

Dynamics, costs and the vitality of minority languages^{*}

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1 INTRODUCTION

An economic approach to any social phenomenon has to take into account that economics is about making choices. In one way or another, benefits – or, more generally, effects – and costs are compared for the purpose of making decisions.¹ Economists tend to distinguish between allocation – avoiding wasteful use of resources – and distribution – assuring a just or fair use of economic resources. This can easily be applied to the evaluation of public policies, such as language policies. Any normative analysis presupposes a well-defined goal against which the policy can be measured. There is no objective definition of what is good, just, or desirable; this has to be fixed by the policy maker.

In this contribution, we take the goal of the policy maker to be a high vitality of a minority language. This is further specified as a large number of users of the minority language in everyday situations. We will further assume – in accordance with real-world observations – that speakers of a minority languages are bilingual in the majority language of their region. The research question is how the vitality, thus defined, can be improved through language policies. In addressing the question we will discuss the effects of different types of language-policy measures on the vitality of the minority language. Especially the cost structures of the policy measures are brought into focus.

2 DYNAMICS OF MINORITY-LANGUAGE SURVIVAL

There is a rich literature analyzing the factors determining the long-run vitality of minority languages.² Important is the observation that decisions about language use are made by individuals. Public language policy can only provide incentives that influence the decisions. For the sake of argument, we will concentrate on a situation with two languages in society: a high-status

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¹ For a discussion related to language-policy issues, see WICKSTRÖM (2016) or WICKSTRÖM, TEMPLIN, and GAZZOLA (2018).

² See, for instance, WICKSTRÖM (2005) and TEMPLIN, SEIDL, WICKSTRÖM, and FEICHTINGER (2016), as well as the references therein.

majority language H and a low-status minority language L . Further, we assume that all speakers of L are bilingual in H , also. That is we divide the individuals in society in two groups: the speakers of H and the (bilingual) speakers of L .

The transmission of language knowledge and use is from one generation to the next. The interesting question is then, what fraction of the population will use L given that a certain fraction in the previous generation used it. The transmission can be divided up into several different processes. Given that the most frequent transmission is through a two-adults family, the composition of the adult types in the family is important. Three different types of families can be distinguished: HH , HL , and LL . A HH family will in general produce children of type H , whereas HL and LL families will give rise to offspring of both types, H and L .

The first process is the family formation. Mating is assumed to be generally random with varying success probabilities. Two H individuals or two L individuals will probably in most cases join more easily into an HH or an LL family than an H and an L individual will become an HL family. Once the successful mating has taken place, children are being produced. The second process is the choice of language repertoire for the children. This is partially determined by the pride of the parents in their respective languages and the public language policy in the form of acquisition and status planning. Once the children have been socialized the process with the mating and child production starts again. That is, there is a never-ending feedback mechanism determining the distribution of types in society.

This feedback mechanism will lead to a steady state with a long-run equilibrium only if enough children on the average emerging from family type HL become of type L .³ Then the minority language will survive. That is, the language-policy will have to provide strong enough incentives for “mixed families” to raise sufficiently many children as bilinguals. The incentives necessary for that is, of course, an empirical issue. The incentives are basically of two kinds: an acquisition planning providing education opportunities in the minority language and a status planning making the speakers of the minority language proud enough of the minority language. The problem of the language planner is then to determine a policy giving correct incentives for the families of type HL . The correct incentives cannot be determined theoretically; this is an empirical matter. However, the theory provides some general insights. These insights are closely related to the cost structure of the policy measures.

3 COST STRUCTURE OF LANGUAGE POLICY

In any selection of public-policy measures costs play a decisive rôle. Relevant policy alternatives must always be considered. The budget for public activities is always limited which implies a choice between policy measures to be realized. The provision of bilingual street signs in a community might mean that the number of hospital beds is lower or the introduction of a bilingual school system might come at the cost of an additional F16 airplane for the air force. Also within a certain policy sector we have this problem: the language planning budget might allow bilingual street signs or bilingual official government publications, but not both. In other words, we cannot have everything we find good and worthwhile if budgets are limited. We have to make choices, and making the right choice leading to the most desired effect within the budget is the central problem.

³ See WICKSTRÖM (2005) or TEMPLIN, SEIDL, WICKSTRÖM, and FEICHTINGER (2016).

The costs of the realization of a measure	<i>do not depend on the size of the territory</i>	<i>increase with the size of the territory</i>
<i>do not depend on the number of individuals</i>	non-spatial and non-rivaling good	spatial and non-rivaling good
<i>increase with the number of individuals</i>	non-spatial and rivaling good	spatial and rivaling good

TABLE 1 Cost structure of language-planning measures

In language planning and policy, the structure of costs in dependence on the size and the geographical habitation patterns of the benefiting minority are of great importance. In table 1 we have collected some polar cases of different cost structures. Some examples of the different types of goods resulting from various types of policy measures are:

- A non-rival and non-spatial good: the use of a language in official documents (passports, money bills, or in public decrees)
- A spatial and non-rivaling good: street names in a minority language
- A non-spatial and rivaling good: the use of a language in prime minister's call center where the citizens inform themselves about language policy of the government
- A spatial and rivaling good: public education in a minority language (net costs of adding an additional language, after subtracting savings due to reduction in demand for services in alternative languages)

All these policy measures increase the status of the minority language, but their costs differ considerably. For the non-rival and non-spatial measure the costs are the same for all types of minorities. In the case of a spatial and non-rivaling good, we have lower costs for concentrated minorities than for geographically spread-out minorities. A non-spatial and rivaling policy measure gives rise to lower costs for small minorities than for relatively large ones. Finally, a measure leading to a spatial and rivaling good implies lower costs for small and concentrated minorities than for large and spread-out ones. This leads to different optimal policies for promoting the vitality of different types of linguistic minorities.

4 DIFFERENT POLICIES FOR DIFFERENT MINORITIES

Our goal is to influence the behavior of the typical *HL* family the most for a given budget giving it incentives to socialize its children in the minority language. In order to achieve this we have to design different policies according to the characteristics of the minority community with respect to size and habitation patterns. Only in that way we can allocate a given budget effectively. For a small and concentrated minority relatively more funds should be allocated for spatial and rivaling measures such as education and social services than for non-spatial and non-rival measures such as government publications. A small and spread-out minority should

receive relatively more funds for non-spatial, but rival measures for example call centers, than for non-rival and spatial measures such as bilingual street names. For a big and concentrated minority relatively more funds should be allocated to spatial and non-rival measures like street signs than to non-spatial and rival measures like call centers. The relatively big and spread-out minority should receive relatively more funds for non-spatial and non-rival measures like official documents than for spatial and rival measures like social services. This, of course, does not mean that the absolute amounts of funds allocated to a big minority for social services or education in the minority language should decrease. Only in relation to other measures should the *relative* size be lower than for a smaller minority. The same, *mutatis mutandis*, of course, holds for all other cases.

5 CONCLUSION

In order to preserve and increase the vitality of a minority language, there has to be incentives for “mixed families” to send their children to schools in the minority language. Such incentives are – at least partially – created by public policy. The policy measures are basically of two types: providing education in the minority language (acquisition planning) and increasing people’s pride in the minority language (status planning). However, since the cost structures of different policy measures varies greatly, the policy has to be specifically designed for each minority depending on its size and habitation pattern. That is, the budget for language planning and policy has to be allocated differently for different communities in order to have the desired effect. The general conclusion is, hence, that great flexibility in language planning is a *sine qua non*.

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