as a driving force in minority language revitalisation.

This does not imply, however, that the sole burden of a revitalisation policy should be put on the shoulders of the public, particularly minority-language speakers themselves. Although their involvement and concern is a *sine qua non* condition of success, an exclusive or excessive reliance on attitudes puts revitalisation at the mercy of discouragement in the public. It is therefore incumbent upon the authorities not only to meet demand (as the Welsh Office did when deciding to generalise the visibility of Welsh in road and traffic signs), but also to exhibit sufficient commitment to language revitalisation, and be prepared to take a political lead when circumstances require it.

9. Minority language television: the case of *Sianel Pedwar Cymru* (S4C)

9.1 Background

Since Section 8.1 contains an introduction to the Welsh context, there is no need for this information to be repeated. Only a few elements that pertain directly to the media context will be added here.

The development of television broadcasting in Welsh can be seen as the result of a changing policy context in favour of Welsh around the mid-20th century. As of 1964, BBC Wales was required to provide 6 hours per week of Welsh-medium television programming, but such programmes (aired on BBC1 and ITV) could only be watched in South Wales. This awkward situation created dissatisfaction among both Welsh and non-Welsh speakers, though for opposite reasons: the former complained about the poor timing (usually late-night slots) and very limited range and number of programmes available in their language, while disgruntled unilingual anglophones, quite apart from feeling shut out from programmes they could not understand, felt deprived of possible English-language viewing time.

The proposal to set up a Welsh-language television channel emerged as the result of a consensus between speakers of Welsh and English during a conference held in 1973. British authorities subsequently appeared to go back on their endorsement of this proposal, but political pressure in which the Cymdeithas yr Iaith Gymraeg (Welsh Language Society) and the Plaid Cymru (Welsh Nationalist Party) played a decisive role finally persuaded them to implement it, and S4C went on the air on 1 November 1982. In the fifteen years since, S4C has established its role as a key element of Welsh language revitalisation.

9.2 Minority language broadcasting as language policy

Minority language broadcasting is undoubtedly one of the most meaningful forms of provision of minority language goods and services, and one which substantially alters the supply-side factors of the linguistic environment. Its importance is twofold.

First, its mere existence has powerful symbolic implications, in that it contains potential for establishing the legitimacy of a minority language in the sphere of modernity—a key strategic area, since revitalisation efforts are typically bogged down by the association between a minority language and the "traditional" sphere. The question (which was briefly alluded to in Section 1.1 of Part I) of the association between a language and the traditions that are powerful outward manifestations of its culture deserve a few words of commentary. We do not mean to say that reference to the realm of tradition should be phased out from revitalisation efforts, since this would imply a de facto endorsement of the so-called "deficiency model" equating minority languages with backwardness, and espousal of majority culture as progress (G. Williams, 1992); we reject this essentialist approach, and adopt a more dynamic view of language in human experience. What we mean is that to the extent that minority languages almost always are associated with tradition, it is important to demonstrate that they are not trapped in it, and that they can also give access to aspects of everyday life that are usually associated with modernity. This stresses the potential of any language, as well as the dynamic aspects of the associated culture, and television broadcasting is a key element of such a demonstration.

We are aware that such a view could be misconstrued as an instrumental perspective on language. We do not agree with such a label if it is taken in a narrow sense. Our point, however, is that language is a vehicle for human exchange and experience, particularly its cultural aspects, and that language can be used to express changing cultural values. Because culture is dynamic and cultural values change, it would be misguided to assign to language, as its sole or main function, that of reflecting a culture as it manifests itself at a given point in time.

Second, television watching is nowadays a essential part of leisure activities for large tracts of the population, particularly the young. Offering minority language programming is therefore likely to have a significant impact on actual minority language use. This aspect has a direct connection with an entirely different justification whose operative concept is that of language rights, as pointed out by Thomas (1997): "a language is a group of people speaking to each other, and (...) in modern conditions much of that communication occurs through the media, so that language denied access to media is discriminated against, accorded inferior status, and is unlikely to survive."

In terms of our formal model of language policy and behaviour, the provision of minority language programming affects patterns of language use in the same way as other types of supply of minority language goods

and services do. They make the practice of minority language activities requiring these services cheaper, because they bring down their shadow price (see footnote in Section 8.2). Analytically, this interpretation in terms of shadow price represents a generalisation of the special case that can usually be observed: in the absence of state-sponsored provision of minority language programming, no such programming is available at all, which means that the shadow price of the activity "watching minority language television" tends to infinity. The relative price change induced by the introduction of minority language programming is therefore likely to bring about a net increase in the practice of the activity, and in the time devoted to minority language use, irrespective of the curvature of the utility function.[34]

However, just like other promotional measures, the introduction of minority language programming can have a powerful religitimising effect impacting on people's language attitudes; these, in turn, affect the utility function and positively alter the attractiveness of minority language activities—in this case, television watching. This may be particularly true of younger viewers, and Baker (1992: 110) points out that "television, records, cassettes, videos, satellite broadcasts, films, radio and computer software are often regarded as having an influence on the language attitudes of teenagers in particular".

9.3 The development of S4C

The creation of S4C would not have taken place without militant mobilisation and significant popular support, relayed by associations and political parties; Plaid Cymru MP Gwynfor Evans threatened to go on a hunger strike when British authorities appeared to renege on their commitment to set up a Welsh language television channel. These events epitomised a conflictual relationship between London and the supporters of the Welsh language, at a time when the holiday homes of English holiday-makers were occasionally prey to arson, and nationalist activists cut off power supply in protest against the monopoly of the English language on the air. As noted earlier, the introduction of limited programming in Welsh on the BBC had not satisfied Welsh demands, because programmes were few and inconveniently timed, while unilingual English-speaking viewers begrudged the hours taken away from programming in English. Separation was therefore seen as a solution to this conflict, as well as a sensible step

[34] The absence of any minority-language programming can also be seen as a case of "maximum hindrance", where $g_b \leq 0$, $Z_b^* \leq s_b Y$, and $t_b^* = 0$. Any continuously differentiable utility function yielding convex indifference curves will ensure that an incrase in g_b, which reflects the introduction of minority-language programming, will result in an increase in t_b^*.

towards the easing of tensions, and the creation of S4C (presented by language activists as yr unig ateb, "the only answer") resulted from consensus between groups of viewers with diverging interests.

It also benefited from the simultaneous launch of a new concept in television programming, namely, the setting up of Britain's Channel 4 as a distributing rather than a producing channel—to this day, S4C, which is a decentralised branch of Channel 4, has no in-house production facilities. This formula has spread since then, and even the BBC is now required to buy some of its programmes from outside producers.

The fact that the creation of S4C was a concession wrested from British authorities placed the channel in a position very different from Euskal Telebista in Euskadi or Teilifís na Gaeilge in Ireland, which were established by regional or national authorities as part of a broader language policy enterprise. S4C (which is dependent on grant aid—see Section 9.6) was in a more precarious political position, and needed from the start to emphasise quality and appeal to viewers in order to establish itself in a competitive media environment.[35]

Besides, the fact that S4C's audience is bilingual in English and Welsh, and that its competitor language is English, implied that it would have made little sense to air dubbed or subtitled versions of major American (or British) productions, because S4C's audience could very well watch (or have watched) these programmes on English-medium British channels. This has forced S4C to engage early on (more quickly, at least, than Basque or Catalan television had to) in the commissioning of new programmes, giving it a distinct identity that other television services, even in major European languages, do not necessarily provide. In this respect, the creation of S4C was well-timed, because it coincided with the emergence of an increased awareness of the "value" (again, we caution against a rash use of the term "value", and refer the reader to our discussion in Section 3.3) of pluralism or diversity, and the implied social liberalism, in this case, was not out of step with the economic liberalism of the Thatcher years.

9.4 Agencies responsible

S4C, which has been operating since 1982, was established by the 1980/81 Broadcasting Act, and currently operates under Sections 56 and 57 of the 1990 Broadcasting Act. Its primary purpose is to provide "a wide range of

[35] S4C's direct competitor is the BBC, which is widely regarded as one of the best television channels in the world.

high quality programmes for broadcast on the Fourth Channel in Wales, including the provision of Welsh language programmes for broadcast during peak viewing hours" (S4C, 1996b). The 1996 Broadcasting Act gives S4C equal status with other broadcasters, charging it to develop commercially as well as technically.

Until 1982, a limited amount of Welsh language programming was available on BBC1 and ITV schedules. The establishment of S4C created a comprehensive Welsh medium service, and all Welsh language programmes are now transmitted on S4C.

The broadcasting company commissions a large number of independent producers[36] for about two thirds of its Welsh language programmes, while one third is provided free of charge by the BBC, under Section 58 of the 1990 Broadcasting Act. S4C also broadcasts Channel 4 English-language programmes (also provided free of charge under the same Section), transmitting (in 1996) some 73% of the latter, and amounting to about two thirds of total programming.

9.5 Output

Programming

In 1996, S4C aired 1,677 hours of Welsh language programming covering the following genres:

Drama targeting a large audience has been made a priority, and features highly successful series such as Pobol y Cwm ("The people of the valley"), which is also the longest-running soap opera on the BBC; some series are co-productions with foreign broadcasters. Drama output also includes films, some of them earning international attention (for example, Hedd Wyn was nominated for an Oscar in the best foreign film category in 1994, and Yn Gymysg Oll I Gyd won the gold medal for the best television film at the San Francisco Film Festival).

Animation is a strategically important aspect of programming, because of its appeal to children. S4C gives priority to quality cartoons, some of it strictly entertainment, but some also offering historical or literary content. Some of this production is the result of co-operation between Welsh and

[36] Producing companies include *Opus, Bryngwyn, Penadur, Ffilmiau'r Nant, HTVI* (the local ITV licence holder), *Pontcanna, Ffilmiau Llifon, Lluniau Lliw, Elidir*, etc. Whereas BBC Wales and HTV are concentrated in Cardiff, the independent producers have established themselves throughout Welsh-speaking areas, particularly the North-West, creating an estimated 3,000 industry-related jobs (Thomas: 1997: 2).

Russian animators, resulting in “a new kind of animated series in complete contrast to the output of America and the Far East” (S4C, 1996a: 20).

Light Entertainment includes comedy (combining old favourites and experimentation), quizzes and game shows aired on prime time.

Children's and youth programming includes some lunch-time and late-afternoon shows, covering a wide range of genres (entertainment, quizzes, game shows, magazines, and a twice-weekly soap opera).

Learners' programmes include one series aimed at adults and one aimed at children.

News and factual programmes include daily news bulletins supplied by BBC Wales, the nightly current affairs magazine Heno ("Today") and investigative reporting.

Music programming has a high profile on S4C, and emphasises lives prestigious events, some classical, others offering folk and traditional music. Programming of Welsh pop and rock music is currently being developed.

Sport programming provides an important boost to S4C, which has acquired (in association with HTV) the television rights to Welsh club rugby. S4C offers live coverage of international games, attracting a considerable non-Welsh speaking audience. This contributes in another way to the visibility of the language.

Subtitling

Almost 75% of Welsh language programmes (1,245 hours and 75 minutes in 1996) are subtitled in English on Teletext page 888. In addition, subtitles in Welsh of Welsh programmes are provided for the benefit of learners on Teletext page 889 (300 hours and 43 minutes in 1996). Finally, S4C is also responsible for subtitling in Welsh some of the English-language programmes from Channel 4 aired on S4C; covering 2,843 hours and 23 minutes of these programmes in 1996. It is important to remember, as Awbery (1995: 78) points out, that it would be "somewhat misleading to describe S4C as the Welsh-language channel, as if it were its only remit."

Key figures

In 1996, S4C has transmitted 7,169 hours, representing an average per week of 137,9 hours; the breakdown by language is provided in Table 2.3:

TABLE 2.3
BREAKDOWN OF S4C PROGRAMMING BY LANGUAGE, HOURS, 1996

Welsh		English	
Commissioned programmes	905	Original programming	4,541
Repeats	236	Repeats	951
BBC	536		
Total	1677	Total	5492
average per week	*32.3*	*average per week*	*105.6*

source: S4C, 1996b: 4.

Of the programmes in Welsh, 1,072 hours were transmitted between 6.30 p.m. and 10.00 p.m., with a weekly average of 21 hours.

Table 2.4 provides the breakdown of programmes by language and genre:

TABLE 2.4
BREAKDOWN OF S4C PROGRAMMING BY LANGUAGE AND GENRE, HOURS, 1996

Genre	Commissioned programmes	BBC Wales	Channel 4
	Welsh		English
Drama	85	96	450
News and current affairs	287	240	1305
Light entertainment	168	7	1305
Youth and children	169	23	317
Music and arts	76	41	73
Education	16	39	162
Sport	70	89	523
Religion	34	1	17
Total	*905*	*536*	*4541*

source: S4C, 1996b: 4.

Airtime sales and sponsorship

S4C started selling commercial airtime in January 1993, and 1994 saw a 55% expansion in the volume of sales. After this initial jump, sales have kept progressing, albeit at a slower pace. A volume of sales of £6.7 million in 1996 still represented an increase of 4.7% on the preceding year, a very good result given market trends favouring London- or South East-based broadcasters.

Bilingual advertising has now become the norm (over 75%) among local advertisers on S4C, although the channel points out that companies initially needed to be educated about the benefits of advertising in Welsh.

Major companies resorting to bilingual advertising include McDonald's, the National Lottery, Volvo, Ford, Braun, Nissan, Standard Life, the Sunday Times and Tropicana Juice. Some advertisers have chosen to dub their commercials into Welsh throughout the year, instead of confining themselves to single Welsh-language campaigns. S4C offers practical assistance to companies wishing to advertise in Welsh on the channel, particularly for smaller advertisers. Options offered to advertisers include adding relevant material on teletext at minimal extra cost

S4C has also developed broadcast sponsorship, which increased by 50% in 1996. Sponsors include the Midland Bank, the Bank of Wales, British Telecom, British Gas Home Energy and The Guardian.

Other aspects

Facing stiff competition from other broadcasters with an extremely high reputation, notably the BBC's English-language service, S4C has had to aim at quality and appeal from the start. In addition, the bilingualism of all its Welsh-speaking audience implies that the latter is not a captive audience. Language itself is a selling point, and Thomas (1997) insists that there is such a thing as language loyalty on TV; however, S4C's chief executive has stated that "viewers do not turn to S4C simply because the programmes are in Welsh; they also expect them to be good" (S4C, 1996a: 9).

As indicated earlier, one constraint specific to S4C—which, obviously, would apply to other broadcasters such as ATN in New Zealand—is that it was not advisable to simply dub English-language programmes that viewers could access on English-language television, forcing S4C to engage early on in the commissioning of original productions.

The insistence on quality, originality and relevance has encouraged local talent and seems (although observers indicate the evidence is not sufficiently clear) to have had a positive effect on language corpus and on the knowledge of Welsh; in particular, television is an irreplaceable tool for disseminating and popularising controlled neologisms.

Finally, it is interesting to look at the S4C experience in relation with the "mainstreaming" versus "special purpose television" debate. If we define mainstreaming as the inclusion of minority-language programmes on majority language television, whereas "special purpose" denotes the option to set up a separate channel where the minority language has a privileged or exclusive position, S4C clearly represents an instance of the latter strategy. It has emerged in part because the former system, whereby a

limited amount of Welsh programming was available at off-peak hours on English-language television, seemed to antagonise both Welsh speakers and unilingual anglophones—hence the view that a Welsh-language channel represented "yr unig ateb", the only solution.

Since then, the proliferation of channels made possible by cable television has confirmed that one of the goals pursued by mainstreaming, namely, to increase awareness, among the majority public, about the minority language, has been completely outstripped by technological progress. If a majority language watcher wishes to be exposed to the minority language, she can select the corresponding channel. If, on the contrary, she resents the presence of the minority language on her (predominantly) majority language channel, the increasing range of stations available gives her ample choice to switch to another channel more to her liking. As a means to expose (possibly reluctant) majority language audiences to the minority language and its culture, mainstreaming is probably a doomed strategy. This does not mean that the underlying objective is not a valid one, but that it must be pursued through other means.

9.6 Costs

Expenditure

S4C's 1996 budget amounted to £70.321m (NZD 154.71m assuming a 1:2.2 exchange rate over 1996) for the costs of the programme service, plus £7.266m (NZD 15.985) for operational costs and administrative expenses. Of the programming cost, £59.961m (NZD 131.914m) went to cover programmes commissioned or acquired from suppliers. The value of the total programming output is, of course, much higher, since programmes provided by BBC Wales and Channel 4 are free of charge for S4C.

Funding and other income

S4C is funded by an annual budget from the Treasury, based on a rate of 3.2% of the Net Advertising Revenue of all terrestrial television in the UK. This rule implies that S4C's revenue depends on the state of the economy. In addition, S4C earns advertising revenue and raises sponsorship money (see preceding section). Table 2.5 below shows the income and expenditure account of the channel.

TABLE 2.5
INCOME AND EXPENDITURE ACCOUNT, 1996

Item	£ (x000)	NZD (x000)
Income[a]	68,059	149,730
Cost of programmes	(65,483)	(144,063)
Transmission and distribution	(4,838)	(9,643)
Operational and operative expenses	(7,266)	(15,985)
Other income less expenditure[b]	7,758	17,068
Operating deficit[c]	(1,770)	(3,894)

source: S4C, 1996b: 16 ff.
a: net of transfers to deferred income.
b: programming and air time sales plus publishing and merchandising, minus direct cost of sales, share of income due to third parties, and operational and administrative expenses.
c: covered by interest receivable mostly from short time deposits.

Total expenditure (excepting outlays connected with the generation of additional income, e.g. advertising) therefore amounted to £77.587m in 1996 (approximately NZD 170.691m). Adopting a conservative estimate of 495,000 speakers for 1996 (under the assumption that because of the age structure of Welsh-speakers, the current total is slightly lower than the number counted in the 1991 Census and reported in Table 2.14), expenditure per speaker in that year stands at £156.74 (NZD 344.83). If the target public is supposed to include the entire population of Wales, cost per capita is £28.40 per year (NZD 62.50)[37].

Turning now to costs per person-hour, we start by observing that the average viewership over the entire broadcasting period in Welsh can be estimated at 20%. This evaluation is derived from the following figures. During peak-hour viewing time, the reported share of "Welsh Speakers" was 18.8% in 1995 and 19.9% in 1996. For overall Welsh language hours, the share of Welsh speakers was in a similar range (19.7% in the last quarter of 1995, and 20.1% in the two final quarters of 1996). Multiplying this by a conservative estimate of 495,000 speakers for 1996 (under the assumption that because of the age structure of Welsh-speakers, the current total is slightly lower than was counted in the 1991 Census), average viewership per Welsh hour stands at approximately 99,000, which we round off to 100,000 people. This figure can then be multiplied by the number of Welsh hours in the same year, that is, 1,677, yielding a total 167.7m person-hours. Expenditure per person hour is obtained by dividing total expenditure (£77.587m) by the number of person-hours (167.7m), yielding a cost per person-hour of £0.463 rounded to 50 pence, that is, approximately NZD 1.10 with a 1:2.2 rate of exchange for 1996.

[37] This ratio is calculated under the assumption that the total resident population in Wales has remained constant between 1991 and 1996.

Taking into account the fact that S4C reaches a large number of non-Welsh speakers (particularly non-Welsh speaking family members of Welsh speakers and watchers of sports programmes generally), and that the resulting exposure of non-speakers to the Welsh language is ultimately meaningful in a language policy perspective, the above figures clearly represent upper-bound estimates of actual costs.

Cost of programmes

Cost per hour of the commissioned programmes can vary widely, as indicated by Table 2.6 below:

TABLE 2.6
AVERAGE HOURLY COST OF COMMISSIONED PROGRAMMES, 1996

Genre	£	NZD[a]
Drama	185,181	407,398
News and current affairs	37,121	81,666
Light entertainment	66,035	145,277
Youth and children	50,799	111,758
Music and arts	69,738	153,424
Education	55,461	122,014
Sport	27,649	60,828
Religion	95,869	210,912

source: S4C, 1996b: 4.
a: rounded to nearest dollar.

Staffing

Because there is practically no in-house production, S4C operated in 1996 with a modest staff of about 140, an increase of 10 employees on the preceding year, in the following tasks: programme commissioning and presentation, 41; finance, business affairs and administration: 38; marketing, press and publicity, 27; engineering, 34.

Operational and administrative staff costs amounted to £1,598,000 in 1996, just above 2% of total expenditure.

Apart from employment with S4C proper, an estimated 3,000 jobs have been created throughout Wales in and around the small companies producing S4C's Welsh-language programmes.

9.7 Outcomes

It is next to impossible to establish a definite causal link from the provision of minority language television programming to the fortunes of the language, and Thomas (1997: 4) judiciously observes that "little research has been done in the field and in any case it would be difficult to distinguish the effect of television from that of other dynamic forces in society with which it interacts."

Yet, the evolution of Welsh on different planes can be seen, at least in part, as influenced by various promotional measures, in which the existence of S4C certainly is a cornerstone. Thomas (1997: 5) adds: "if we ask whether the Welsh television channel is helping the Welsh language to survive, the answer must undoubtedly be yes. The position of the language is still precarious, but without the media it would be far more marginal." Hence, it is probably a reasonable assumption—in line with our theoretical model—to suppose that there is a positive relationship between the provision of minority language programming on the one hand, and the position of the language on the other hand, and that looking at the latter provides relevant insights into the efficiency of the former. This can be assessed using various indicators, particularly patterns of language use, attitudes, and demolinguistic figures.

Patterns of language use

The most direct effect of the availability of Welsh-medium television is, of course, an increase in television viewing time in the language. A quantitative estimation of total audience has been given in Section 9.6, but the NOP survey ("NOP Social and Political", 1995) contains a wealth of qualitative information about public attitudes to the Welsh language and the use of Welsh. A few of the questions submitted to a sample of 815 respondents directly address media issues.

S4C could be received by 92% of those who own a television set and by 97% of Welsh-speakers, but only by 87% of those who cannot speak Welsh at all. 61% of those who could receive S4C, irrespective of their being able to speak Welsh or not, reported that they watched some programmes in Welsh; 60% of fluent Welsh speakers claim to watch at least half of their television on Welsh-language S4C programmes. Table 2.7 indicates the relative success of various types of programmes in Welsh. The success of programmes requiring high-level linguistic competence (news, soaps and comedy) as opposed to some of the presumably less demanding ones (sport and light entertainment) provides indirect confirmation that Welsh-medium television is really being used by its target audience.

TABLE 2.7
PROGRAMMES WATCHED IN WELSH ON S4C, PERCENTAGES
(n=339 [all Welsh speakers watching any Welsh language programme]; original sample size n=815)

Genre	Total subsample	Men	Women	Fluent	Basic
	151	188	239	64	
Sport	50	75	28	49	51
Light entertainment	49	45	53	63	31
Comedy	40	38	41	54	19
News	60	65	56	80	29
Current affairs	33	36	31	49	12
Arts	16	18	15	21	10
Children's	27	22	31	24	30
Soaps	72	62	81	79	62

source: NOP (1995: 47).

Let us now turn to ratings figures. Peak hour ratings among all Welsh-speakers have increased to 19.9%, reaching 26% among those Welsh-speakers living in a Welsh-speaking household. If the denominator includes only fluent Welsh-speakers, the corresponding figures are 32% and 6%. These figures, which are 1996 average values, all represent increases over the preceding year, except for the last group. Increases are credited to a more precise scheduling policy (S4C, 1996a: 32). Maximum audiences for certain music and sport broadcasts in Welsh aired on Saturday and Sunday night exceeded 200,000 viewers, while audiences for the well-known drama series Pobol y Cwm, depending on day and hour, ranged from 163,000 to 183,000. By way of comparison, the largest audiences for English-language programmes on S4C was reached by a drama series, with 287,000 viewers.

However, it is the evolution of patterns of language use over time (particularly over time spans longer than from one year to the next) that constitutes the single most important indicator of the success of a revitalisation policy. Although an adequate number of speakers is an absolute precondition, Gruffudd and Morgan (1997: 305) aptly observe that "at their peril would threatened language adherents rest on their laurels when the number of young people speaking the language increases, as the census figures of 1991 showed to be the case in Wales." They go on to stress the importance of the availability of the language in an adequate number of domains, and the media is obviously one of them. However, there is very little hard information on the evolution of patterns of language use over time, let alone about the effect that the creation of S4C may have had on such patterns. Nevertheless, the following comments can be made.

S4C plays a crucial role in the media-related leisure activities, because "in many spheres of the media, Welsh does not have a presence at all" (Gruffudd, 1996). There is no Welsh-language daily newspaper, and the written media include a Welsh-language network of papurau bro (community or neighbourhood papers), and a few weekly or monthly magazines (some of them sponsored by the Welsh Arts Council or the Book Council of Wales). Some 500 to 600 books are published in Welsh each year, but radio and television clearly dominate the Welsh-language media.

While the creation of S4C has clearly made it possible to increase the practice of a leisure activity in Welsh, we can only make assumptions about its induced effect on other domains, particularly in the absence of relevant time series data. Using a sample of 329 young adults (all of them speakers of Welsh as a first or second language) coming from different family and/or linguistic backgrounds in the (mostly anglicised) Abertawe/Swansea area, Gruffudd and Morgan (1997) investigated their patterns of language use. Their figures reveal an overwhelming tendency to watch English television, to read English magazines and books, to listen to English radio and music—however, the authors claim that this simply reflects the availability and dominance of English-speaking media. If this claim is correct, then the provision of such minority language services can be expected to result in a significant increase in the practice of activities where these services are necessary. Figures on the amount of Welsh used in various types of activities confirm the strategic relevance, for language planners, of targeting aspects of language use that are associated with leisure activities, particularly in areas where English is the first language of a majority of residents.

TABLE 2.8
SHARE OF WELSH IN VARIOUS NON-WORK ACTIVITIES
BILINGUAL YOUNG ADULTS IN ABERTAWE/SWANSEA AREA, PERCENTAGES*

Domain	Welsh only	More Welsh	More English	English only
Chapel	57.5	10.5	7.2	15.5
Dance	5.4	8.3	25.6	42.6
Sports	7.3	13.1	31.0	32.5
Pub	5.8	13.6	25.5	38.4
Yr Urdd**	45.7	27.6	4.3	12.1
Cinema	6.4	8.7	20.9	49.8

** : n=239; **: Welsh Youth League*

Finally, moving on to a wider selection of domains, it is interesting to report the following figures from the NOP Survey:

TABLE 2.9
HOW OFTEN WELSH IS USED, PERCENTAGE OF RESPONDENTS
(n=384 [all respondents who can speak at least a few sentences in Welsh])

Domain	Nearly always	Occasionally	Never	Not app.
At work	26	20	16	37
At home	51	25	23	*
When shopping	30	34	35	1
When contacting public services	26	25	47	1
When contacting privatised utilities	21	23	55	2
Out socially	42	33	24	1

source: NOP (1995: 23).

Language attitudes

Limited statistical evidence on the evolution of attitudes over time is available, but we have seen in Section 8.7 that commentators generally agree that language status has improved considerably, and that this trend is correlated with more favourable attitudes. It also appears to coincide timewise with S4C's nearly fifteen years of existence. The Welsh language Board insists that "Welsh-medium and non-Welsh medium broadcasting both have tremendous potential to influence the public's attitudes and patterns of language use (Bwrdd yr Iaith Gymraeg, 1995: 17, emphasis added). It mentions encouragement and support for the broadcasting of Welsh programmes as one its responsibilities, with the added caveat that images of (minority) language use in such programmes should be positive.

The NOP Survey mentioned above includes attitudinal questions, some of them directly related to the performance of S4C (Table 2.10)

TABLE 2.10
AGREEMENT WITH STATEMENTS ABOUT S4C, PERCENTAGES
(n=802 [all respondents who watch television])

State-ment	Agree strongly	Agree	Neither	Disagree	Disagree strongly	Don't know	Not app.
s1	24	60	3	8	0	6	0
s2	4	29	15	15	1	36	0
s3	10	19	14	36	9	5	8
s4	3	15	12	27	5	39	0

source: NOP (1995: 50)
S1: There should be more subtitles on S4C so that those who do not understand can watch it.
S2: S4C should improve the quality of Welsh language programmes.
S3: It is annoying to get S4C rather than UK Channel 4.
S4: The cost of S4C is too high given how few people watch it.

Perhaps the most directly relevant item in the above table is respondents' judgement of the adequacy of the expenditure. Interestingly, the question was not asked whether the latter ought actually to be increased. However, we can observe that 18% agreed or strongly agreed with the claim that the amounts spent were excessive, while almost twice as many (32%) disagreed or strongly disagreed with such a judgement. Assuming that (if the relevant information on total expenditure and expenditure per capita were more widely disseminated) a comparable split would appear among respondents who don't know, we would conclude that there is more overall support in Wales for increasing, rather than reducing the expenditure on minority language broadcasting.

It is difficult to define attitudes as a function of the availability of Welsh medium television, although the raw data could serve to explore the cross-sectional relationship between more or less positive attitudes and the amount of time spent watching S4C. In relation with this latter point, perceptions of non-speakers are important; Thomas (1995: 5) observes that "Unlike radio, [television] is semi-transparent and acquires an eavesdropping audience beyond the audience for whom it is intended. People who cannot understand the language in question can still watch the screen and perceive lives not altogether unlike their own unroll in this other language, which can make it harder for the wilder prejudices and stereotypes to survive." Attitudes, which are used in a broad sense in this study, include people's direct expression of their likes and dislikes, as well as people's opinions about the relevance of the language; this latter facet of attitudes can sometimes be interpreted in terms of expectations about the future prospects of the language.

Generally, there is wide agreement in favour of the use of Welsh in Wales. 71% of respondents in the NOP Survey were supporters or strong

supporters. This figure, which reaches 98% among fluent speakers, yields a very respectable rate of 54% among people who speak no Welsh at all. Only 7% of latter opposed or strongly opposed the use of Welsh. Non-speakers are mostly indifferent, (39%), whereas only 2% of fluent speakers claim not to care, versus 21% of speakers with "a bit" of Welsh.

As regards respondents' view of the prospects of Welsh, we wish to quote extensively from the relevant passages of the NOP survey: "Just over half of the total sample (53%) thought that the Welsh language had a future across Wales in general, while 36% said that it was dying or already dead [...]. Optimism was higher among the middle class respondents (60%) than in working class homes (49%). Among fluent speakers, 77% expressed optimism although 15% thought that the language was dead/dying. A majority (56%) of respondents with children aged under 16 were optimistic about the future of Welsh across Wales in general. Optimism is not so apparent at a local level—only 41% thought that the language had a future "around here", while 50% classified it as being dead or dying in their area [...]. The explanation of the difference between national optimism and local pessimism is in the attitudes of people who live away from the main Welsh-speaking heartland." Generally, people living in the heartland are more optimistic about the future of the language in their area than nationally, while the reverse is true of those living in the more urbanised (and heavily anglicised South West), who also make up a larger share of the overall sample once appropriate demolinguistic weights have been factored in.

TABLE 2.11
AGREEMENT WITH STATEMENTS ABOUT WELSH AND ITS RELEVANCE, PERCENTAGES
(n=815 [total sample])

S1: Relevant to modern life.
S2: An asset to Wales
S3: Something to be proud of
S4: Hard to learn
S5: Welsh and English should have equal status
S6: The Welsh language increases the sense that Wales is a separate country.
S7: The Welsh language can be awkward socially.
S8: In Wales education through the Welsh language should be available at all levels from nursery school to university
S9: All public bodies should be able to deal with people in both Welsh and English

Statement	Agree strongly	Agree	Neither	Disagree	Disagree strongly	Don't know
S1	8	37	12	37	3	3
S2	21	56	7	13	1	2
S3	32	56	6	5	*	1
S4	19	44	8	16	1	11
S5	14	61	7	15	2	2
S6	15	57	6	18	1	3
S7	8	50	9	24	5	4
S8	20	63	5	10	1	1
S9	18	56	5	10	1	1
			similar question from 1989 survey, n=1062			
S8	64	25	3	3	4	1
S9	56	27	4	6	5	1

sources: NOP (1995: 16) for top panel and Bwrdd yr Iaith Gymraeg (1991: 64-65) for bottom panel

The percentage of respondents who consider Welsh not relevant to modern life, at 40%, is not much below the share of those who hold the opposite view (45%). However, it is interesting to note that an overwhelming 77% consider the language to be an asset to Wales, and 88% consider it something to be proud of, while 63% agree, some strongly, that Welsh and English should enjoy equal status.

Lack of comparable data over time makes it difficult to assess how attitudes have evolved over time. The survey carried by NOP in 1989 on behalf of HTV already reports considerable support on favour of the language (Bwrdd yr Iaith Gymraeg, 1991: 64-67), and the limited comparison provided in Table 2.12 indicates that attitudes have shifted somewhat, giving more weight to middle-of-the road positions. Generally, however, the agree/disagree split has remained constant; the shift from "strongly agree" to "agree" opinions on statements 8 and 9 above may

reflect—apart from possible changes in sampling and polling techniques—the more relaxed views that normally go along with a process of normalisation, in the Catalan sense of normalització. It is unlikely that support for the language would have been negatively affected by the establishment of S4C. More generally, as noted earlier, observers agree that the provision of minority language television can go a long way to alter the image of a language. In our view, apart from general improvement in attitudes, its strategic importance lies in its capacity to equip the minority language with a whole new set of associations, namely, with modernity, in addition to (not instead of) tradition.

A specific reflection of attitudes: the success of Welsh-medium education

As noted previously, one key strategic aspect of minority language broadcasting is that it can make a significant impact on the language behaviour of younger speakers, and S4C sets great store by offering attractive children's programmes. This must be put in relation with another important aspect of children's life, namely, school-going, and the linguistic dimension of this activity. Attending a Welsh-medium school provides and/or increases competence in the minority language, and hence enhances the effectiveness of minority language television. Conversely, minority language programming increases the perceived relevance of minority language instruction provided in schools. Therefore, it is interesting to say a few words about the supply of, and enrolment in Welsh-medium education, because it is not just a source, but also a reflection of the evolution of a linguistic environment in which television plays a unique role.

In addition, some sense of temporal evolution can be derived from figures covering successive years since the establishment of S4C. Obviously, such information only bears indirect relevance to the question at hand, but we believe that these data usefully contribute to the picture of a linguistic environment which shapes, and is shaped by, the development of minority language broadcasting.

Welsh-medium education concerns a steadily increasing number of pupils. Packer and Campbell (n.d.) report the following trends (Table 2.12) out of a total of primary schools that, owing to the concentration of pupils into establishments "where Welsh is the sole or main medium of instruction of first and second language pupils", declined from 1,847 to 1,704 over the period considered:

TABLE 2.12
EVOLUTION OF PRIMARY SECTOR IN WALES, 1982-1990

year	No. of Welsh-speaking junior schools*	Welsh-speaking junior schools as % of total
1982	348	18.8
1983	343	18.8
1984	338	18.8
1985	355	20.0
1987	358	20.3
1988	363	20.7
1989	368	21.1
1990	417	24.1
1991	445	25.9
1993	445	26.1

**. more than half of the foundation subjects taught wholly or partly in Welsh.*

Over the same period, the concentration movement brought on a sharp decline in the number of schools "with some teaching in Welsh" (i.e., with a lower presence of Welsh than in schools referred to in the Table above), but the evolution is a difficult one to trace, owing to changes in the presentation of the data in 1987 and in 1993. At the same time, there was a decrease of 143 units in the total number of schools in the primary English-medium sector in Wales.

