Lars Bülow / Dominik Wallner

Dialect Contact in Salzburg. The Case of *sein* ('to be')

Abstract: In Salzburg's base dialects the verb *sein* ('to be') shows a wide range of variation in its plural forms. In addition to the alternation of the *h/s*-anlaut and the *a/ai*-variation of the stem vowel in the 2PL, this chapter also deals with variation in the suffixes in the 1/3PL. In order to describe and explain dialect contact, we conducted *real-* and *apparent-time* studies on different datasets. For the *real-time* study, we compared data collected in a dialectological survey in the 1970/80s with data from a recent 2016/17 survey that contributed to a linguistic dialect atlas of Salzburg. We contrasted the *real-time* evidence with two *apparent-time* studies: The first is based on the dialect atlas data, while the data for the second study originates from a third corpus ("Deutsch in Österreich" 'German in Austria' 2016/17) which was also gathered in 2016/17. The analysis of these datasets shows why change, previously considered as merely horizontal contact between dialects, cannot be explained without vertical convergence towards the standard variety.

Keywords: language contact, dialect contact, convergence, dialect-to-standard advergence, language variation and change

Abstract: Die Pluralformen des Verbs *sein* zeigen in den Dialekten Salzburgs ein breites Variationsspektrum. Neben der *h/s*-Anlautalternation sowie der *a/ai*-Stammvokalvariation in der 2.Ps.Pl. steht die Suffigierung der 1./3.Ps.Pl. im Fokus dieses Beitrags. Dabei werden Daten aus verschiedenen Erhebungszeitpunkten und -kontexten miteinander verglichen, um Wandelprozesse zu identifizieren. Für eine *real-time* Studie werden Daten zweier dialektologischer Erhebungen aus den 1970/80er Jahren und von 2016/17 miteinander verglichen. Der *real-time*-Evidenz stellen wir zwei *apparent-time*-Untersuchungen gegenüber, in denen wir jüngere und ältere Sprecher kontrastieren. Die erste *apparent-time*-Studie basiert ebenfalls auf den Daten von 2016/17, die für den „Sprachatlas Salzburg" erhoben wurden. Um die inter- und intra-individuelle Variation an bestimmten Ortspunkten zu verdeutlichen, wird zudem eine detaillierte *appa-*

ISBN Print: 9783847111443 – ISBN E-Lib: 9783737011440

rent-time Analyse anhand eines dritten Korpus ("Deutsch in Österreich" 'German in Austria' 2016/17) von 2016/17 vorgestellt. Auf Basis des Materials wird argumentiert, dass Wandelprozesse, die bisher als horizontal-diatopische Konvergenz betrachtet wurden, nicht ohne vertikal-diastratische Advergenz gedacht werden können.

Keywords: Sprachkontakt, Dialektkontakt, Konvergenz, Advergenz, Sprachvariation und -wandel

1 Introduction

Language contact has been seen in the last decades as an essential prerequisite in triggering linguistic innovation, i. e. language variation (short-term dynamics) and contact-induced change (long-term dynamics). Contact provides the context for variation and change, in making features of one variety accessible to speakers of another. This contribution is concerned with the subject of dialect contact, i. e. horizontal and vertical contact between varieties in one language.[1] Therefore, bidialectal speakers with access to the features of at least two varieties serve as a link between the two systems, providing a conduit of innovation from one variety to another.

The effects of dialect contact can be described in terms of convergence, divergence, advergence, and reallocation (e. g. interdialect formation) between the varieties (cf. e. g. Auer 2018; Britain 2010; Dahl 2009; Trudgill 1986). In this contribution, we want to illustrate and discuss the case of co-emergence of some of these developing patterns in a complex dialect contact situation, taking horizontal (convergence between dialects, reallocation) and vertical contact (dialect-to-standard advergence) into account, as "[u]sually, these two developments go hand in hand, leading to leveling" (Auer 2018: 159). This chapter concerns, however, only a very limited set of variables: the verb *sein* ('to be') and its features, in particular its plural forms (present, indicative). In its function as an auxiliary, the verb *sein* is insofar special as it has the second highest token frequency of all verbs in German (cf. Nübling 2000: 12–14; Philipp / Weider 2002: 13). It is followed by *sein* in its function as copula. Even if a high token frequency can lead to relatively stable forms in the paradigm, there has always been variation and change in the paradigm of *sein* (cf. e. g. Koch 2004; Nübling 2000).

