Chapter 12

Use and possible improvement of UNESCO's *Atlas of the World's Languages in Danger*

Tjeerd de Graaf

Fryske Akademy

1 Introduction

In countries such as the Netherlands, Germany and New Zealand, it is obvious which minority languages have to be regarded as being endangered, i.e. Frisian, Sorbian and Maori, respectively. In other countries, the situation is far more complicated and insight into various factors is required in order to reach an understanding of the overall sociolinguistic situation of a language with respect to its degree of endangerment. The following paper summarizes UNESCO activities focusing on gathering information on the degree of language endangerment and its visualisation in UNESCO's Atlas of the World's Languages in Danger. This Atlas considers various stages of endangerment and provides a survey of the available data on these languages in separate areas of the world. It is intended to raise awareness about language endangerment and the need to safeguard the world's linguistic diversity among policy makers, speaker communities and the general public, and to be a tool to monitor the status of endangered languages and the trends in linguistic diversity at a local level. A computer version of the Atlas makes it possible to correct and add information on particular items based on new available data. This keeps the contents on minority languages up-to-date, improves the Atlas and provides a source for comparative research and the preparation of materials for teaching and other purposes.

2 Assessing language vitality and endangerment

In 1995 UNESCO launched a Clearing House for the Documentation of Endangered Languages in Tokyo. Since then many international meetings have taken place, either addressing the problem of language endangerment in general or discussing a geographic approach (Africa, South America, the Russian Federation, etc.). Within the framework of these activities an International Expert Meeting was organized by the UNESCO headquarters in Paris in March 2003. There, an UNESCO ad hoc Expert Group on Endangered Languages presented a draft report entitled *Language Vitality and Endangerment* (2003) for discussion among a wide audience of linguists, language planners, representatives of NGO's, as well as members of endangered language communities. At the meeting, a final document was produced and among the main outcomes the following nine core factors were identified with the help of which the language situation can be assessed:

Degree of endangerment

1. Intergenerational language transmission

2. Absolute numbers of speakers

3. Proportion of speakers within the total population

4. Loss of existing language domains

5. Response to new domains and media

6. Materials for language education and literacy

Language attitudes and policies

7. Governmental and institutional language attitudes and policies, including official language status and use

8. Community members' attitudes towards their own language

Urgency of documentation

9. Amount and quality of documentation

Factors from 1 to 6 are applied to assess a language's vitality and its state of endangerment. The most crucial single factor among them is factor 1, which determines the extent of language acquisition among the children within a community. It is obvious that a language without any young speakers is seriously threatened by extinction.

The dynamics of the processes of a given language shift situation is captured by factors 1 to 5. The proportion of speakers within a community (factor 3) reveals an important aspect of language vitality: is the minority language still an essential

indicator for being regarded a member of the community or not? Can a person be a member of the community without speaking the heritage language?

The introduction of formal education or new job opportunities for the members of a minority group may result in the loss of domains in which the heritage language has been used up to then (factor 4). A shift in religious affiliation of a community might results in the shift to another mother tongue, a language that is associated with the new religion (factor 5).

Factor 6 relates to the stage of development of a given language. Is there a community's orthography? Have the community members agreed on a common standard form of writing? Are teaching and learning materials for the language available? Is there literature, such as newsletters, stories, religious texts, etc. published in that language? Factor 7 deals with the government's policies towards a language and factor 8 assesses the speakers' attitudes towards their ethnic language. Finally, factor 9 attempts to evaluate the urgency for documentation by focusing on the quantity and quality of already existing and analysed language data.

Speech communities are complex and patterns of language use within these communities are difficult to explore. The evaluation of the state of vitality of any language is therefore a challenging task. Members of an ethnolinguistic minority or external evaluators can use the factors introduced above in order to describe a language shift situation and to analyse the kind and state of endangerment of a language. The UNESCO ad hoc Expert Group has introduced for each factor a grading system from 0 to 5. With factor 1, for instance, grade 5 stands for the use of the language by all members of the community, whereas grade 0 states that there are no longer any speakers of this language left. In applying all the factors to the language situation, a table of numbers is obtained, which characterizes the kind and state of endangerment for a language. The information in such tables can serve as a useful instrument not only for the assessment of the situation of a community's language, but also for the formulation of appropriate support measures for language documentation, maintenance, or revitalization.

3 Versions of UNESCO's *Atlas of the World's Languages in Danger*

The first edition of the Atlas was edited by Stephen Wurm and published in 1996. It comprised 53 pages including 12 pages of maps showing some 600 languages. As a first publication of its kind, the Atlas met with vivid scholarly and journalistic interest and soon became a valuable reference book for the wider public.

A second, thoroughly updated edition of the Atlas was published by UNESCO in 2001, and expanded to 90 pages including 14 pages of maps showing some 800 languages. The update reflected the fact that since the first edition of the Atlas, research on endangered languages and scientific interest and work in the field has proliferated.