Progress in the secondary education sector is more difficult to assess, and it would be delicate to infer it from raw data on schools defined according to their designation, because of the heterogeneity of curricula offered. Packer and Campbell (n.d.) discuss a variety of figures that can be interpreted as indicators of the success of Welsh-medium secondary education, showing that none, however, provides conclusive or unqualified proof of such success. They also note that the choice of bilingual education does not simply reflect language trends themselves. However, they are not divorced from them either, and stepping back for a more qualitative appraisal at recent trends, they agree (p. 4) with Baker's view that increasing enrolments in Welsh-medium education reflect "the general growth of consciousness about the virtues of preserving the indigenous language and culture—at another level, the growth of such consciousness requires explanation in political, sociological, economic and psychological terms."[38]

Parental motivation for sending children to Welsh-medium schools has been the object of a good deal of interest, mostly when it was found that

[38] The analytical framework presented in Part I aims precisely at offering an instrument for such an endeavour.

(with differences between counties) a significant percentage of parents were non-Welsh speaking themselves. The good reputation of Welsh-medium establishments has sometimes made headlines and been held up as a key explanatory factor,[39] but it should not obscure other factors listed by Packer and Campbell, such as "a natural reflection of family culture", "a special opportunity to learn the language", "future advantages for their children" (which may, of course, be related to school reputation), or "career and personal advantages". Generally, the element of conscious motivation seems to be a very important one in parents' decision to send their children to Welsh-medium schools.

In one of several studies related to various aspects of the performance of Welsh schools, Lyon and Ellis (1991) polled a small sample (final n=384) of young parents in Môn/Anglesey (North Wales) on their attitudes towards Welsh and Welsh-medium education for their children. Table 2.13 below reports their reasons for wanting (or not wanting) their children to learn Welsh:

TABLE 2.13
PARENTAL REASONS FOR WANTING THEIR CHILDREN TO LEARN WELSH OR NOT 1988/89, PERCENTAGES

MOTIVATION	WW	WM	WF	MM	EE	ALL GROUPS
It is an advantage	4	17	19	20	20	17
Better job prospects	3	8	11	22	18	14
Good for communication	8	0	14	16	19	14
No reason	12	25	22	12	8	14
Keep back the English	4	3	0	0	0	1
Irrelevant or unnecessary	0	8	3	6	26	10
Welsh identity and heritage	68	39	31	24	8	29
No. of respondents	93	36	46	77	132	384

WW=Welsh couples; WM=Welsh mother and English father; WF=Welsh father and English mother; EE=English couples; MM=mixed couples (both partners with mixed language background).

Lyons and Ellis note that overall, 86% of parents wanted their children to learn Welsh or be fluent speakers of the language. These results suggest that parental attitudes reflect a dynamic reading of language status, and hence are connected with actors' expectations. The latter are directly influenced by media messages, or possibly by the form of the message itself—as McLuhan observed in a memorable phrase, "the medium is the message".

[39] E.g. in *The Economist*, August 6, 1983, and May 16, 1992. Interestingly, this publication seems to be having a rather hard time coming to terms with minority language revitalisation, often opting for a derogative or patronising tone (for example, in the second of the articles mentioned above, Welsh is described as "the local argot").

Numbers of speakers

In the preceding chapter, we have already provided figures about the number of speakers, and stressed the following key points:

- the decline in the absolute numbers of speakers has been slowed down, and may soon be reversed;
- the same is true of the relative number of speakers;
- by contrast, the absolute and relative number of speakers in the younger age cohorts is on the increase.

In principle, our question should now be whether and how these trends are linked to the provision of minority language broadcasting. Although the data are insufficient to assess this point, it is interesting to consider aggregate figures. Table 2.14 reports the evolution of both series by age group

TABLE 2.14
POPULATION AGED 3 AND OVER ABLE TO SPEAK WELSH, 1921-1991
ABSOLUTE NUMBERS (THOUSANDS) AND PERCENTAGES

	1921	1931	1951	1961	1971	1981	1991
all 3 +	922.1	909.3	714.7	656.0	524.4	508.2	500.0
	37.1	*36.8*	*28.9*	*26.0*	*20.8*	*18.9*	*18.5*
3-4	25.5	18.5	13.7	10.5	9.7	8.4	12.0
	26.7	*22.1*	*14.5*	*13.1*	*11.3*	*13.3*	*16.1*
5-9	79.8	64.7	38.4	32.4	32.6	33.6	44.6
	29.4	*26.6*	*20.1*	*16.8*	*14.5*	*17.8*	*24.7*
10-14	88.1	73.7	39.6	42.8	35.2	41.9	47.1
	32.2	*30.4*	*22.2*	*19.5*	*17.0*	*18.5*	*26.9*
15-24	164.4	146.4	77.0	71.5	61.5	63.8	66.2
	34.5	*33.4*	*22.8*	*20.8*	*15.9*	*14.9*	*17.1*
25-44	280.3	280.6	207.2	158.7	116.9	110.8	111.4
	36.9	*37.4*	*27.4*	*23.2*	*18.3*	*15.5*	*14.5*
45-64	212.5	238.1	224.1	221.9	169.1	132.6	109.0
	44.9	*44.1*	*35.4*	*32.6*	*24.8*	*20.7*	*17.3*
65 +	71.5	87.3	114.6	118.3	117.4	117.0	109.7
	51.9	*49.9*	*40.7*	*37.2*	*31.0*	*27.4*	*22.6*

Source: Government Statistical Office (1994: 3).

The shaded area in Table 2.14 covers the time periods and cohorts where an increase in the absolute or relative number of speakers can be observed. Clearly, signs of a turnaround in language shift appear before S4C first

went on the air in 1982, and the more direct determinant of this turnaround is very probably the increase in the supply of Welsh-medium education (C. Williams, 1991). Much more precise and disaggregated data would be necessary to assess whether the provision of minority language television has prompted some adults to learn the language or to send their children to Welsh-medium schools; possibly, the existence of S4C may have enticed children to put more effort into take Welsh classes, or to ask their parents to be sent to a Welsh school.

Nevertheless, Gruffudd and Morgan (1997: 306) state that "what is achieved [in terms of language revitalisation] is largely due to the influence of various pressure groups [...] and of the bodies that have been created as a result of this pressure [...] S4C [is] among [the] bodies which operate fairly independently in our haphazard language planning culture". The actual effect of S4C itself on the number of speakers, however, can only be conjectured, and S4C's main impact is likely to concern patterns of language use, which have been discussed earlier.

Competence level of speakers

The success of Welsh revitalisation policy is not an unqualified one, and the competence level of speakers can be a good indicator of such limitations. Though 18% of the Welsh population considers itself fluent in the language, an additional 3% said that they had been fluent but had lost some or most of their language skills after leaving school. Another indicator of weaknesses on this level is the finding (Bwrdd yr Iaith Gymraeg, 1995) that speakers' confidence in their language skills are high at home, for shopping, and for socialising, but lower in more formal settings such as dealings with local councils or local utility companies.

By providing examples of language usage, radio and television offer unique opportunities to expose speakers to a variety of language registers, as well as an efficient way to disseminate unfamiliar terms or neologisms (Thomas, 1995; Awbery, 1995) This latter point is not without importance, since there is a common tendency among most minority languages to borrow heavily from the lexicon (or other linguistic features) of the associated dominant language, not just for rare terms or for words denoting recent technological innovations, but also in cases where the minority language either has a perfectly appropriate term of its own, or provides lexical elements out of which an adequate new term could be coined.[40] Awbery (1995) notes that S4C has made an important

[40] The broadening of language competence, however, is probably not confined to neologisms; while there is evidence that use of Welsh in the home (possibly in connection with TV watching)

contribution in ensuring that new terms (derived from Latin and Greek) become widely known and accepted, in lieu of loan words from English.

Tensions, however, are not confined to the relationship between Welsh and English, and also have to do with the proper role of formal and informal Welsh. Conflict is internal to the community of Welsh-speakers, in which Awbery (1995: 84) points out the existence of a "strong purist element [...] and, associated with it, the belief that only formal Welsh is good Welsh." Many people with relatively lower levels of education, however, feel more at ease with colloquial registers. It is S4C policy to try and satisfy both types of audiences, and to embrace the variety of regional Welsh accents as well as local lexical variants.

Although common sense suggests that S4C can only have improved the competence level of speakers (as defined in Section 4.3, that is, by inducing a shift to the right of the overall distribution of competence levels), we have not been able to locate statistical evidence that could demonstrate this relationship. What would be required to this end is a large-scale data set with information on individual language skills and S4C viewing time, along with an extensive range of control variables (schooling, parents' education, region of residence, language characteristics of social network, patterns of language use at home and at work, etc.). This would allow a cross-sectional study of the net contribution of viewing time to competence levels, but would only offer indirect evidence of the effectiveness of minority language television for any given individual; panel data comparing the same individuals over successive periods would be necessary.

Limitations

There can be no doubt that S4C has made, and keeps making, a considerable contribution to the revitalisation of Welsh. However, this conclusion is subject to two types of limitations, some methodological, some dealing with the issue of the effectiveness of S4C proper.

As regards the first type of limitation, we have noted that for the most part, we have had to rely on more or less circumstantial evidence. On the one hand, the precise cause-and-effect relationships that could link the provision of minority language television to revitalisation are not fully clarified, even on theoretical grounds. For example, despite the fact that

is related to a better command of grammar (the case in point being the mutation system that characterises the beginning of Welsh words depending on their grammatical position), the effect of TV watching proper appears to be inconclusive. The authors thank Glyn Williams for this information.

(for reasons explained earlier) S4C has had to acquire early on the habit of commissioning its own programmes, there little in the way of theoretical models about the long-term language effects, on language use and revitalisation, of the type of cultural references and messages relayed by television programmes. At an empirical level, lack of data implies that only indirect effects can be documented.

As a result from these methodological limitations, it is difficult to conclude as to the actual effects of S4C on the fortunes of Welsh. Gruffudd (1996) notes that Welsh language programmes must avoid creating a picture of an ageing culture, and favour content appealing to the young, but that this is no easy goal. In his sample (about which no information is provided), only 10% of young people could name a programme providing Welsh rock music, and only 5% a programme of Welsh light entertainment. Respondents sometimes deride these shows as pale and unconvincing imitations of Anglo-American pop. This does not necessarily imply that such programmes are useless, and may, rather, be an indicator of the strength of positive or negative mental associations between certain languages and particular forms of entertainment. Perhaps more time and experimentation is necessary until Welsh-language rock music is perceived as genuine.

One other area of concern for the future of the revitalisation of Welsh is the contraction of traditional strongholds of the language, for example in Gwynedd, where the demolinguistic dominance of Welsh is still undergoing erosion. While the provision of minority language television programming apparently gives a significant boost to the language throughout Wales, and hence makes more of a difference in heavily anglicised areas, it is impossible, at this time, to say whether it can contribute to stemming the decline of the language in “Welsh Wales”.

This last point raises the problem of the need for more or less homogeneous minority language territories for language maintenance. This question far exceeds the issue of media effectiveness, and is taken up again in Section 12.3. For now, suffice it to say that evidence on this point is mixed, and the debate over it often acrimonious. In our view, the existence of geolinguistic strongholds, possibly enshrined in legislation, is more likely to be beneficial than detrimental to minority language maintenance, but is not a necessary or sufficient condition for the success of revitalisation policies. However, in cases where such territories are profoundly eroded or no longer exist, language planners will have to make do without them, which reinforces the need for non-territorially based supporting systems of minority language promotion such as television.

9.8 Evaluation

Although the information available is mostly of a circumstantial nature, there can be little doubt that the establishment of S4C and the availability of Welsh-language broadcasting has:

- considerably increased the amount of time that Welsh-speakers can devote to television watching in their language;
- considerably increased the range, status and practice of a major leisure activity in Welsh;
- given the Welsh language a much more dynamic image;
- generally increased the sense of relevance of Welsh in modern life.

Effects on the attitudes and expectations of speakers and non-speakers, their patterns of language use in activities other than television watching, on the number of speakers and on the latter's level of proficiency in the language can be safely assumed to be, in the aggregate, positive, or undoubtedly non-negative. While there is significant room for improvement in the efficiency of S4C—as a language planning instrument—, particularly as regards its appeal to teenage audiences, it would be hard not to conclude that S4C is a key element, if not a cornerstone in the revitalisation of Welsh.

Of chief interest to us in this report, however, is some sense of the conditions that have allowed S4C to be a language planning success, which is not quite the same as asking what makes it a good television channel, although its quality obviously contributes to its success as a language planning instrument. We have identified seven major reasons explaining this success.

1/ First, the historical circumstances surrounding its creation make it clear that there was significant pent-up demand for a Welsh-language channel, and that what little Welsh was provided on English-medium television was inadequate. The subsequent success of S4C once on the air is in part due to the fact that, apart from the existence of an audience potential made up of the total pool of speakers, a significant number of them were explicitly interested in watching television in their language.

2/ Second, S4C has skilfully tailored its output to the needs of the audience. This implies, on the one hand, a commitment to quality, made necessary by the very stiff competition faced by the channel. On the other hand, relevance to the interests and concerns of the audience was ensured by the important role of original creation; we have seen earlier why S4C could not be content with dubbed reruns of American or English productions.

3/ Third, despite its close attention to the preferences of the audience, S4C has consistently devoted part of its programming to experiments with new products; this gives the channel a modern, possibly challenging image, that preserves it from being perceived as rehashing worn out content with little relevance to modern life.

4/ Fourth, S4C has obviously benefited from a convergence between its purposes and a more general Zeitgeist. The latter can be observed on the cultural, political, economic and technological levels. All were conducive to the setting up of more varied and independent broadcasters—notably the concept of distributing as opposed to producing channels, and the notion that diversity, linguistic, cultural or otherwise, can generate commercial as well as non-commercial value.

5/ Fifth, there had to be a willingness from the authorities to endorse and financially support the project. We have seen that distinct pressure had to be exerted on the Thatcher government until the latter agreed to the creation of S4C and, most importantly, to allow 3.2% of total television revenues to be devoted to S4C's mission; in other words, although such willingness was not forthcoming, thereby jeopardising supply, pressure from the demand side finally caused supply to follow. In this case, given the cost structure of television broadcasting (particularly one that stresses quality, or one that targets minority audiences), the interaction of supply and demand had to be mediated by the political process instead of being exclusively played out on the market.[41]

With hindsight, the success of S4C and the wide recognition of its usefulness and legitimacy can also be explained by two additional factors.

6/ One of them is simply the natural consequence of a normalisation process. S4C is now an accepted part of the broadcasting landscape, and something would be missing in its absence. It seems prudent to remember that recognition is never won for ever, which implies that continuing efforts to maintaining quality and relevance are always necessary; nevertheless, such efforts do not start out from nothing, and can build on the achievements, whether in terms of reputation or ratings, realised to date.

7/ The other factor reflects a general perception of induced positive effects resulting from the existence of a Welsh-medium channel. We have already pointed to the estimated 3,000 jobs created, in addition to the 140 directly

[41] Readers may wish to briefly return to our discussion in Section 3.5 (Part I) about the redistributive implications of *not* providing minority-language services.

employed by S4C, and the channel's contribution to Welsh identity and "sense of place". If the channel had been established without the remit to provide peak-hours Welsh programming, some jobs would certainly have been created too, but such job creation would undoubtedly have taken place elsewhere, and such jobs would not have implied the use of Welsh or the development of various skills in Welsh. The development of local expertise in broadcasting, film-making, animation, acting, etc. means that talent can develop locally and in the language. In other words, the establishment of S4C allows Wales to export animation films and drama series, generating revenue at the same time, instead of losing talented individuals to foreign (and non-Welsh-speaking) competition.

10. Language education planning in Euskadi

10.1 Background on Euskera

Straddling the border between France and Spain on the Atlantic ocean, the Basque Country (Euskal Herria) has a population of 3 million, including 600,000 speakers of Basque (Euskaldunes). Of this number, 500,000 live in Spain. The term "Basque Country" refers to all the provinces of Euskal Herria, whether in France or in Spain. Euskal Herria is conventionally divided into seven provinces. The three provinces on the French side of the border (Zuberoa, Lapurdi and Behe-Nafarroa) are collectively referred to as Iparralde or North Basque Country. Of the four provinces on the Spanish side, three (Bizkaia, Gipuzkoa and Araba) make up the Basque Autonomous Community, often referred to in the literature as the C.A.V. (Comunidad Autonoma Vasca), while the last one, Navarra, has a distinct constitutional status in the Spanish state under the name of Comunidad Foral de Navarra. The commonly used term "Euskadi" refers to the three provinces of the Basque Autonomous Community. It is very often the case that mentions of the "Basque Country", particularly in the language planning literature, actually mean "Euskadi". In this report, we also focus on Euskadi because it represents a relevant unit of analysis with a clearly identified education policy.

The Basque language, or Euskera, is the only indigenous non-Indo-European language in Western Europe. In this report, we use the term "Euskera", although the variants "Euskara" and, more rarely, "Eskuara" are also found in the literature. Several hypotheses have been entertained about its origins, and although Euskera displays structural similarities with some Caucasian languages like Georgian, no relationship has been proved conclusively, and it is generally considered an isolated language. According to the 1883 Language Charter granted by Prince Luis Luciano Bonaparte, there are eight variants of Euskera, one of which is now extinct. Because this diversity can be an obstacle to communication between different parts of Euskal Herria, the Euskaltzaindia (Academy of the Basque Language) was commissioned in 1968 to create a unified standard. The work of Euskaltzaindia resulted in the creation of *Euskera batua* (from "bat", "one"), which is now used by most media, in literature and in schools.

The emergence of Basque as a written language is comparatively recent (the first book in Euskera was published in 1545) and the language faced formidable competition from two major languages (Spanish and French), but Euskera has survived to the present day thanks to its rich oral tradition rooted in pastoral poetry and *bertsolari* contests (lyrical or satirical poetry improvisations). The survival and development of Basque into the 20th century are all the more remarkable that during the 36 years of fascist dictatorship in Spain and the associated centralisation, the use of Euskera in public was banned, and speakers managed to pass on the language despite the threat of imprisonment. Nonetheless, language maintenance was under pressure, and had to face the additional challenge of strong Spanish-speaking immigration into the more industrialised and prosperous Basque provinces.

It was not until after Franco's death in 1975 that the new Spanish government granted the three provinces of Euskadi a statute of autonomy (1978), providing the basis for the recognition of Euskera as an official language. Section 6 of the 1979 Statute of Autonomy of Euskadi, which defines the nature of relations between the central government in Madrid and the govemment of the C.A.V., stipulates that "Euskera, together with Castilian, is the official language of Euskadi, and all its inhabitants have the right to know and use both languages. [...] No one can be discriminated for reasons of language".

On November 14, 1982, the Parliament of Euskadi adopted the *Basic Law of the Standardisation of the Basque Language*, which introduced a broad range of measures aiming at defending and promoting the use of written and spoken Euskera in various domains, including the provision of state services, education, the media, etc. This piece of legislation is the starting point of a language policy resting on three pillars, namely, the administration, the media and education. It is seen as reflecting popular demand, since according to a survey commissioned in 1981 by Euskaltzaindia, 86.5% of respondents agreed with the goal of maintaining and promoting Euskera (Rotaetxe, 1985).

There are practically no unilingual Euskaldunes (Basque-speakers), since all speak Castilian, French, or both[42]. The distribution of Euskaldunes is uneven. In 1991, they made up 26% of the population in Euskadi, 10% in Navarra and 31% in Iparralde. In general, the percentage of Euskaldunes is higher in rural or isolated areas, although recent revitalisation efforts have had some measure of success in restoring Euskera as a language of towns and cities.

This geolinguistic heterogeneity is compounded by a sharply uneven distribution across age groups. Table 2.15 describes the evolution over

[42] Non-speakers of Basque are called *Erdaldunes*.

time of the percentage of Euskaldunes by age group in Euskadi, which is home to two thirds of the population of Euskal Herria.

TABLE 2.15
SHARE OF EUSKALDUNES BY AGE GROUP IN EUSKADI, 1981, 1986 AND 1991

AGE GROUP	CENSUS YEAR		
	1981	1986	1991
5-19	19%	26%	35%
20-29	19%	23%	25%
30-49	20%	21%	21%
>49	29%	28%	26%
Total	22%	25%	26%

Source: Erriondo and Isasi (1995: 346)

As shown in Table 2.15, whereas in 1981 the distribution of Euskaldunes across the three younger age groups was relatively homogeneous, a strong contrast between the youngest (5-19) and middle-age (30-49) group has emerged in just ten years. We shall see that the sharp increase in the percentage of young Euskaldunes can be credited to the school system. In short, urbanisation and rejuvenation represent the most significant changes in the demolinguistic position of Euskera in recent years.

Other observations contrast with this positive evolution. First, the share of Euskaldunes in the population of Euskadi remains, on the whole, a modest one, at some 25%, and there is no certainty that recent increases will go on. Second, the growth in the percentage of Euskaldunes has slowed down (this percentage has actually declined slightly) in some age brackets. This must be assessed in connection with the fact that between 1986 and 1991, the total population of Euskadi dropped by 1%, following a modest increase from 0.7% between 1981 and 1986 (Erriondo and Isasi, 1995). Finally, the lowest percentage of Euskaldunes, as well as the least favourable attitudes towards learning and using the language, are found in those segments of the population that can be considered most dynamic socially and economically. However, as we shall see below, this aspect appears to be currently improving.

10.2 Language education planning as language policy

In our framework, language education is viewed as an instrument of language policy in two different ways. Both are subsumed under the general designation of “education planning”, but it should be clear that we are not concerned with the education enterprise as a whole, but with the teaching of the minority language, principally—but not exclusively—through the formal education system, which is mainly in the hands of the state.

"Education planning" has been broken down in two parts, namely "skills development" and "acquisition planning". The sense in which these terms are used, which does not necessarily match their use by other authors, has been explained in Section 4.2. In short, "skills development" refers to the improvement in the distribution of levels of competence in the population, while "acquisition planning" refers to the increase in the number of individuals who are able to use the language at a given level of proficiency. Skills development and acquisition planning function differently, not just in our model, but also in the way in which they alter speakers' circumstances; for both reasons, they are kept separate in the analytical framework. However, as noted in Section 5.1, they are almost indistinguishable when it comes to the provision of both measures in actual language policy contexts. Hence, they will be treated jointly in this chapter.

Nevertheless, it is important to recall why their analytical effects are not the same. Skills development increases speakers' efficiency at using the minority language; its chief consequence is to reduce the shadow price of minority language activities. When it becomes easier to function in it, speakers will generally tend to use it more. The demonstration of the conditions for this effect to obtain is similar to the one applying in the case of the provision of minority-language services, and they are summarised by equation (21) in the appendix. Acquisition planning works differently: it simply increases the total number of people who can be considered speakers of the language. Obviously, the existence of speakers is a necessary condition for the language to be used.

This latter fact is centrally important; it probably goes a long way towards explaining why education planning is the subject of the largest single line of sociolinguistic research on language planning and language revitalisation, as a glance to any of the leading journals of the profession will quickly show. It is also a traditional favourite of language planners; unfortunately, this often goes along with inadequate attention to the conditions that make it successful. Although its focus is *not* on schools, our overview of the Irish case will give us the opportunity to mention some deficiencies of an essentially school-based approach to minority language revitalisation (Section 11.1). In the present chapter, which is devoted to education planning in Euskadi, we shall therefore take account not just of the school system itself, but of some of the surrounding support system and broader conditions that have played a significant role in ensuring that language teaching efforts have actually resulted in an increase in the percentage of speakers, particularly in the younger age groups.

A distinction must also be made between "internal" and "external" efficiency evaluation. Internal efficiency has to do with the relationship between inputs and outputs *within* the educational sphere. For example, internal efficiency

evaluation examines whether teacher/student ratios, teacher's experience profile, specific pedagogical approaches, or socio-economic homogeneity in the classroom have an impact on students' performance, as measured through standardised tests. Apart from the technical estimation of such relationships, which makes up an important part of the literature in the economics of education, such questions are mostly in the province of specialists in the education sciences. By contrast, external efficiency evaluation is concerned with the relationship between inputs and outputs *outside* the educational sphere. Inputs will often be aggregated and expressed in monetary terms, while outputs are made up of effects that can be observed in society at large, but which are seen as resulting from the performance of the education system. In the economic analysis of language education, key outcomes are wage differentials accruing to people who possess second language skills, indicators of non-market welfare gains (such as inter-group harmony), or increases in the use of the languages taught in the education system (see e.g. Grin, 1994e).

In the analysis of policies whose ultimate goal is precisely to increase the use of the target language, our concern is obviously with external efficiency evaluation, and our assessment of the Basque experience must be viewed in this light. The distinction between internal and external efficiency is not as sharp in practice as it is in theory, and a focus on a given school subject (such as a particular language) often provides a bridge between them (Grin and Sfreddo, 1997). Nevertheless, it must be remembered that this report approaches language planning as a form of public policy, and that this logically prescribes a corresponding level of analysis. Internal efficiency issues exceed the scope of this report. However, they become relevant at a later stage of the overall language policy enterprise, when the specifics of the implementation of minority language instruction are discussed. These questions are clearly in the province of specialists in this particular field; on the complementarity between our macro-level analysis and the specifics of implementation, see Section 12.2.

10.3 The development of Basque education policy in Euskadi

The 1979 statute of autonomy provides the legal basis for language policy in Euskadi, but the contribution of schools to the maintenance and development of the language predates the end of the dictatorship.

The official school system had served to disseminate the language of the state (Castilian) and to downgrade Euskera to the position of a rural language (Rotaetxe, 1985; Agote and Azkue, 1991). Being aware of the key role of schools in language maintenance, the Basque federated in 1969 the semi-clandestine, privately run language teaching centres (*ikastolas*), which had been operating, albeit in small numbers, since the turn of the century. At the

same time as they followed the official syllabus of the Spanish Ministry of Education, the ikastolas taught through the medium of Euskera and organised various activities conducive to the transmission of Basque culture, such as regional geography, history, song, dancing, etc. (Martínez-Arbelaiz, 1996). Ikastolas met the need for structures to ensure linguistic and cultural survival and became the first "language laboratories" of Euskera and in Euskera.

As soon as political conditions made it possible with the establishment of the 1979 Statute of Autonomy, a real debate developed on school structures, their role in the transmission of Euskera, and the extension of the use of the language to all domains—the process referred to as "normalisation". This debate raised the following key issue: how to reconcile a social fabric made up of Basque-Castilian bilinguals and Castilian unilinguals and an official school system designed strictly for the teaching of Castilian and in Castilian? Or, more precisely, how to mesh the interests of those in favour of an alternative system of purely Basque-language schools and those advocating language transmission through non-compulsory Euskera classes in mainstream education?

In answer to these questions, the 1979 reform of the state education system resulted in the creation of the current system, now governed by the 1983 decree on bilingualism. The system is based on the coexistence of four types of schooling, or "models".

- Model A: teaching of all subjects takes place in Castilian and Euskera is taught as a subject;
- Model B: teaching takes place in both official languages; the share of each language varies between schools;
- Model D: teaching of all subjects takes place in Euskera and Castilian is taught as a subject. This model, which is the symmetrical counterpart of model A, is closest to that of the *ikastolas*.
- Model X: teaching takes place in Castilian and Euskera is not taught.

The prerequisite of *euskaldunisation* ("basquisation") through schools was the training of teachers and the setting up of adult language classes for non-Euskera-speaking parents of children going to *ikastola*s or model D schools. To this end, several programmes and structures were initiated: the IRALE programme (1980) for the alphabetisation and basquisation of teachers; the HABE institute (1981) for the alphabetisation and *re*basquisation of adults; and the EIMA programme (1982) for the development of Basque teaching materials.[43]

[43] Most of the time, only acronyms (instead of the full Basque name) of the programmes are used, and we conform to this practice.

On the legal plane, the teaching of Euskera through the school system is guaranteed by Sections 15 through 21 of the Act of 24 November 1982. This Act grants all pupils the right to be schooled through the medium of Euskera or Castilian and includes several measures whose goal is to ensure that during their years of compulsory schooling, students develop an "adequate practical knowledge" of both official languages. This implies that the teaching of both official languages is a legal obligation, exemptions being possible in exceptional cases. In addition, the Act requires the authorities to take all necessary steps for the progressive generalisation of bilingualism throughout the school system in Euskadi.

Following the adoption of the Act, the *Hizkuntza Politikarako Idazkaritza Nagusia* (Secretariat for Language Policy) was created in the end of 1982 to co-ordinate all language planning activities. Its name was changed to *Hizkuntza Politikarako Sailordetza* (Deputy Ministry for Language Policy) in the 1991 administrative reform. 1987 saw the creation of the Basque Language Advisory Board, which then published a reference document on the "Basic Criteria for the Basque Language)

In 1990, the legislation on the normalisation of Euskera in schools was completed with a law on the general structure of the education system. One of the goals pursued by this law is to develop students' ability to understand and express themselves correctly in Spanish and in Euskera. This principle is also mentioned explicitly in Act 1/1993 of 19 February on the Basque public school, which regulates the combination of two networks (public and private) and requires *ikastolas* to choose between integration into the public education system or continued autonomy as private institutions (Departamento de Cultura, 1997).

In the same year, Act 2/1993 on Teachers in the non-university sector was also adopted. It stipulates that "work relations in the education sector will necessarily establish the linguistic profile of each post" (Departamento de Cultura, 1997). The Decree based on this Act established criteria for the definition of these profiles and the compulsory deadlines for acquiring them.

Finally, the General Plan for the Revitalisation of Euskera was adopted in 1995. It defines the language policy strategy to follow in the coming years, given the new sociolinguistic context that has emerged as a result of the implementation of 1982 Act.

10.4 Agencies responsible

Public schools fall within the province of the Department of Education. In accordance with the legislative apparatus described in the preceding section, the Department runs the A, B, D and X models of education. It should be

noted that different models can coexist on the same school premises, and that analysing the education system in terms of schools may or may not allow interpretations in terms of the four models. The X model is progressively being phased out and only exists in exceptional cases.

Alongside the public education system, some *ikastolas* have chosen to remain independent institutions.

Finally, language planning bodies provide a support system for euskaldunisation through the school system proper. The three main actors are the following:

The Deputy Ministry for Language Policy is in charge of language policy matters. It is part of the Department of Culture, includes three departments and is in charge of the following tasks: (i) promotion of Euskera in all areas of social life; (ii) sociolinguistic studies, information and publications; (iii) normalisation of Euskera in public administration and planification of normalisation measures. This latter unit is also entrusted with the co-ordination of teacher training programmes (see Section 10.5 below).

The HABE (Institute for Adult Literacy and Basquisation) is placed under the responsibility of the Department of Culture and works in close collaboration with the Deputy Ministry for Language Policy. It is in charge of the teaching of Basque to adults in the *euskaltegis*, where Euskera language classes are offered throughout the year. *Euskaltegis* also play a key role in the euskaldunisation of teachers.

The Basque Language Advisory Board functions as a forum that brings together representatives of the main bodies involved, in some capacity or other, in the normalisation process. It is entrusted with the supervision and evaluation of progress made in the implementation of the General Plan of Normalisation of Euskera.

10.5 The operation of language education[44]

Before presenting the ways in which the revitalisation of Euskera takes place in the school system of Euskadi, we wish to remind the reader that this report is not, and is not meant to be, a specialist review of educational or language teaching practices. Reference is made in the text to several publications where these questions are addressed; however, it is important to remember that our report pursues different goals. Our main concern is with the evaluation of policy in terms of outcomes, and the level of generality aimed at (in order to

[44] The information presented in this section comes from the following sources: Erriondo and Isasi (1995); Martínez-Ableaiz (1996); *Hizkuntza Politikarako Sailordetza* (1990 *and* various years); *Institut culturel basque* (1996); *Comisión de Instituciones e Interior* (1997).

provide an integrative overview of different types of policy experience) means that some aspects of the language teaching and language learning processes, though interesting in themselves, are not relevant here. They would, however, be highly relevant when moving from the "large-scale" level of analysis chosen here to the "smaller scale" issues of language instruction in the classroom.

Two types of measures have been introduced for the revitalisation of Euskera through the school system:

- Measures directly affecting the school system: diversification of school models; teacher training; production of teaching materials; extension of bilingual teaching to universities; subsidies to private language teaching centres.

- Measures affecting the milieu outside the school system proper: organisation of adult Euskera classes, creation of a network of boarding institutions and holiday camps, awareness campaigns targeting students and parents.

These various measures are described below.

Diversification of school models

As mentioned earlier, the school system of Euskadi currently includes four different models (A, B, D and X) defined according to the relative importance of Euskera. Of these four models, three are considered bilingual; the system as a whole is viewed as a reflection of the diglossic patterns of life in Euskadi, and to the fact that the functional distribution of language over domains is not unique but changeable between individuals and groups. Model A is meant for members of the hispanophone community, and model D for Euskaldunes. Model B is intended for hispanophones who are close to Basque language and culture. Choosing one or another model is a matter of free choice by students (or, more likely, their parents). Finally, the unilingual model X is available only for exceptional cases—for example, children of temporary residents whose native language may be neither Spanish nor Euskera.

Teacher training

In the school context, the teaching workforce is the main agent of language normalisation. Its function is not confined to the transmission of technical linguistic knowledge, because the teacher generally represents learners' main or sole language reference. The IRALE programme, which has provided Basque courses for some 15,000 teachers and has a current enrolment of

1,226, therefore plays a role whose strategic importance cannot be overestimated.

The language training of teachers is integrated in a broader Euskaldunisation programme targeting the entire civil service. Language courses for teachers are taught at the euskaltegis.

According to the Act and Decree of 1993 discussed in Section 10.3, a language profile (LP) is associated with each teaching position. Each teacher must acquire the relevant language profile within a certain time. There are two linguistic profiles in the education system:

- PL1, where the teacher's knowledge of the language is sufficient for him/her to use Euskera as a means of communication, but not as a medium of instruction;
- PL2, where the teacher's knowledge of the language is sufficient for him/her to use Euskera as a means of communication and a medium of instruction; this allows the teacher to teach Euskera as well as to teach through Euskera.

It is important to note that in the Basque case, achieving a higher language profile does not give access to wage premiums or other monetary gains for teachers.

Production of teaching materials

Three fourths of printed teaching materials are produced by Basque publishing houses, and the remaining fourth is produced directly by the C.A.V.. Given the modest numbers of users and the correspondingly high unit cost of these materials, the authorities have developed a subsidising system (the EIMA programme), which also includes some control on the linguistic and pedagogical quality of the output. In addition to printed materials, the EIMA programme subsidises audio-visual and computer-assisted teaching aids.

Bilingual instruction in universities

The University of the Basque Country has approved a plan for the introduction of Euskera in all teaching activities, along with the setting up of various committees for the implementation of this project. On average, some 40% of courses are taught through both official languages, but only 10% of students currently study in Euskera. University-level teaching through Basque, however, is important for the Euskaldunisation of future teachers in the secondary and post-secondary tiers of the school system.

Adult language classes

As part of its effort of providing access to Basque for adults, the Department of Culture is involved in the development of a network of euskaltegis, or Basque language centres. There are now more than 150 public (one third) or private centres (two thirds). Their activities are co-ordinated by HABE (the Institute for alphabetisation and rebasquisation of adults). During the 1993/94 school year, some 2,000 teachers have given classes to more than 43,400 adults. On average, each student has devoted 340 hours to learning the language. It is estimated that after an average of 400 hours of alphabetisation and 1,500 hours of Euskaldunisation, students have completed their training and are in the position to obtain the official EGA certificate (Certificate of capacity in Euskera).

Boarding houses and holiday camps

In 1985, a network of boarding houses was created by the Department of Education, with the aim to further the use of Euskera among students. These institutions (which are distinct from schools themselves) are open throughout the school year and give young people coming from a mostly hispanophone environment the opportunity to live in Euskaldun surroundings and to use Euskera. On average, some 3,000 students per year avail themselves of this opportunity. Stays usually last one to two weeks.

Awareness campaigns

Ikastolas as well as various non-school associations organise a number of activities that lie outside the education sphere but whose goal is clearly language-related. These activities are supervised by the Department of Culture, and their emphasis is on the maintenance and development of Basque culture. As such, they carry on the clandestine work of the ikastolas during the years of the dictatorship.