The main goal of this contribution is to describe and discuss variation and change in three of *sein*'s structural aspects in Salzburg's base dialects, which can

1 Note that we here—positioning ourselves in the Anglo-American tradition—equate the term 'dialect' with the term 'variety'.

ISBN Print: 9783847111443 – ISBN E-Lib: 9783737011440

be assigned to three broader Bavarian dialect regions: Central Bavarian, South Bavarian and South-Central Bavarian, a larger transition zone which is surrounded by the first two regions (see Figure 1).

Figure 1: Bavarian dialect regions in Austria according to Wiesinger (1983)[2]

The first feature we want to examine is the anlaut: Bavarian plural forms of *sein* in the area under investigation can have a *h-* or a *s-*anlaut (e. g. for the 1PL: *mia han(d)* vs *mia san(d)* 'we are'). The second feature is the stem vowel in the 2PL: Dialect speakers in Salzburg use either the monophthong /*a*/ or the diphthong /*ai*/ (e. g. *es h/sadds* vs *es h/saidds* 'you are'). The third structural aspect is morphological and concerns the relation of inflectional forms in the plural paradigm (present, indicative) of *sein*. Plural verb paradigms in the Bavarian base dialects of Salzburg can be formed either as three-form plurals (1PL vs 2PL vs 3PL) or as two-form plurals (e. g. 1/3PL vs 2 PL). However, the actual picture is more complicated (see Section 2.2). As Bülow et al. (2019) and Mauser (2007) illustrate in their recent papers, speakers in this area vary between two different variants of three-form plurals and two different variants of two-form plurals (see Table 1; Section 2.2 for more details).

2 The Lungau (a region of Salzburg) is highlighted because it is reported to be another transition zone which comprises the highest degree of South Bavarian dialect features in the South-Central Bavarian transition zone (cf. also Mauser 1998; Wiesinger 1983).

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		Three-form plural				Two-form plural			
NUM	PS	Variant 1		Variant 2		Variant 3		Variant 4	
PL	1. (*mi(a)*)	*han* *san*	A	*hand* *sand*	C	*han* *san*	A	*hand* *sand*	C
	2. (*es*)	*hadds* / *haidds* *sadds* / *saidds*	B	*hadds* / *haidds* *sadds* / *saidds*	B	*hadds* / *haidds* *sadds* / *saidds*	B	*hadds* / *haidds* *sadds* / *saidds*	B
	3. (*se*)	*hand* *sand*	C	*han* *san*	A	*han* *san*	A	*hand* *sand*	C

Table 1: Plural paradigm variants in Salzburg's base dialects according to Bülow et al. (2019)

In this chapter we examine and discuss how plural forms of *sein* developed in Salzburg's dialect regions over the past hundred years. Therefore, in Section 2, we report the current state of research and how it had been in the 1920/30s, as illustrated in Wiesinger (1989). We then, in Section 3, outline our methodological approach. In Section 4, we analyse the data from the 1970/80s (4.1) and compare them with the 2016/17 Salzburg dialect atlas dataset (*real-time* trend survey and *apparent-time* survey) (4.2). Furthermore, in Section 4.3, we illustrate with an in-depth analysis the high amount of inter- and intra-individual variation found in the DiÖ dataset ("Deutsch in Österreich" 'German in Austria') also recorded in 2016/17.[3] Based on the results of these analyses, we will, in Section 5, answer our research questions and discuss the role of different forms of dialect contact regarding both inter- and intra-individual variation. We conclude the chapter with a summary (Section 6).