The latest print version of the Atlas was published in 2010. The Atlas lists some 2,500 endangered languages approaching the generally-accepted estimate of about

half of the more than 6,000 languages of the world. It provides analytic reports on each region and attracts much academic, media and public attention. Hundreds of press articles in different parts of the world refer to the Atlas and underline its impact as awareness-raising instrument regarding language endangerment.

Since 2009, the interactive version of the Atlas is available, which provides the following data for more than 2,500 languages: name, degree of endangerment (indicated by a coloured dot as marker), location on the map and geographic coordinates, country, number of speakers, relevant projects, sources, ISO language codes.

The UNESCO online Atlas[1] is an interactive digital resource that can be continually enriched with updated and more detailed information, accessible globally, free of charge, to anyone with a computer and an internet connection. The online version shows, at the click of the mouse on the marker, the exact latitude and longitude coordinates of a central point in the area where a language is spoken. It provides a wealth of other information and permits interactive contributions from the world's linguists, census takers and, most importantly, language communities.

4 Degrees of endangerment for the Atlas

On the basis of the assessment of language endangerment, the *UNESCO atlas of the world's endangered languages* distinguishes the following six degrees with regard to intergenerational transmission (with in brackets the colour of the dots on the Atlas):

Safe: The language is spoken by *all generations*. There is no sign of linguistic threat from any other language, and the intergenerational transmission of the language seems uninterrupted.

Vulnerable (white): Most but not all children or families of a particular community speak the language as their first language, but it may be restricted to specific social domains (such as at home where children interact with their parents and grandparents).

Definitively endangered (yellow): The language is no longer being learned as the mother tongue by children in the home. The youngest speakers are thus of the *parental generation*. At this stage, parents may still speak their language to their children, but their children do not typically respond in the language.

Severely endangered (orange): The language is *spoken* only by *grandparents and older generations*; while the parent generation may still *understand* the language, they typically do not speak it to their children.

Critically endangered (red): The youngest speakers are in the *great-grandparental generation*, and the language is not used for everyday interactions. These older people often *remember* only part of the language but *do not use* it, since there may not be anyone to speak with.

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[1] Web site: www.unesco.org/languages-atlas/.

Extinct (black): There is no one who can speak or remember the language. In the Atlas those languages are indicated which became extinct since 1950.

According to the present Atlas data, nearly half of the languages spoken in the world are endangered.

5 Number of speakers and census data

Important factors determining the vitality of a language are the *absolute number of speakers* (factor 2) and the *proportion of speakers within the total population* (factor 3). It is impossible to provide a valid interpretation of absolute numbers, but a small speech community is always at risk. A small population is much more vulnerable to decimation (e.g. by disease, warfare, or natural disaster) than a larger one. A small language group may also merge with a neighboring group, losing its own language and culture.

The number of speakers in relation to the total population of a group is a significant indicator of language vitality, where *group* may refer to the ethnic, religious, regional, or national group with which the speaker community identifies. The report of the UNESCO ad hoc expert group on Endangered Languages uses a scale from 0 (extinct: no speakers of the language) to 5 (all speakers of the ethnic group speak the language) to refer to degrees of endangerment.

This situation can be illustrated by the census data of a number of Siberian languages, which also shows the change in time and the ongoing loss of the language and culture of these cases. As an example we provide the data for the Nivkh language, spoken by an ethnic minority in the Far East of the Russian Federation.

The Russian census in 2010 contained questions about personal data, citizenship (for the Nivkh *Russian*), nationality (*Nivkh*), education and language use (*Nivkh* or *Russian*). Here one has to distinguish two meanings of *Russian* (*Rossiyskiy* 'citizen of the Russian Federation' or *Russkiy* 'belonging to the Russian nationality'). The data for 2010 show a total number of representatives of the ethnic group of 4652, mother tongue speakers of the Nivkh language 8,5% and of Russian 91,5%, whereas nearly 100% used Russian in daily life. In 1959 the population size was 3717 with 76,3% mother tongue Nivkh and 23,7% Russian. Similar results are found for the case of other Siberian languages such as Yukagir and Koryak. In his book on the *Languages of the Northern Peoples in the XXth Century* Vakhtin (2001) provides similar data for the period between 1926 and 1989 and from this the following conclusion can be drawn: in 1926 most representatives of these Siberian peoples were monolingual in their own language, whereas more and more Russian took over and at present most of them have become monolingual in Russian.

This situation is illustrative for many endangered minority languages and it will be important to show this clearly by adding the related diachronic data to the Atlas in order to improve its quality further.

6 Materials for language education and literacy

Education *in* the language is essential for language vitality. There are language communities that maintain strong oral traditions, and some do not wish their language to be written. In other communities, literacy in their language is a source of pride. In general, however, literacy is directly linked with social and economic development. There is an urgent need for books and materials on all topics for various ages and language abilities (factors 6 and 9).