Among the various campaigns, let us mention the particularly significant Ahoz aho, belaunez belaun ("By word of mouth, from generation to generation"), which stresses the importance of passing on the language to the next generation (and, interestingly, converges with Fishman's insistence on the crucial role of intergenerational transmission). A travelling exhibit shows visitors (mostly schoolchildren and their parents) how and why schools and the family can be the most effective tools for ensuring the continued use of Euskera. This campaign also attempts to build bridges between the teaching of Euskera at school and its transmission in the family.

Subsidisation

Direct subsidies are available for ikastolas and other private language teaching centres such as the euskaltegis.

10.6 Costs

Ideally, an estimate of the cost of the education side of a language policy should rest on figures on per student expenditure in the different models A, B, D and X; Comparison of the former three with the latter would then yield direct estimates of the cost of teaching Basque as a subject, of teaching Basque through partial immersion, and of teaching through the medium of Basque instead of Castilian. The cost of adult Euskaldunisation and additional support programmes could then be added to provide an estimate of the aggregate cost of the language education policy.

Unfortunately, such figures do not exist; since the various models operate in parallel and can be found in the same schools, there is no accounting by model. More generally, the development of education accounting is a demanding challenge that governments are beginning to face through international programmes managed by the OECD (such as the INES programme—see e.g. OECD, 1993). However, even such efforts fall short of the needs of goal-oriented evaluations. For example, expenditures are categorised according to their economic nature (e.g., investment costs versus teachers' wages) or the tiers of education systems, but not according to the type of skills taught. Recent work on subject-based expenditure accounting (Grin and Sfreddo, 1997) provides a methodology for the estimation of public spending on specific subjects such as second languages, but application of this rather involved method would be impossible in the context of this study.

Our estimation procedure for the Basque case includes the following steps.

(i) identification of the type of expenditure for which some data are available, and which can be interpreted as an additional cost in comparison with a non-Euskaldun education system;
(ii) estimation of the amounts concerned;
(iii) estimation of the total number of students schooled wholly or partly in Euskera;
(iv) estimation of several ratios such as expenditure per student, expenditure per bilingual student, etc.

It is important not to confuse the cost of education with the marginal cost of operating an Euskaldun education system. The reason for this is a simple one: children have to be schooled anyway, and what matters here is the additional expenditure resulting from teaching in Euskera and through Euskera, instead of operating the system in Spanish only. If teacher-pupil ratios are identical in

the various models, and if teachers of Euskera or through Euskera command the same wage rate, then expenditure per student is not part of the cost of the policy. Relevant items of expenditure therefore include the following yearly figures:

(i) Public spending on the euskaldunisation of teachers in the IRALE programme. For the current year, it stands at 5.039.231.702 Pts. Adopting a rate of exchange of 1000:9.225, this is equivalent to a little under NZD 46.487m. It must be pointed out, however, that this is a temporary kind of spending, insofar as Euskera-speaking teachers will ultimately be produced normally by the Basque teacher training system.
(ii) Share of subsidies to the ikastolas covering the extra costs associated with the fact that ikastolas function in Basque instead of Castilian. No information was available on this question; however, as indicated above, there would have been a cost for the schooling of children through Castilian anyway, so that the marginal operative cost is probably low; pending further information, we have chosen to ignore this amount.
(iii) Costs accruing in the production of Basque teaching materials (under the EIMA programme). These costs, in 1997, amounted to Pts 228.4m, that is, some NZD 2,106,419, rounded to NZD 2,107,000.
(iv) Overhead accruing in the running of bilingual (as opposed to unilingual) school institutions, along with a fraction of the operating budget of the Deputy Ministry for Language Policy reflecting its involvement in language education planning. Since figures on these items are not available, we have substituted for them the yearly budget of the NOLEGA (Normalizazio Legearen Garapena) programme, whose aim is the implementation of the Law of Normalisation. Its budget for 1997 amounted to 279.880.000 Pts, that is, some NZD 2,581,893, rounded to NZD 2,582,000. Using the NOLEGA budget provides an upper-bound estimate of the educational costs that have to be estimated, since this budget includes the running of five Barnategis, that is, language resource centres that operate as facilitators on issues that are not limited to education proper.

Summing the figures above, we obtain a total cost of teaching Basque and through Basque in the education system—as opposed to not teaching it—of approximately NZD 51.176m. The cost of various non-school activities whose aim is clearly to complement in-school language instruction could arguably be added to this figure. However, we have not been able to recover information about this expenditure. In order to allow for the latter (as well as to approximate the relevant share of subsidies to the ikastolas mentioned as item (ii) above), we decided to add 5% to the figure just estimated, that is,

NZD 2,558,800, which brings the total cost of teaching Basque and through Basque at some NZD 53.735m per year.

At the best of times, evaluating the real expenditure of an education system is a thankless task; furthermore, using the resulting estimates in a cost-effectiveness exercise raises considerable conceptual problems, which can be solved in theory, but hardly ever in practice, because the data available are usually much less detailed than those necessary to provide the empirical counterpart of a reasonably satisfactory conceptual approach. This is the case here, despite the extensive information on the Basque education system provided by our informants.[45] Therefore, the following paragraphs are only a rough approximation of cost-effectiveness, which we develop in the conviction that some approximation is preferable to none at all.

The cost-effectiveness of the system can be evaluated in terms of the expenditure required to produce a speaker of Basque. In our case, a "speaker of Basque" must have a level of proficiency that allows him to consider himself bilingual in terms of the analytical model developed in Part I. This means that any difference between the shadow price of performing a certain activity in Castilian or in Basque cannot be explained by higher proficiency in Castilian than in Basque, and is entirely due to the supply-side factors of the linguistic environment, or to a different unit market price of the goods and services necessary to perform activities in one or another language. In reality, this "theoretical bilingual" can be represented by a person who is, in general, comfortable with using Basque and therefore has a real choice not to carry out his activities in Spanish.

This raises not just the issue of the number of people who can be considered bilingual, but also the problem of estimating who becomes bilingual through the Basque education system. We shall assume that students schooled through models B and D become bilingual, while students in model A do not. This assumption is borne out by circumstantial evidence suggesting that the level of proficiency in Basque achieved by students schooled in model A is low. If we further assume that total student enrolment (across all tiers of the education system) remains stable, then the number of students acquiring the quality of bilinguals, in any given year, is the sum of those enrolled in models B and D; this total is of 182,110 (see Table 2.17). However, this figure has to be corrected downwards, because a certain percentage of students from Basque-speaking homes would presumably have become fluent anyway, even if schooled in an exclusively Castilian-speaking system. The figures reported in the first column of Table 2.15 indicate that in 1981, 20% of those in the 30-49 age group and 19% of those in the 20-29 age group were Euskaldunes,

[45] The authors are particularly indebted to JoseAn Urdangarin Arrizabalaga and Mikel Zalbide Elustondo.

although they have not been schooled through Basque (some of them, however, presumably attended the then clandestine ikastolas). The percentage of Euskaldunes in the 5-19 age group (some of whom may have been schooled partly in Basque, and most of whom have not been confronted with overt language repression), is remarkably similar at 19%. If, as seems likely, children from Euskaldun homes are normally sent to the B and D streams, then we can assume that 20% of them would have been bilinguals anyway, so that only 80% of the enrolment in the B and D models can be credited to language education policy. Therefore, the total number of students becoming bilingual as a result of language education policy is, very conservatively, estimated at 145,688. Expenditure per head—in terms of "successful" basquisation—is then a little below NZD 369 per year.

Account must also be taken of the fact that students spend many years in the education system, and that each successive year can be assumed necessary to achieve adequate competence in Euskera. Up to and including compulsory secondary education, and including only children from the age of three, schooling in the Basque system lasts 13 years (the first three being non-compulsory pre-school years).[46] The resulting "unit cost" to the school system of "producing" a bilingual can therefore be estimated at some NZD 4,797. This estimate is probably on the high side, because we have systematically opted for the more pessimistic cost estimates, so as to avoid overall cost underestimation.

Finally, in order to have a common unit of comparison between language education planning and the other three language policy measures discussed in this report, it is interesting to compute an estimate of its cost in terms of language use by person-hour. Upon completion of a 13-year education begun at age 3, a young bilingual speaker of Basque is 16 years old, and assuming the life expectancy of teenagers to be 76 years, a bilingual has 60 years before him to function bilingually. Whether he will or not depends on a host of factors, but we are interested only in the effect that the education system may have on his patterns of language use. Let us therefore focus on those opportunities to use the language that do not require any other language policy to exist. In other words, we shall ignore domains such as shopping and health services (see Table 2.21), and refer only to interaction in the family and with friends. Let us adopt the (very conservative) estimate that out of the total daily interaction time between our theoretical bilingual and his family and friends, one hour takes place in Euskera. Let us now multiply the

[46] Putting the total *average* number of years of schooling at 13 may be an overestimation, because not all children attend the (first) three years of pre-school education. On the other hand, we do not include post-secondary education, whether in vocational training or pre-university academic streams. On balance, 13 years therefore represents a reasonable figure. In addition, we believe that the *marginal* bilingualisation effect of two years of post-secondary schooling is probably minor by comparison with the bilingualisation effect of the preceding 11 to 13 years.

expected remaining lifetime (60 years) by the number of days per year (365) and by the number of hours per day when Basque can be used by people that have become Euskaldunes through the education system (1 hour). This yields a total of 21,900 hours over a lifetime. Using this figure to divide the cost of "producing" a bilingual (NZD 4,797), the resulting cost per person-hour of minority language use associated with education planning is just under 22 cents (NZD 0.219).

Of course, having speakers of the minority language is a precondition for any of the other promotional measures to make sense. Therefore, we could decide that some of the cost just estimated should be assigned to other activities than family interaction. This would certainly reduce the person-hour cost of minority language use in the family, but it would at the same time increase the person-hour cost of other minority language activities (such as watching TV in Basque). Cost-effectiveness comparisons between various policy measures is much easier if their respective cost estimates are kept separate—with no loss of generality.

10.7 Outcomes

Most of the data reported below are derived from the 1996 sociolinguistic survey carried out in Euskadi, and results refer to Euskadi alone unless otherwise indicated.

Enrolment in pre-school institutions and primary schools

Since the reorganisation of the school system in 1983, when the four models were established, the share of pupils in models B and D as increased constantly, while the weight of models A and X has declined. The evolution of enrolment in the different models over time is provided in Table 2.16. We focus on pre- and primary schools, since there was virtually no secondary schooling through the medium of Basque at the beginning of the process.

TABLE 2.16
EVOLUTION OVER TIME OF TOTAL ENROLMENT AND PERCENTAGES BY MODEL
PRE- AND PRIMARY SCHOOLS, 1982/83 TO 1996/97

MODEL	1982/83	%	1985/86	%	1988/89	%	1991/92	%	1994/95	%	1996/97	%
A	222'744	*56*	249'384	*66*	187'434	*56*	126'761	*46*	84'572	*36*	45'269	*27*
B	41'270	*10*	50'834	*14*	6704'928	*20*	72'929	*27*	65'499	*28*	49'357	*29*
D	58'751	*15*	72'260	*19*	74'524	*22*	73'599	*27*	80'042	*34*	71'622	*43*
X	73'404	*19*	3'746	*1*	2'411	*1*	1'883	*1*	2'217	*1*	1'440	*1*
Total	396'169	*100*	376'224	*100*	332'297	*100*	275'172	*100*	232'330	*100*	167'688	*100*

Source : Departamento de cultura, 1997.

The share of pupils in the tiers concerned enrolled in the B or D model has increased from 25% in 1982/83 to 72% in 1996/97. It is important, however, to make a distinction between two parallel evolutions which actually cover different circumstances. At the beginning of the eighties, model B was still undergoing consolidation. In 1982/83, most of its enrolment was concentrated in the early years of compulsory schooling, because the model was too recent to have any students in the finishing years of the system. Hence, enrolment could naturally be expected to increase. By contrast, model D could bank from the start on the experience developed in the ikastolas and its consolidation phase was shorter than for B-type schooling.

However, enrolment in both models has increased at a similar rate, which means that "catching up" or "consolidation" (where initial errors were corrected) cannot be credited for the entirety of the success of model B; it must therefore be explained by other factors. In particular, the setting up of the current school system represented an improvement in the range of education models supplied, but this improvement would have been meaningless if it had not also been a response to a pent-up demand for bilingual or Basque-medium education or, more generally, for language revitalisation. The increase in the percentage of pupils in models B and D must not hide the decline in absolute numbers in recent years. This evolution, however, is inevitable given the brutal drop (58%) between 1982/83 and 1996/97 in the total enrolment in the early tiers of the school system, as a result of demographic changes.

To sum up, we can say that a steadily increasing share of pupils is schooled partly or wholly in Euskera, and given the voluntary nature of enrolment in one or another model, the establishment of the current system can be interpreted as a response to social demand.

Aggregate current figures for the entire education system show that the largest number of students is schooled in model A, followed by models D, B and X:

TABLE 2.17
TOTAL ENROLMENT BY MODEL, 1995/96

MODEL	TYPE OF SCHOOL		
	Public	private	total
A	85,645	101,696	187,341
B	34,858	33,601	68,459
D	63,884	49,767	113,651
X	0	3,571	3,571
Total	184,387	188,635	373,022

Source: data directly supplied by the Department of Education.

Age structure, overall number and level of competence of speakers

As pointed out in Section 10.1, the shift to younger age brackets of the bulk of Euskaldunes probably represents the most important demolinguistic change in Euskadi in recent years. Tables 2.18 and 2.19 below indicate the share of active bilinguals, passive bilinguals and unilingual hispanophones for selected (1986) and all (1996) age groups. Although both sets of figures come from co-ordinated and comparable Sociolinguistic Surveys taken in 1986 and 1996, published figures use a different breakdown. In order to facilitate comparison, the data for the former have been expressed in terms of the median age of each age group so as to match categories used in the latter. Active bilinguals are speakers who speak Euskera "well" or "quite well"; passive bilinguals are defined as persons who can speak "a little" Euskera or read it "well" or "quite well". Given the negligible number of unilingual Euskaldunes, the latter are included in the "active bilingual" category.

TABLE 2.18
RESIDENT POPULATION BY LANGUAGE COMPETENCE AND AGE GROUP
PERCENTAGES, 1986

	MEDIAN AGE						
	10	20	29	41	57	70	Total
Active bilinguals	28	23	22	21	25	32	25
Passive bilinguals	36	25	16	11	7	6	17
Unilingual hisp.	36	52	62	68	68	62	58

Source: Secretaria General de Política Lingüística (*1989: 30-31).*

TABLE 2.19
RESIDENT POPULATION BY LANGUAGE COMPETENCE AND AGE GROUP
PERCENTAGES, 1996

	AGE GROUP						
	3-15	16-24	25-34	35-49	50-64	>64	Total
Active bilinguals	n.a	33	25	21	21	28	26
Passive bilinguals	n.a	37	27	11	6	5	16
Unilingual hisp.	n.a	30	48	68	73	67	58

Source: Institut culturel basque (1996: 24).

These figures indicate that the distribution of the population according to the level of competence in Euskera has remained virtually unchanged over 10 years, bar the increase between 1981 and 1986 of the percentage of bilinguals. However, a strong increase of bilingualism (particularly passive bilingualism) among the young can be observed, along with a decline among people over 50. For people aged 20 or thereabouts, figures report an increase from 48% to 70% of active plus passive bilinguals. According to parents' opinions collected in the Surveys, this trend appears to be maintained among people under 16 (Institut Culturel Basque, 1996). Generally, people in their forties or fifties exhibit the lowest level of competence in Euskera. This is probably the result of linguistic repression during the dictatorship. We shall see below that this has a significant impact of language use in the family.

The detailed examination of active bilinguals (Institut culturel basque, 1996) shows that competence in Euskera is better among the relatively older age groups. More precisely, about half (49%) of active bilinguals over the age of 64 claim to speak Euskera better than Castilian (Euskera-dominant bilinguals), 28% report equivalent competence in both languages (balanced bilinguals) and 23% indicate that they speak Castilian better than Euskera (Castilian-dominant bilinguals). The share of Euskera-dominant bilinguals among active bilinguals decreases as one moves to the younger age brackets, down to the 25-34 age group, where only 12% define themselves as Euskera-dominant. The trend is reversed for the youngest group, where 19% consider themselves Euskera-dominant—nevertheless, a much higher percentage of 35% have Spanish as their mother tongue. These data are summed up in Table 2.20.

TABLE 2.20
DISTRIBUTION OF "ACTIVE BILINGUALS" ACCORDING TO RELATIVE COMPETENCE IN CASTILIAN AND EUSKERA, PERCENTAGES, 1996

	AGE GROUP						
	3-15	16-24	25-34	35-49	50-60	>64	Total
Euskera-dominant	n.a.	19	12	27	44	49	29
Balanced bilinguals	n.a.	33	34	34	32	28	32
Spanish-dominant	n.a.	47	54	39	24	23	38

Source : Institut culturel basque (1996: 27).

An important shift can be observed. Whereas there is a clear divide, among adult speakers, between those who speak Euskera and those who do not, competence among younger speakers are more homogeneous—that is, a higher percentage of the young can speak the language, but their competence is not necessarily very high. Nevertheless, this level is increasing in the 16-24 age bracket, that is, among people reaching the end of their school years. Average competence among them is higher than in the immediately older age group. Schools have certainly played a major role in this evolution, since the 16-24 age group is the first one that has been entirely schooled in the current system, and hence had access to education through the medium of Basque. This confirms the causal relationships represented in Fig. 1.8 (Chapter 4).[47]

Mother tongue and language competence of parents

Although intergenerational language transmission generally is not a fully conscious process, we can expect that, all other things being equal, efforts to pass on the language will be more dedicated when parents view competence in Euskera as an asset, or as a goal in itself (in looser wording, it could be labelled a "value"). Hence, the answer to the question "To what extent is parental competence in Euskera passed on to their children?" can provide a sensible indicator of parents' attitude—as could, of course, observed patterns of intra-family language loss. Figures are provided in Table 2.21.

[47] Statistical data on the *internal* efficiency of the teaching of Basque can be found in documents published by the *Hezkuntza, Unibersitate eta Ikerketa Saila* (1986, 1989, 1991).

TABLE 2.21
MOTHER TONGUE AND LANGUAGE COMPETENCE OF PARENTS
BY AGE GROUP OF CHILDREN, PERCENTAGES, 1996

MOTHER TONGUE	Both parents Euskaldunes		One parent Euskaldun		Both parents non-Euskaldunes		Total	
	>15	3-15	>15	3-15	>15	3-15	>1s	3-15
Euskera	83	94	19	50	0	0	20	22
Eusk.&Sp.	8	6	18	38	1	2	4	8
Spanish	9	0	63	12	99	98	76	70

Source: Institut culturel basque (1996: 11-12).

As expected, rates of language loss are smaller in families where parents are (or were) both Euskaldunes. Among young people over the age of 15, the language loss rate is only 9% if both parents are Euskaldunes, while it reaches 63% when only one parent speaks Basque. This figure, which refers to the case of Euskadi, generally applies to Euskal Herria as a whole. However, if the analysis focuses on the youngest age group (3-15), a sharp drop in language loss rates can be observed. It is virtually zero when both parents are Euskaldunes, and is no more than 12% when only one parent is a speaker of Basque—a remarkable contrast with the 63% figure for the immediately older age category. It is also interesting to note that when only one parent is Euskaldun, 50% of children have Euskera as their sole mother tongue.

This reinforcement in intergenerational transmission in the family must not be interpreted in isolation, but viewed in connection with other aspects that are directly dependent on policy measures. Because parents are made aware of state efforts of language revitalisation, they are much more likely to consider that their own efforts in the home are not wasted; to the contrary, school and social activities actually enhance and legitimise their personal efforts. This certainly provides a strong incentive for parents to use Euskera with their children as soon as the opportunity to do so arises—that is, even when only one of the two parents is Euskaldun.

In short, transmission of Euskera as a mother tongue is strongly linked to parents' linguistic competence. It gets stronger as one moves to younger age groups. The school and social context are likely to be reinforcing factors.

Language attitudes

Apart from the crucially important attitude of parents, attitudes in the population at large plays a major part in the success of the efforts made for the intergenerational transmission of the language and the contribution of the education system.

In Euskadi, 46% of the population is “favourable” or “very favourable” to the promotion of Euskera, particularly through the Euskaldunisation of the young (Institut culturel basque, 1996). 38% are “indifferent” and 16% are “opposed” or “strongly opposed”. This overwhelmingly positive attitude is confirmed by the wish of 82% of residents (which therefore means a majority of non-Euskaldunes) to have their children schooled at least in part through the medium of Euskera. Interestingly, in Euskal Herria as a whole, one third of the people who are opposed or strongly opposed to language promotion would enrol their children in type B or type D schooling.

There is, however, a discrepancy between attitudes and behaviour. For Euskal Herria as a whole (we have no data on Euskadi alone), only 3 adults out of 10 have tried to learn or to improve their Basque outside the school system. The main reason quoted for making the attempt at all is that “it is the language of the Basque country” (31%). Political and cultural motivations are stronger among residents who are favourable to Euskera; people opposed to the promotion of the language but who have nonetheless taken steps to learn it mostly give instrumental (professional reasons) for doing so.

These results can be interpreted in relation with perceptions of self-identity. 51% of residents in Euskadi view themselves as Basque *and* Spanish, while 32% see themselves as Basque only. Different perceptions seem to be connected, on the one hand, to geographical origin (Euskadi, Navarra or Iparralde), and, on the other hand, to language competence. The higher the level of proficiency in Euskera, the more likely a self-perception as Basque alone. 73% of Euskaldunes think that it is necessary to *know* Euskera in order to *be* Basque, but 66% of the total resident population of Euskadi disagrees with this proposition.

In general, the population of Euskadi has a favourable attitude to the teaching and the use of Basque, even if only a minority makes a personal contribution to it. This attitude has direct implications on the demand for language education in and outside the school system, and explains in large part the success of the B and D models.

Use of Euskera

Obviously, language use is a relevant question only for 20% of the population, that is, Euskaldunes; the following discussion is restricted to the case of speakers aged 15 or more. The data apply to the entire Basque Country, but are relevant for Euskadi as well, since 82% of Euskaldunes live in Euskadi. The frequency of use of Euskera has been surveyed for 14 “domains”, and the corresponding figures are reported in Table 2.22. Obviously, “domain” is used in a less formal sense than in the definitions

provided in the literature (see Section 2.2); percentages in Table 2.22 refer to individuals who *mostly* use Euskera, *or* Castillan, *or* both in each domain.

TABLE 2.22
USE OF EUSKERA AND SPANISH BY DOMAIN
PERCENTAGES OF RESPONDENTS, 1991 AND 1996

	1991			1996			TREND
USE WITH/AT	Euskera	Euskera + Spanish	Spanish	Euskera	Euskera + Spanish	Spanish	
mother	59	11	29	56	8	36	-
father	57	8	36	52	7	41	--
spouse	51	12	38	50	11	39	-
children	61	13	27	67	12	21	++
family	53	17	30	47	18	35	--
friends	44	22	34	49	20	31	++
shops	43	17	41	44	16	40	+
colleagues	37	24	39	44	17	39	++
market	76	9	15	77	8	15	+
priest	71	9	21	72	10	17	+
bank	44	12	44	51	13	35	++
town hall	48	11	41	56	15	30	++
children's' teachers	60	7	33	78	7	15	++
health services	22	9	68	30	14	55	++

Source : Institut culturel basque (1996: 35-36).

The last column of Table 2.22 ("trend") indicates the positive or negative evolution of the rate of use of Euskera. Increases or declines comprised between 1% and 4% are denoted by "+" or " - ", while increases or declines exceeding 5% are denoted by "- -" or "++".

Some 50% of Euskaldunes use mostly Euskera in most domains, and 10% to 20% use both languages. Spanish (or, in Iparralde, French) only is used by the rest. The Institut culturel basque (1996) observes that between the 1991 and 1996 sociolinguistic surveys, a significant increase in the use of Euskera can be observed, and that this increase is considerable in some domains.

In the family context, Euskera is most and increasingly used with children (from 61% to 67%). By contrast, use with parents declines, a fact which reflects the relatively low proportion of Euskaldunes in the 40-50 age group. In other words, a steadily rising percentage of Euskaldunes have non-Euskaldun parents. Hence, communication with them can only take place in Spanish or French. This situation is fairly common in Euskadi, where data reveal that the younger the age of the person polled, the less likely he/she is to speak Euskera in the family (31% of those aged 16-24, as opposed to 62% of those over the age of 65).

As regards non family social interaction, Euskera is most frequently used at the market (77%), a fact which reflects the strong presence of cultural tradition in this particular context. About half (49%) of Euskaldunes use Euskera with their friends, and this rate reaches 69% if cases of bilingual exchange are included; corresponding figures for 1991 are lower, at 44% and 66% respectively.

The 1996 *Sociolinguistic Survey* confirms a trend already observed in 1991, namely, that the higher the concentration of Euskaldunes, the more likely it is that Euskera will be used in the family or with friends; the converse relationship also holds. In Euskadi, data show that when all or almost all family members are Euskaldunes, the percentage of those using mostly Euskera is 70%; this figure reaches 74% among those aged 65 or more, 63% among the 25-34, and 70% in the 16-24 age bracket. The rate of use of Euskera between friends is significantly related to speakers' age, and reaches 68% among people aged 65 or more; it drops to 33% in the 25-34 ages group, at picks up again (to 38%) among those aged 16-24. This latter increase must be traced back to the emergence of a large cohort of Basque-speakers—in large part due to the development of the B and D models—, and hence by the increase in the density of Euskaldunes in one's circle of friends in the younger age groups.

A strong increase in the use of Euskera from 37% to 44% can be observed in relations with colleagues. This can probably be explained by the arrival of the younger Euskaldunes on the labour market, as well as by the current euskaldunisation process of the civil service in Euskadi. There again, there is a link between patterns of language use and the density of Basque-speakers. This probably also explains the significant increase in the use of Euskera in the town hall (from 48% to 56%) and with the health services (from 22% to 30%). The success of the B and D models is probably the chief reason for the considerable increase (from 60% to 78%—even 85% in Euskadi proper) in the use of Euskera with schoolteachers.

Generally, the use of Euskera in the family has been declining, except in interaction with children; the overall decline mainly reflects the passing away of an age group with a relatively high proportion of Basque-speakers. The use of Euskera in all other situations has increased, sometimes considerably. One very important result is the relatively higher propensity of members of the 16-24 age group to use Basque with their friends, suggesting that skills taught at school are put to use outside of the classroom context.

10.8 Evaluation

Despite its obvious success with parents, the development of models B and D does not, in our opinion, suffice to explain the increase in the percentage of Euskaldunes, particularly when overall demographic evolution is also taken into account. There is no doubt that schools play a major role, if only because the introduction of models B and D represented a considerable increase in the offer of Basque-medium education. However, other conditions have made the revitalisation policy successful. We have identified the following six conditions.

Social motivation

During Franco's regime, the efforts of the central government to stamp out regional identities and languages had considerably hampered the intergenerational transmission of Euskera, but not the point of destroying it. As indicated in Section 10.1, the survival of Euskera has been made possible, among other factors, by the existence of the *ikastolas*, whose activity was wholly dependent on private support. The very existence of such structures denotes the presence of a strong social demand for the maintenance of the local language and culture. At present, the active involvement of the population may be less visible because the state is now able to take the lead. Nevertheless, this involvement is still present, both in those *ikastolas* that have chosen to remain independent, and in the lively tradition of *bertsolari* contests. This strong social motivation among Euskaldunes appears to have, at least in part, won over some unilingual hispanophones, as evidenced by the high rate of overall support for the promotion of Basque.

State support

Euskera clearly benefits from determined state support. Official will to revitalise the language has been given legal substance by the adoption of the *Basic Law of the Standardisation of the Basque Language* in 1982, that is, just four years after Euskadi received its statute of autonomy. This Act still provides the legal basis for current language policy. However, the various Acts, decrees or official circulars reflects a real commitment to the language. Its counterpart is a significant allocation of financial resources to language revitalisation.

Creating domains of use

Policy in favour of Euskera logically requires the language to be learned, but it is no less important to ensure that there are opportunities to use the language afterwards. To confine language learning to the school context would have rendered revitalisation efforts meaningless, as pointed out by Urdangarin (1997: 6; our translation): "In the case of the C.A.V., where the

younger generations are schooled in bilingual models or in Euskera, it is urgent to guarantee intergenerational transmission as well as to keep up with the effort made in the domains that these young people enter. Keeping up this effort means that domains of use for Euskera must progressively be created, in order to make sure that the work accomplished to this day has a future; otherwise, the toil of these young people could remain devoid of meaning and be functionally useless in the areas of activity they are about to move into."

In short, it is useless to promote the learning of Euskera unless there are opportunities to use it. Recognition of this condition explains why the language planning authorities set great store by extending the domains where Euskera can be used, through a variety of measures such as normalisation in the civil service, the development of specialist terminology for various professions, and awareness campaigns on the importance of using Euskera, particularly in the family. Data presented in Section 10.7 show that the rate of use of Euskera is increasing in all non-family contexts, particularly those directly concerned by the normalisation strategy; at another level, the use of Euskera in business and commerce is being promoted (Urdangarin, 1997) and Basque versions of well-known software packages are available.

Teaching of Euskera outside the compulsory school system

The formal teaching of the language outside the school system may not represent an *essential* condition for the success of revitalisation through the school system, and the reputation of Euskera as a very difficult language must not be ignored;[48] it is likely to have discouraged more than one aspiring speaker. However, language teaching outside the school system has certainly resulted in the spread of Euskera among adults, both through the *euskaltegis* and through the availability of teaching through the medium of Basque at university. More importantly, the *euskaltegis* are where schoolteachers receive the language instruction which enables them to reach the required language profile and to teach through the medium of Basque.

Regular adaptation of language policy

The language planning authorities devote a great deal of attention to the monitoring of language policy and its adaptation to changing sociolinguistic conditions. The Deputy Ministry for Language Policy therefore carries out regular surveys to collect up-to-date sociolinguistic data, review policy

[48] It is estimated that from 1,000 to 2,000 hours of instruction are necessary to acquire a good command of Euskera.

practices in the light of these results, and adapt the administrative structure of the organisms in charge of language policy.

Modernity

Although we have no hard evidence of this, the documents available on the school system as well as on the response of the general public to the development of education through the medium of Euskera hint at an additional success factor, namely, the apparent modernity of spirit of the entire endeavour. This certainly needs to be investigated further. In any event, the Basque education system appears to be quite different from the Irish one, particularly the early days of the latter (see Section 11.1), whether in terms of educational methods, cultural references and cultural content. In our view, this reinforces the strategic importance of reassessing critically the extent to which cultural heritage must be given a central place in revitalisation policies, particularly in the context of the education system. The other difference between the Basque and Irish cases, whose importance must not be underestimated, is that the Basque education system relies on partial or full language immersion, whereas Irish is mostly taught as a subject to Irish children, except in the Irish-speaking ("Gaeltacht") areas.

11. Direct language promotion in Ireland: the case of *Gaillimh le Gaeilge*

11.1 Background on the Irish Language

Irish is a Celtic language of the Goidelic branch, closely related to Scottish Gaelic, and more distantly to the Celtic languages of the Brythonic branch (Breton and Welsh). The current position of Irish is the result of a long story of attrition over the centuries, followed since the second half of the 19th century by more or less successful attempts at revitalising the language.

Ireland was invaded by Celts around the middle of the 5th century B.C., except Ulster, which was conquered almost a millennium later, around the time of the christianisation of the island.[49] Over the seven next centuries, and notwithstanding the existence of a "high king" (Ard Rí) for the entire country, the small kingdoms that constituted Ireland were frequently at war with each other, not to mention Viking invasions in the 9th century. England's involvement began in the second half of the 12th century when one of the kings of Leinster asked Norman knights for support. The knights carved out some land for themselves and stayed in Ireland, while also remaining vassals to the king of England. In order to keep his vassals' influence in check, as well as to bring the independent Irish church under papal rule, king Henry II invaded Ireland in 1171. However, English control remained somewhat loose and did not extend beyond Ulster and the area surrounding Dublin.

In the 16th century, the reformation, the ensuing religious wars and large-scale colonisation by Protestant settlers from Scotland and England deeply altered this state of affairs; in particular, the Scottish settlement in Ulster in 1610 has had major political consequences to the present day. Ireland ended up on the losing side of the British civil war and of the Jacobite wars; the victory of William of Orange at the battle of the Boyne in 1690 firmly established Protestant, British domination until independence, with systematic discrimination against Catholics. Oppression worsened after the 1798 uprising, which was quelled by British forces and resulted in the abolition of the Irish Parliament.

Various elements of discriminatory legislation were progressively removed in the course of the 19th century, but the 1846-51 famine, when millions perished or emigrated, severely drained Ireland and further weakened the position of the Irish language. On the other hand, the widespread perception that the British crown had

[49] Some of the information supplied in this and the following few paragraphs comes from an unsigned and undated, yet excellent manuscript entitled "Les racines historiques du conflit en Irlande du Nord"; credit goes to its anonymous author.

done nothing to alleviate the Irish tragedy strengthened claims for home rule in Ireland. Two plans for home rule were defeated in Westminster, and the third was adopted but suspended shortly afterwards when the first world war broke out. The 1916 Easter Rising was rapidly suppressed, but reinforced the legitimacy of the pro-independence party. After the civil war that tore Ireland immediately after World War I, the 1921 Treaty between England and Ireland established the latter as an independent republic (Éire) comprising 26 of the 32 counties of Ireland.[50]

By that time, however, Ireland was largely anglicised and Irish was no longer the everyday language of the majority of the population; only impoverished rural communities along the western and southern seaboard remained predominantly Irish-speaking (Williams, 1988). Since the second half of the 19th century, individuals and groups in Ireland (particularly the Gaelic League) had been actively promoting the revival of Irish, as part of an attempt to "recreate a consistent ethnic ideology which would reverse the meanings associated with being Irish, and would return dignity and social status to the Irish people" (Tovey, Hannan and Abramson, 1989: 14). These authors describe the pre-independence revival initiatives as four-stage process, starting with a form of "antiquarianism", moving on to an intellectual movement centred on "the systematic rediscovery of 'the nation'", then on to a adoption of this perspective by civil and political leaders, and eventually to its dissemination among the population at large.

By 1900, 109 national schools offered Irish as an extra subject, and by 1922, this number had risen to 1,878 (Tovey, Hannan and Abramson, 1989). The Republic embraced the language ideology of the Gaelic League, which over time turned out to have ambiguous effects on the fortunes of the language. Although revivalist movements must be credited for having relegitimised the language and given it a central ideological position in the fight for independence and the recreation of Irish identity, their inheritance has proved a heavy one to bear. First, it resorted to myths which "elevated the cultural and social residues surviving in the western islands and the Gaeltacht into a fountainhead for a new society", with the calamitous consequence of entrenching an automatic association between, on the one hand, the Irish language itself, and, on the other hand, circumstances such as rurality, social, political and religious conservatism, and economic backwardness. Second, because of its heavy reliance on schools to restore competence in Irish among a predominantly anglicised population, "Irish [became] fatally associated with the purgatorial fires of the classroom [...]".[51] The Irish state failed to implement a full-fledged policy of functioning through the medium of Irish; language promotion, in addition to being confined to the stifling context of schools and a reactionary church, became bureaucratised. The result was that "[this] did, over time, ensure that few members of the population lacked 'at least a few words of Irish', and that a substantial section today are moderately fluent bilinguals, [but] pride in and love of Irish appears to have survived almost despite the experience of

[50] The six counties that remained under British rule are all located in Ulster; of Ulster's nine counties, three (Donegal, Monaghan and Cavan) became part of the Republic.

