

The Pronouncing Dictionary of Austrian German (AGPD) and the Austrian Phonetic Database (ADABA) – Report on a large Phonetic Resources Database of the three Major Varieties of German

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Abstract

The paper gives a comprehensive overview over the results, the concepts and the methods which were developed and used to create the Pronouncing Dictionary of Austrian German (ÖAWB/AGPD) and the Austrian Pronouncing Database ADABA. The AGPD contains 42.000 entries which are based on a large audio corpus of 75.964 realisations of two model speakers each from Austria, Germany and Switzerland. The ADABA database provides 9 different ways to search the data. It also contains 24 model texts and another 30 texts showing linguistic and phonetic variation in Austria and in the other German speaking countries. The codification of Austrian standard pronunciation was based on the concept of German as a pluricentric language and on the concept of "media presentation language". Austrian pronunciation forms are presented in parallel with those of Germany and Switzerland to allow the comparison of differences between linguistically close national varieties of a language. The paper also gives a detailed characterisation of the software (transcriber, database) which was developed during the project that was supported by the Austrian national broadcasting corporation ORF and the University for Music and Dramatic Arts in Graz. Some of the software and the data can be obtained from the web site www.adaba.at.

1. Introduction

This paper gives a final report on the results of the project „Varieties of Austrian German – Standard pronunciation and varieties of standard pronunciation“ which started in January 2000 and was finished in September 2007.

1.1 Objectives of the project

The main goal of the project was the creation of an Austrian pronouncing dictionary and a phonetic database which should serve as a means of documentation of the pronunciations presented in the dictionary. Another important objective was the creation of a representative corpus of spoken language of AG which was missing until now. The project was financed by the research fund of the Austrian national bank. However, due to certain restrictions in funding, four applications for funding had to be submitted in order to achieve the necessary means to finalise the project. The project was also supported by the national Austrian broadcasting corporation which provided trained speakers and expert knowledge on present pronunciation and spoken language on Austrian media.

1.2 The participating institutions

The project was carried out and co-ordinated by the “Austrian German Research Centre” at University of Graz which was responsible for the linguistic tasks. The development of software and the audio-editing was carried out by the “Institute of Electronic Music and Acoustics” at the University for Music and dramatic Arts Graz. The ORF - Austrian National Broadcasting Company – supplied expertise and a large number of news readers working at the company which provided the main corpus of spoken language serving as a basis for the codification of Austrian German norms of pronunciation.

2. The results of project I: The contents of the Austrian Pronouncing Dictionary (ÖAWB/AGPD)

The contents of the AGPD are: 1. The model-pronunciation of 42.000 words. 12.964 of these words are also part of the Austrian Pronouncing Database (ADABA) and associated with audio files. 2. The pronunciation of 2.101 common Austrian family names. 3. The pronunciation of all names of the 2.353 Austrian municipalities. 4. An extensive characterisation of the theoretical concepts which the creation of the AGPD and the ADABA-database is based upon. 5. An extensive characterisation of the pronunciation differences between the three major varieties of German which were found in the empirical data. 6. A characterisation of the symbols of the IPA. The ADABA-Database is also part of the Austria Pronouncing Dictionary.

3. The results of project II: The contents of the Austrian Pronouncing Database (ADABA)

ADABA and AGPD are identical in their contents in respect to the total numbers of words (42.000), the number of words which are associated with audio files (12.964), the number of family names (2.101) and the names of the Austrian municipalities (2.353). The differences and additions in ADABA are:

1. The audio-corpus of 12.964 words was pronounced by a total of six speakers - two speakers (male/female) of each national variety. This resulted in a single-word audio corpus of 75.964 files. All 75.964 realisations were transcribed and served as empirical base for the characterisation of the features of Austrian standard pronunciation and the differences between the three major varieties. Transcriptions and audio-realizations are associated and can be checked against each other by using the graphical user interface of ADABA.

2. A non-audio-corpus which consists of 29.000 words. The transcription of these words was carried out by using the phonetic rules extracted from the audio-corpus.

3. A model-text-corpus of 24 texts spoken by the 2 Austrian and 4 other model speakers. Each speaker real

ised four different texts belonging to different text types. All texts were transcribed and can be played and listened to in parts or as whole. The text types of the model-text-corpus are:

(3.1) A biographical text containing basic biographical data of each model speaker (of about 1-2 min. length). This text type represents the pronunciation of unplanned spontaneous speech of trained speakers.