2 Theoretical Aspects

The verb *sein* ('to be') is a so-called *Wurzelverb* and belongs to this class of special verbs (cf. Paul [25]2007: 279f.). All forms of *sein* were and are frequently in use. Therefore, its (strong) suppletive forms in the paradigm are not surprising (cf. Nübling 2000). Perhaps because of that reason, there has always been a constant reorganization of the dialectal paradigms of *sein* (cf. Koch 2004; Nübling 2000; Rabanus 2008; Scheuringer 1990).

For the Bavarian dialects found in Austria, forms of *sein* were gathered and documented in several dialect atlas projects (e.g. *Sprachatlas von Oberösterreich* (SAO) 'Linguistic Atlas of Upper Austria' and *Sprachatlas Salzburg* 'Linguistic

3 The authors gratefully acknowledge support by the Austrian Science Fund (FWF): Project SFB F60.

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Atlas of Salzburg' (cf. Scheutz 2017)), historical descriptions of (archaic) base dialects (so-called *Ortsgrammatiken* 'local dialect grammars', e.g. Schatz 1897; Lessiak 1903), and dialect geographical overviews documenting historical dialects in the first and second decades of the 20th century (e.g. Mauser 1998; Reiffenstein 1955; Weitzenböck 1942; Wiesinger 1989). These projects, however, only covered selected areas of Austria. They were primarily descriptive, and most of them presupposed the existence of 'homogeneous' base dialects. To our knowledge, larger areal analyses for the Bavarian dialects in Austria were only carried out for a few forms of *sein* (cf. Mauser 2007; Wiesinger 1989 and 2004). Furthermore, there has been no comprehensive investigation of *sein* forms, neither in a *real-* nor in an *apparent-time* study. It is remarkable that the situation for Bavarian dialects outside Austria is not much better. Koch (2004) focusses on *sein* (and *haben* 'to have') in the Bavarian dialects of Lower Bavaria, but this is a rare example.

Paradigms of *sein* show phonetic and morphological variation and change on various levels. We will illustrate this by using the paradigms reported in Koch (2004: 128) and Mauser (2007: 70) who analysed the situation for Lower Bavaria (L-BAV) (Germany) and the Austrian-German (Salzburg-Bavarian) border region to the north of the city of Salzburg (SBG).

Ps.Pl.	**MHG *sîn***	**NHG *sein***	**L-BAV *sa(e)* *s*-anlaut**	**L-BAV *sa(e)* *h*-anlaut**	**SBG-BAV *sa(e)* *h/s*-anlaut**
1.	*birn, sîn*	*sind*	*san / sama*	*han / hama*	*han(d) – san(d)*
2.	*birt, sît*	*seid*	*sadds*	*hadds*	*ha(i)dds – sa(i)dds*
3.	*sint*	*sind*	*san(d)*	*han(d)*	*han(d) – san(d)*

Table 2: Paradigms of *sein*-plurals in Lower Bavaria (L-BAV) according to Koch (2004: 128) and in the Salzburg-Bavarian border region (SBG) according to Mauser (2007: 70)

The differences between the MHG and NHG paradigms show diachronic change, whereas the differences between the NHG and the Bavarian (BAV) paradigms indicate variation on the dialect-standard continuum. The differences which are reported for the BAV dialects of Lower Bavaria and the Salzburg-Bavarian border region indicate diatopic variation (see Section 2.1).[4]

For the present chapter we focus on the alternation of the *h*/*s*-anlaut, the *a*/*ai*-variation of the stem vowel in the 2PL, and the suffixes in the 1/3PL. As indicated in Table 2, the suffix of the 2PL seems to be stable over the dialectal paradigms. In what follows, we first concentrate on sound change and then describe the state of research on plural verb paradigms in Salzburg's base dialects.

4 It partly also reflects diastratic variation (cf. Section 2.1 and 2.2).

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2.1 Anlaut and Stem Vowel

According to the Viennese dialectal school ('Wiener dialektologische Schule') and Wiesinger (1983), Bavarian dialects in Austria can be subdivided into three larger dialect regions (see Figure 1): Central Bavarian, South-Central Bavarian, and South Bavarian. Furthermore, some recent investigations indicate that the Central Bavarian dialect region should be further subdivided into a West-Central and an East-Central Bavarian area. Wiesinger (2004: 24) lists the anlaut variation in *sein*-plurals as one of the distinctive features: East-Central and South-Central Bavarian dialects have *s*-anlaut, whereas West-Central Bavarian dialects show *h*-anlaut. Scheuringer (1990: 322) mentions that the *h*-anlaut area forms a triangle between Munich, Nuremberg (both Germany), and Linz (Austria). This is roughly in line with Wiesinger's (2004: 22) map, which he had drawn according to map 108–111 of the DSA (*Deutscher Sprachatlas*) (see Figure 2).