[51] In the words of an unnamed 1940s author quoted by Tovey, Hannan and Abramson (1989), to whom the reader is referred for an insightful historical treatment of the link between language and identity in Ireland.

'school Irish'. All the evidence suggests that for the majority of the population it takes a few years out of school to recover one's love for the language, after the drubbing it gets in the formal school process" (Tovey, Hannan and Abramson, 1989: 20).

According to census figures, over one million people in the Republic of Ireland are able to speak Irish. This figure, however, represents a strong overestimation of the demolinguistic importance of the language, because it includes a majority of speakers of Irish as a second (possibly third) language, with widely diverging levels of competence. A more relevant figure for actual fluent speakers would be in the region of 45,000 speakers, of which 30,000 live in anglicised areas but use Irish as "a network language in defined situations". The rest, comprising some 15,000 speakers, live in the Gaeltacht (Irish-speaking areas), whose total population is approximately 80,000. The figure of 15,000 itself is the object of some discussion; Hindley (1991: 90-91) provides estimates which, depending on the criteria chosen, range from a little below 7,000 to a little more than 21,000.

To be sure, it would be unfair to make the mistakes of a partly misguided policy entirely responsible for the decline of Irish; other geo- and demolinguistic features have compounded the problem. First, Irish is characterised by a significant degree of linguistic variation associated with the various Gaeltachtaí, or Irish-speaking regions. This variation is particularly manifest in speech, notably accent, although some syntactical features and lexical traits may vary.[52] Second, the geolinguistic fragmentation of Irish-speaking areas over several Gaeltachtaí contributes to the sense of frailty of the language.

The term "the Gaeltacht" is used to refer collectively to those areas where Irish is used as an everyday language by a majority of residents. In the plural, "Gaeltachtaí" refers to these areas individually. Although it is not unusual to describe an extremely small area (for example, a single village) as "a Gaeltacht", it is customary to mention seven, namely: (1) Dún na nGall (Donegal, which actually covers only small sections of the county by the same name; (2) Maigh Eo (Mayo, where a similar restriction applies); (3) Gaillimh (Galway—the area is also referred to as the Connemara Gaeltacht; the city of Galway itself, however, is heavily anglicised and can be considered a mostly anglophone pocket in the Gaeltacht); (4) Ciarraí (Kerry, covering only the three western peninsulas of the county); (5) Corcaigh (Cork—though only small areas in the Western part of county Cork are Irish-speaking); (6) Port Láirge (Waterford—here again, only a small portion of the county, around An Rinn, is Irish-speaking); and (7) An Mhí (Meath—where the actual Gaeltacht area only includes two small rural pockets in the county) (Údarás na Gaeltachta, n.d.).[53] The deceptively close word "Galltacht"

[52] For a glimpse into the intricacies of linguistic variation in Irish, even within a given region, see e.g. Ó Dochartaigh (1987).

[53] The official definition and extent of the Gaeltacht has changed in several ways over time. It was first officially defined in 1926, with a distinction between "true" and "speckled" Gaeltacht (Fíor-Ghaeltacht agus Breac-Ghaeltacht). The distinction was abolished in 1956, when the concept of the geographically smaller New Gaeltacht (Nua-Ghaeltacht) was introduced. Small additions to the official Gaeltacht took place in 1967, 1974 and 1982 (Hindley, 1991).

collectively refers to the anglicised parts of Ireland—that is, the rest of the country.

After independence, the official designation of Irish-speaking areas was intended as an instrument for policies aiming at strengthening Irish, either directly through schooling, or indirectly through economic development schemes that would give residents an incentive to stay in Irish-speaking areas (Hindley, 1991). Debate goes on as to whether the instrument was an appropriate one, whether it could have been used more efficiently, and whether the predicament of Irish would have been worse without it (Fennell, 1981; Williams, 1988; Ó Coileáin, 1986; Hindley, 1991). Although the resident population of the Gaeltacht has increased in recent years, the percentage of Irish speakers has declined there (e.g. from 86.5% to 77.4% between 1961 and 1981). Again, these figures may represent a strong overestimation, since they include people whose competence in Irish is significantly below their competence in English. According to Ó Cinnéide and Keane (1988), major anglicising influences are: (a) television; (b) language use by government agencies, which make an inadequate overall use of Irish; (c) industrialisation; (d) the influx of English-speaking residents; (e) the predominance of English in local urban and trading centres, such as the city of Galway; (f) persistent inadequacy of educational arrangements; and (g) the unavailability of entertainment in languages other than English, specifically Irish.

Against this backdrop, it is not surprising that the success of recent developments in language policy, such as the establishment of an Irish-medium television channel (Teilifís na Gaeilge, which started operating in November 1996), or the Gaillimh le Gaeilge project presented below, appears to hinge on the rejuvenation of the image of Irish, and on the effort made to stress the relevance of Irish in modern life, in addition to providing a link with identity and tradition.

11.2 Direct language promotion as language policy

Direct language promotion is a key element of all revitalisation policy. Of course, every language policy measure can be interpreted as a form of promotion. The distinguishing feature of direct promotion, however, is that it is more explicitly targeted at people's language attitudes. This concept is used here in a general sense; it informs the linguistic dimensions of actors' utility function. To the extent that, in our analytical framework, the utility function is a crucial explanatory factor of behaviour, including language use, direct language promotion addresses the very core of the problem.

The goal of direct language promotion is to alter speakers' and/or non-speakers' attitudes in a positive way; a positive change in attitudes, in terms of the utility function, does not necessarily imply that the absolute attractiveness of activities in the majority language declines, but certainly means that the relative attractiveness of doing things in the minority language increases. Our formal model makes no difference between the two types of evolution, and is expressed as a change in the "distribution parameter" γ (see appendix); this however, entails no loss of generality.

One strategically useful aspect of direct language promotion is that by definition, it always works. In particular, it brings about an increase in the amount of time devoted to minority language activities even if bilinguals' choice to carry out their activities in one or the other language is not responsive to changes in their relative cost. In technical terms, direct language promotion is effective even when the direct elasticity of substitution σ between activities in either language is small (that is, comprised between 0 and 1), whereas the provision of minority language services, as well as the increase in the average competence level of speakers, can work only if the elasticity of substitution exceeds unity. In other words, because it is the most direct form of intervention and is not mediated by relative price effects and actors' sensitivity to the latter, a policy targeting attitudes is the most radical of all those considered here.

Case studies of minority language survival and decline, perhaps even more than the theoretical language planning literature, keep insisting that positive attitudes (which, although most authors do not derive this implication explicitly, implies a favourable change in the parameters of the utility function) are essential, even indispensable for language revitalisation.[54] In the case of Irish, for example, Fennell observes that "[...] the attempt by the Irish state to save the dwindling Irish-speaking minority, and the failure of this attempt, offer valuable experience and lessons to all who would embark on such an enterprise. The Irish example serves to clarify certain things which were not clear beforehand. [...] The basic prerequisite is that they [the members of the linguistic minority] acquire the will to stop their disappearance as a linguistic community [...]. Having acquired the will to save themselves, they will almost inevitably—human nature being what it is—acquire the institutional and financial means to take the appropriate measures, unless they are forcibly prevented from doing so." (1981: 39; our italics). This informal deduction, inferred from one particular case, finds a formal expression in our algebraic model, which demonstrates that under the set of fairly general assumptions made, the attractiveness of minority language activities, as reflected in the utility function, must be sufficiently high if the language is to break out of its spiral of decline.[55]

Direct language promotion may target the entirety of a language group living in the jurisdiction of the authority implementing the policy. One famous example is Singapore's "speak Mandarin" campaign, whose aim was to persuade ethnic Chinese to use Mandarin instead of southern dialects of Chinese (mostly Hokkien, Teochew, Cantonese, and Hakka) (Tham, 1990; Baetens Beardsmore, 1994).

[54] One possible reason why the role of attitudes is recognised more explicitly in applied than in theoretical literature is that its inclusion in a theoretical construct would require a general, fully worked-out model of language shift; however, as pointed out in Section 2.1, such a theory appears not to be available at this time (Appel and Muysken, 1987).

[55] Using slightly more elaborate modelling, Grin (1992) shows that even if such attractiveness is low, speakers' anticipations that a turnaround is about to take place can be sufficient, for a transitory period, to cause minority language use to increase. The reader is referred to this paper or to a less technical presentation of the same model (Grin, 1993b).

However, it can also target a subset of the language group concerned, as in the case presented in this chapter. In this context, the success of the policy must primarily be evaluated in terms of attitudinal changes among the subset concerned; only in a second step can inferences be made about its effects on the population as a whole, particularly in terms of our ultimate concern, that is, actual language use.

It is important to understand that the attitudinal change aimed at can be complex, and the promotional message does not need to be as crude as in the Singaporean case. People's motivations are complex, and an attitudinal change in favour of a language does not necessarily mean that people who disliked the language suddenly decide to love it. A change in people's affections can certainly occur; in final analysis, it is undoubtedly an asset for long-term language maintenance. Attitudinal change, however, can be much more subtle, and hinge on non-emotional reasons. The Gaillimh le Gaeilge project does just that: direct language promotion targets people's perceptions of Irish, but keeps away from lofty moral admonitions: its chief aim is to show that using Irish yields benefits, quite apart from whether one genuinely likes the language or not. Paradoxically, this approach is one of the best protections against tokenism, which plagues many revitalisation measures.

11.3 The origins of Gaillimh le Gaeilge[56]

Comhdháil Náisiúnta na Gaeilge (henceforth CnaG) is a federation of state and non-state organisations active in various aspects of the promotion of Irish. Its budget is covered by the Department of the Arts, Culture and the Gaeltacht (Roinn Ealaíon, Cultúir agus Gaeltachta).

With an ad hoc grant from this Department (which was, at the time, responsible for the Gaeltacht only), CnaG commissioned an evaluation of (i) the cost of special measures supported by the state to promote the Galway Gaeltacht; (ii) the economic activity which accrues from these measures; (iii) the extent to which sate expenditure on the provision of these measures, together with the economic activity to which they give rise, contribute to the social and economic well-being of Galway Gaeltacht and City alike (Ó Cinnéide and Keane, 1988: 7). These authors have estimated that state intervention in favour of Irish generates some £17.0m in gross household income throughout the Galway Gaeltacht (£13.1m for the city of Galway). The report recommended increasing the visibility and use of Irish in Galway; as a result, the Gaillimh le Gaeilge project ("Galway with Irish") was officially launched in 1988.

The goal of Gaillimh le Gaeilge is "to further the position of Galway as the prime bilingual city in Ireland, to develop the Irish face of the city, with a view to reinforcing its attractiveness to visitors from other parts of the country as well as from abroad, particularly individuals with an interest in lesser-used languages and

[56] Most of the data presented in Sections 11.3 through 11.6 is derived from the annual reports of the *Gaillimh le Gaeilge* project (Comhdháil Náisiúnta na Gaeilge, 1992, 1993, 1994, 1995, 1996) and by information supplied directly by the chairman and staff of Comhdháil Náisiúnta. The authors are particularly indebted to Peadar Ó Flatharta and Fionnuala Ní Mhuirí.

cultures (Comhdháil Náisiúnta na Gaeilge, 1992: 5; our translation). Apart from a recognition of the monetary benefits that the city of Galway derives from the maintenance of Irish, three important ideas form the backbone of Gaillimh le Gaeilge.

(i) First, it starts out from the observation that what happens in Galway has a considerable influence on what happens in the Connemara Gaeltacht. Galway is its prime commercial, educational and transportation hub, in addition to being the largest town in the region, with a population of a little over 57,000 (according to the 1991 census). Galway city is the place where Irish-speakers from the surrounding Gaeltacht come to shop, access bank services, etc. Being considerably anglicised, the city of Galway indirectly partook of the erosion of the nearby Gaeltacht; it offered a typical illustration of one of the dominant features of the linguistic environment in Ireland, namely, the fact that Irish is a majority language only in scattered rural areas, but has largely been evicted from cities and towns (by contrast, Welsh has remained an urban language, for example in Aberystwyth, Caernarfon or Bangor). In theory, it would have been possible to try and develop an urban-like centre in the Gaeltacht, in the hope that it would serve Irish-speakers in Irish. However, there would have been no guarantee that such a shopping or services centre would escape Anglicisation. Apart from the technically and financially cumbersome aspects of such a plan, if it had failed owing to creeping Anglicisation, it would have done more harm than good. Hence, the logical alternative was to reintroduce Irish in Galway.

(ii) Second, a choice was made to target the business community, because of its importance in influencing patterns of language use in commercial life. Participation in some or other form of commercial exchange makes up a sizeable share of people's waking time; furthermore, these moments are symbolically important, probably because they are contact-intensive, and put individuals in relation with each other. Even the most anonymous consumption act implies that the consumer projects himself or herself as a person in society who owns (or does not own) a particular product; hence, consumption has social meaning, and the linguistic parameters of commercial exchange have notable strategic implications in terms of language attitudes and language use. This general notion can be exemplified by the much simpler observation that the marketplace (in a broad sense) may well be the prime locus where social norms of what is "modern" and what is not are negotiated between actors. If the minority language is present on the marketplace, it becomes associated with socially-defined modernity. We regard this aspect as a sine qua non condition for long-term language maintenance.

(iii) Third, Gaillimh le Gaeilge does not rely on regulation, but on persuasion. It is not presented as a project undertaken primarily for the good of the language. Its selling argument is that Irish is good for the city of Galway in general, and for its business community in particular. No appeal is made to some sense of duty or obligation. The clear message is that people are welcome to participate in Gaillimh le Gaeilge if—and only if—they find it in their own advantage to do so.

In what follows, we shall concentrate on the main, but not only line pursued in the project, namely, the presence (particularly in terms of visibility) of Irish in business and commerce.

11.4 Agencies responsible

Although CnaG is in charge of managing the project, is not the only actor to make decisions about Gaillimh le Gaeilge. First, as a federation of organisations, CnaG speaks for the latter. However, the members of CnaG as separate bodies (such as the Údarás na Gaeltachta, or Gaeltacht Authority, a body in charge of assisting and furthering socio-economic development throughout the Gaeltacht areas) have not been directly active in Gaillimh le Gaeilge.

Involvement of other partners takes place on the terrain. This is reflected in the composition of the steering committee, which includes representatives of official bodies, volunteer organisations, and other individuals with specific skills considered useful for the success of the enterprise. In 1996, for example, the steering committee included representatives from CnaG, the Galway Regional Technical College, Iognáid College, the Department of the Arts, Culture and the Gaeltacht, the Galway Chamber of Commerce and Industry, the Galway Business Innovation Centre, the association Glór na nGael, and the Vocational Education Committee of the City and County of Galway. The other structures of Gaillimh le Gaeilge are the Irish language committee of the Chamber of Commerce and Industry, and a toponymy committee.

The partners of Gaillimh le Gaeilge are, by definition, local businesses, or the management of the local branch of national or international companies who decide to increase their use us Irish—because they find it to their advantage to do so.

The Department of the Arts, Culture and the Gaeltacht provides financial support that covers the cost of operations, but not the working time donated by the members of the various committees (including CnaG officers).

11.5 The operation of Gaillimh le Gaeilge

From the start, a large part of the work of Gaillimh le Gaeilge has been directed at persuading the business sector in the city to make a significant use of Irish for inside and outside signs (Comhdháil Náisiúnta na Gaeilge, 1996: 12), and reporting on this side of the project is the main goal of this chapter. Other activities, however, are also part of the project, notably encouraging the use of Irish on stationery and packaging, as well as in direct interaction with customers. Additional forms of promotion targeting the public at large (as opposed to the local business community) are being developed since July 1995; their aim is to affirm and publicise the position of Galway as the hub of Irish and Celtic culture—or, as one of the yearly reports puts it, to develop the city as a “Mecca of the Celts”.

The business community is approached in a variety of ways, often with logistic support from the Galway Chamber of Commerce. Techniques include direct mailings, extensive personal contacts, and the organisation of well-attended

business lunches.[57] However, the contents of the promotional message is what makes the originality of Gaillimh le Gaeilge. It is organised around the following arguments.

The basic argument (with which the Chamber of Commerce was initially approached) is drawn from the report by Ó Cinnéide and Keane (1987) mentioned above. It is pointed out to members of the business community that, as a result of the state's efforts to maintain and revitalise the Gaeltacht (with the implication that better socio-economic conditions in the Gaeltacht eventually create better conditions for the long-term survival of Irish), the share spent on the Galway Gaeltacht generates some £13.1m per year in extra household income for the city alone, and that this spending power is directly linked to the survival of Irish; in other words, and contrary to many people's preconceptions, the presence of Irish yields benefits, and losing the language would hurt the city much more than seeing one or two multinationals leave.[58]

CnaG then impresses on businesspeople that Irish is an irreplaceable element of the city's identity—a relevant notion for people who are aware of the value of corporate identity. The maintenance of Irish, far from being an economic hindrance, constitutes one of the chief assets that a city in a rather peripheral location can capitalise on. Although no hard data are available to estimate this effect, the recent but perceptible growth of cultural tourism throughout Western Europe provides a business argument for increasing the visibility of Irish. Just as in the Welsh case (see Chapter 8), the Irish language is "an important element in defining our sense of place" (Bord na Gaeilge, n.d.).

The line of argument deliberately avoids any appeal to people's sense of duty, and stresses that a decision to increase the visibility of Irish must be made on the basis of good business sense, or possibly concern for the economic vitality of Galway—a cogent point once it has been shown that the city as a whole does benefit from its association with the maintenance of Irish. For this reason, Gaillimh le Gaeilge offers no grants whatsoever: if it is in the interest of some company to have bilingual signs, there is no reason for someone else to cover the cost of such signs. Once a shop decides to use Irish (which, in practice, means adding Irish alongside English rather than replacing English by Irish), the management can turn to the Gaillimh le Gaeilge staff who can assist with translations, devising slogans in Irish and sprucing up graphical design.

[57] These business lunches feature a guest speaker and are regularly attended by over 50 participants. They normally take place in restaurants that make use of Irish, for example by offering bilingual menus (at the time of writing, 24 of the 64 restaurants in the city of Galway do so). These events are conducive to creating a network whose "conduit" is the language, although language itself is not the main concern of participants.

[58] Two points must be borne in mind when interpreting this income estimate. First, there are alternative (i.e., not language promotion-related) uses of these funds, which could possibly yield higher cumulative effects; however, we have no information on this point. Second, to the extent that the revenue from which policy measures are funded has been raised over the entire country, this type of spending clearly implies inter-regional redistribution; we have pointed out in Section 3.5 (part I) that this aspect must not be overlooked when assessing policies.

Experience has shown the value of intervention at an early stage. For example, CnaG staff monitor planning applications for new supermarkets or shop fronts, and approach businesses before decisions about outdoor or indoor signs are likely to have been made. Regular contact is also maintained with sign-writers, who are in a good position to persuade clients (that is, businesses putting up new signs or refreshing existing ones) to move to bilingualism.

11.6 Costs

There is no formal estimate of the total cost of Gaillimh le Gaeilge. Over the years, an average of 1.5 full-time positions has been devoted to running the project. This uses up some 90% of a special grant from the Department of the Arts, Culture and the Gaeltacht, ranging from IR£ 20,000 to IR£ 35,000 per year; this latter amount has also been granted for 1997; at the current rate of exchange, this amounts to approximately NZD 80,000. The remaining 10% are used for overhead and travel expenses. Overhead includes the rental on office premises in Galway (because CnaG offices are located in Dublin).

This amount of IR£ 35,000 does not include the time volunteered by the various committee members, whether as representatives of associations or state bodies, or single individuals. In particular, it does not cover the time spent by CnaG officers; this input can be roughly estimated at one half-day per week which (taking holiday time into account) amounts to a little less than 25 full working days (or approximately one month full-time) per year. Allowing for the value of this time and additional sunk costs, we evaluate at some NZD 100,000 per year the total cost of Gaillimh le Gaeilge to the authorities.

How can the cost of the project per unit of language use be evaluated? The complete absence of figures makes this a difficult exercise, but we consider it helpful nonetheless to provide rough estimates, if only to have some basis for a cost-effectiveness comparison. Given that the project has been running since 1988, total expenditure to date is in the region of NZD 900,000 (that is, 1997-1988 x 100,000). We assume that on average, residents of Galway and the surrounding Gaeltacht spend 4 to 5 hours per week for shopping in Galway. Let us further assume that a little less than a quarter of this total, say 1 hour per week, can now take place predominantly in Irish, as a result of the implementation of the Gaillimh le Gaeilge project. This yields an increase in the use of Irish for shopping of some 50 hours per year, assuming this use was minimal before. Of course, this increase is accessible to those people who do speak Irish and are therefore in the position to do their shopping in the language. In the Galway area (city and county), the 1991 census puts this figure at 76,798 (20,835 and 55,963 people respectively). Let us note that using this figure reflects the assumption that speakers of Irish who do not reside in the region, but are only occasional visitors from other parts of Ireland, are not affected. Hence, the total number of shopping hours per year that can take place in Irish as a result of the project can be conservatively estimated at 3,839,900.

Since this is a yearly figure, we could compare it with the expenditure per year of NZD 100,000. However, what makes this increased use possible is not just current

expenditure, but the stock of signs put up over preceding years as a result of the project. Since we are not dealing, in this case, with a pure capital stock expenditure, we decided to interpret the total of the expenditure over the eight preceding years (that is, NZD 800,000 since the beginning of Gaillimh le Gaeilge) as a once-and-for-all prior investment. Assuming a 7% rate of return on capital (see Chapter 8 on bilingual signs in Wales), the opportunity cost of the investment is NZD 56,000, which we add to the current period expenditure of NZD 100,000, yielding a total cost of 156,000. Dividing this latter figure by our estimate of the total shopping hours that can take place through Irish as a result of Gaillimh le Gaeilge, we obtain a per hour cost of 4 cents (NZD 0.0406). This remarkable cost-effectiveness must be considered even higher if we allow for the possibility of increased use of Irish among predominantly anglophone residents and tourists.

Of course, we may wish to apply even more conservative estimates, taking account of the following two considerations. First, of the resident Irish-speaking population, some hardly do any shopping, either because they are too young, or because another household member does most of the shopping for them. Second, it may be the case that shoppers who currently use Irish also did so before Gaillimh le Gaeilge was initiated, and would have continued to do so even if the project had not been launched. In this case, only a more modest increase in the number of hours when Irish is used could be credited to Gaillimh le Gaeilge. Allowing for these limitations, let us therefore halve the number of shopping hours in Irish that are assumed to result from the project; the person-hour cost is still a remarkably modest 8 cents.

11.7 Outcomes

In sharp contrast to the large-scale, more ambitious policy measures explored in the preceding chapters, Gaillimh le Gaeilge is modest in terms of geographical scope, target population, and expenditure. In addition, it is very much a grassroots initiative—a feature we consider important, because of the crucial role played by independent, non-state actors in language revitalisation. This implies, however, that an assessment of its outcomes can only be a rather informal one, given the absence of hard data on those variables which the project seeks to alter.

Insofar as the Gaillimh le Gaeilge project targets the language attitudes of local businesspeople, the most appropriate measurement of its results should be expressed in terms of attitudinal changes among the target group since the inception of the project. Unfortunately, such information is not available. Furthermore, even if data on attitudinal changes can, at least in principle, be collected through opinion surveys, our real concern is not so much with attitudes themselves as with the utility function that is shaped, among other things, by attitudes.

Though direct validation is not possible, indirect evidence on attitudinal change can be derived by observing behavioural changes in businesspeople's use of bilingual signs. This interpretation can be seen as the (simplified) mirror image of

what economists call "revealed preference theory",[59] and deserves a few words of explanation.

The problem hinges on the fact that it can be questionable, in our case, to assume the relevant concept of the price of "shop signs" to have remained constant. On the one hand, the marginal cost of using one more language for interior and exterior signs is presumably positive, though modest. On the other hand, what matters here is not just direct financial expense, but the increase in profits that bilingualisation is expected to generate. If both effects exactly offset each other, and if the occurrence of bilingual signs increases nonetheless, then only an attitudinal change can explain this evolution. However, if Gaillimh le Gaeilge convinces businesspeople that bilingualisation does yield a financial gain, bilingualisation can occur even without any attitudinal change among businesspeople, because the perspective of increased profits provides incentive enough. Hence, one could object that ex post bilingualisation does not provide the proof we seek that the promotional policy has succeeded in changing attitudes.

Nevertheless, a generally sound assumption, when studying the behaviour of businesspeople, is that once they are in possession of adequate information, they are quite capable of identifying by themselves the language strategies that maximise sales or profits, and do not need to be told twice what these strategies are. In other words, if it had been obvious from the start that there was any substantial money to be made by bilingualising shop signs, they probably would have done so without having to be nudged in this direction by CnaG; this is the reason why signs in Japanese or Arabic have appeared in the show-windows of upmarket jewellery shops in many Western European cities. It follows that if Gaillimh le Gaeilge has had any effect at all, this effect can be traced back to two distinct factors: first, the availability of additional information (in the form of the Ó Cinnéide and Keane report); second, a change in conventions and norms, which are subsumed under the broader analytical construct of attitudes (closer investigation of this second aspect should, of course, pay attention to the interplay between businesspeople's personal attitudes, and what each perceives to be the dominant attitudes of competitors). It is impossible, in the absence of highly detailed information, to distinguish the effect of the first and second factor, but we believe that the increase in the use of Irish must in large part be credited to the second, that is, a positive attitudinal change. Hence, one way to judge the outcome of the Gaillimh le Gaeilge project is to evaluate the absolute number of bilingual signs that have appeared since its inception or the increase in the percentage of bilingual shop signs, and to identify the characteristics of those businesses that have chosen to increase the visibility of Irish.

Since the beginning of the project, over one hundred shops have put up bilingual signs, and 135 carry bilingual signs. Another 83 businesses that also participate in Gaillimh le Gaeilge use Irish for other purposes, such as invoice forms or

[59] Revealed preference theory has been designed to deduct the hidden utility function (or the indifference curves that represent the utility function) from the observation of changes in consumption patterns following price changes, under the assumption that preferences are stable over time. Ours is a symmetrical case, where the emphasis is placed on the effects of changes in preferences, not prices.

stationery. The CnaG report notes that: “It is enough to walk down any street to see the commendable results of this work. The bright signs in Irish as well as the bilingual signs contribute very much to the cultural face of Galway, which is of service to visitors as well as residents of the town itself.” (Comhdháil Náisiúnta na Gaeilge, 1996: 12, our translation). Moreover, “city supermarkets and major stores carry full bilingual signage. [...] Up to thirty city hotels and restaurants issued bilingual menus [...]; the use of the language in oral communication is also increasing rapidly” (Research and Consultancy Unit, 1995: 4). Although this is not the result of deliberate planning, it is mostly the service and retail sectors (hotels, restaurants, department stores, etc.) that have been targeted, and where the most notable changes have taken place. Relatively high-profile, sometimes upmarket businesses have been prioritised; hence, the effects of Gaillimh le Gaeilge are particularly visible in the centre of the city.

The above results provide strong indication that Gaillimh le Gaeilge has, indeed, succeeded in modifying the attitudes and the patterns of language use of its target public. We can only conjecture that it also performs well with the general public. Just like bilingual road signs and the provision of minority language broadcasting, the visibility of the language in business and commerce can be a powerful lever for altering people’s perception of Irish, and for broadening the range of connotations carried by the language.

As regards actual language use, effects can be broken down in two parts, namely, time spent reading signs in Irish instead of English, and time spent interacting with sales clerks in Irish instead of English. No statistical information for the evaluation of these effects is available; however, the patterns of language use in the general public can only have been positively affected, even if only to a modest extent, by the recreation of Irish-medium commercial activities. Evidence provided by observers of the local language scene indicates that patterns of language use in commercial exchange have significantly shifted in favour of Irish.

11.8 Evaluation

When evaluated at the local scale for which it is intended, the Gaillimh le Gaeilge project must be considered a success. It has convinced an increasing number of businesspeople that using Irish made sense; as a consequence, the project has made a major contribution to the visibility of Irish in business and commerce in the city of Galway. Further, we can safely assume that the attitudes of the public at large have been positively affected, because the unsentimental nature of business operations suggests that the use of Irish in commerce reflects concerns other than moralistic admonitions which, over time, have lost much of their edge. In short, if even business uses Irish, it must mean that Irish is truly relevant.

Here again, our chief concern is with the conditions that have enabled Gaillimh le Gaeilge to work well. Four conditions seem to have played a key role in this success.

1/ First, the project has been carried by committed actors—CnaG officers and staff, but also other individuals and groups represented in the steering committee of the project. As in the case of Wales, where the role of the Cymdeithas yr Iaith Gymraeg has already been pointed out, this particular revitalisation measure owes much of its success to the vision of an "avant-garde"—in the political, even "language policy" sense (see Section 12.2).

2/ Second, Gaillimh le Gaeilge functions in direct partnership with the target group; it is an example of a remarkably close co-operation, even overlap, between the initiators of language policy and the people whose behaviour language policy seeks to influence. This offers two advantages. First, language policy proposals are specific to Galway and can regularly be fine-tuned to fit the changing conditions under which the target group operates. Second, language policy is completely at home and is not imposed from the outside. It prevents it being perceived as overbearing, interventionist or pushy. To the extent that the success of any language policy crucially hinges on an endorsement of its objectives by the groups targeted (and, ultimately, by the population at large), the value of partnership and consultation are probably undeniable.

3/ Third, the emphasis on the interests of the city and its economic vitality offers a welcome change from the moralistic (and hence potentially demoralising) tone of much promotional policy, particularly in the case of Ireland (see Section 11.1). Gaillimh le Gaeilge offers a different way to rationalise one's use (or non-use) of Irish.

4/ Fourth, the broader economic context has probably been favourable. The commercial relevance of lesser-used languages is generally getting increasing attention in Europe. Marketing research has shown that there is considerable goodwill towards the Irish language (O'Neill, n.d.). Developing the Irishness of products, and hence using the language as a way for goods and services to stand out in a rapidly diversifying offer "can be the difference between survival and extinction, and between rising profits and declining market share" (ibid.). The visibility of minority languages increasingly becomes a selling argument for fast-developing cultural tourism that offers an alternative to mass-consumption leisure services (Price, 1997). The timing was therefore ripe for managers and business owners to be persuaded that using more Irish made good sense.

12. A tentative assessment

12.1 A summary of the policies

Having analysed four cases of promotional policies, we now turn to a comparative assessment. We begin by summarising in Table. 2.23 the main features of these policies.

Table 2.23 is made up of eight columns.

The first two columns contain cost-effectiveness information. In order to compare policies in terms of a common unit of measurement, we report in column (1) the *person-hour cost of minority language use generated by the policy*. Let us recall that the cost figures computed in Sections 8.6, 9.6, 10.6 and 11.6 are derived from expenditure by the relevant language planning authority, that is, by the state, and represent cost-effectiveness measurements from the standpoint of the authorities. Column (2) assigns a cost-effectiveness index value to each policy, on a 1 to 10-point scale. Such a scale was preferred to a simple ranking from 1 to 4, since it allows for some indication of the order of magnitude of differences. In money terms, these differences go from 1 to over 100.

Columns (3) to (7) report on specific and overall impacts. Rankings were assigned on the basis of the estimates of direct effects computed in the corresponding chapters, and on our informed judgement of the indirect effects of the programmes described. The overall impact is a rounded arithmetic average on the same scale. It should be noted that index values for impacts run from highest (1) to lowest (10), whereas they run from lowest (1) to highest (10) for costs. In other words, the closer to 1 an index value, the more interesting the policy, whether on the cost or on the impact side.

Finally, column (8) provides a best practice index, which is the sum of the values in columns (2) and (7) divided by 2.

Table 2.23 shows that Welsh road signs turn out to be the least useful of the four policies studied. Of the other three, Irish language signs in the Galway business district score highly because of their very low cost, but their impact

TABLE 2.23
COST AND IMPACT OF LANGUAGE POLICIES

Policies	PER-HOUR COST OF MINORITY LANGUAGE USE		IMPACTS					
	(1) NZD/hour	(2) **Index value**	(3) Competence level of speakers	(4) Number of speakers	(5) Language attitudes	(6) Language use	(7) **Overall impact**	(8) **Best practice index**
Welsh road signs	4.40	**10**	nil (10)	nil (10)	medium (4)	low (8)	**8**	**9**
Welsh-medium television	1.10	**4**	med-high (3)	med-low (7)	high (1)	high (2)	**3**	**3.5**
Basque education planning	0.22	**2**	high (1)	high (2)	med-high (3)	***prerequisite*** (1)	**2**	**2**
Irish business signs	0.04	**1**	low (8)	nil (10)	med-high (3)	low (8)	**7**	**4**

Note: Index values run from highest (1) to lowest (10) for impacts and from lowest (1) to highest (10) for costs.

remains modest. The other two, Welsh-medium television and Basque education planning, stand out as the two best policies, with the prerequisite nature of language education giving it a clear edge.

As with all attempts to make synthetic comparative judgements, Table 2.23 must be interpreted with caution. Although each item in the Table rests on a detailed analysis, its function is not to dictate the adoption of some policies instead of others, but to provide a point of reference in the debate over the selection of language policies, particularly if the debate addresses the problem of *systematic* cost-effectiveness comparison.

In our view, it is just as important to focus on the conditions that have made these policies successful.

In each case, some conditions that have made the policies successful have been identified. In the preceding chapters, we have noted the following points.

For bilingual signage in Wales, lobbying by committed organisations supported by large sections of the opinion has been crucial. In the case of minority language broadcasting in Wales, high-profile political campaigning banking on the existence of a strong pent-up demand has also proved essential. This, however, was combined with the professionalism of Sianel Pedwar Cymru, which also broadened the scope of perceptions of the Welsh language.

The state has taken a leading role in the expansion of the teaching of Euskera, but the evidence indicates that its success owes very much to a strong social motivation and to a pent-up demand for language learning in the population; the transposition of language skills to language use has been achieved through an effort to create a variety of non-school contexts where the language can be used. Constant monitoring of the language policy helps identify priorities.

Finally, direct language promotion in the city of Galway underscores the role of committed groups, of broadening the perceptions of the language in public opinion, and of co-operation with the actors concerned by the language revitalisation plan.

Since an important issue for language revitalisation is the sustainability of language policies, it is interesting to note that the Welsh TV and the Basque education policies have been pursued for several years with stable sources of funding, and their existence has never been seriously questioned.

Let us now move on to a more structured discussion of the conditions for successful language revitalisation, by establishing links between the factors

inferred from empirical observation and the analytical framework developed in Part I.

12.2 Conditions for success

The core question of this study is: "What works?". On the basis of the preceding survey, our answer is "anything *can* work—*provided favourable conditions are present*". The crux of language *policy*, therefore, is not so much to select and fine-tune the best possible policies as to ensure that these favourable conditions are present. The task of language *planners* is not just to select, design and implement sensible policy measures, but also to make sure that the necessary success conditions are met—and, of course, to create such conditions if they are not.

This section focuses on the set of conditions that must be met for successful language revitalisation, in relation with the analytical framework that we consider necessary in order to approach it in terms of policy analysis. However, we shall be departing somewhat from the clean time patterns assumed in the formal model—in particular, some conditions are necessary for policies to be proposed and adopted (that is, they *precede* the formal policy process); others need to be met once policies have been adopted, if they are to be successful. In the main, however, favourable conditions must accompany the revitalisation process throughout its successive stages.

Political conditions

The analytical framework starts out from the assumption that the authorities *do* have language policy objectives, that the latter—in our case—essentially focus on language revitalisation measured in terms of language use, and that societal resources will be deployed to this end. This is expressed by the three boxes ("language policy objectives", "list of policy options" and "societal resources constraints") at the top of the first panel in Fig. 1.8 (the "extensive causal structure" of the analytical framework developed in Part I—since we shall be making constant reference to this figure in the following pages, the reader is invited to keep it near at hand).