(3.2) A literary text (1014 words, ca. 8-9 min.) – Das Lächeln der Sphinx (The smile of the sphinx) – by Ingeborg Bachmann – a famous Austrian writer. This text type represents the pronunciation of read speech based on a given text. In addition, the pronunciation is adapted to a text of literary written standard language with an elaborate vocabulary. The particular features of the text in style and vocabulary are emphasised through particular forms of accentuated speech and prosody trying to convey the tragic of the story.

(3.3) A news text (943 words, ca. 8 min.) which gives a summary of domestic and international news of September 12th 2001 which was taken from the videotext pages of the ORF web site. This text type again represents the pronunciation of read speech which is presented as neutral and unemotional as possible. The texts are prepared and in written standard language. The content of the texts are considered as facts and the vocabulary refers to everyday social and political events.

(3.4) 13 phonetically rich sentences (196 words, ca. 1,2 min.) which form a complete text. The vocabulary of the sentences was arranged in a way to represent important features of differences in pronunciation between the three major varieties of German. This text type again represents the pronunciation of read speech which is presented as neutral and unemotional as possible and aims at the comparison of important pronunciation differences.

4. A corpus of 18 biographical model texts (of up to 1,5 min. length) spoken by 18 trained speakers (1 male / 1 female) working as news readers in the 9 regional studios of the Austrian Broadcasting Corporation (ORF) situated in each federal state. Here again the pronunciation is that of unplanned spontaneous speech of trained speakers but with a regional background. They represent a possible regional variation in the pronunciation of Austrian standard speakers working on radio and TV. These texts are not transcribed in IPA but presented as transcript.

5. A corpus of another 4 biographical model texts spoken by 2 trained speakers (1 male / 1 female) each from Switzerland and Germany. They were chosen to show the variation in pronunciation existing between different news readers in the two nations. These texts are presented as transcript.

6. A corpus of 6 texts representing the so called "Interior Austrian language standards" (for a definition of the term see chapter 5) of pronunciations prevailing in larger regions of Austria. The texts come from Carinthia, Vorarlberg, Salzburg, Tyrol, Vienna and the East of Austria each representing forms of pronunciations that are typical for each region and typical for every day conversation. These texts are presented as transcript.

4. The basic theoretical framework - 7 principles

The theoretical concept of the codification of the standard pronunciation of AG is based on seven principles:

1. The functional definition of standard norms: The Austrian pronouncing dictionary should contain the characterisation of the standard varieties of AG and the definition of the varieties should be based on functional criteria. The basic criteria for distinguishing "standard forms" were: These forms are (a) understood nation-wide or inside larger regions and are in general use; (b) they are accepted within defined political units; (c) approved and respected socially; (d) and contributing to the identity of the speakers.

2. The strictly socio-linguistic and descriptive concept of codification: Adopting an extra-linguistic point of view for the definition of linguistic norms.

(a) The description is strictly based on socio-linguistic criteria. Language is considered as a dependant variable whose form and usage is shaped by the social context of the speakers. Linguistic norms are therefore considered as the result of concrete social behaviour shown in the context of defined social structures. (b) The borders of Austrian republic and the borders of the different federal states and regions were determined as the extra-linguistic framework as they play a central role for social orientation and the linguistic identity of the people of this country. (c) The linguistic norms are determined on the basis of a strictly descriptive concept which simply record the linguistic realisations of Austrian speakers carried out in defined social contexts. Normative concepts, looking at how a certain (external) norm is put into practice in Austria were excluded in beforehand in order to avoid the so called "normative circle".

3. The mapping of the general language situation of German and its national varieties: The pluricentricity of German and the specific features of AG.

(a) AG is one of three so called full varieties of German and one of the two non-dominating ones; (b) Austria shares the norms of written German standard language with Germany and Switzerland. For the pronunciation of read language the same phoneme system applies for the three countries. There are substantial differences in the phoneme system of spontaneous speech; (c) The closeness or distance to the system of written language can be taken as *the* central criteria for the characterisation of varieties of pronunciation within a given language community. Formal standard pronunciation is always based on the phoneme system of written language.