The UNESCO ad hoc Expert Group distinguishes several grades for this factor of language vitality. The highest grade (5) is given when the language has an established orthography, literacy tradition with grammars, dictionaries, recorded texts, literature and everyday media. Writing in the language is used in administration and education. Lower grades are given for languages where part of these properties are lacking and at the lowest level grade 0 is provided for languages where no orthography is available in the community.

Several ethnic communities in the world get support from organisations which assist them in the development of their language and culture by providing materials for language learning and teaching. For example, the Foundation for Siberian Cultures[2] – founded in 2010 – has the aim to preserve the indigenous languages of the Russian Federation and the ecological knowledge expressed in them (Kasten & de Graaf 2013). During our fieldwork expeditions to Sakhalin, Kamchatka, Northern Yakutia and Central Siberia we studied processes of language shift and language death for some minority peoples of Russia, in particular for the Nivkh of Sakhalin, the Itelmen and Koryak of Kamchatka, and the Yukagir of Sakha/Yakutia.

A digital library and ethnographic collections on the World Wide Web provide above all indigenous communities with open access to relevant scholarly resources and research materials. Recent or current projects are presented at regular shows on the internet in the form of alternating photo-video shows. This provides a forum through which indigenous communities can participate and be informed about how their traditions are presented and received abroad.

In the past we received research grants which made it possible to re-record material from collections of historical sound carriers according to up-to-date technology and to store them in safe places together with the related metadata. The results of present day fieldwork and the reconstructed data from sound archives provide important information for the preparation of language descriptions, grammars, dictionaries and edited collections of oral and written literature. These can also be used to develop teaching methods, in particular for the younger members of certain ethnic groups who do not have sufficient knowledge of their native language (de Graaf 2012).

Information about this kind of projects can be added to the data of the Atlas by texts or links to the related websites. This feedback will further improve the quality of the Atlas.

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[2] Web site: `www.kulturstiftung-sibirien.de/`.

7 Interactive Atlas user feedback

UNESCO has commissioned the Foundation for Endangered Languages[3] to monitor and process the feedback from users of the online edition of the Atlas. In this way the Interactive Atlas is constantly improved and updated. The feedback is evaluated by the editorial board, and validated for updates, or addition of new content. Users are invited to submit comments through different channels, in particular directly on the internet.

Each language entry in the online Atlas contains a tab for comments on any of the following elements:

- correct or complete this record (names, vitality degree, location, ISO code, etc.) and provide online or bibliographic data;

- share information on media or online resources (such as dictionaries, websites) for this language;

- describe a recent or current safeguarding or revitalisation project for this language.

It is also possible for users to suggest a new language for inclusion in the Atlas. They can do this by filling out an online form. The suggestions from users can be broadly categorised as covering the following areas:

- location of the markers;

- status on the endangerment scale;

- population figures and speaker numberss

- classification as a language, is it a language or a dialect?

- Additional bibliographic sources, especially new learning materials;

- personal anecdotes about contact with the speakers;

- ethno-political policy statements from representatives of minorities;

- general questions about UNESCO criteria.

The Foundation for Endangered Languages has appointed a set of regional consultants who are familiar with the language situation in the region which is considered in a specific comment. They form the editorial board which on the basis of these comments updates and improves the Atlas content. The problems and controversies related to this procedure are described by Moseley (2012).

In March 2011, 116 language entries had been updated in the Interactive Atlas thanks to users' feedback. At present (August 2015) the editorial board is considering many new suggestions for improvement of the Atlas and in recent publications

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[3] Web site: www.ogmios.org/index.php.

several possibilities for this have been mentioned, such as by Kornai (2015) and Soria (2015), stressing the importance of "Digital Language Diversity", the response of the language to new media in the digital domain (factor 5).

8 Conclusions

During the UNESCO International Expert Meeting on Improving Access to Multilingual Cyberspace, which was held in Paris, 28–29 October 2014, discussions took place about the future of the Atlas, for which further improvements were suggested. One of the recommendations was to upscale UNESCO's *Atlas of the World's Languages in Danger* to a more general *UNESCO World Atlas of Languages*, which is not limited to endangered languages, but provides an overall view of linguistic diversity, multilingualism and language change in the world.

For the time being the work continues on the existing version of the *UNESCO World Atlas of Languages* in Danger, for which quite modest financial support is required. A new UNESCO Advisory Group should develop a comprehensible and sustainable set of new indicators, based on the existing proposals and advantages of ICT. Depending on possible future financial resources, these should be implemented and added to the Atlas in combination with the results of initiatives elsewhere. This could lead to a *UNESCO World Atlas of Languages* as a new monitoring tool, which not only determines the vitality and possible state of endangerment of the world's languages, but also measures language diversity and multilingualism in specific regions of the world.

Acknowledgement

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