However, our analysis of selected policies shows that such official readiness to engage in language policy has not always been spontaneous. In the Welsh case, both bilingual signs and Welsh-medium television had to be wrested from British authorities. In Euskadi, it took the end of fascism in the Spanish state and the devolution of powers to the C.A.V. for the teaching of Basque on a large scale to be developed. In general, it is much easier to find cases where minority language policy had to be fought for than instances where the authorities (usually identifying, and identified with majority interests and views) unreservedly took the necessary steps. Most of the time, the active

involvement of individuals and groups has proved crucial, whether political parties, community organisations, specifically language-related associations, or committed language activists.

Obviously, their campaigns in favour of minority language visibility, minority language broadcasting, or minority language schooling would probably have come to naught if they had not already enjoyed a base of support in the community at large. However, the community members' willingness or readiness to increase their use of the language apparently needed some clear goals to be set, and demands, possibly enshrined in a more or less explicitly political agenda, to be formulated and be given public visibility in political debate. This can be summarised as *condition No. 1*, which for want of a better term, we shall call the "avant-garde condition":

> ***1***. *An active and well-organised language avant-garde made up of associations independent from the State apparatus, and whose goals explicitly feature language use and language visibility as top priorities (as opposed to non-linguistic aims such as, say, administrative autonomy) is necessary to raise the profile of language revitalisation issues. The existence of "third-sector" organisations (that is, distinct from both government and business), is indispensable when there is official resistance to the notion that revitalisation policies are either desirable or necessary. In cases where the State itself is already committed to language revitalisation, such organisations provide a useful bridge with civil society and endow language policy with a force of conviction that purely official bodies typically fail to guarantee.*[60]

Willingness to engage in language planning is one thing; material and financial capacity to do so is another. More precisely, the authorities must be ready to devote adequate resources, some symbolic, but many of them financial, to the achievement of policy objectives. Even in the case of *Gaillimh le Gaeilge*, state support in the form of a modest grant is necessary. Again, such favourable dispositions are not necessarily forthcoming, whether because allocating funds to minority language revitalisation is a *new* kind of expenditure, possibly perceived a somewhat of an extravagance, or because such allocation can imply raising additional revenue *or* reducing expenditure on other legitimate objectives. In either case, spending money on minority language revitalisation is a *redistributive* measure, as has been shown in Section 3.5. It should be remembered that when the State does not provide

[60] Further examination of this condition would require an extensive discussion of the *theory of social movements* and of *mobilisation*, which would exceed the scope of this study. For an in-depth presentation, the reader is referred to Cohen and Arato (1992), and for a shorter recent overview, to Rossiaud (1997).

minority language goods and services (whereas such services are available in the majority language), this asymmetry is, in itself, a redistribution mechanism in favour of the majority.

The necessary redistribution need not carry a heavy price tag, but it is unavoidable. In the case of three of the four policies studied in the preceding chapters (all but Basque education policy), the *financial* extent of the redistribution is modest, mostly when considered on a per-capita basis. The *symbolic* aspects of redistribution necessarily mean that some form of privilege (for example, monopoly of the airwaves) is taken away from the majority. In other words, the relative position of the majority is affected, but its absolute position does not have to be (for example, in the case of S4C, the establishment of Welsh medium television has not reduced the amount of viewing time available in English). *Condition No. 2*, which we shall label the "redistribution condition", can then be formulated as follows:

> ***2.*** *Authorities must be willing to redistribute social resources, both financial and symbolic, in direction of the minority language community. Financial redistribution need not be considerable on a per-capita basis, but it is strictly positive. Symbolic redistribution entails a decrease in the relative dominance of the majority community, but need not imply the reduction of any other non-material amenities available to its members.*

The offshoot of condition 2, however, is that majority opinion must be willing to go along with the redistribution of financial and symbolic resources. This is where the State (which is often perceived as being primarily a representative of majority interests) can play an irreplaceable role that language activists and their organisations cannot. In particular, it can *endorse* minority language revitalisation and *campaign* in its favour in order to win majority support for the corresponding policies—including the modest extent of resource redistribution they entail. The message to the public, therefore, is one stressing the *normalcy* of devoting resources to minority language revitalisation. The Welsh experience with bilingual signs is particularly telling in this respect (Bowen, 1972), because authorities ended up earnestly endorsing this aspect of minority language visibility, which helped make it normal in the eyes of the English-speaking public. This can be summarised in the form of a "normalcy condition" (*condition No. 3*):

> ***3.*** *The authorities must be willing to endorse and defend language revitalisation and the associated redistributive implications before majority opinion, in order to convince the latter that devoting resources to minority language revitalisation and maintenance is a normal state of affairs.*

Technical effectiveness conditions

If conditions 1, 2 and 3 are met, it becomes possible to engage in full-fledged language policy. We can now turn to a second set of conditions of an essentially technical nature. These technical conditions are easily understood if formulated in terms of our analytical framework, as represented in Fig. 1.8. In the following discussion, we shall focus on the four types of measures discussed theoretically in Part I and empirically in Part II, namely, the provision of minority language (goods and) services; skills development; acquisition planning; and direct minority language promotion.

Higher or lower technical effectiveness is one of the dimensions of the link between *policy measures* and the *language status indicators* at which they are targeted (the arrows between the first and second panel of Fig. 1.8). Not much needs to be said here about technical effectiveness, except the obvious fact that such effectiveness must be guaranteed: a policy geared to the provision of minority language services must result in an *actual* increase of such services provided; a skills development scheme must *really* shift the distribution of skills to the right.

One important point, however, is that *conditions for achieving technical effectiveness are clearly in the province of specialists within the corresponding areas of activity*. Technical effectiveness hinges on the professionalism of graphic designers of bilingual signs, broadcasters, film-makers, marketing strategists, language teachers, school administrators, and experts in the culture whose associated language(s) is (or are) being promoted. Of course, they must have access to adequate information and resources, and they play a key role in defining the amount of resources needed; however, the question of resource availability has already been dealt with in condition No. 2. It also goes without saying that technical effectiveness will benefit from the involvement of all parties, including, of course, minority language users themselves. Language planning authorities, however, retain an irreplaceable role for overall co-ordination, and for the integration of specific measures into the higher-level perspective of public policy.

As regards the *provision of minority language services* affecting the *supply-side factors of the linguistic environment*, two types of measures implemented in Wales have been examined. In both cases, technical efficiency has been achieved. The practical aspects of bilingual signage (size, typeface, etc.) have been carefully weighed, resulting in the full bilingualisation of traffic signs and hence in a significant increase in language visibility. In the media sphere, S4C was given sufficient resources to be of consequence, allowing the channel to meet high professional standards, as evidenced by its good ratings and international reputation. The success of S4C must also be attributed in

part to its capacity to expand the range of representations with which the language is associated. More precisely, it has helped to free Welsh from exclusive association with the sphere of tradition. Our endorsement of the modernising function of minority language television must not be interpreted as an uncritical approval of "modernity". Actors will also draw on other resources, including tradition, to contribute to the social construction of modernity. However, we believe that institutions, including the state, should help individuals and groups equip themselves with the tools to participate in the negotiation of what modernity is—or could be—and that minority language broadcasting of the kind that S4C has so successfully developed provides just such a tool.

As regards *skills development* targeting the *competence level of speakers*, our assessment of the Basque case is a mixed one. The distribution of competence levels among speakers has been shifted to the right, but in more modest proportions than could have been expected. This may be explained in part by the relative difficulty of the language. Although it is not unusual for linguists to dismiss this aspect, it regularly crops up in the discourse of other actors, whether language learners or persons actually involved in some or other aspect of language policy. Hence, it is must be given adequate attention; we agree with Labrie and Quell (1997: 4), when they point out that, in general, "a small degree of foreignness can facilitate the learning of a foreign language but is not enough to explain why some languages appear to be more attractive than others". This, however, harks back to matters of *internal* effectiveness (often, and somewhat misleadingly, called internal "efficiency" in the education economics literature), which falls within the purview of language teaching specialists, whether in general or in the particular case of Euskera.

As regards *acquisition planning* aiming at an *increase in the number of speakers*, figures indicate that the Basque policy has generally been a successful one, particularly in the younger age brackets, although less so that could have been hoped. Limitations can be traced back to two chief causes: first, the inadequacy of type A schools, where students only pick up a limited amount of Basque; second, the lack of opportunities to keep on using the language after leaving school (interestingly, this has also been identified as a factor of language loss among secondary learners of Welsh). Thus, technical efficiency, as measured in terms of the net increase in the number of speakers by age group, speaks in favour of partial or full immersion models, and requires the development of schemes that provide incentives to use the language after leaving school. This latter aspect, however, brings us much closer to another set of effectiveness conditions, which will be addressed shortly.

Finally, as regards *direct minority language promotion* aiming at language attitudes, our examination of the *Comhdháil Náisiúnt*a's campaign with local

businesses in Galway suggests that it is one of the relatively few instances, in the Irish case, where this type of endeavour has been persuasive. Key aspects of this success appear to have been its capacity to emphasise the relevance of Irish to modern life and its demonstrative tone, where the target public was told about a facility and informed of measurable benefits associated with language maintenance. However, great care is taken by the language planning body not to appear preachy, and to insist that the choice to use or not to use the minority language is a free, and (in this particular case) essentially business decision. The case of *Gaillimh le Gaeilge* also suggests that success hinges on the involvement of the more or less extensive group of actors targeted by a given policy measure.

The preceding paragraphs can be summed up in terms of a "technical effectiveness condition" (*condition No. 4*) as follows:

> ***4.*** *The design and implementation of language policy measures must be approached and carried out professionally. Specialists at the applied level in the fields where individual policy measures operate (broadcasting, language education, marketing, etc.) have a key role to play in suggesting and trying out improvements in those policies and assessing the amount and nature of resources needed. However, constant input from and involvement of language users are necessary. The language planning authorities must regularly monitor the implementation of policy measures and update them, while systematically integrating them in a vision of language planning as a form of public policy.*

We are aware that the technical effectiveness condition can look as something of catch-all one. We insist, however, that this is not the case, and refer the reader to our discussion of the problem of scales in Section 2.4.

Let us simply recall here that the chief usefulness of a policy analysis approach is to establish the logical connection between policy measures at one end and outcomes at the other end, and to do so in a systematic fashion, where the reasons for engaging in revitalisation policy, as well as the fundamental allocative and distributive implications of doing so, are taken into account. We have noted that this tends to be the weak point of most of the language planning literature, and hence the most pressing issue to address in order to lay the groundwork for sound policies. The mostly macro-level perspective this requires must also be able to *accommodate* more micro-level considerations, and be flexible enough to make room for unforeseen ones. It is, however, at quite another level analysis that specific details of implementation can be discussed. For example, our analysis confirms that partial immersion at school (teaching some subjects through the medium of the minority language) emerges as an efficient way to increase the number of

bilinguals; furthermore, partial immersion is likely to appeal to many parents who do not want their children to be schooled entirely in the minority language. But only specialist knowledge of the language concerned and associated set of cultural values can tell us which subjects it would be advisable to teach through one or the other language, the precise nature of educational materials to be developed, etc. These issues clearly lie outside our remit and the goals of this study[61].

Hence, the generality of condition 4 is not just the logical consequence of prioritising the macro-level of policy analysis, it is also a matter of caution. Its chief implication needs to be pointed out: it stresses the complementarity between various areas of expertise, both at the analytical and applied levels. This question is taken up again in Part III.

Bilingual behaviour conditions

The conditions outlined so far ensure that a language revitalisation enterprise can be undertaken at all, and that it will be done well. They are also likely to ensure that many of the desired results are *achieved*, in that the status of the language improves, the number of speakers as well as the distribution of their competence levels increase, and attitudes become more favourable to the minority language.

Unfortunately, the above does not suffice to guarantee significant increases in language *use*, although increasing language use has been, from the start, defined as our ultimate policy objective. This discrepancy has been noted again and again in the language planning literature, particularly in connection with minority language proficiency: the fact that people know the language does not necessarily mean that they use it. In terms of our analytical framework, the crucial link that makes or breaks the success of a language policy is to be found between panels 2 and 3 of Fig. 1.8, that is, in the degree to which improved *language status indicators* positively affect *bilinguals' language behaviour*.

Let us first consider conditions for *language-related constraints* to become less stringent, as a result of *improved supply-side factors in the linguistic*

[61] A comparison between the Irish and the Basque system suggests that the latter, which relies on partial or full immersion, is more efficient than the former, where the target language is mostly taught as a subject. In addition, the set of cultural references called upon in the language education process appear to be different, with the Irish system relying much more on tradition. This is likely to have contributed to the very limited degree of success of teaching Irish in school. Selecting the appropriate extent to which tradition should be referred to or extolled in minority language instruction for contemporary youth is a typical example of a technical effectiveness issue.

environment and *higher competence levels of speakers*. The technical conditions for the relationship to be positive have been derived in the appendix (equation [19]). However, we are not just interested in the sign of the effect, but also in its magnitude. Although we could engage in a discussion of the relevance of specific functional forms that would result in a more or less sizeable effect, it seems preferable to propose a more intuitive approach instead.

Essentially—and abstracting for the moment from bilinguals' set of preferences—the language-related constraints must be *significantly* modified by the policy measures. This can be expressed with reference to the implicit or *shadow* prices of minority language activities in the majority or in the minority language. This shadow price (introduced in Section 8.2) must drop dramatically. If the drop in the shadow price is too modest, actors who have a choice of carrying out their activities in either language (because they are bilingual) and who were used to functioning largely in the majority language (because of, and contributing to, minority language attrition) will have little reason to modify their patterns of language use.

Until S4C was established, only a very small amount of Welsh language television was available. Anything beyond modest consumption of this service was impossible, or would have been thinkable only by overcoming virtually insurmountable problems. More precisely, it would have required potential consumers (that is, highly committed Welsh-speakers with a strong desire to watch television in Welsh most or all of the time) to be willing and able to cover, year after year, the cost of a Welsh-language television channel, and to shoulder substantial start-up costs—not to mention considerable time expenditure to initiate the project and endless battle with the authorities to secure the necessary authorisations. Clearly, "buying" more Welsh-language television watching would have been well beyond the means of even the most eager potential consumers; in other words, *the shadow price of minority language television watching, before S4C went on the air, tended to infinity*. The establishment of the channel, however, provided access to Welsh programmes (in addition to the few hours hitherto available on the BBC) at a negligible (and purely indirect) per-hour and per-capita cost *to the individuals concerned*.[62] Hence, the setting up of a Welsh language television channel has brought about a dramatic drop, from infinity to almost nothing, in the non-time cost component of the activity "watching television in Welsh".

[62] The cost to viewers of the funds earmarked for the financing of S4C (3.2% of total commercial broadcasting revenue) is hardly worth mentioning. Either commercial channels may have to slightly reduce the volume or the quality of *other* productions, or they will have to slightly raise the average price level of advertising time, which advertisers will, in turn, cover with an increase in the unit price of the goods and services they sell. In either case, the financial effect on viewers is negligible. Besides, the cost of S4C is not linked to its Welshness, but to its very existence as an additional channel.

To clinch this point, let us consider the reverse case where a policy measure only has a modest effect on the relevant shadow prices. Let us also bear in mind that the question of agents' preferences has been put aside for the moment. Suppose the introduction of subsidies to minority language publishers results in a 20% drop in the unit price of children's books in the minority language. All other things being equal, this is likely to have a negligible or zero effect on the number of such books purchased, and on the amount of time during which minority language adults read stories to the young in the language. Such a modest drop in price could have a non-marginal effect only under a very specific structure of preferences. Let us make the most general assumption possible about the latter and suppose that bilingual parents are *a priori* indifferent, between reading childrens' stories in either language (this assumption, however, will be relaxed shortly). All other things being equal, they will tend to use majority language books unless equivalent minority language books are strictly cheaper. Since smaller market size presumably causes minority language books to be more expensive to begin with, and if the price difference is 20% or more, a 20% drop in price will have no effect on consumption.[63]

Let us summarise the preceding paragraphs in terms of a "shadow price condition" (*condition No. 5*) as follows:

> ***5.*** *If conditions 1 through 4 are met, for a* given *set of preferences (discussed in condition 7 below) and excepting from* particular *preference structures, an improvement in the supply-side factors of the linguistic environment can cause minority language use to increase significantly only if the shadow price of minority language activities decreases markedly, or becomes strictly lower than the shadow price of the equivalent activity in the majority language.*

Although condition 5 has been discussed with respect to the provision of minority language services, it lends itself to a similar interpretation with respect to skills development. All other things being equal (particularly *if* they have no *a priori* preference for conducting business in either language), people will generally use whichever language requires less effort from them.

[63] This is easily shown graphically by considering a commodity space as represented in Fig. A1 in the appendix, except that indifference between consumption in either language, which implies that reading stories in English or Maori are perfect substitutes, generates straight indifference curves at a 45-degree angle from the x and y axes. Utility maximisation generates corner solutions in favour of whichever activity is cheaper. Given a uniform time cost, the *entirety* of the time devoted to "reading children's' stories" will be allocated to reading stories in the language in which the unit price of children's' books is lower.

In the absence of a preference for carrying out activities in the minority language, actors will therefore increase their use of the minority language as a result of skills development only if, in certain domains at least, they become more proficient in the minority than in the majority language.[64]

Obviously, it is possible that such a goal may only be achieved in a small number of individual cases, particularly for adults. In many cases, a policy stressing skills development may not satisfy the shadow price condition; hence, this type of policy can be effective *only if bilinguals have a net preference for carrying out their activities in the minority language*, as we shall see shortly. This dialectical relationship between cost and objectives, which is at the very heart of the essentially economic question of the utility-maximising allocation of scarce resources, is, of course, particularly important in the case of activities that constitute the "home-family-neighbourhood-community" complex held up by Fishman as the core of language reproduction.

For aggregate minority language use to be of any consequence, the language must be practised by a sufficiently large number of speakers. This justifies *acquisition planning*, whose *sine qua non* nature had already been pointed out in Section 5.1. Assuming technical efficiency conditions are met (condition No. 4), acquisition planning *will* result in an increase in the number of speakers. The problem then is to guard against this number going down as people lose their language skills through lack of use after leaving school, eventually slipping back into the group of non-speakers of the minority language. In other words, schemes for *individual minority language maintenance* must be provided.

This appears to be the weak point of *all* revitalisation policies, including those presented in the preceding chapters; this problem has been discussed more extensively in the case of Euskera. The underlying condition is distinct from the shadow price condition, since the latter refers to the absolute and relative price of activities that actors would be engaging in anyway, whether in one or the other language. Rather, what is at issue here is the need to expose the public to the minority language as much as possible. There seems to be no easy solution to this problem; for example, it can be costly and awkward, if not annoying to many, to keep insisting that bilingual adults attend regular refresher courses. However, we believe that *language visibility* can play an essential, if indirect, role in helping bilinguals remain so. Broadcasting obviously has major strategic importance in this respect, but even apparently weaker measures like a bilingual traffic signs policy can help prevent individual language loss.

[64] Urdangarin observes that "the second most important factor [of the use of Euskera] is one's relative ease at expressing oneself in Euskera or in Castillan. Persons who have more facility expressing themselves in Euskera use it more frequently than those who speak Castillan more readily (1997: 11; our translation).

This can be summed up in terms of an "individual language maintenance condition" (*condition No. 6*):

> ***6.*** *Acquisition planning must not be confined to the school system or adult language courses, and schemes must be developed with the specific aim of helping bilinguals maintain their minority language skills. All forms of language visibility can constitute valuable instruments to this end.*

Let us finally turn to the question of attitudes and preferences, which represents the locus of what is undoubtedly the single most important condition for successful language revitalisation. Unoriginal as this may sound, it bears repeating that favourable attitudes in the community, first and foremost among speakers, is a *sine qua non* condition for success. In this study, the term "attitudes" is used in a broad sense, closely linked to the "utility function" of theoretical economics, which summarises people's preferences, objectives and values; in the following discussion, we take the liberty to treat these terms as synonyms.

We have seen earlier that a minimal dissemination of favourable attitudes is necessary for the "avant-garde" to be able to exert pressure in favour of revitalisation policies (condition No. 1), should such pressure be needed (and it usually is). We have also noted that majority opinion must be favourably disposed towards revitalisation (condition No. 3). However, what is at issue here is the *preference structure of bilinguals*. This preference structure is precisely what direct language promotion targets. Assuming that promotional campaigns are technically effective (condition No. 4) and succeed in positively altering attitudes, it is still important to identify the conditions for this latter change to bring about an increase in the amount of activities carried out in the minority language.

This question is probably the most complex of all in the entire language revitalisation adventure, yet it is also unavoidable. To fully grasp this point, it is necessary to recall that unless the shadow prices of minority language activities are significantly lower than those of *most* similar majority language activities (and this is usually *not* the case), *only a strict preference for conducting at least some business in the minority language* can compensate for an unfavourable relative price structure, and ensure that the minority language will be *used*—and not just learned, known and upgraded to a more respected status. If such a condition is not met, language revitalisation efforts are pointless. It is interesting to note that directly or indirectly, each of the policies examined in the preceding chapter rightly target attitudes, although the effect is less apparent in the case of education planning.

Of course, the importance of attitudes, preferences and values must be qualified.

First, it would be unfair to invoke the *sine qua* non character of bilinguals' preferences for minority language activities to place the entire burden of "ensuring favourable conditions" on the shoulders of the minority community. Unfavourable attitudes are almost systematically the result of oppression or disenfranchisement, usually at the hand of authorities historically concerned with establishing the political, social and economic dominance of the majority community. It is therefore not acceptable to blame the victims for their discouragement.

Second, it would be unwise to single out attitudes as the sole condition of successful revitalisation policies, because attitudes change, and may be negatively affected by temporary setbacks, or even by the fact that language revitalisation is a slow process. An excessive reliance on attitudes therefore places revitalisation policy at the mercy of the inevitable ebbs and flows of sentiment, fashion or expectations.

Third, it should not be forgotten that six other conditions for language revitalisation to actually occur have been identified. Nevertheless, favourable attitudes probably represent the single most important condition, and one that eventually pulls the others; in other words, we believe that in general, *supply follows demand*.

Let us summarise this point in the form of a "strict preference condition" (*condition No. 7*):

> *7. Minority language revitalisation requires bilinguals to have, all other things being equal, a net preference for carrying out at least some of their activities in the minority language. If such a preference does not exist at the outset, influencing attitudes in order for this preference to emerge should be the top priority of the revitalisation policy.*

This does not mean that *all* activities should or will take place in the minority language, but excludes the case where bilinguals are indifferent between carrying out their activities in one or the other language, and the case where their structure of preferences is such that they set not store by spending at least a certain fraction of their time on activities taking place in the minority language. Of course, if there is a strong net preference for minority language activities, then price differences will matter less than if such preference is less vigorous.

In short, we end up with the following seven conditions for successful revitalisation policies:

1. the avant-garde condition;
2. the redistribution condition;
3. the normalcy condition;
4. the technical effectiveness condition;
5. the shadow price condition;
6. the individual language maintenance condition;
7. the strict preference condition.

12.3 Demolinguistic size and geographical distribution

Readers will observe that this list does not include some sort of "minimal number of speakers condition". In our view, this is unsurprising, because theoretical research shows that meaningful thresholds are not a matter of demolinguistic figures alone, but of combination of such figures with other dimensions, particularly attitudes (Grin, 1992, 1993b); further, claims that some minimal numbers are "necessary", though apparently commonsensical, have never been *demonstrated* (some of these claims are discussed and criticised by Pool, 1991a). This question, however, requires a few words of comment.

The fact that some minimal number of speakers does not emerge as a success condition does not mean that demolinguistics are beside the point, but that they must be seen in conjunction with other aspects. Let us first observe that even very small numbers (much smaller than the approximately 50,000 people whom Waite (1992b) considers fluent speakers of Maori) are in no way incompatible with any of the seven conditions listed above. Group size will simply affect the implications of some of them, particularly conditions 2 and 4. If the minority language community is smaller, total redistribution will be slightly less, while per-capita redistribution (if the denominator is the size of the *minority* language group) will be more. As regards condition 4, and depending on the specific measures adopted, catering to the language needs of a smaller group will affect the structure of the educational system that must be put in place. However, no impossibility arises.

The one sense in which size matters is that of cost. The smaller the size of the community, the larger the unit cost, in policy terms, of minority language use. If the number of Welsh-speakers were one million instead of 500,000, the person-hour cost of Welsh-medium broadcasting would be in the region of NZD 0.55. If, however, there were only 50,000 Welsh-speakers, the unit cost of a person-hour of television watching would climb to some NZD 11. If an expanded version of *Aotearoa Television Network* were to be established, with an output, cost structure and ratings success comparable to those of

Sianel Pedwar Cymru, and if we define the target group as comprising all those who declare some competence in Maori (that is, some 150,000 people, which includes some non-fluent speakers), then we should expect a unit cost of some NZD 3.70 per person-hour. Generally, the smaller the pool of speakers, the higher the unit cost of delivering a certain language outcome. This cost may, in theory, tend to infinity.

There is no basis for characterising this amount as cheap or, on the contrary, too expensive. The notion that some good or service is "too expensive" in the absolute is meaningless. Any price can be considered acceptable or excessive, depending on the importance subjectively given to a commodity, in comparison with the importance given to other (and also costly) commodities. As we have shown in sections 3.3 and 3.4, minority language maintenance is very much a *public good*, one that cannot be "purchased" and "consumed" privately; revitalisation is, of necessity, a collective endeavour. It follows that any judgement about the acceptability or excessiveness of its cost can only be made in the context of democratic political debate. In a policy analysis perspective, "adequate" demolinguistic size is a political question.

Finally, no particular pattern of geographical distribution stands out as a condition for revitalisation policies to be successful. In all the cases studied, the minority language population is fairly scattered, often live in predominantly rural areas, and a majority of the people who can claim ethnic association with the language do not speak it, and live in majority language areas. Since this pattern can also be observed in the case of Maori, we do not see any reason why the explicit introduction of a spatial dimension in the analysis (which, incidentally, would have made formal modelling much more cumbersome) would have added to the relevance, to the Maori case, of success conditions identified in the Welsh, Basque and Irish ones.

The absence of geographical variables from the seven success conditions may help to lift an ambiguity: concentration or dissemination of speakers are, of course, determining features of the *linguistic environment*, and hence of the cost of maintaining or altering it. For example, concentration of speakers has an impact on the transportation costs (both in time and money) of minority language users. Another general observation is that the existence of a minority language urban centre can be a considerable boost to minority language maintenance efforts. It does not follow, however, that the success of revitalisation policies is *conditional* on the existence of some features. The link is a more complex one. Some of the seven success conditions have a built-in geographical dimension. In particular, meeting conditions 2, 4 and 6 is likely to have different implications depending on patterns of geographical distribution.

Per-capita redistribution is likely to decrease with concentration, if there are some economies of scale in the production of minority language policies; obviously, practical implementation will also need to be approached differently in order to meet the technical effectiveness condition. The problem of "matching" between the provision of minority-language services and the relative concentration of minority-language speakers has been investigated elsewhere, in connection with issues of linguistic human rights (Grin, 1994d).

"Matching" means that some minority language services would be available in areas where the number of speakers reaches a certain absolute number or a percentage in the local resident population, but not elsewhere. Although we are not aware of any full-fledged examination of the links between "matching" (as defined here) and the *effectiveness* (in terms of minority language use) or the *costs* of language policy, we can safely assume that some relations do exist. In terms of effectiveness, however, these links are not clear. For example, it has long been debated whether promotional measures for Welsh should primarily target the heart of Welsh Wales (which would be a typical "matching" strategy or not (see e.g. Ambrose and Williams, 1981); the mixed success of the Gaeltacht as a policy instrument, discussed in Section 11.1, shows that matching does not guarantee brilliant results, but a strong case can be made that spreading resources more thinly over larger parts of Ireland would have been worse.

On the cost side, matching very probably generates some savings. However, the magnitude of such savings can vary considerably. For example, the person-hour cost of bilingual road signs can drop significantly, with little loss in overall impact, if they are set up only in regions where the number of minority language speakers is relatively high. In the case of broadcasting, by contrast, savings resulting from geographically restricting availability are likely to be modest in relative terms, because if a full range of programmes is produced and aired anyway, the extra cost of making these programmes accessible to viewers across an entire country is one of transmission infrastructure, whose relative share in the unit cost of a person-hour would be secondary and would decline over time. Meeting condition 6 (individual language maintenance) is likely to be costlier when minority language speaking groups are further apart, because policy interventions will be more indispensable than if geography brings them in frequent contact: distance reduces the degree to which speakers can provide each other with opportunities to use the language. Hence, matching can increase the *cost*-effectiveness of measures taken to meet condition 6.

From a theoretical standpoint, it is always possible to add detail and specifications to a model in order to explore the corresponding implications. For example, a "concentration" parameter could be added to the production function of minority language activities presented in Section 4.4

("technology"); alternatively, the existing parameter *g* in the model could be redefined in order to include some indicator of concentration or demolinguistic size. However, existing theoretical research (e.g. Grin, 1992) has shown that the introduction of demolinguistic variables generally tend to matter relatively less than attitudinal parameters.

From an empirical standpoint, data are insufficiently differentiated to allow for clear conclusions on the issue. Necessary information should, among others, describe similar measures taken in at least two communities that are very different in size, such as the Basque- and Irish-speaking communities. Within one language group, the information needed should include indicators of rates of success by region of residence, in order to compare high-concentration with low-concentration areas. Circumstancial evidence from Wales appears to be rather mixed. It has been claimed that Welsh language policy should focus on "Welsh Wales", because attrition rates were highest there; yet although the educational opportunities, in terms of exposure to Welsh, are fairly similar throughout the principality, the best results appear to be obtained in regions that are quite different from each other as regards their concentration of speakers. This suggests that there is little correlation between demolinguistic concentration and the success of a particular measure. The cost structure of delivering a service can be quite different, but success is likely to be, first and foremost, related to attitudes. Generally, we would also expect the development of new technologies to lessen the role of size and concentration.

This brief foray into the issue of (geographical) matching, however, indicates that it is primarily relevant in terms of the political rights of minorities and the acceptability (the word "tolerability" is sometimes used in the literature) of such rights to the majority. By contrast, its effect on the effectiveness of policies is unclear, and its effect on costs brings us back to the preceding point: in final analysis, deciding that a policy is worth adopting or not is fundamentally a political issue.

PART III
APPLICATION TO TE REO MAORI

13. Introduction to Part III

13.1 Quick reminders

Part I of this report has been devoted to the development of an analytical framework for the study of language revitalisation, particularly in relation to language policy measures. In Part II, we have provided a detailed analysis of four types of language policies, namely: bilingual road and traffic signs, minority language broadcasting, language education planning, and direct language promotion.

Apart from examining the precise workings of these policies, we have estimated their effectiveness in terms of various indicators, the costs involved in each case, and the cost-effectiveness of each of the four policies. In order to allow for a cost-effectiveness comparison between them, the latter was evaluated in terms of the *person-hour cost of minority language use*. This reflects our initial choice to focus on language use, which has been identified by Treasury as the ultimate goal of the integrated revitalisation policy in favour of Maori that New Zealand is now contemplating. Policies have been shown to differ sharply in cost-effectiveness, with the most expensive policy exhibiting a person-hour cost of (resulting) language use that is higher, by a factor of 1 to 100, than that of the least expensive policy.

Summing up these policies with a "best practice index", we have shown that education planning (assuming an analogy with the Basque case) should be a top priority—a result reinforced by the simple observation that if there is to be a viable language community at all, it needs some speakers, and that adequate provision for language education represents a *prerequisite* for these speakers to exist. The second best policy to adopt was the provision of minority language broadcasting. This is followed by the normalisation of the minority language in the visible aspects of business and commerce; one should note, however, that the attractiveness of this result is predicated on the fact that the cost-effectiveness of this policy has been evaluated *from the standpoint of the authorities*—that is, the cost borne by volunteers (in particular the time they donate) has been excluded from this calculation. Finally, the provision of bilingual road and traffic signs, though relatively inexpensive in itself, only has a modest impact on language use, which results in this policy having a high person-hour cost, a low cost-effectiveness and hence a low priority. However, this calculation does not take account of the impact on attitudes of the increase in minority language visibility it creates and of the impact of changes in attitudes on the use of the minority language; its overall cost-effectiveness could therefore be higher.

Our analysis of these four revitalisation policies makes it possible to deduce seven *success conditions* (avant-garde, redistribution, normalcy, technical effectiveness, shadow price, individual language maintenance, and strict preference). These conditions are distinct from theoretical results derived in Part I (and formally demonstrated in the appendix), which identified necessary and sufficient conditions for given changes (such as policy-induced ones) to yield increases in minority language use. The seven success conditions, by contrast, have been derived empirically from our survey of actual policies. They have then been analysed theoretically in conjunction with the formal analytical framework. These conditions, which stand out as necessary for policy efforts to be successful, are used in the following chapters to assess the prospects for Maori language revitalisation in New Zealand, and suggest priorities for policy orientations.

13.2 Objectives and limitations of Part III

Part III of this report is therefore devoted to an *application* of our findings in Parts I and II to the case of Maori in New Zealand. We wish to stress emphatically, as we did in Section 1.1, that *this is not to be confused with a report about the situation of Maori in New Zealand*. As stated earlier, a considerable amount of research has been and still is being carried out in New Zealand, by specialists who obviously are far more knowledgeable about Maori than we are. Just as we do not intend to engage in what could only be an inadequate duplication of this important body of work, we do not mean to suggest anything like definitive solutions to the difficult problem of how to ensure the future of the Maori language.

Hence, the following chapters provide only a limited amount of *information* about Maori in New Zealand, and the reader is referred to existing documents (many of which are mentioned in the reference section) for presentations of various aspects of the issue. Rather, we follow an entirely different tack, and start out from our analytical perspective and our empirical examination of *other* minority language policies, in order to *derive implications* for a revitalisation policy in favour of Maori. More precisely, we shall proceed as follows.

In Chapter 14, we begin by a brief overview of New Zealand's policy practices with respect to Maori language use and promotion—particularly in education and broadcasting. Chapter 14 is not a full-fledged account or evaluation of this policy experience (which would have been another project altogether), but an attempt to single out those features of the New Zealand experience that are important from the perspective of the analytical framework and empirical success conditions. By implication, they are probably relevant to the definition of policy orientations. The last section in Chapter 14 is devoted to an assessment of whether each of the seven *success conditions* identified in Part II is met in the case of New Zealand.

In Chapter 15, we examine policy measures that could be adopted in favour of Maori. Before discussing specific policies, we compare different types of intervention (forms of government spending and direct regulation) without direct reference to language, in order to clarify their fiscal implications. This discussion, however, is clearly connected with the rest of our discussion, because we link each of the seven success conditions to these modes of intervention. In Section 15.2, we

examine the sequencing over time of policy measures in general, since the time dimension necessarily plays a part in determining the overall efficiency of a policy package that combines several specific measures (recall that in the case studies in Part II, four policies were studied one by one, which did not allow for an investigation of the problem of sequencing). Sequencing determines the likely structure of costs in a policy package, and helps to deal with the problem of how far revitalisation should go—assuming, of course, a choice has been made to address this question with a public policy framework.

We then make three *structural recommendations* (Section 15.3) on how the selection and design of language policies in New Zealand could be developed. They concern organisational structure, monitoring and evaluation, and information policy. It should be noted that making *specific policy recommendations* is not part of our mandate. However, we believe that the analysis developed over the 200 pages of our study provides some basis for *indicative proposals*. Ten proposals are formulated, reflecting the two following considerations.

- first, the specifics of language promotion measures are matters of *technical effectiveness*, as described in the corresponding condition (No. 4) in Section 12.2: it is for specialists in the fields concerned (such as first- or second-language acquisition or broadcasting) to design the specifics of these policies, within a broader language policy concept supervised by the language planning authority.