4. The mapping of the specific functions of particular pronunciation norms in modern societies: The "media-presentation-norm" of trained speakers on nation-wide radio- and TV-stations was chosen as basis for the characterisation of the formal variety of standard pronunciation in the ÖAWB/ADABA due to its function as nation-wide presence in the electronic media.

The "media-presentation-norm" is defined as the pronunciation of trained speakers – news readers and presenters - realising a norm which is used to present contents on radio and TV-stations broadcasting nation-wide. Due to the high amount of TV and radio consumption the language of the media has also become the predominant model-language for most members of language communities by being exposed to it longer than to any other variety. It is this norm which is omnipresent in daily life and the primary norm of reference when people without specific training in pronunciation speak on radio or TV. This norm is split into two sub-norms: The pronunciation of read speech and the norm of spontaneous speech. AD

ABA contains several texts to show the differences between these sub-norms (see chapter 3.4).

5. The strictly non-prescriptive status of the codified norms. The codified norm is understood as "model-pronunciation", as recommendation and as a point of reference for linguistic orientation.

The corpus of ADABA and the characterisation of pronunciation norms based on it, are seen by us as a recommendation (and not as prescription) for linguistic behaviour in media-presentation situations. The use of these norms or any norm near to it safeguards nation-wide and transnational understandability and also shows the Austrian origin/identity of the speaker. However, parallel to that norm, there are many other regional or situation standards of pronunciation whose value and status within the respective context are functionally equivalent to the "media-presentation-norm".

6. The mapping of the specific language situation and language usage in Austria: The parallel usage of different standards of pronunciation due to different communicative functions: The "Exterior standard" - the norm of linguistic distance - and the "Interior standard(s)" - and the norm of linguistic proximity. This distinction is based on the observation that Austria is a country where an undeclared diglossia ("inner-linguistic multilingualism") is practised between the nation-wide norms based on formal written language and the norms of spoken language that are prevalent in larger regions. The formal norms serve to convey authority, social distance, asymmetric social relations and professionalism, representing institutional roles or acting as expert or superior. The linguistic norms applied are those of linguistic distance - the exterior standard. Opposite to that are all non-formal norms which are used in everyday speech - the interior standard(s) - whose usage is often spread over wide regions. They convey social symmetry, proximity, affiliation, personal commitment, emotionality and personal involvement. They are in-group norms within Austria and function as important identity markers and as markers of affiliation to regions or federal states. A specific feature of Austrian language behaviour is also the frequent switching between the exterior-standard and the interior-standard(s) - often even within a sentence or a conversational turn. This phenomenon has been taken into account by including several texts

(see chapter 3.6) into ADABA to document the specific norms of pronunciation of the interior-standards of AG.

7. Using the media as a uniform context for speech-realizations and as the basis for language documentation and the recordings. It is important to emphasise that this language documentation and its characterisation of pronunciation norms is solely based on realisations of speakers that were produced in a media context (radio, TV). This guarantees a consistent and uniform framework of speech realisation, safeguarding that all speakers conversed under the same conditions.

5. The theoretical framework for choosing model speakers and model text types for the codification of pronunciation

"Media presentation language" and its pronunciation forms can be produced by any professionally trained speaker or untrained speaker speaking in the electronic media. This is the first distinction which had to be made in the codification process. It was based on the assumption that any individual speaker knowing that a large audience is listening, will try to reproduce some kind of language form which is thought to be generally accepted. By doing so, speakers are trying to reproduce their individual "model-standard". Whether the individual pronunciation is exemplary has to be decided in a second run by hearer judgements. It is therefore necessary to distinguish between "model speakers" who are exemplary for the specific speech community and the "other speakers" who are producing non-exemplary forms of pronunciation (which can be widespread but may not be considered to have model status). This led to the conclusion that the codification process had to be controlled on two sides: 1) On the side of the chosen model speakers and 2) on the side of the conditions under which a given form of pronunciation has been or is being produced. For controlling the speaker input, only professionally trained speakers are usually chosen for the codification of a model-pronunciation as their pronunciation is controlled. They have also achieved a high amount of steadiness. Figure (1) shows the first step in the selection of model speakers and types of pronunciation: It maps the central domains in the media, the types of speech events and forms of pronunciation associated with them.