- second—and this echoes not just condition No. 4, but also conditions No. 1 (avant-garde) and 7 (strict preference)—actual measures must be designed and implemented in close collaboration with language users themselves. To the extent that the latter are, presumably, members of the Maori community (since only a relatively smaller number of Pakeha will be directly concerned, at least in the *initial* years of the revitalisation programme), this implies that it would not be sensible to develop overly detailed proposals independently of a focused consultation with Maori.

In general, our *recommendations* and *proposals* must be interpreted as a set of framework suggestions and contributions to the debate towards setting up a full-fledged revitalisation policy.

14. Language Policies in New Zealand: Summary Description[65]

This chapter begins by presenting a brief historical overview of the situation of Maori and of language policies in New Zealand, with particular attention to the post-WW II period. It then examines in greater detail policies in the areas of education and broadcasting, since these two domains will be the object of specific policy recommendations in Chapter 15.

14.1 A historical overview

The history of the Maori and of the relationship between Maori and Pakeha is a complex one, which we obviously are not in a position to review adequately here (for a historical presentation, see e.g. Sinclair (ed.), 1996, Chap. 4 & 13; for a chronology emphasising language issues, Te Puni Kokiri, 1996). However, in comparison with other cases of language attrition in the wake of colonial expansion (for example, throughout Latin America), the case of Maori presents some original features that tend to simplify the overall issue.

The first of these features is that, at the time of the first European settlements in the larger islands that make up present-day New Zealand, the Maori, fragmented as they were, represented the only ethnic group living on these islands; the second is the existence of the Treaty of Waitangi. The consequences of these two features are that (abstracting from the languages of immigrant communities), two languages only (Maori and English) have a key historical position in New Zealand, and that the legal and political context created by the Treaty establishes from the start some parameters within which policies have to be defined and implemented.

The attrition process of Maori, however, is fundamentally similar to that of most other minority languages. In short, it can be divided in three periods as follows :

(1) *Coexistence (1840-1950)*: during this period, both the Maori and the English language co-habit in New Zealand. Most Maori live in rural areas, know Maori and speak it on a daily basis. Some government services are provided in Maori but as the number of settlers increases (the number of Pakeha surpasses the Maori population as early as the mid-19th century), a tendency towards anglicisation appears and is steadily reinforced. This results mostly from the use of English as the language of education and, towards the end of this first period, from the increase of Maori migration to English-speaking urban centers.

[65] In addition to the various sources quoted in the text, this chapter draws on a series of discussions between several informants and F. Grin. These discussions took place in New Zealand between 28 April and 2 May, 1997. The authors are grateful for the information supplied then, as well as for all the written materials provided by government offices.

2) *Fast decline unchecked (1950-1980)*: during this period, a large number of Maori move from a rural to an urban setting, where scattered housing patterns lead to much greater contact with the English language and thus to a considerably reduced use of Maori. The use of English in the family, mostly in urban settings, increases. Since Maori is not taught in schools and not used in modern media like radio and television—which are displacing reading as a leisure/informative activity—it suffers a fast decline in the number of Maori (as defined by their ethnic origin) who are able to speak Maori. At the end of this period, revitalisation begins with the teaching of Maori in some high schools.

(3) *Fast decline, revitalisation intended (1980-)*: over the last twenty years, a political will, first among Maori, then in government, to check and reverse the decline of the Maori language has appeared and has led to various policy measures being adopted in the areas of official status of Maori, education and broadcasting. Initiatives such as Te Ataarangi (since 1978) targeting adults' language skills, the Kohanga Reo for pre-school children (since 1982) and the Kura Kaupapa (since 1985) as a follow-up demonstrate the desire of members of the Maori community to reverse the attrition process.

Table 3.1 summarises the evolution of language policies since 1950. The later stage of policies is characterised by an increasing recourse to the Waitangi Tribunal to establish the legal status of the Maori language and to clarify the full extent of its implications. The following cases are particularly relevant.[66]

The Te Reo Maori claim

In 1984, the Maori Language Board lodged a claim with the Waitangi Tribunal stating that te reo Maori should be recognised as an official language of New Zealand for all purposes. The claimants alleged that various Acts and broadcasting and educational policies were inconsistent with the principles of the Treaty. As a result, Maori are not able "to have the Maori language spoken, heard, taught, learnt, broadcast or otherwise used for all purposes and in particular in Parliament, the Courts, Government Departments and local bodies and in all other spheres of New Zealand society including hospitals".

The Tribunal found that te reo Maori is a *taonga* guaranteed protection under Article II of the Treaty of Waitangi, since it is part of customs and possessions. The Tribunal described the language as an essential part of Maori culture and found that the guarantee contained in Article II requires affirmative action to protect and enhance the language, not just a passive obligation to tolerate its existence, and certainly not a right to deny its use in any place.

The Tribunal noted that te reo Maori is in a critical state and that urgent action must be taken to protect it, and found that in failing to actively protect te reo in the areas of education, broadcasting, and official recognition of the language, the Crown was in breach of its Treaty obligations.

[66] This section draws heavily on Te Puni Kokiri (1997a); see also non-authored document N.A. 1.

In response to the Waitangi Tribunal's findings in the Te Reo case, the Maori Language Act 1987 was passed. It recognised Maori as a taonga and as an official language of New Zealand, established the right to speak Maori in legal proceedings and also set up the Maori Language Commission, Te Taura Whiri i Te Reo Maori, to promote the Maori language. In addition, the 1989 Education Act required Boards of Trustees, appointed to administer state-run primary and secondary schools, to draw up charters for the school(s) under their control. It required that the views and concerns of Maori communities living in the geographical area served by the school be ascertained and considered before preparing the proposed charter. That must have the aims of :

- developing for the school concerned policies and practices that reflect the unique position of Maori culture;

- taking all reasonable steps to ensure that instruction in te reo Maori are provided for full-time students whose parents ask for it.

A state school can be designated by the Minister as a *Kura Kaupapa Maori* in which Maori is the principal language of instruction.

Finally, the Broadcasting Act 1989 was amended in 1993 to establish the agency now referred to as Te Mangai Paho, which promotes Maori language and culture by making funds available for broadcasting and the production of programmes.

The Broadcasting Assets Case

Another important legal milestone is the *Broadcasting Assets case*, which arose from the government's intent to transfer to state enterprises, Radio New Zealand Ltd. and Television New Zealand Ltd., assets which were formerly vested in the Broadcasting Corporation of New Zealand. The NZMC (New Zealand Maori Council) claimed that the proposed sale of broadcasting assets would be contrary to the principles of the Treaty of Waitangi because it would prevent the State from adequately safeguarding te reo—and hence meeting its Treaty obligations.

The case went to the High Court, which declined to grant the relief claimed in respect of the radio assets and of the television assets, once the Crown made the following proposals :

- the payment of NZD 13 million for the purpose of promoting Maori language and culture, part or all of which could be used to assist in the development of special purpose television;

- that the Crown enter into contracts with TVNZ and RNZ guaranteeing access to transmission and production facilities and Maori archival material on the most favourable terms and conditions;

- the establishment of a Maori broadcasting funding agency, Te Reo Whakapuaki Irirangi (Te Mangai Paho);

- a time frame for the development of policy in respect of special purpose Maori television and for the extension of Maori language programming on commercial television.

The case went on to the Court of Appeal's, which noted that the decline of te reo Maori could in part be attributed to broadcasting, and television in particular, because popular programming was almost exclusively in the English language. The absence of the Maori language from programmes aired during prime-time listening and viewing slots conveyed a sense that the language had no place—and correspondingly no value. The Privy Council confirmed the Court of Appeal's' decision (n.a.1).

The evolution documented above in the public policies with respect to Maori has had an impact on the viability of this language. The following points are relevant :

- the percentage of Maori who are fluent Maori speakers in 1986 is 13% (52,500) and in total 20% of Maori speak some Maori—this figure can be viewed as an optimistic estimate (Waite, 1992b: 31). The majority of speakers are aged 35+.
- according to the 1996 Census, 29% of Maori speak Maori (again, this figure would certainly be lower if more demanding standards of competence were implied).
- according to the 1995 language survey, 16% of Maori are very or somewhat fluent, while 43% have a low fluency. Given the number of Maori reported in the Census, it appears that there are about 75,000 Maori speakers of Maori in New Zealand in 1996.[67]

Although we have warned against unsubstantiated pronouncements about what a "critical mass" of speakers means (see Section 12.3 or Grin, 1993b), we have also noted that a higher number of speakers obviously represents a favourable factor for language revitalisation. The figure for Maori is in line with the number of speakers of such languages as Ladin in the Dolomite region (56,000 speakers) Romanche (36,000 in the Romanche-speaking areas of Switzerland, plus some 20,000 in other parts of the country), or Occitanian throughout the south of France (with recent estimates ranging from 35,000 to 80,000) (Nelde, Strubell and Williams, 1996). The language of the 50,000 inhabitants of the Faroese Islands is also remarkably alive and well, and presents an encouraging example, owing to its efficient range of culture and language maintenance structures and activities (Furer, 1984)[68].

[67] Data from :Te Tari Tatau (Statistics New Zealand) (1997) and Te Puni Kokiri (1997b).

[68] The question of whether these figures provide meaningful comparisons for Maori is a matter for discussion; to a large extent, the latter has already taken place in Section 7.3, and will not be repeated here. Our point is simply that small demolinguistic size is compatible with survival.

For these various reasons, in addition to those pointed out in Section 12.3, we consider that there is no convincing argument to the effect that Maori language revitalisation and language survival is not possible. Restoring a self-priming mechanism of language production and reproduction certainly is an ambitious objective, but one that is possible if the seven success conditions identified in Chapter 12 are met. The key problem, therefore, is making sure that they are, and restoring them if this is not the case.

TABLE 3.1
SUMMARY OF EVOLUTION OF LANGUAGE POLICIES,
NEW ZEALAND, 1950-1997

KEY POINTS	EDUCATION	BROADCASTING	PUBLIC SECTOR	COURTS
1950s	English education predominates following urbanisation and conscious choice by some Maori.	English only.	Declining use of Maori.	English only.
1960s	Same as 1960s.	English only.	Only Maori Affairs Department provides services in Maori.	English only.
1970s	1978, first bilingual school.	English only.	Same as 1960s.	English only.
1980s	1982, ECE - Kohanga Reo begin. 1985, first Maori schools, Kura Kaupapa established.	Maori radio broadcasting begins (experimentally). 1987, establishment of some radio stations.	1987, Maori Language Act adopted. Impact is unclear.	1987, Maori Language Act gives the right to speak Maori in court.
1990s	Use of Maori medium education increases.	1993, Te Mangai Paho (funding agency) established. 1996, Aotearoa trial TV broadcasts begin. Some Maori programmes on national TV.	1994, of 87 Departments /agencies, only 8 have a meaningful Maori language policy.	Same as 1980s.

Source : Te Puni Kokiri (1996).

On the whole, it is probably fair to say that there has been rather little until now in the way of coordinated policies in favour of the Maori language. Two areas stand out as strategically important, both from the standpoint of our analysis, whether theoretical (Part I) or empirical (Part II) and in the actual context of New Zealand. These areas are those of education and broadcasting, and they are examined in the following sections.

14.2 Education

Table 3.2 presents the most recent data available on the use of Maori intensive education. The following factors are worth noting :

- the use by Maori of Maori-intensive education is much more prevalent at the ECE (Early Childhood Education) level than at the primary and secondary levels, but in both cases, it never exceeds 50% of the potential clientele;

- out of the four types of school were Maori is used,[69] the enrolment increase in Maori medium schools is particularly marked, in the 1994-1996 period, in ≤ 50% environments. This is a result of a substantial increase in the numbers enrolled in the 0-30% programmes (7 650+). Such programmes, however, appear to make only a modest contribution to Maori revitalisation. Indeed, in 1996, of all Maori students in Maori-medium schools, one half are in the ≤ 50% schools and the others in the 51%+ group. Taking into account Kura Kaupapa, 44% of Maori students are in the ≤ 50% programmes.

[69] Apart from the Kura Kaupapa, schools are regrouped in four categories according to the extent of use of Maori: under 30%, 30-50%, 51-79% and 80% and above.

TABLE 3.2
USE OF MAORI-INTENSIVE EDUCATION FACILITIES,
NEW ZEALAND, 1991-1996

	YEARS					
	1991	1992	1993	1994	1995	1996
ECE						
Kohanga Reo						
# of Maori	10 108	11 401	14 027	13 445	13 839	14 032
% of Maori	N/A	46.8	47.2	46.4	46.3	46.3
Primary/secondary schools						
Kura Kaupapa (#)	335	510	1 487	1 782	2 475	3 226
Maori Medium						
> 50% (#)	7 870	8 862	10 539	13 013	14 114	14 378
≤ 50% (#)	7 288	8 564	8 790	8 948	11 170	19 040
% of Maori in :						
Kura Kaupapa + > 50%	N/A	7.3	9.0	10.8	12.3	12.6

Source : Waite (1991b: 35); 1992-1996, Te Tauhuhu o te Matauranga / Ministry of Education (1997).

We have pointed out in preceding chapters that minority language learning represents a prerequisite for the existence of a viable language community: in the long run, relying entirely on intergenerational transmission within the family (*even if*, which is not the case for Maori, such transmission *does* take place with adequate dependability) will tend to exclude the language from those areas of human activity where literacy is particularly important.

In comparison with other policy measures (see Table 2.23 in Chapter 12), we have noted that it makes little sense to describe the impact of language education planning *on language use* as being "low", "medium" or "high", because its position in an overall revitalisation policy is more appropriately characterised as a *prerequisite* of revitalisation.

We believe that Maori in New Zealand is no exception, and that *considerable effort must be made to massively expand the provision of Maori-intensive schooling opportunities*. This will require, at least in the short run, a significant amount of resources, and determined political will, and it is probably no exaggeration to say that the willingness to make this effort will represent an acid test of New Zealanders' intention (Maori and Pakeha alike) to genuinely engage in Maori language revitalisation. This effort, however, need not be excessively costly. Given a potential of some 175,000 Maori primary and secondary schoolgoers, and given the results obtained in the Basque case (that is, some NZD 370 of additional cost per year of producing bilinguals instead of unilinguals), then the additional cost of teaching Maori through the medium of Maori (as opposed to English) would be of the order to NZD 64.750m per year. Some of this cost is already being incurred, since 12.6% of Maori children are being taught wholly or

mainly through the medium of Maori. More precise estimates would require data not currently available to the consultants.

14.3 Broadcasting

Broadcasting covers two areas : radio and television. Let us examine each in turn (information is drawn from Te Mangai Paho, 1996; Ministry of Commerce, 1997; Joint Maori/Crown Working Group, 1996a, 1996b).

Radio

While Maori has had a small radio presence since 1945, a Maori language news unit was set up within Radio New Zealand only in 1976, while the first two local Maori radio stations began broadcasting in 1987 (Waite, 1991a: 42). There are now 23 Maori radio services; 21 of them receive subsidies from Te Mangai Paho and thus are expected to provide a minimum content of 30% Maori for at least 9 hours per day. Most of these stations are iwi stations. There are some national sources of programmes, such as Mana Maori Media (news/current affairs) and NMRS (same and also music and sports). The key issue appears to be the difficulty of attracting young Maori as listeners. The exact size of the audience is not clear.

Television

The first Maori television programme (*Te Karere*) went on the air in 1983. Currently, Maori language programmes represent less than 5% of overall broadcasting time on Television New Zealand and does not appear to be a high priority. There are almost no Maori broadcasts on TV2 and TV3.

On 1 May 1996, a trial Maori television service (Aotearoa Television Network) began in the Auckland region, where a total potential Maori audience of more than 70,000 out of some 800,000 in the ATN footprint (Te Mangai Paho, 1996; Ministry of Commerce, 1997: 7). An audience of some 36,000 is estimated to have accessed the service, whose output target was 50% of Maori content. According to one reviewer, small audience size is due to the power of the transmitter which only covered part of the Auckland metropolitan area.

This goal was more than met, with the Maori-language share of programming exceeding 50%, principally because news and children's programmes were fully in Maori, while shows directed at an audience of youngsters were evenly split between English and Maori. ATN was requested by its contract to provide 3 hours of Maori viewing per day between 5 and 8 PM; generally, 5 hours or more were provided, with more than 2 hours a day of original programming, well in excess of the minimum of half an hour per day stipulated in the agreement.

The experiment, originally to run for three months in 1996, was extended for an additional three-month period. Using reserve money, Te Mangai Paho entered a contract with ATN to continue providing Maori programmes for an additional duration of about three months (that is, until early February 1997). Because of the success of the experiment, further extensions were considered, with a view to

providing continuity with a future, long-term structure dedicated to Maori-language broadcasting. However, the political context (particularly in the early months of 1997) made this prospect unrealistic, and the ATN experiment has been suspended.

Generally, the ATN experiment was considered a success by our informants. The exact number of hours of broadcasting in Maori by ATN was not indicated in our source materials; besides, the occasional use of the English language during mostly Maori-language shows makes a proper quantitative estimate difficult (this, incidentally, is also an issue for radio stations). Nevertheless, an average of 20 hours per week seems to be reasonable. Over 39 weeks (from 1 May 1996 to 31 January 1997), this amounts to a total of 780 hours of television broadcasting in Maori. Since the point of ATN was to provide Maori-language programmes (which means that the provision of English-language programmes by ATN would not have provided justification for setting up ATN in the first place), we can assume that the entirety of the funds allocated to Te Mangai Paho for the development of ATN can be identified as the cost of broadcasting in Maori. A total of 8 million NZD was allocated to ATN (NZD 2.6m for 1995/96 and NZD 5.4m for 1996/97; see Te Mangai Paho, 1996: 21; Ministry of Commerce, 1997: 7). This yields an average per-hour cost of providing Maori-language programmes of NZD 10,280.

As mentioned earlier, exact audience size is not clear, but it can be estimated to fall in the 7,000-16,000 range at peak viewing hours (Ministry of Commerce, 1997: 7), and less at other times. If one assumes 5,000 as an overall average, this yields a person-hour cost of language use of NZD 2.05. This is about 85% above the hourly cost of Welsh-medium television (see Table 2.23). Let us recall that the average viewership of those programmes stood at almost 100,000 (see Section 9.6), that is, about 20 times more than for ATN. This suggests that the higher person-hour cost of ATN is certainly not the result of profligate spending on the service proper, but of modest audience size. Increased funding for a Maori-medium television system can therefore be advocated, if it goes along with efforts to make the service popular and to significantly increase its use by the target population.

14.4 Are the success conditions met in New Zealand?

In order to interpret the information, it is helpful to confront it with the seven success conditions identified in Chapter 12, with a view to proposing a general assessment of the language policy prospects in New Zealand. Let us therefore ask ourselves whether they are met in the case of Maori.

In terms of pure logic, whether a condition is met or not is a clear yes/no question. However, real-world contexts rarely are quite as simple. Hence, we have chosen to depart somewhat from strict logic, and to characterise the *degree* to which these conditions are met on a five-point scale, where 5 indicates that a condition is fully met, 4 that is mostly met, 3 that is partly met, 2 that is mostly not met, and 1 that it is not met. This is an informal evaluation arrived at by balancing the information available. A formal evaluation (which would also reflect some measurement of the

distance between two levels on this scale) would have required the development of a fairly involved theoretical model, at the cost of rather stringent assumptions. This exercise does not seem justified at this stage, not to mention the fact that putting numbers on such a model would call for extensive field and survey research in order to collect data that are currently not available.

Avant-garde condition

Maori political organisations and associations engaged in developing Maori-medium schools appear to be quite active in New Zealand political life. They may not be as focused on language as elsewhere (Québec, Wales, etc.), and set relatively greater store by other dimensions of minority experience, usually in terms of ethnicity and identity. However, this may matter less since there is declared state support for Maori language revitalisation. Hence, we consider this condition to be *mostly met* and give it an index value of 4 out of 5.

Redistribution condition

Redistribution denotes authorities' willingness to engage in the redistribution of financial and symbolic resources towards the minority language community. Obviously, assessing this point appropriately could justify an involved discussion that would exceed the current state of our knowledge of the New Zealand political scene. In our view, there is no doubt that significant progress has been achieved in recent years, in the wake of the 1987 Language Act. The actual extent of government commitment remains, however, difficult to estimate. As we shall see in the following chapter, some promotional measures which we consider necessary have sizable financial implications, at least in the short run. The authorities' willingness to countenance these costs will constitute an important test of the extent to which the redistribution condition is met. At this stage, we consider the condition to be *partly met*, which translates as 3 out of 5 in our index.

Normalcy condition

The normalcy condition refers not just to the fact that minority language revitalisation is accepted by the public at large as a legitimate policy goal, but to the authorities' willingness to defend and promote this notion. In our view, the intense research activity supported by the New Zealand government in recent years (which has resulted in the production of an impressive number of reports on language policy, sociolinguistic data, Maori education or language education, and Maori language broadcasting) indicates that such willingness exists. In this sense, the normalcy condition is *met*. However, the actual extent to which revitalisation is endorsed by majority New Zealand opinion is not clear. Using a sample of 225 adult New Zealanders, Nicholson and Garland (1991) report that 67% of their sample subscribe to the fairly non-committal idea that "the Maori language has a place in modern society". 84% of the Maori-identified subsample declared willingness to "make a personal effort" for the survival of the language, whereas only 25% of the non-Maori-identified did. As regards the provision of public services, only 20% of Pakeha agreed that they should be bilingual; and no more than 37% of the Pakeha subsample agreed that the education system should have

responsibility to teach the language (which, by implication, puts the burden for doing so on parents, relatives and elders).

According to our informants, it is certainly the case that attitudes towards Maori have generally improved since the time of this survey; besides, the representativeness of the sample could be questioned (a random-quota sampling procedure was used, but questionnaires were mailed, and the respectable 59% response rate yielded a "relatively close" (Nicholson and Garland, 1991: 398) match with 1986 Census results for gender, age, ethnicity and region; this is not enough to ensure full "random-random" representativeness). Nevertheless, these figures are cause for concern. There is no doubt that the revitalisation of Maori will initially require financial effort, primarily through the education system, and this must be endorsed by sufficient segments of the Pakeha public. We consider it a priority for the authorities to declare and stand by their intention to engage on the long road towards revitalisation. On balance, we consider the normalcy condition to be *partly met*, which again yields an index value of 3.

Technical effectiveness

The large amount of existing studies and the mandates of the various state and non-state bodies concerned with Maori revitalisation indicate that there is a clear intention to guarantee the professionalism of specific policy measures. However, what is missing at this time is a central coordinating body and a set of regular data-gathering instruments, as well as clear recognition that language planning is a form of public policy, *in the context of which* specific aspects such as minority language education and broadcasting must be handled.

As regards these two areas, we note that highly useful experience has been accumulated thanks to the ATN venture, but that important building blocks of a proper Maori-intensive education system are still missing, particularly in the field of teacher training. Only a close scrutiny of the actual arrangements that will be made for the selection, design and implementation of specific policy measures will make it possible to identify the extent to which the technical condition is met. For now, we consider the *prospects* to be positive, and expect it to be *mostly met*, which translates as an index value of 4 out of 5.

Shadow price condition

The shadow price condition stipulates that in order to be effective, revitalisation measures must bring about a sharp drop in the unit cost of carrying out activities in the minority language. Hence, it can be verified only with respect to *existing* policies, and it is too early to say whether it will or will not be met once new policy measures are introduced. At this time, only a question mark (?) can be entered in lieu of an index value.

As regards existing measures, however, they appear to have failed to stem the demolinguistic decline of Maori, and although there is little information on language use proper, and virtually no data that could be used to estimate the current shadow prices of carrying out activities in Maori instead of English, the circumstantial evidence is not encouraging. Hence, we would consider that

existing policies *mostly do not meet* the shadow price condition, thereby earning an index value of 2 out of 5.

Individual language maintenance condition

Here again, it will only be possible to assess the condition *after* a full-fledged language policy has come into effect. For now, a question mark must be entered instead of an index value. At this time, however, the range of activities that can be carried out in Maori, and where speakers can use, maintain and develop their skills, appears to be very limited. This is particularly true since the ATN experiment was discontinued.[70] Our knowledge of the terrain is insufficient to decide whether other contexts, such as the marae, offer adequate opportunities, and leave this for New Zealand specialists to ascertain (the marae appears to be the *only* context where a little over half of the 62% of Maori speakers concerned by this activity do use Maori half the time or more; see Te Puni Kokiri, 1997d, table x.4 in the version currently available of this document). In our view, however, the continuing decline in the number of speakers strongly suggests that it is not the case; in particular, it is a matter of grave concern that, according to the recent *National Maori Language Survey* (Te Puni Kokiri, 1997d) over half (51%) of Maori speakers report using Maori "very rarely or rarely", and that 48% of speakers indicate that they never have a full conversation of Maori even in their homes. Hence, 1 out of 5 seems a reasonable estimate of the current situation, indicating that the individual language maintenance condition is *not met*.

Strict preference condition

The degree to which Maori themselves are committed to the survival of their own language raises a complex and sensitive question about which we are not in a position to make any kind of pronouncement. Elements of evidence, most of it circumstantial, indicate that such commitment *in principle* is on the rise, and that behavioural patterns will evolve accordingly, although commitment *in practice* is not always clear. On balance, we can expect the extent to which the strict preference condition is met to increase in the future.

At this time, however, evidence remains rather mixed. According to a census of primary school children carried out in 1990, only 9.6% of Maori children (5-11) and 12% of their parents speak Maori at home (Manatu Maori, 1991: 8). A majority of Maori parents want bilingual or mainly/only Maori education, but 1/3 do not want this; besides, practice lags behind desire, and this may reflect more than just rationing of the supply of Maori-medium schools. While there is a clear wish among Maori for their language *in general* to be used more frequently, it is less clear that individuals have a preference, when faced with the choice to do one or the other, for conducting their own activities in Maori rather than in English. On the basis of our analytical framework and of the evidence reviewed in Part II, (and also echoing the literature on the subject of attitudes and minority language maintenance), we have stressed the importance of such a preference. In our

[70] Minority television programming, for reasons discussed on several occasions in Chapter 9, can represent a useful instrument to meet the individual language maintenance condition.

opinion, it is not very strong, and could currently be assigned an index value of 2 out of 5, meaning that the strict preference condition is *mostly not met*. Once again, this underscores the need to promote the very notion of language revitalisation as a worthwhile social goal.

Table 3.3 summarises the index values for the seven success conditions.

TABLE 3.3
STATUS OF SUCCESS CONDITIONS IN NEW ZEALAND
(MAX=5, MIN=1)

Avant-garde	*mostly met*	4
Redistribution	*partly met*	3
Normalcy	*partly met*	3
Technical effectiveness	*mostly met*	4
Shadow price	*? and mostly not met*	? / 2
Individual language maintenance	*? and not met*	? / 1
Strict preference	*mostly not met*	2

This brief overview of the New Zealand language policy experience and of the conditions currently surrounding language policy prospects indicates that much needs to be done.

Because of its prerequisite character, "language education planning" stands out as a top priority, in order to stem the decline in the share of proficient speakers of Maori. Education, however successful, only guarantees that Maori (and, possibly, an increasing proportion of Pakeha) will have a better command of the language; but *knowing* a language does not necessarily mean that it will be *used*, and language *use* has been defined as the ultimate goal of the revitalisation policy that New Zealand is contemplating. Beyond specific policy measures, what matters is the set of conditions that make them successful or not.

Of the seven conditions, the first four (*avant-garde*, *redistribution*, *normalcy*, and *technical effectiveness*) are, at this time, partly or mostly met, which denotes a moderately favourable context, that is, promising enough to begin, but with ample room to progress. These four conditions refer to the institutional context, which appears to have significantly improved in recent years. The following two conditions (*shadow price* and *individual language maintenance*) can only be assessed *after* new policies have been put in place. So far, these two conditions have mostly not been met. Finally, the last condition (*strict preference*) appears to be *mostly not met*, which means that, alongside a vigorous education policy, considerable effort must be made to encourage bilinguals and potential bilinguals to set greater store by using their language whenever possible.

15. Selecting policy orientations

15.1 Spending money wisely

Implementing revitalisation policies and securing the conditions that can make them successful requires some financial expenditure. Expenditure (quite simply, a money outlay) is an accounting concept that must be distinguished from the economic concept of cost. Policy choices, however, are informed by comparing the overall costs minus benefits of engaging in the revitalisation process, as opposed to not undertaking it at all; as shown in sections 3.4 and 3.5, there may well be net benefits to be reaped from language revitalisation (particularly if non-market values are taken into account), which means that the net economic cost of language policy may be negative.

However, the simple question of how money is to be spent requires the following issues to be addressed:

- should the money be spent privately, and be freely allocated according to the wishes of individuals acting as consumers, donors, owners of businesses and so on, or should spending patterns be more or less the result of public choices that follow the political process?

- if spending is to be influenced by public choices, should it be: (a) spent privately but in response to public regulations; or (b) spent or given privately but with appropriate encouragement through a favourable tax treatment (for examples, through tax credits or deductions) that can be evaluated as a form of tax expenditure; or (c) spent publicly, after having been collected through specific or general taxes?

The choice between private and public spending is a political decision which economic analysis treats as a given. However, because of the very nature of language, its acquisition and use are rarely (if ever) left only to private choices. We will therefore keep assuming, in accordance with the line of argument developed in Part I, that public intervention is warranted in order to reach the ultimate goal of the policy, that is, an increase in the use of the minority language. In Table 3.4, we examine the type of intervention that can be chosen in order to meet the seven success conditions.

These types of intervention are now defined not as specific policies (as we did in chapters 4 and 5) but in terms of the forms of (direct or indirect) expenditure by the state that can be associated with the interventions needed for the conditions to be met. Along with forms of expenditure, we mention *direct regulation*, that is, the imposition by the state of specific behavioural patterns. For example, the state can

make it obligatory for businesses to advertise bilingually, if they are to advertise at all; or it can ban the use of the majority language in certain settings, or authorise the private sector to do so—an opposite measure, so to speak, to the few cases when American judges have ruled that employers can forbid their employees to speak Spanish even during breaks. Expenditure proper takes two forms: tax incentives, either by making charitable giving to minority-language organisations deductible, or by introducing changes to the indirect tax schedule (for example, by exempting from V.A.T. some goods and services that are necessary for carrying out activities in the minority language).

TABLE 3.4
MODES OF GOVERNMENT INTERVENTION AND SUCCESS CONDITIONS

CONDITION	PUBLIC INTERVENTION TOOL			
	Regulation	Tax Incentives		Public Spending Grants
		Giving	Spending	
1) Avant-garde		X	X	X
2) Redistribution	X		X	X
3) Normalcy				X
4) Technical effectiveness	X		X	X
5) Shadow price			X	X
6) Individual language maintenance		X		X
7) Strict preference				X

"Avant-garde" activities as defined earlier cannot be carried out by the authorities, and for the avant-garde condition to be met, the state can only attempt to favour such activities through direct and non-conditional support to associations or other civil society organisations dedicated to language revitalisation. This primarily takes the form of grants to these organisations, but could also include both forms of tax incentive (that is, bequests to language organisations can be deductible for tax purposes, and their expenditures can be exempted from indirect taxes). However, direct regulation obviously is not a possibility.

Redistribution as defined here is inherent to all revitalisation policies. Recall that in this analytical framework, redistribution is not a goal in itself, but a necessary consequence of revitalisation policy, if language policy measures are financed out of revenue levied, in whole or in part, on the majority community; condition 2 states that government must be ready to endorse this redistribution. Assuming such readiness exists, actual redistribution can occur through any form of public spending, whether direct or tax-based. However, it can also occur through regulation. For example, it is possible for the state to require companies to set up

minority language day care facilities for their employees' children, and to let companies shoulder the cost.[71]

Meeting the *normalcy* condition can result from direct state intervention. More precisely, the authorities can spend resources on programmes aiming at convincing the majority public of the legitimacy of revitalisation policies.

Technical effectiveness can be mandated through direct regulation—for example, by monitoring language teaching in schools and making the use of some effective teaching methods obligatory. At the same time, professionalism in the implementation of policies is likely to cost money, and will be reflected, all other things being equal, by higher direct spending. Depending on the specific type of measure considered, however, indirect tax breaks on goods and services used in the practice of minority language activities can prove the most effective way to boost the practice of the latter.

The *shadow price* condition requires the cost (to bilinguals) of living in the minority language to go down. This can be effected through indirect tax breaks on minority language goods and services as well as through direct subsidisation of such goods and services. However, it can also occur through regulation. For example, the obligation to the private sector of issuing forms such as invoices, bank account statements, etc. in the minority language (in the case where such forms were previously unavailable) amounts to a sharp drop in the shadow price of the minority language activities where such goods and services are used.

The meaning of spending in relation with the *individual language maintenance condition* is open to two distinct interpretations. Of course, just as is it is not possible to make sure that people will remember what they have learned at school, there is no obvious way to guarantee that individuals will maintain their personal language skills. However, creating structures that will make such maintenance easier is an option, and very probably a condition for success. Again, this can be effectuated through regulation. For example, the state can require companies to set up leisure time centres for their employees, where minority-language recreational activities can take place in the minority language; the implications are then similar to the case of day care centre for employees' children. However, such organisms (like the Basque *Euskaltegis*) can be wholly or partly subsidised by the state, or benefit from both forms of favourable tax treatment.

Finally, the *strict preference* condition cannot be mandated. If such a preference does not exist, its creation is an absolute necessity (Fennell, 1981; Grin, 1994c). This, however, cannot be regulated, and plays itself out in the sphere of attitudes and the resulting utility functions, not in the sphere of relative prices. Hence, only

[71] Of course, depending on the elasticities of supply and demand on the labour market on the one hand, and on the goods and services markets on the other hand, companies can pass on some of this cost to workers and customers. If the regulation results in a decline in taxable profits, a cost to the state will appear in the form of lost tax revenue.

public spending on various forms of promotion can influence preferences in the direction desired[72].

Direct government spending emerges as an appropriate way of allocating financial resources to the revitalisation policy with respect to each of the seven conditions. Tax-based incentives, primarily through V.A.T. exemptions on goods and services that are needed either for the operations of some organisms who play a positive role in minority language revitalisation, or for the practice by bilinguals of minority-language activities, comes second. Direct regulation (which, *stricto sensu*, does not require direct government spending) comes third, and tax deductibility of gifts, in fourth place. As observed in Part I, manipulating the relative prices of goods and services and direct regulation is unlikely to be adopted in the current political context of New Zealand. This implies that the predominant form of spending accompanying future policy measures can be expected to be direct government expenditure. Fortunately, this restriction should not prevent policy makers from taking the measures necessary to meet all seven success conditions.

15.2 Sequencing and optimal expenditure: Just how far should we go?

The choice of relevant policies, given success conditions, depends in part on the appropriate timeline and on the impact on unit costs of one policy or another. The explicit introduction of time in the analysis requires formal models to be significantly more elaborate than that presented in the appendix. In the few existing dynamic models of language use (e.g. Grin, 1992; John and Yi, 1996), deriving the sign of changes in language use as the result of policy measures is possible only at the cost of simplifications in other parts of the model. This generally *increases* its degree of abstraction and can make it more difficult to relate formal results to policy experience.[73] Given the priorities of this study, we have chosen not to analyse the time dimension formally. However, an understanding of some the dynamic aspects can be useful to make appropriate spending decisions. With this goal in mind, we propose below what is no more than an *informal discussion* of the link between spending and policy results over time[74].

Let us begin by assuming that one wishes to (re)introduce in society a language that has largely dropped out of use, with the goal that the language be known by the entire target population in 100 years. A plausible time profile for the scheduling of various policies and resulting patterns of language use would look as shown in Fig. 3.5:

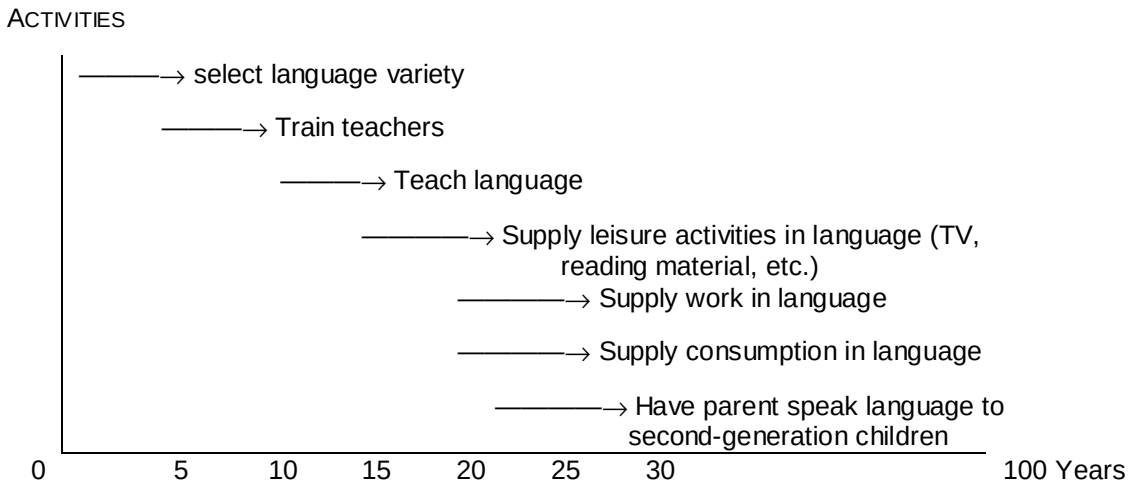
[72] The reader is reminded that because we view attitudes as influencing utility functions, it follows that attitudes (as explained in Chapter 4) must be understood here as a broadly-encompassing construct. They therefore cover beliefs and values, alongside attitudes in a narrower sense.

[73] Depending on research priorities, however, this sacrifice can be justified; as Arcand points out (1996: 150), "the trick is to pick the right model for the right problem."

[74] In particular, although some revitalisation activities should logically take precedence over others at the outset, it does not mean that they can only been carried out serially afterwards; rather, many of them should be pursued concurrently—hence the rightward-pointing arrows in Fig. 3.5.

FIGURE 3.5

LANGUAGE POLICY SEQUENCING



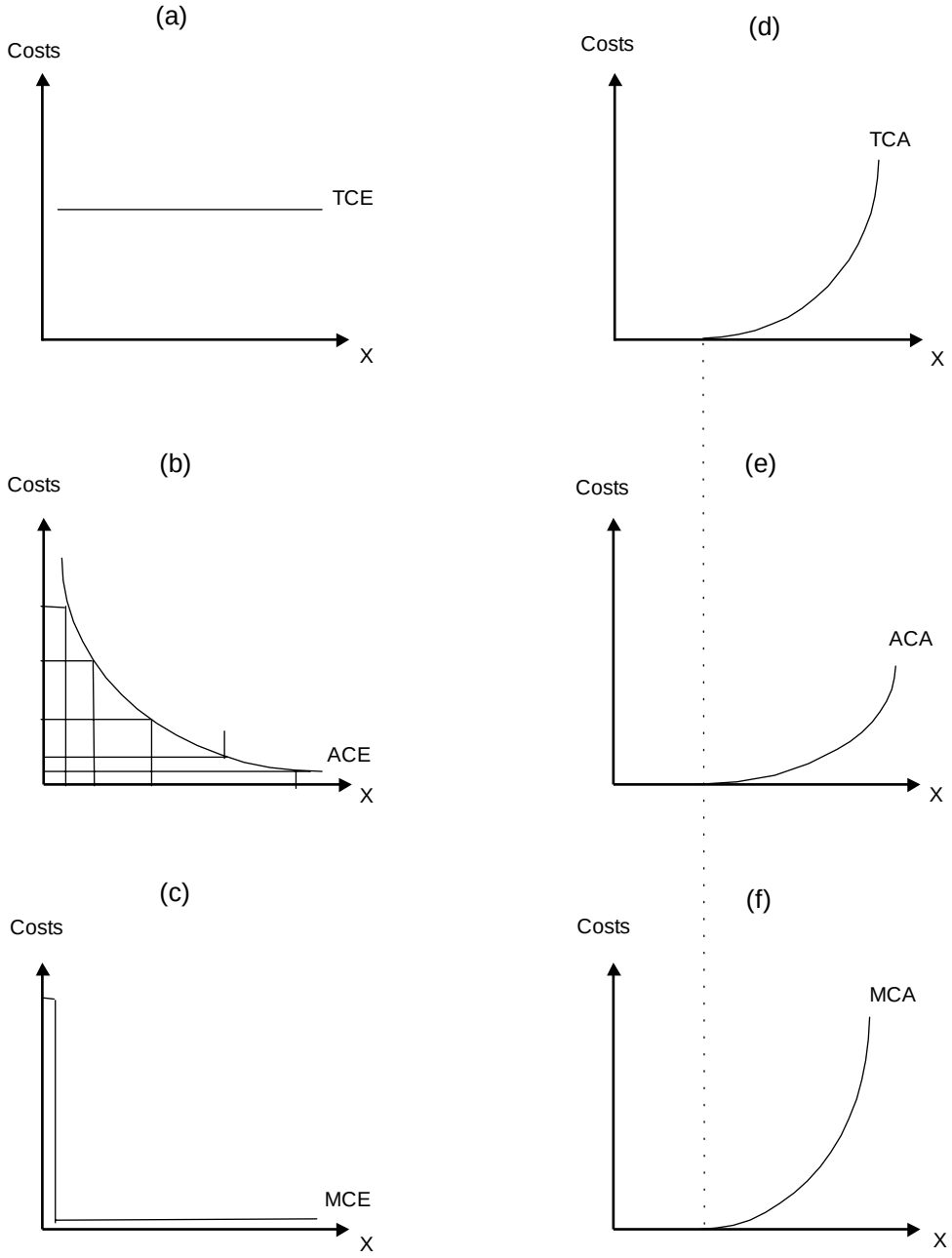
Although Maori retains an appreciable pool of speakers, and does not need to be revived as if it were an extinct language, the modest share of the target population that they currently represent in the Maori-identified population suggests that the above characterisation of the problem (apart from the first activity, that is, "selecting the language variety") is relevant to their case, and holds useful pointers for Maori language revitalisation. In particular, it is safe to assume that creating a stock of potential speakers must *predate* the provision of supply-side factors of the linguistic environment. The prerequisite nature of language teaching has been noted earlier in this study, but one additional and important consequence of this is that the cost of an additional hour of language use may first decline and subsequently increase, if one takes into account the fixed costs of schooling (or linguistic capital acquisition) as part of the cost of *each* activity. This is illustrated in the six panels of Fig. 3.6.

Teaching the language to a non-speaker has a certain cost C; in the case of Basque, we have estimated C at NZD 4,797—see Section 10.6. By spreading this amount over the total number of hours when the language would, on average, be used by speakers, we arrived at a person-hour cost K of about 22 NZ cents. Of course, this figure is crucially dependent on the number of hours during which the language is used; in the Basque case, we adopted the conservative estimate that as such, education planning proper "produced" only *one* extra hour of Basque use per day; if we had adopted a more optimistic estimate (say, 2 hours), then the average person-hour cost would drop to about 11 cents. For simplicity, let us adopt a unit of measurement other than the New Zealand dollar, so that K=16 of these new units. If the language is used by speakers for, say, 2 hours per day, the average person-hour cost of each of these hours is 8 (because 8x2=16); if the language is used 4 hours a day, language teaching yields an average person-hour cost of language use of 4 (because 4x4=16); if the language is used 6 hours per day, the average person-hour cost drops to 2.67 (because 6x2.67=16), and so on. This evolution implies a *constant total cost curve to the public sector*, represented as the horizontal line TCE in panel (a) of Fig. 3.6. In panel (b), we show how *average cost* declines with increased language use: this evolution is represented by

successive rectangles with a constant area of 16. Following a very common convention, we smooth this succession of rectangles in order to summarise it as an *average cost curve*—in this case, of education planning (ACE).[75]

FIGURE 3.6
PUBLIC COST STRUCTURE OF LANGUAGE POLICIES SEQUENCE

(X: person-hours of minority language use)



[75] Of course, the ACE curve can also be derived in the usual way, by plotting the (decreasing) slope of a straight line drawn from the origin to each successive point of the total cost curve. It should be noted that depending on the size of the population being taught the language, the level of the TCE curve in the graph space will change, but its slope and curvature will not.

This average cost curve declines continuously, which simply reflects the fact that, given an investment *K*, the average cost of using the language will decline if the language is used more. It is useful to move from the notion of *average cost* to that of *marginal cost*, that is, the cost of each additional person-hour of language use. Since in order to speak language, whether for one or twenty-four hours per day, it is necessary to acquire the competence to do so (and hence to incur cost *C*), the cost of the first hour is *K*, and the cost of each additional hour is zero. The evolution of marginal cost is represented by the MCE curve in panel (c) of Fig. 3.6.

However, the marginal cost of *education* as a means of generating minority language use is not the only one that needs to be considered. As pointed out earlier, mastery of a language does not guarantee language use; additional arrangements are needed in order to secure the latter. We had assumed, in the Basque case, that generalising language skills would at least allow actors to use Basque *in the family*, but obviously, only a fraction of actors' total time is devoted to family interaction (hence our assumption, in Section 10.6, that the *pure* contribution of language education planning was an average of one hour per day). If language planners' goal is to ensure a higher degree of use of the minority language, it is necessary to engage in other, accompanying policies, such as the provision of settings where the language can be used. Examples include leisure activities (such as minority language television programmes), the provision of state services in the minority language, etc.—in short, what makes up our "supply-side factors of the linguistic environment".

Let us call such policies "accompanying measures" and treat them jointly. Their total cost is increasing (because some extra spending is necessary to engage in a new policy that will induce a higher degree of language use). Besides, we would normally expect the relatively cheaper policies to be adopted first, then slightly more expensive ones, and eventually the substantially costlier measures. This means that the total cost of these accompanying measures increases at an increasing rate, and that it can be represented by the convex curve TCA shown in panel (d) of Fig. 3.6.[76] We assume TCA to be positive only *beyond* the initial hours of language use, since the first couple of hours per day takes place in the context of family, community and neighbourhood (something that *education planning* has made possible), without the support of accompanying measures. These only intervene for subsequent hours.

[76] Beyond a certain point, it is possible for the total cost curve to become convex, because of economies of scale and network externalities. For example, *if* the average number of person-hours of language use per day is already fairly high, it would suggest that the minority language is alive and well, and that actors will actually supply one another with opportunities to use the language. A more frequent use of the language would also imply that actors carry out a high proportion of their everyday activities in the minority language, to the point that setting up a local television network in Maori could become commercially profitable. In this case, the provision of Maori-language programming would no longer need to be subsidised (or only in modest amounts), which means that marginal cost would decline, and that the total cost curve would then have become concave.

The corresponding average cost (ACA) and marginal cost (MCA) curves are easily derived in the usual fashion;[77] they are represented in panels (e) and (f) respectively.

Let us now treat policy measures together, as we do in Fig 3.7. If we combine education planning (a prerequisite) with a set of accompanying measures (that are necessary to get the most out of the investment made in language instruction), the vertical addition of total cost curves yields a *combined total cost* (CTC) represented in panel (a). BY adding average cost curves on the one hand, and marginal cost curves on the other hand, we obtain a *total average cost* (TAC) and a *total marginal cost* (TMC). They are represented in panel (b). The average cost of policy-induced language use does reach a minimum at a certain degree of person-hours of language use such as L0 (say, 3 hours per day), which means that adopting (in addition to education planning) *only* those accompanying measures that will push minority language use per day to three hours (on average) is the least-cost option.

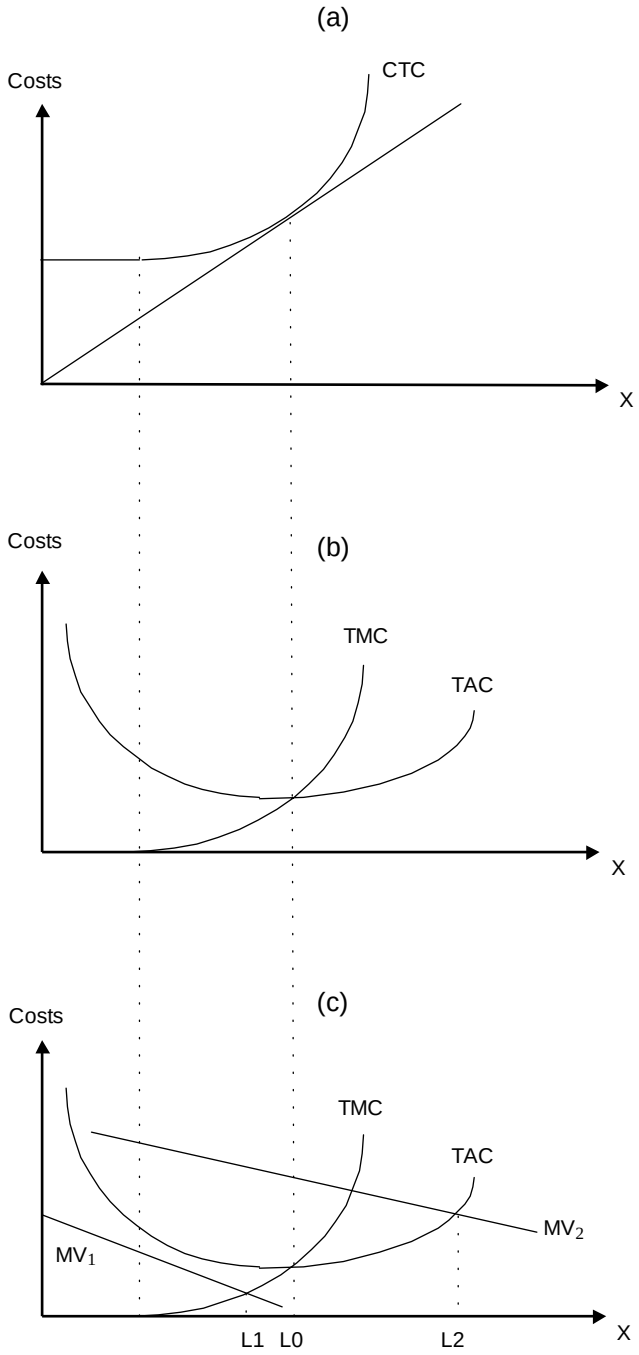
However, the least-cost option is not necessarily the best economically. In an economic sense, optimality is reached when *marginal cost* is equal to people's *marginal valuation* of the commodity considered—in this case, minority language use. Quite simply, as long as one additional hour of minority language use is socially regarded as generating a value higher than the cost it entails, it is socially profitable to take the appropriate language policy measures to ensure that this additional hour of minority language use does happen.

If minority language use is perceived socially as a "good" (as opposed to a "bad"), its marginal valuation is generally positive. However, just like any other good, the more of it is available, the less an *extra* unit of that commodity will be valued. We discuss elsewhere (e.g. Grin and Vaillancourt, 1997) the reasons why this very probably applies to complex elements of human experience such as linguistic environments. Suffice it to say here that this is nothing but the fundamental economic concept of *decreasing marginal utility*. Hence, society's *marginal valuation* of minority language use (MV) can be represented as a curve with a negative slope in panel (c) of Fig. 3.7. Marginal valuation is derived from the benefits defined in Section 3.4; it *includes* non-market benefits, for example pride in one's language or satisfaction from being able to better express one's identity in a setting where the language is used.

[77] The average cost curve is the slope of a straight line running from the origin to each successive point of the total cost curve; the marginal cost curve is the slope of the total cost curve. Hence, in our case, MCA always lies above ACA.

FIGURE 3.7
LANGUAGE POLICIES SEQUENCE AND OPTIMALITY

(X: person-hours of minority language use)



The important point is that there is *no a priori reason* for assuming that the intersection of TMC and MV define a degree of language use that coincides with minimum average cost. Depending on the structure of costs and on society's valuation of minority language use, optimality can be located to the left or to the right of L0, which denotes minimum average cost. If society has a low marginal valuation of the fact that Maori be used, the relevant MV curve will be accordingly low (say, MV1), and define an optimum at L1. If, however, society's marginal valuation of the fact that Maori be used is high, the MV curve will be located higher on the figure (say, MV2), and define an optimum at L2.

Hence, a least-average cost policy *package* is very unlikely to be optimal in terms of resource allocation. This conclusion, however, in no way detracts from an analytically distinct one, namely, that each policy should be pursued efficiently, that is, without wasting scarce resources. But the more important point is that once more, we can observe how crucial preferences are—because the structure of preferences is what determines the location of the MV curve, and hence indicates how far we should go. Once again, it is important to remember that a proper identification of the MV curve must take account of the non-material benefits associated with minority language survival, including, for example, the minority community members' feeling of self-worth that is likely to go along with the revitalisation of their language.

The exact location of the MV curve is a difficult question, which has been extensively researched in the case not of linguistic environments, but of environmental assets (air, water, etc.), and the adaptation to language policy issues of the methods developed in environmental economics has already been discussed in Section 3.3. We have assumed at the outset that there exists, in New Zealand, a clear intention to engage in language revitalisation; this has been confirmed by our overview of the evolution of language policies towards Maori in Section 14.1 (in general practice, it is accepted that the social valuation of a policy is revealed, even if imperfectly, through the political process). In terms of the graphical interpretation developed here, this means that we exclude only one case, namely, the case where the MV curve would always lie below the TMC curve, because it would imply that New Zealand society regards Maori language revitalisation as not worth the effort in the first place. We therefore move on to policy recommendations armed with the conclusion that *because* society's marginal valuation of Maori language revitalisation is at least high enough to warrant policy intervention, *it follows* that New Zealand society and its authorities *are* willing to devote some resources, financial and otherwise, to a revitalisation plan.[78]

[78] We are aware (as was briefly noted in Section 3.4) that the above line of reasoning could be preempted by an appeal to well-established concepts of linguistic human rights, or to typically under-specified "values". Such an approach would make welfare calculus pointless, but it would also largely fail to equip actors (language users, language planners, society at large) with the instruments needed to approach language planning as a form of public policy. Favouring one or another approach is largely a political choice.

15.3 Selection and design of language policies in New Zealand: Structural Recommendations

Institutional structure

In recent years, the approach to language issues in New Zealand has been characterised by the production of a high number of reports and documents on the sociolinguistic position of Maori, the education of the Maori-identified population, the provision of Maori-language instruction, the use and visibility of Maori in government services, Maori-medium broadcasting, and language policy perspectives; corpus planning documents might also be added to this list.

What appears to be missing, however, is a structure that would centralise all the relevant information, monitor the evolution of the *status* (as opposed to *corpus*) of Maori in New Zealand society, carry out and/or commission coordinated analytical and empirical research, and integrate it in the development of policy plans. The initiatives undertaken by various sectors of government should also be coordinated. The need for an appropriate structure goes beyond handling information; clear responsibilities for language planning must also be vested in the structure. This would include co-operation with and support to grassroots initiatives, as practised in Wales and in Ireland.

In our view, the above requires *either* the setting up of an ad-hoc language planning unit, *or* a significant reinforcement of the office of Te Taura Whiri, and **our first recommendation** is therefore to create a proper **language policy unit**. It should be equipped with adequate means to secure access to the necessary human resources. Because, as we have insisted before, *language planning is first and foremost a form of public policy*, it should not be seen as a matter that falls entirely or exclusively in the purview of linguistics or sociolinguistics. The language planning unit must therefore be defined from the outset as an interdisciplinary body with an accordingly interdisciplinary philosophy; the latter must be represented at the various structural levels of the language policy unit—research officers, executives, governing board and advisory board. Although clearly part of government, the language policy unit must enjoy enough independence to exert full autonomy in the research side of its activities. The role of the language planning unit, however, must remain distinct from that of militant organisations, and its task is one of public policy rather than advocacy.

A variety of institutional set-ups can be considered. For example, corpus and status planning can be kept separate, and this separation reflected in structures; alternatively, structures can be designed in such a way as to maximise the integration of various language policy areas, with an accordingly close-knit organisation. Appropriate models are Catalonia's *Direcció General de Política Lingüística*, Euskadi´s *Hizkuntza Politikarako Sailordetza*, or Québec's structure which includes an *Office* and a *Conseil de la langue fançaise*. Generally, some degree of separation between political and technical functions appears advisable. Of course, elements inspired by these models would need to be duly adapted to the

historical and cultural dimensions of the Maori case, and to the political context of New Zealand[79].

Descriptive and evaluative instruments

Although an important body of information on Maori in New Zealand has been gathered and published, it is at times somewhat unwieldy, and would certainly gain from being structured in relation to language policy issues.

Hence, our **second recommendation** is that under the authority of the above-mentioned language policy unit, cross-sectional **surveys** of a representative sample be carried out on a regular basis (e.g., on a five-year cycle, each emphasising a specific topic such as language of work, language of consumption, etc.). In accordance with the interdisciplinary character of language planning, the survey should include not only a broad range of sociolinguistic aspects (language use in different settings, language learning, language attitudes), but socio-economic topics (profession, education, earnings). In addition, detailed information should be gathered on New Zealanders' valuation of Maori. "Detailed" means going beyond general statements to the effect that, say, "Maori should be given more prominence in New Zealand society", but draw on environmental asset evaluation techniques (such as the contingent valuation method) to infer the extent of people's willingness to devote resources to language revitalisation. These regular surveys could be seen as extended versions of Euskadi's *sociolinguistic surveys*—of which two have already been carried out to date.[80]

We **further recommend** organising the information gathered through these surveys to **monitor the evolution of the seven success conditions** presented in Chapter 12. Some of them do not lend themselves to a quantitative or statistical treatment, but need to be assessed regularly nonetheless. The status of the success conditions should be reviewed at fairly close intervals, and serve to fine-tune language policy. For example, because language revitalisation is a lengthy and often discouraging process, bilinguals' desire to use the minority language may at times be flagging, which means that the strict preference condition may not (or no longer) be met to the same extent. This reinforces the importance of other conditions, particularly the normalcy condition, through which the language planning authorities make clear their intention to pursue the revitalisation effort.

[79] In particular, attention will have to be devoted to an appropriate representation of various collective entities in language planning structures: on the one hand, all New Zealanders, Pakeha and Maori alike, who elect the national government; on the other hand, Maori themselves, for whom Te Reo has special meaning by virtue of being considered and recognised as a taonga.

[80] Successive cross-sectional surveys register change at the population level, which we consider sufficient and appropriate for the steering of language policy. If the language planning unit is interested in registering change at the level of the individual or household, a (more complex) panel survey design is necessary, where the same set of respondents is surveyed at regular intervals.

Disseminating information

Finally, in order to facilitate involvement of New Zealanders in the revitalisation process, our **third recommendation** is to **make available in a structured manner the information** centralised, gathered and processed by the language planning unit. The Basque surveys give rise to the publication of a considerable body of well-organised information. Québec's *Office de la langue française* publishes yearly *Indicateurs linguistiques* that provide another example of how to make descriptive information available. The *Conseil* has a book series offering more detailed studies.

15.4 Indicative proposals

Suggesting specific policies is not part of our mandate. However, we have decided to outline some proposals. They are likely to exceed, on several counts, the measures that the authorities are currently prepared to consider, both for political and for financial reasons. Hence, the suggestions below are indicative, and only meant to enter as elements in the political debate over the selection and design of actual policy measures by New Zealanders themselves. In addition, we are aware that actual policies will have to be appropriately calibrated with respect to specific elements of Maori identity, as noted by Durie *et al.* (1996). Nonetheless, if New Zealand society is genuinely committed to Maori language revitalisation, there is no doubt that it must be prepared to engage in a *substantially more proactive policy* than it has in the past. This point being understood, it remains that policy makers need to be able to select policy measures by prioritising those that promise to deliver higher efficiency. The type of framework proposed in this report, along with the review of the cost-effectiveness of measures applied in other contexts, is meant to provide assistance this endeavour.

Education

In 1996, only about 12% of Maori children were schooled in an environment where Maori predominates as the medium of teaching.[81] In Euskadi, by contrast, 34% of primary school children are in 100% Basque medium and 29% in bilingual schools (Table 2.16). It is difficult to envisage a revitalisation of Maori if the existing percentage is not substantially increased, especially since research in language didactics has shown the effectiveness of immersion in a language.

Two factors may explain this modest enrolment in Maori-medium education, relating either to supply or to demand.

(i) Supply

> Ensuring an appropriate supply of Maori-speaking teachers is a major issue in New Zealand, and it is fundamentally due to low rates of schooling through Maori in the preceding years. We suggest addressing the problem

[81] Source: New Zealand Schools, 1995, Statistical Annex, Tables A7, enrolment and A3, number of students of ethnicity. Student in 50% + schools were assumed to all be Maori. Special school students are deleted from the denominator. See also Te Puni Kokiri (1997c).

along the lines of the following measures, listed below as proposals P1, P2, etc.

P1: establishing the required number of Maori teachers that would be required to offer 50%+ Maori-medium teaching, by 2005, to a target share of the Maori school clientele (e.g. 50%, 80%, 100%).

P2: offering a set of monetary incentives (bursaries, premiums, long-term contracts, etc.) in order to persuade more fluent Maori speakers to embrace the teaching profession, or more teachers to learn Maori well in order to be able to teach their subject through the medium of Maori. Such financial incentives should be of sufficient magnitude or duration to make people's investment worth their while. However, they should be given only to those individuals who do achieve a confirmed high level of competence in Maori.

P3: adequately funding the production of Maori-medium teaching materials, and/or offering financial compensation to teachers who have to design such materials themselves, subject to a review process.

P4: developing intensive Maori-language training programmes for qualified teachers (Maori-identified or Pakeha), in order for them to be able to teach their subject through the medium of Maori. This, of course, is a prerequisite for the success of P2.

P5: *in the short run*, giving preference for enrolment in Maori-medium schools to Maori and increasing their supply by shifting teachers to these schools. This may require temporarily reducing the teaching of Maori to Pakeha to zero. For example, there are 1,796 primary school teachers who can speak Maori. If each taught one class with 21 students, a total of 37,700 students could receive primary schooling in an environment where 51% of the instruction or more takes place in Maori. This would serve some 40% of all Maori students—as defined in the most recent official statistics (ministry of Education, 1997). If secondary school teachers were required to do likewise and to transfer to the primary level (with appropriate compensation), 55% of Maori primary schoolchildren could be taught in Maori. If full immersion is pursued for only half of the first three years of the primary level and half-time Maori immersion is pursued for the remaining years of primary schooling, then about 62% of primary school Maori children could learn in this environment. Even though, at this time, only a minimal number of non-Maori children receive instruction through Maori, this change would yield a five-fold increase on the current situation, and one which is technically within reach. This would, of course, occur at the temporary detriment of other forms of teaching Maori.[82]

[82] This should be regarded an emergency measure, since some of the workforce currently providing Maori-medium education is said to be insufficiently trained. In addition, re-training of any secondary school teachers transferring to the primary school level would have to be provided for.

We are aware that the above suggestions may imply quite a departure from current practices in the operations of the education system. Two comments are therefore in order. The first one is that these are no more than indicative proposals, which can be of use in identifying general policy orientations rather than deciding on specific policy measures. The second is that even if existing institutional arrangements do not allow for the immediate adoption of some of these measures, perhaps it means that some features of these arrangements need to be reconsidered (for example, the current extent of the autonomy enjoyed by local Boards of Trustees), not that measures should be dismissed in order to leave an institutional set-up untouched. Precisely because, as has been pointed out, the intergenerational transmission of Maori may be failing—which shows that the predicament of the language is serious indeed—the type of policy measures that have to be countenanced, at least for a transitory emergency period, may require a significant degree of institutional change in specific areas.

(ii) Demand

> Even if the supply of Maori teaching is increased, this will have little impact on the knowledge and thus use of Maori unless Maori is learned—presumably, by members of the Maori community first. Yet is not clear that, given freedom of choice, Maori will ensure that the language is learned by their children. To the extent that this is linked to language attitudes, it is first and foremost an issue for Maori themselves to ponder. However, as pointed out before in this study, negative attitudes may largely result from earlier cultural and linguistic repression; direct language promotion can therefore be advocated, and this point is addressed in another sub-section below. In addition, apparent low percentages of intergenerational transmission may be explained in part by too broad a definition of Maori ethnicity in statistical information. In the short run, and independently of direct language promotion measures, we suggest that :
>
> **P6**: Waitangi Treaty benefits for Maori be linked to some form of commitment to Maori language revitalisation. Although we cannot be judges of the legal implications of proposals made along those lines, we can surmise that it would not lie within the government's competence to engineer such a scheme. By contrast, it may be within the competence of tribal authorities to lay out conditions for the enjoyment of the benefits of the Treaty of Waitangi[83].

This may seem a radical solution. However, one should note that in Québec, francophone children (defined as those whose parents attended a French language school themselves), *must* attend a French language school at the primary and

[83] One theoretically conceivable option would be for tribal authorities to make enjoyment of Treaty benefits, as of 1999 (that is, after a time-lag allowing for informed conception), conditional on Maori school attendance at the primary level by the children of families with one Maori parent in biparental families, and in monoparental families by the children whose rearing parent is Maori-identified. Again, this obviously is part of a range of measures to be considered by Maori themselves.

secondary level. Thus, the majority itself constrains its own freedom of choice in order to increase the likelihood of survival of their language. Immigrant children must also attend French-language schools, whatever their or their parents' mother tongue.

Broadcasting

Since the ATN experiment was discontinued, there is very little on the New Zealand airwaves in the way of Maori-language television programmes. When there are some, they do not seem very popular (note for example the modest 15% rating in the potential Maori audience in Auckland) (Ministry of Commerce, 1997). Developing Maori-language broadcasting, however, is one of the most important policy initiatives currently under discussion. We recommend that:

> **P7**: a separate national TV station be established, rather than adopting the "mainstreaming" approach. At the outset, this station could be owned by the government or by a non-profit organisation; it could also be owned by a consortium of iwi radio stations. Its operations could otherwise adopt essential features of the Welsh model. It should prioritise prime-time slots; in particular, attention must be devoted to the 4:00 p.m.-8:00 p.m. slot during week-days and to the 8:00 a.m.-8:00 p.m. slot on week-ends, in order to attract children and young listeners learning Maori in school. For this age group, television can function as a much-needed complement to school and help meet the individual language maintenance condition.

Other language promotion measures

Although a wide range of additional promotional measures can (and should) be considered, they have lower priority than minority language education and broadcasting. In due course, measures should be taken to diversify the supply-side factors of the linguistic environment, and accordingly lift the language-related constraints (see Fig. 1.8) that restrict bilinguals' use of Maori. This may include the generalisation of the provision of government services in Maori, bilingual labelling requirements, etc. In the more distant horizon, schemes aiming at creating conditions for bilinguals to work in Maori can be designed, possibly with reference to the experience of Quebec in this area. The aim of such measures, apart from directly increasing language use, is to meet the *individual language maintenance* condition, which may well be the most problematic in modern New Zealand (see Table 3. 3). In the short run, however, one other type of measure appears to have high priority, namely, direct language promotion.

Campaigning in favour of Maori and making it clear that large sectors of New Zealand society (particularly government and Maori organisations) are firmly committed to language revitalisation will help meet the *normalcy* and the *strict preference* conditions. Setting this priority reflects our earlier observation that in the final analysis, *demand drives supply*, and that language maintenance contexts are likely to emerge as a consequence of more favourable attitudes, whereas the reverse is not necessarily true. More precisely, we suggest the following:

P8: giving the language policy unit, as described in Section 15.3 above, the mandate to aim, within specified time horizons (5 years, 10 years, etc.) at targets defined in terms of language attitudes among the Maori and Pakeha public.

P9: further developing programmes to affirm and recognise "the place of the language in New Zealand history and in modern society" (Te Taura Whiri, 1996: 6). In our view, emphasis should be placed on the legitimacy of Maori in the sphere of modernity, a choice from which European minority languages have benefited considerably (on this, see Section 9.2).

P10: pursuing work on amendments to the 1987 Maori Language Act in order to extend its domains of application. Even if only limited practical changes ensue in the short run, reinforcing the legal status of Maori concurs to the objective of establishing its overall position in New Zealand society.

15.5 Concluding remarks

At the close of this three-part *Analytical Survey*, our general conclusion is that the potential for the revitalisation of the Maori language certainly exists, and that conditions are now more favourable than in the past. In New Zealand itself, there has been a perceptible improvement in actors' willingness (Maori, the government, and non-Maori opinion) to take language revitalisation seriously, and consequently to take the steps needed to make it happen. Although this evolution can be viewed primarily in relation to legal and political changes exemplified by the Waitangi Tribunal findings, we consider as just as significant (and probably more in the long run) the fact that these events converge with changes in the world at large, where there is increasing awareness that the preservation of linguistic diversity can positively affect social welfare.

However, several of the conditions that have made revitalisation policies successful in other contexts are still not adequately met in the New Zealand case. We believe that significant effort must be made to meet them, lest policy measures prove ineffective. The effectiveness of these measures is crucially important, given the delicate position in which Maori now finds itself, as evidenced by the most recent integrative reports available (e.g. N.A. 2; Te Puni Kokiri, 1997d).

It is a risky business to venture long-range predictions about language dynamics. Nevertheless, the policy experience acquired in other minority language contexts shows that committed intervention can successfully stop a spiral of decline, and very encouraging signs of reverse language shift can now be observed in a number of cases like Welsh and Euskera, not to mention, of course, Catalan. The fundamental lesson that these cases teach us is that revitalisation is possible, provided there is a clear will to go in that direction and measures are taken accordingly. Conversely, half-hearted commitment and irresolute policies are certain to fail. The decision to engage on the demanding path of revitalisation and

to adopt the policies consistent with this goal is a political choice which is for New Zealanders to make.

References

"n.d." denotes a document without indication of a date of publication. "n.a" denotes a document without indication of author name.

Agote, Imanol and Azkue, Jokin, 1991: "Planificación lingüística y educación en el País Vasco", in L. Dafis (ed.) *Lesser-Used Languages—Assimilating Newcomers*. 55-70.

Allemann-Ghionda, Cristina (ed.), 1994: *Multikultur und Bildung in Europa*. Berne: Peter Lang.

Ambrose, John, and Williams, Colin, 1981: "On the Spatial Definition of Minority: Scale as an Influence on the Geolinguistic Analysis of Welsh", in E. Haugen (ed.), *Minority Languages Today*. Edinburgh: Edinburgh University Press, 53-71.

Appel, René and Muysken, Pieter, 1987: *Language Contact and Bilingualism*. London: Edward Arnold.

Arcand, Jean-Louis, 1996: "Development economics and language: The earnest search for a mirage?", *International Journal of the Sociology of Language*, 121, 119-157.

Australian Language and Literacy Council (ALLC), 1994: *Speaking of Business. The Needs of Business and Industry for Language Skills*. Canberra: National Board of Employment, Education and Training.

Baetens Beardsmore, Hugo, 1994: "Language Shift and Cultural Implications in Singapore", in S. Gopinathan *et al.* (eds.), *Language, Society and Education in singapore: Issues and Trends*. Singapore: Times Academic Press, 47-64.

Baker, Colin, 1985: *Aspects of Bilingualism in Wales*. Clevedon: Multilingual Matters.

Baker, Colin, 1992: *Attitudes and Language*. Clevedon: Multilingual Matters

Baranzini, Andrea 1990: "Analyse économique de l'environnement : orientations principales", in Pilet, G. (ed.), *Analyse du rôle de l'environnement dans les macroprocessus économiques*. Report to the Swiss National Science Foundation, grant No. 1.378-0.86.