Figure 1. Speech events on the media, speaker types and specific realisations of associated pronunciation forms

1. "PURE VOICES" – PROFESSIONAL NEWS READERS		2. JOURNALISTS AS NEWS READERS (read their own texts)					
ISSUE-RELATED		EMOTION-RELATED					
1.1 Read Language - Not associated with any specific domain Bound to Austrian public		2.1 Read Language - Associated with specific domain – with realisations depending on training, personal formation and domain-specific requirements, strongly bound to Austrian public					
1.1 News, Background-speakers in documentaries and films, Trailer		2.1.1 News Services		2.2.1 Culture / Sciences	2.3.1 Entertainment		2.4.1 Sports
Types of speech: Always prepared, always read, always monologue with a high degree of awareness for abiding to specific pronunciation forms in presentations and announcements (Trailer, Culture programmes)		Always prepared, always read, always monologue with a reduced degree of awareness for abiding to specific pronunciation forms in presentations and announcements					
Types of speech: Never prepared, rarely read, mostly dialogue, with reduced degree of awareness for abiding to specific pronunciation forms, strongly bound to Austrian public		2.2 Spont. Speech – Associated with specific domains					
		2.1.2 Information News Services		2.2.2 Culture / Sciences	2.3.2 Entertainment	2.4.2 Sports	
		Often spont. speech	Spont. speech	Spont. speech	Spont. speech		
Possible adaptations to regions and federal states							

The table shows that there are two types of trained speakers working on the electronic media: (a) Professional news readers ("pure voices") and (b) journalists presenting their own texts. A second distinction can be made between the pronunciation of read language and spontaneous speech differentiated by the amount of preparation and control underlying their production. The third criteria is the difference in presentation of content in the more issue-related media formats (news, culture and science programs) versus the more emotion-related formats (entertainment, sports etc.). The latter are not focused on lin-

guistic form but on the adequate presentation of content to a specific target audience. This scheme was used for the primary selection of potential model speakers.

Figure 2 is a much more detailed scheme which outlines central domains of discourse, central text types and types of pronunciation associated with them. This scheme gives an overall outline of all types of speech events and particular pronunciation types. It was used to determine which of these should be included in the codification process at all.

Fig. 2 Outline of basic discourse and text types, types of speech and types of pronunciation associated with them – The theoretical framework for the selection of pronunciation types of Austrian German						
	Discourse domain 1 Language of social distance based on written language		Discourse domain 2 Language of distant social proximity		Discourse domain 3 Language of social proximity, based on social context	
	Public, Issue-related, addressed to out-group		Public or semi-public, Issue- or person-related		Private, person-related, addressed to in-group	
	monologue	dialogue	monologue	dialogue	monologue	dialogue
	Text types		Text types		Text types	
Read speech, Adapted to forms of written language	Read news on radio and TV Read talk Read address Speech Sermon	Read dialogue of play	Local news on radio and TV Lecture / talk to work mates	Discussions and public talks on the local media	Read children stories	Any everyday conversation
Spontaneous speech, Face-to-face, Adapted to interlocutor	Spont. conversation Presentation on radio and TV Reports and documentaries on radio	Discussion on TV in front of audience Interviews for TV / Radio Police questioning Hearing	Speech Address Formal report to institutional in-group Instruction at workplace	Shopping conversation Conversation in the service industry Discussion in peer-group	Personal narrative	Private discussion Private conversation Private chat Conversation with friends
Amount of formal training of the speaker						
Trained / Untrained speakers			Untrained speakers			
Language types	LF 1	LF 2	LF 3	LF 4	LF 5	LF 6
	Language of the media Language of presentation	Language of the media Language of presentation Institutional language	Regional language of the media Person-related Institutional language	Language of common everyday conversation and public life Language of social groups	Read language of untrained speakers	Private everyday language Language of self-representation Private, intimate Language
Types of Pronunciation						
	PT1	PT2	PT3	PT4	PT5	PT6
	Pronunciation of speech of trained speakers	Pronunciation of media-presentation in spont. discourse of trained speakers	Pronunciation of read speech of trained speakers, regionally slightly adapted	Pronunciation of spont. speech of trained / untrained speakers, regionally slightly adapted	Pronunciation of read language of untrained speakers, regionally slightly adapted	Pronunciation of spont. speech of untrained speakers living in smaller or larger regions