Bastardas Boada, A., 1987: "L'aménagement linguistique en Catalogne au XX siècle", in J. Maurais (ed.), *Politique et aménagement linguistique*. Québec: Conseil de la langue française & Paris: Le Robert, 121-158.

Benton, Richard, 1995: *Towards a Languages Policy for New Zealand Education*. Wellington: New Zealand Council for Educational Research.

Bord na Gaeilge, n.d.1: *An Invitation to Use Irish in Business/Gnó le Gaeilge—cuireadh don lucht gnó*. Dublin/Baile Átha Cliath: Bord na Gaeilge.

Bord na Gaeilge, n.d.2: *Focus on Irish: Promoting Bilingualism—a guide for Tidy Towns Committees*. Information folder. Baile Átha Cliath/Dublin: Bord na Gaeilge.

Boseker, Barbara, 1994: "The Disappearance of American Indian Languages", *Journal of Multilingual and Multicultural Development*, 15, 147-160.

Bowen, Roderic, 1972: *Bilingual Traffic Signs. Report of the Committee of Inquiry under the Chairmanship of Roderic Bowen*. Caerdydd / Cardiff: HMSO.

Bwrdd Croeso Cymru (Welsh Tourist Board) and Menter a Busnes, n.d.: *Naws am le—Canllaw I arwyddion dwyieithog / A sense of place—A guide to bilingual signage*. Cardiff: Bwrdd Croeso Cymru & Aberystwyth: Menter a Busnes.

Bwrdd yr Iaith Gymraeg / Welsh Language Board, n.d.1: *A Bilingual Policy. Guidelines for the Public Sector*. Cardiff/Caerdydd.

Bwrdd yr Iaith Gymraeg / Welsh Language Board, n.d.2: *Welsh Language Schemes. Their preparation and approval in accordance with the Welsh Language Act 1993*. Cardiff/Caerdydd.

Bwrdd yr Iaith Gymraeg / Welsh Language Board, n.d.3: *Welsh Language Scheme* (County Council of Denbighshire/Sir Ddinbych). Published by the Welsh Language Board, Cardiff/Caerdydd.

Bwrdd yr Iaith Gymraeg / Welsh Language Board, n.d.4: *Welsh Language Scheme* (City and County of Swansea/Abertawe). Published by the Welsh Language Board, Cardiff/Caerdydd.

Bwrdd yr Iaith Gymraeg / Welsh Language Board, n.d.5: *Welsh Language Scheme* (County Borough Wrexham/Wrecsam). Published by the Welsh Language Board, Cardiff/Caerdydd.

Bwrdd yr Iaith Gymraeg / Welsh Language Board, 1991: *Recommendations for a New Welsh Language Act*, Cardiff/Caerdydd.

Bwrdd yr Iaith Gymraeg / Welsh Language Board, 1995: *A Strategy for the Welsh Language*. WWW: netwales.co.uk/byig/strats.htm.

Chapple, Simon, 1997: *Maori Participation and Performance in Education. A Literature Review and Research Programme*. Report to the Ministry of Education. Wellington: New Zealand Institute of Economic Research (NZIER).

Church, Jeffrey and King, Ian, 1993: "Bilingualism and Network Externalities", *Canadian Journal of Economics*, 26, 337-345.

Cohen, Jean and Arato, Andrew, 1992: *Civil Society and Political Theory*. Cambridge (Mass.): The MIT Press.

Comhdháil Náisiúnta na Gaeilge, 1992: *Gaillimh le Gaeilge. Tuairisc Bliana 1992*. Baile Átha Cliath: Comhdháil Náisiúnta na Gaeilge.

Comhdháil Náisiúnta na Gaeilge, 1993: *Gaillimh le Gaeilge. Tuairisc Bliana 1993*. Baile Átha Cliath: Comhdháil Náisiúnta na Gaeilge.

Comhdháil Náisiúnta na Gaeilge, 1994: *Gaillimh le Gaeilge. Tuarascáil bhliantúil 1994*. Baile Átha Cliath: Comhdháil Náisiúnta na Gaeilge.

Comhdháil Náisiúnta na Gaeilge, 1995: *Gaillimh le Gaeilge. Tuarascáil bhliantúil 1995*. Baile Átha Cliath: Comhdháil Náisiúnta na Gaeilge.

Comhdháil Náisiúnta na Gaeilge, 1996: *Gaillimh le Gaeilge. Tuarascáil bhliantúil 1996*. Baile Átha Cliath: Comhdháil Náisiúnta na Gaeilge.

Comisión de Instituciones e Interior, 1997: *Líneas de actuación de la Vice-Consejería de Política Lingüística par 1997*. Comparecencia ante el Parlamento Vasco. Mimeo.

Cooper, Robert 1989: *Language Planning and Social Change*. Cambridge: Cambridge University Press.

Daoust, Denise and Maurais, Jacques (1987): "L'aménagement linguistique". In J. Maurais (ed.), *Politique et aménagement linguistique*. Québec: Conseil de la langue française & Paris: Le Robert, 5-46.

Departamento de cultura / Kultura Saila, 1997: *Euskera—Diffusion d'information*. Gasteiz / Vitoria: Eusko Jaurlaritza / Gobierno Vasco.

De Swan, Abram, 1993: "The Evolving European Language System: A Theory of Communication Potential and Language Competition", *International Political Science Review*, 14, 241-255.

Durie, M.H. *et al*., 1996: *Te Hoe Nuku roa: Maori Profiles. An integrated approach to policy and planning*. Massey University. Report prepared for Te Puni Kokiri.

Elis-Thomas, Lord Dafydd of Nant Conwy, 1997: “Language Planning in Wales”, in *Actes del Congrés Europeu sobre Planificació Lingüística*. Barcelona: Generalitat de Catalunya, Departament de Cultura, 253-266.

Erriondo, Lore and Isasi, Xabier, 1995: “Planificación lingüística y educación en el País Vasco”, in *Actes del Congrés Europeu sobre Planificació Lingüística*. Barcelona: Generalitat de Catalunya, Departament de Cultura, 344-355.

Fennell, Desmond, 1981: “Can a Shrinking Linguistic Minority be Saved? Lessons from the Irish Experience”, in E. Haugen (ed.), *Minority Languages Today*. Edinburgh: Edinburgh University Press, 32-40.

Fishman, Joshua, 1988: *Language and Ethnicity in Minority Sociolinguistic Perspective*. Clevedon: Multilingual Matters.

Fishman, Joshua, 1991: *Reversing Language Shift.* Clevedon: Multilingual Matters.

Furer, Gion Giachen, 1984: “Promoziun dil romontsch: 25 exempels particulars ord tiaras jastras”, *Ischi Semestril*, 69, 9-41.

Government Statistical Office, 1994: *1991 Census. Welsh Language*. London: Office of Population Censuses and Surveys.

Grin, François, 1990a: “The Economic Approach to Minority Languages”, *Journal of Multilingual and Multicultural Development*, 11, 153-173.

Grin, François, 1990b: “A Beckerian Approach to Language Use: Guidelines for Minority Language Policy”, *Cahiers du CRDE*, Montréal, n° 0890 (also published as *Cahier du Département de sciences économiques, Université de Montréal*, n° 9007).

Grin, François, 1992: “Towards a Threshold Theory of Minority Language Survival”, *Kyklos*, 45, 69-97.

Grin, François 1993a: “Minority Language Promotion: On the Practical Usefulness of Economic Theory”, in L. Dafis (ed.), *Economic Development and Lesser used Languages: Partnerships for Action*, Conference Proceedings, Iaith Cyf., Llanbedr Pont Steffan (G.B.), 24-49.

Grin, François, 1993b: “The Relevance of Thresholds in Language Shift and Reverse Language Shift”, *Journal of Multilingual and Multicultural Development*, 14, 375-392.

Grin, François 1994a: “The Economics of Language: Match or Mismatch?” *International Political Science Review*, 15, 27-44.

Grin, François 1994b: “L'identification des bénéfices de l'aménagement linguistique: la langue comme actif naturel”, in: Phlipponneau C. et Boudreau A. (dir.), *Sociolinguistique et aménagement des langues*. Moncton (N.-B.): Centre de Recherche en Linguistique Appliquée, 67-101.

Grin, François, 1994c: "Minority Languages and Regional Economic Development: Resources and Priorities", in *Economic Development and Lesser Used Languages: Partnerships for Action*, L. Dafis (ed.), 34-40. Llanbedr Pont Steffan: Cwmni Iaith Cyfyngedig.

Grin, François, 1994d: "Combining immigrant and autochthonous language rights: a territorial approach to multilingualism", in T. Skutnabb-Kangas and R. Phillipson (eds.), *Linguistic Human Rights. Overcoming Linguistic Discrimination*. Berlin: Mouton de Gruyter, 31-48.

Grin, 1994e: *L'économie de l'éducation et l'évaluation des systèmes de formation*. Aarau: Schweizersiche Koordinationsstelle für Bildungsforschung.

Grin, François, 1996a: "Economic Approaches to Language and Language Planning: An Introduction", *International Journal of the Sociology of Language,* 121, 1-16.

Grin, François, 1996b: "The Economics of Language: Survey, Assessment and Prospects", *International Journal of the Sociology of Language,* 121, 17-44.

Grin, François, 1996c: "Conflit ethnique et politique linguistique", *Relations internationales*, 88, 381-396.

Grin, François, 1997: "Aménagement linguistique: du bon usage des concepts d'offre et de demande", in N. Labrie (ed.), *Etudes récentes en linguistique de contact*. Bonn: Dümmler, 117-134.

Grin, François, forthcoming: "Diversité linguistique et théorie économique de la valeur", in J.Hatem (ed.), *Lieux de l'intersubjectivité*. Paris: L'Harmattan.

Grin, François and Hennis-Pierre, Catherine, 1997: "La diversité linguistique et culturelle face aux règles du commerce international : le cas du film et des émissions de télévision", in S. Abou and K. Haddad (eds.), *La diversité linguistique et culturelle et les enjeux du développement*. Paris: AUPELF-UREF & Beyrouth: Université Saint-Joseph, 265-286.

Grin, François and Sfreddo, Claudio, 1997: *Dépenses publiques pour l'enseignement des langues en Suisse*. Aarau: Schweizersiche Koordinationsstelle für Bildungsforschung.

Grin, François and Vaillancourt, François, 1997: "The Economics of Multilingualism: Overview of the Literature and Analytical Framework", in W. Grabe (ed.), *Multilingualism and Multilingual Communities* (ARAL XVII). Cambridge [MA.]: Cambridge University Press, 43-65.

Gruffudd, Heini, 1996: *Language Conflict and Young People: Mass Media and Threatened Languages*. Abertawe/Swansea: Mimeo.

Gruffudd, Heini and Morgan, Tracey, 1997: “Lesser Used Languages and Young Adults”, in *Actes del Congrés Europeu sobre Planificació Lingüística*. Barcelona: Generalitat de Catalunya, Departament de Cultura, 305-312.

Hébert, Yvonne (ed.), 1993: *L'évolution de l'école francophone en milieu minoritaire/The evolution of francophone schools in a minority context in Canada*. Theme issue of *Canadian Modern Language Review/Revue canadienne des langues vivantes*, 49.

Hezkuntza, Unibersitate eta Ikerketa Saila / Departamento de educación, universidades e investigación, 1986: *La enseñanza del euskera: influencia de los factores*. Gasteiz / Vitoria: Eusko Jaurlaritzaren Argitalpen-Zerbitzu Nagusia.

Hezkuntza, Unibersitate eta Ikerketa Saila / Departamento de educación, universidades e investigación, 1989: *L’enseignement de l’Euskara: l’influence des facteurs*. Gasteiz / Vitoria: Eusko Jaurlaritzaren Argitalpen-Zerbitzu Nagusia.

Hezkuntza, Unibersitate eta Ikerketa Saila / Departamento de educación, universidades e investigación, 1991: *Influence of factors on the learning of Basque*. Gasteiz / Vitoria: Eusko Jaurlaritzaren Argitalpen-Zerbitzu Nagusia.

Hindley, Reg, 1991: “Defining the Gaeltacht: Dilemmas in Irish Language Planning”, in *Linguistic Minorities, Society and Territory*, C.H. Williams (ed.). Clevedon: Multilingual Matters, 66-95.

Hizkuntza Politikarako Idazkaritza Nagusia (Secretaria General de Política Lingüística), 1989: *Soziolinguistikasko Mapa—Analisi Demolingüístico de la Comunidad Autonoma Vasca derivada del padron de 1986*. Gasteiz / Vitoria: Eusko Jaurlaritzaren Argitalpen-Zerbitzu Nagusia.

Hizkuntza Politikarako Idazkaritza Nagusia (Secretaria General de Política Lingüística), 1990: *10 Años de enseñanza bilingüe. 1979/80-1989/90*. Gasteiz / Vitoria: Eusko Jaurlaritzaren Argitalpen-Zerbitzu Nagusia.

Hizkuntza Politikarako Idazkaritza Nagusia / Sailordetza (Secretaria General / Vice Consejeria de Política Lingüística), various years: *Euskararen Berripapera* [Information bulletin, Spanish and English versions].

Holmes, Janet, 1992: *An Introduction to Sociolinguistics*. London/New York: Longman.

Institut Culturel Basque / Euskal Kultur Erakundea, 1996: *Enquête sociolinguistique au Pays Basque, 1996. La continuité de la langue basque. II.* Gasteiz / Vitoria: Kultura Saila and Pamplona: Nafarroako Gobernua.

John, Andrew, and Yi, Kei-Mu, 1996: “Language, Learning and Location”, *Discussion Paper* 264, The Jefferson Center for Political Economy, University of Virginia.

Joint Maori/Crown Working Group, 1996a: *Maori Broadcasting Policy* (1st Report), Wellington.

Joint Maori/Crown Working Group, 1996b: *Maori Broadcasting Policy* (2nd Report), Wellington.

Kaplan, R., 1994: "Language Policy and Language Planning in New Zealand", *Annual Review of Applied Linguistics*, 14, 156-176.

Katzner, Kenneth, 1975: *The Languages of the World*. London: Routledge & Kegan Paul.

Keegan, Peter, 1997: *1996 Survey of the Provision of Te Reo Maori*. Wellington: New Zealand Council for Educational Research & Te Puni Kokiri.

Kloss, Heinz, 1969: *Research Policies on Group Bilingualism. A Report*. Québec: Centre de recherche sur le bilinguisme.

Lüdi, Georges (ed.), 1987: *Devenir bilingue—parler bilingue*. Tübingen: Niemeyer.

Lyon, Jean and Ellis, Nick, 1991: "Parental attitudes towards the Welsh language", *Journal of Multilingual and Multicultural Development*, 12 (4), 239-251.

Marschak, Jacob, 1965: "Economics of Language", *Behavioral Science*, 10, 135-140.

Martínez-Abelaiz, Asun, 1996. "The Language Requirement Outside the Academic Setting: The Case of the Basque Administration", *Journal of Multilingual and Multicultural Development*, 17, 360-372.

Ministry of Commerce, 1997: *Maori Television Policy. Discussion Document*.

N.A.1, n.d.: *Background on Litigation Involving Crown's Obligation to Protect Te Reo Maori*.

N.A.2, n.d.: *Revitalisation of the Maori Language*. Report to Te Puni Kokiri ((prob. 1997).

Nelde, Peter, Strubell, Miquel and Williams, Glyn, 1996: *Euromosaic. The production and reproduction of the minority language groups in the European Union*. Brussels: European Commission/DG XXII.

Nga Kairangahau—Manatu Maori, 1991: *A preliminary investigation of Maori language Use by Maori Primary School Students in New Zealand*.

Nicholson, Rangi, and Garland, Ron, 1991: "New Zealanders' Attitudes to the Revitalisation of the Maori Language" *Journal of Multilingual and Multicultural Development*, 12, 393-410.

"N.O.P. Social and Political", 1995: *A Research Report Prepared by N.O.P. Social and Political for the Central Office of Information and the Bwrdd yr Iaith Gymraeg / Welsh Language Board*. London: N.O.P.

Ó Cinnéide, Mícheál, and Keane, Michael, 1988: "Local Socioeconomic Impacts Associated with the Galway Gaeltacht", *Research Report No. 3*, Social Sciences Research Center, University College Galway.

Ó Coileáin, Antoine (ed.), 1986: *The Irish Language in a Changing Society. Shaping the Future*. Baile Átha Cliath/Dublin: An Coiste Comhairleach Pleanála, Bord na Gaeilge.

Ó Dochartaigh, Cathair, 1987: *Dialects of Ulster Irish*. Belfast: Institute of Irish Studies, Queen's University.

OECD/Centre for Education Research and Innovation, 1993: *Education at a Glance. OECD Indicators*. Paris: Organisation for Economic Co-operation and Development.

O'Neill, Gerard, n.d.: "The Irish Language–A Key Marketing Tool", in *Margaíocht as Gaeilge*: Proceedings of seminar organised by Bord na Gaeilge, the Association of Adveritsers in Ireland Ltd., the Henley Centre, the Institute of Advertising Practicioners in Ireland and Raidio Teilifís Éireann.

Packer, Anthony and Campbell, Cefin, n.d.: *The reasons for parental choice of Welsh-medium education. A qualitative enquiry into the catchment area of a Welsh-medium Primary School in an anglicised area*. Mimeo.

Pearce, David and Turner, R. Kerry, 1990: *Economics of Natural Resources and the Environment*. Baltimore: The John Hopkins University Press.

Pool, Jonathan, 1991a: "The Official Language Problem", *American Political Science Review*, 85, 495-514.

Pool, Jonathan, 1991b: *A Tale of Two Tongues*. Unpublished manuscript, Department of Political Science, University of Washington, Seattle.

Price, Adam 1997: *The Diversity Dividend*. Brussels: European Bureau for Lesser Used Languages.

Price, Adam, 1997: *The Diverstiy Dividend. Language, Culture and Economy in an Integrated Europe*. Living Languages Series No. 5, Brussels: European Bureau of Lesser-Used Languages.

Pryce, William and Williams, Colin H., 1988: "Sources and Methods in the Study of Language Areas: A Case Study of Wales", in Colin H. Williams (ed.), *Language in Geographic Context*. Clevedon: Multilingual Matters, 167-237.

Py, Bernard (ed.), 1994: *L'acquisition d'une langue seconde. Quelques développements théoriques récents*. Bulletin suisse de linguistique appliquée No. 59. Neuchâtel: Institut de linguistique.

Research and Consultancy Unit (RTC Galway), 1995: *Galway–The Hub of Irish/Celtic Culture: A Development Proposal. Summary*. Galway: Regional Technical College.

Rossiaud, Jean, 1997: *MoNdernisation et subjectivation: éléments pour la sociologie des mouvements sociaux*. Unpublished mimeo, Núcleo de Pesquisa em Movimentos Sociais, Universidade Federal de Santa Catarina, Florianópolis, Brazil.

Rossi-Landi, Ferruccio, 1977: *Il linguaggio come mercato e come lavoro*. Milan: Bompiani.

Rotaetxe, Karmela, 1985: "L'aménagement linguistique en Euskadi", in J. Maurais (ed.), *Politique et aménagement linguistiques*. Québec: Conseil de la langue française et Paris: Le Robert, 159-210.

S4C (Sianel Pedwar Cymru), 1996a: *Annual Report, 1996*. Cardiff: S4C.

S4C (Sianel Pedwar Cymru), 1996b: *Financial Report and Accounts, 1996*. Cardiff: S4C.

Sabourin, Conrad, 1985: "La théorie des environnements linguistiques", in F. Vaillancourt (ed.), *Economie et langue*. Québec: Conseil de la langue française, 59-82.

Sinclair. Keith (ed.), 1996: *The Oxford Illustrated History of New Zealand* (Chap. 4 & 13), New Edition. Auckland: Oxford University Press.

Skutnabb-Kangas, Tove and Phillipson, Robert (eds.), in collaboration with Marc Rannut, 1994: *Linguistic Human Rights. Overcoming Linguistic Discrimination*. Berlin: Mouton De Gruyter.

Sproull, Alan, 1996: "Regional Economic Development and Minority Language Use: The Case of Gaelic Scotland", *International Journal of the Sociology of Language*, 121, 93-117.

Te Mangai Paho, 1996: *Post Election Brief, December 1996.*

Te Puni Kokiri, 1996: *Toitu Te Reo. A Consultation Document about the Maori Language.*

Te Puni Kokiri, 1997a: *Maori Language Policy Framework: The Crown's Treaty of Waitangi and other Legal Obligations.*

Te Puni Kokiri, 1997b: *Draft Summary of Findings from National Maori Language Survey*. Report to the MaoriLanguage Policy Interdepartmental Working Group, 18 September.

Te Puni Kokiri, 1997c: *Maori Language Education: Data on Participation, Costs, Supply & Demand*.

Te Puni Kokiri, 1997d: Preliminary Findings of the *National Maori Language Survey*. Document supplied by Te Puni Kokiri.

Te Tari Tatau (Statistics New Zealand), 1997: *1996 Census of Population and Dwellings*. ("Hot off the press").

Te Tauhuhu o te Matauranga, 1997: *Nga Haeata Matauranga. Annual Report on Maori Education 1995/96 and Strategic Direction for 1997*.

Te Taura Whiri, 1996: *Report of the Maori Language Commission for the year ended 30 June 1996*.

Tham, Seong Chee, 1990: *Multi-lingualism in Singapore: Two Decades of Development*. Census of Population, 1990, Monograph No. 6. Singapore: Department of Statistics.

Thieberger, Nicholas, 1990: "Language Maintenance: Why Bother?", *Multilingua*, 9, 333-358.

Thomas, Ned, 1997: "Sianel Pedwar Cymru: The first years of television in Welsh". *Paper presented at the International Symposium on Contact and Conflict*, European Centre for Multilingualism, Brussels, 31 May 1997.

Tovey, Hilary, Hannan, Damian and Abramson, Hal, 1988: *Why Irish? Irish Identity and the Irish Language*. Baile Átha Cliath/Dublin: Bord na Gaeilge.

Údarás na Gaeltachta, n.d.: *An Ghaeltacht*, fact sheet. Na Forbacha: Údarás na Gaeltachta.

Urdangarin, JoseAn, 1997: *El ámbito socioeconómico y el euskera: perspectivas de futuro*. Unpublished manuscript. English version forthcoming in *Minority languages and regional economic development*, F. Grin and A. Price (eds.). Stockholm: CEIFO Publications.

Vaillancourt, François, 1985: "Les écrits en économie de la langue: brève revue et introduction au recueil", in F. Vaillancourt (ed.), *Economie et langue*. Québec: Conseil de la langue française, 11-25.

Waite, Jeffrey, 1992a: *Aoteareo: Speaking for Ourselves*. Part A: The Overview. Report to the Ministry of Education, Wellington.

Waite, Jeffrey, 1992b: *Aoteareo: Speaking for Ourselves*. Part B: The Issues. Report to the Ministry of Education, Wellington.

Walter, Henriette, 1994: *L'aventure des langues en Occident*. Paris: Poche.

Welsh Office/Y Swyddfa Gymreig, 1996: *Welsh Language Scheme*. Cardiff/Caerdydd (Crown Copyright).

Williams, Colin (ed.) 1988a: *Language in Geographic Context*. Clevedon: Multilingal Matters.

Williams, Colin, 1988b: "Language Planning and Regional Development: Lessons from the Irish Gaeltacht", in *Language in Geographic Context*, C. Williams (ed.), 267-301.

Williams, Colin (ed.) 1991a: *Linguistic Minorities. Society and Territory*. Clevedon: Multilingual Matters.

Williams, Colin, 1991b: "Welsh Language Planning—Opportunities and Constraints", Paper presented at the *Seminario Internacional sobre Planificación Lingüística,* Santiago de Compostela, 25-28 September 1991.

Williams, Glyn, 1992: *Sociolinguistics: A Sociological Critique*. Oxford: Routledge.

Winston, G., 1987: "Activity choice: a new approach to economic behaviour", *Journal of Economic Behavior and Organization*, 8(4), 567-585.

Appendix: Model of language use by bilinguals

Understanding the analytical framework does not require reading this appendix. Formal modelling is used here as an auxiliary tool in the development of the framework, and its chief goal is to provide an internal consistency check by submitting the cause-and-effect relatonships to the test of formalisation.

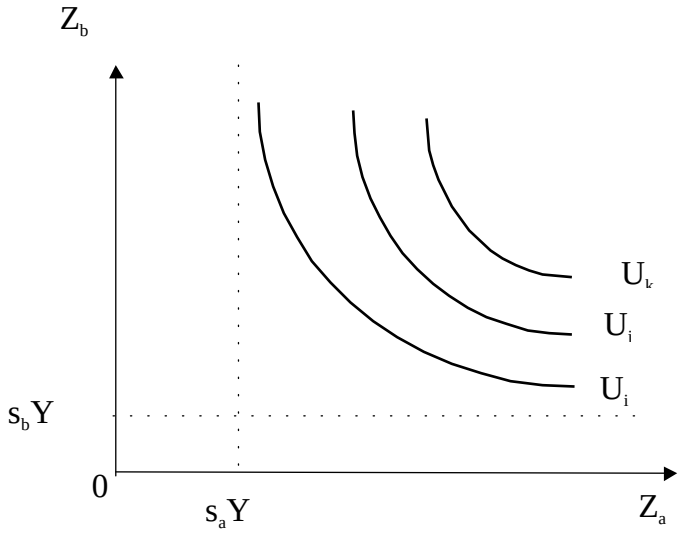
We assume that bilinguals maximise a CES (Constant elasticity of substitution) utility function $U(Z_a,Z_b)$ of the form:

$$(1) \qquad U(Z_a,Z_b) = \left[\gamma\left(Z_a - s_a Y\right)^{-\theta} + (1-\gamma)\left(Z_b - s_b Y\right)^{-\theta}\right]^{-1/\theta}$$

where Z_a, Z_b stand for the activities taking place in English and Maori respectively, $0<\gamma<1$ (distribution parameter) and $-1<\theta<0$ (substitution parameter), which implies that the elasticity of substitution between Z_a and Z_b is larger than 1. Parameters s_a and s_b can have any positive value. Their presence in the utility function, along with income Y, ensures that individuals, who all face the same time constraint, can still reach different levels of utility as a result of having unequal wage rates. Generally, we shall assume that $s_a \geq s_b$.

The utility function can be represented in the activities space as follows (Fig. A1), where U_i, U_j, U_k, etc. are the indifference curves:

FIG. A1 THE INDIFFERENCE CURVES



The production functions for Z_a and Z_b are:

(2) $Z_a = g_a t_a + s_a Y$ $g_a=1$

(3) $Z_b = g_b t_b + s_b Y$ $0<g_b<1$

where t_a and t_b are the time inputs into activities taking place in English and Maori respectively. The fact that $g_b<g_a=1$ reflects the assumption that language status conditions (particularly the supply-side factors and speakers' average skill level—see definitions in Sections 4.2 and 4.3) are less favourable in the case of Maori than English.

The time constraint is:

(4) $T = t_a + t_b = 1$

where setting total non-work waking time equal to unity implies that t_a and t_b will stand for the percentage of available time devoted to activities in English and Maori respectively.

The financial constraint is:

(5) $Y = wt_w$

where the wage rate w and working time t_w are both fixed and exogenous. The maximisation problem can be solved using the following Lagrangian function:

(6)

$$L = \left[\gamma\left(g_a t_a + s_a Y - s_a Y\right)^{-\theta} + \left(1-\gamma\right)\left(g_b t_b + s_b Y - s_b Y\right)^{-\theta}\right]^{-1/\theta} + \lambda\left(1 - t_a - t_b\right)$$

where λ is the usual Lagrange multiplier. This yields the following first-order conditions:

(7) $$\frac{\partial L}{\partial t_a} = -\frac{1}{\theta}\left[\gamma {t_a}^{-\theta} + \hat{\gamma} {t_b}^{-\theta}\right]^{(-1/\theta)-1}(-\theta)\gamma {t_a}^{-\theta-1} - \lambda = 0$$

(8) $$\frac{\partial L}{\partial t_b} = -\frac{1}{\theta}\left[\gamma t_a^{-\theta} + \hat{\gamma} t_b^{-\theta}\right]^{(-1/\theta)-1}(-\theta)\hat{\gamma} t_b^{-\theta-1} - \lambda = 0$$

(9) $$1 - t_a - t_b = 0$$

where

(10) $$\hat{\gamma} = (1-\gamma) g_b^{-\theta}$$

The use of a CES function guarantees that indifference curves between Z_a and Z_b are strictly convex to the origin, thereby saving the need to check second-order conditions. Combining (7) and (8) and simplifying, we get:

(11) $$\gamma t_a^{-\theta-1} = \hat{\gamma} t_b^{-\theta-1}$$

(12) $$\gamma t_b^{\theta+1} = \hat{\gamma} t_a^{\theta+1}$$

Taking the $(\theta+1)$th root of (12) yields:

(13) $$\gamma^{(1/\theta+1)} t_b = \hat{\gamma}^{(1/\theta+1)} t_a$$

However, in a CES function, $1/(\theta+1)=\sigma$, where σ is the elasticity of substitution between Z_a and Z_b, and (13) can be rewritten as:

(14) $$\gamma^{\sigma} t_b = \hat{\gamma}^{\sigma} t_a$$

From (9), we know that

(15) $$t_a = 1 - t_b$$

Substituting (15) into (14) and simplifying, we get:

(16) $$t_b^* = \frac{\hat{\gamma}^{\sigma}}{\gamma^{\sigma} + \hat{\gamma}^{\sigma}}$$

which is the optimal share of available time to devote to Maori-language activities. Substituting (10) into (16), we can also express t_b^* as:

$$(17) \qquad t_b^* = \frac{\left[(1-\gamma)g_b^{-\theta}\right]^{\sigma}}{\gamma^{\sigma} + \left[(1-\gamma)g_b^{-\theta}\right]^{\sigma}}$$

which after simplification becomes:

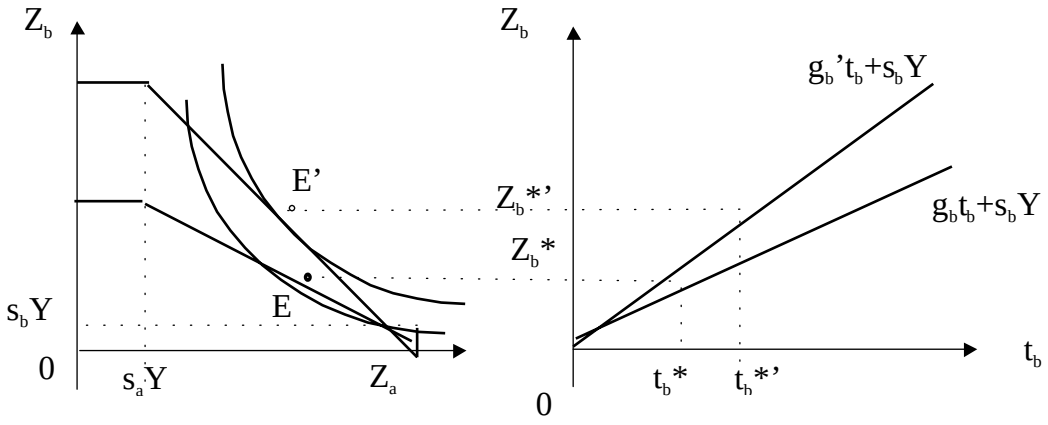
$$(18) \qquad t_b^* = \frac{(1-\gamma)^{\sigma}}{\gamma^{\sigma} g_b^{\theta\sigma} + (1-\gamma)^{\sigma}}$$

We can now the study the comparative statics of the model. An improvement in the supply-side factors of Maori and/or an increase in the average skill level of speakers brings about an increase in g_b. The direction of its effect on t_b^* is the sign of:

$$(19) \qquad \frac{\partial t_b^*}{\partial g_b} = \frac{-\left[(1-\gamma)^{\sigma}\gamma^{\sigma}\theta\sigma g_b^{(\theta\sigma-1)}\right]}{\left[\gamma^{\sigma} g_b^{\theta\sigma} + (1-\gamma)^{\sigma}\right]^2} \equiv \frac{-K}{H^2}$$

Since $H^2>0$, sign$\{\partial t_b^*/\partial g_b\}$ = - sign$\{K\}$. All the terms in K are positive, except θ, which is negative. Hence $K<0$, $-K>0$ and $\partial t_b^*/\partial g_b>0$, indicating that an improvement in the status conditions of Maori will bring about an increase in the percentage of available time devoted to activities taking place in this language. This can be represented graphically as follows (Fig. A2).

FIGURE. A2
INCREASE IN g_B



Clearly, since $g_b' > g_b$ and $t_b^{*\prime} > t_b^*$, it follows that $Z_b^{*\prime} > Z_b^*$.

The direct promotion of Maori affects the distribution parameter γ. For simplicity, let us define:

(20) $\gamma = 1 - \delta$

meaning that more favourable language attitudes resulting from a successful promotion programme would, in terms of the model, translate as an increase in δ. We can now rewrite (18) as:

(21) $$t_b^* = \frac{\delta^\sigma}{(1-\delta)^\sigma g_b{}^{\theta\sigma} + \delta^\sigma}$$

The sign of the change in t_b^* resulting from more favourable language attitudes is the sign of:

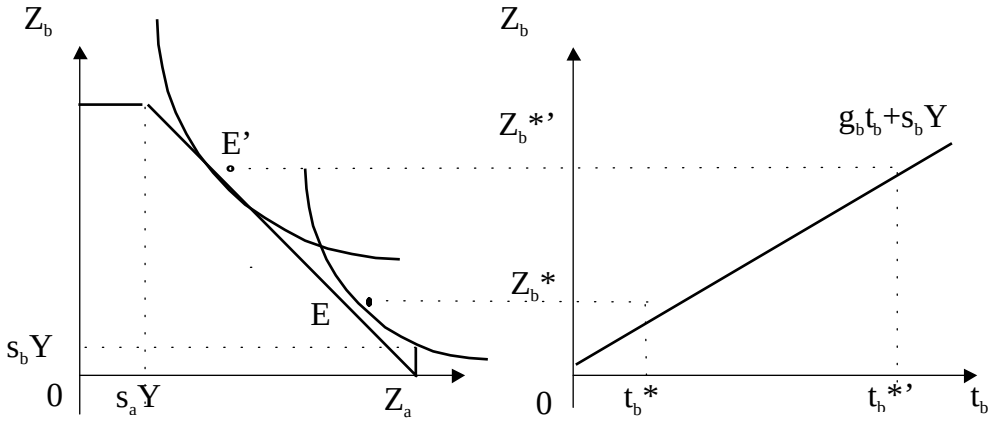
(22)
$$\frac{\partial t_b^*}{\partial \delta} = \frac{\sigma\delta^{\sigma-1}\left[(1-\delta)^\sigma g_b{}^{\theta\sigma} + \delta^\sigma\right] - \delta^\sigma\left[\sigma(1-\delta)^{\sigma-1}(-1)g_b{}^{\theta\sigma} + \sigma\delta^{\sigma-1}\right]}{\left[(1-\delta)^\sigma g_b{}^{\theta\sigma} + \delta^\sigma\right]^2} \equiv \frac{J}{H^2}$$

Since $H^2>0$, sign $\{\partial t_b^*/\partial\delta\}$ = sign{J}. J simplifies to:

(23) $\sigma\left[\delta(1-\delta)\right]^{\sigma-1} g_b{}^{\theta\sigma} > 0$

where each term is positive. It follows that improved attitudes in favour of Maori bring about an increase in the time spent on activities taking place in Maori. Graphically, we have (Fig. A3).

FIGURE A3
INCREASE IN δ



Clearly, since t_b*'>t_b* while g_b, s_b and Y remain unchanged, Z_b*'>Z_b*.