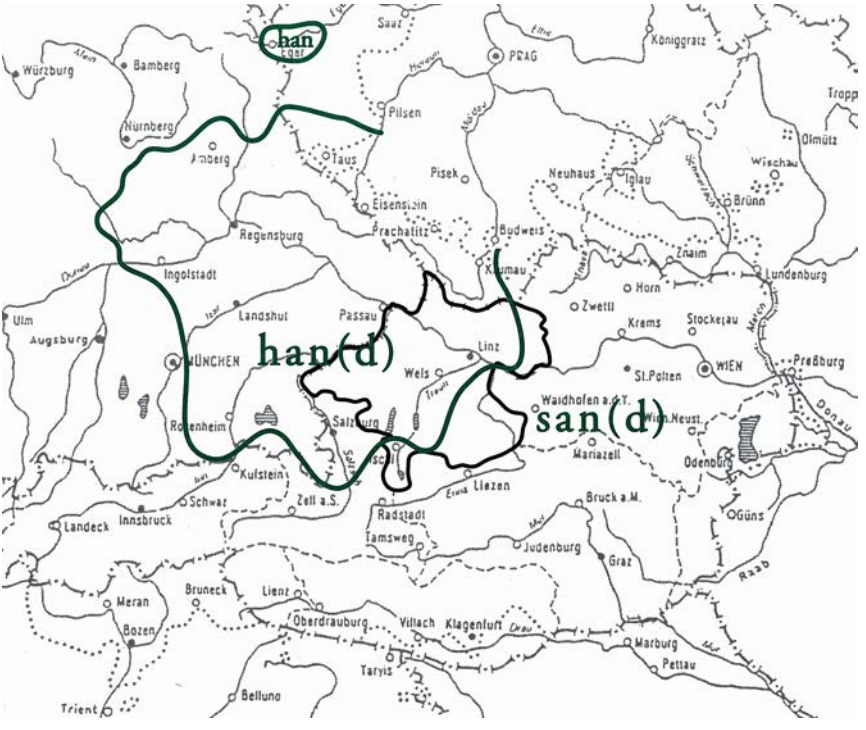

Figure 2: Distribution of *h*- and *s*-anlaut in *sein*-plurals in the Bavarian dialect regions (Wiesinger 2004: 22)

Koch (cf. 2007: 392), who analysed the dialect atlas of Lower Bavaria (SNiB = *Sprachatlas von Niederbayern* 'Linguistic Atlas of Lower Bavaria'), shows that the

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h-anlaut prevails in the West-Central Bavarian dialects of Lower Bavaria (Germany).

The *h*-anlaut is, however, solely a base dialectal feature, whereas the *s*-anlaut is also used for intermediate speech-levels in the dialect-standard continuum (see Figure 3). Scheuringer (cf. 1990: 289–327; 1993: 76–77) points not only to the areal distribution of the anlaut variation but also to its (vertical) sociolinguistic dimension. He found for the city of Braunau, a rather small town[5] at the Austrian-German border region in Upper Austria, that the *h*-anlaut was only used by informants from the 'Grundschicht' (mostly self-employed craftsmen) in 43 % of cases, whereas informants from the 'Mittelschicht' (civil servants, service occupations, commercial employees) and the 'höhere Schicht' (civil servants with high school graduation, academics) almost exclusively favoured the *s*-anlaut (cf. Scheuringer 1990: 289–327; 1993: 76–77).

Furthermore, age seems to be a relevant factor. Scheuringer's oldest informants (> 65 years) still showed *h*-anlaut in 35 % of the cases, the middle-aged informants (35–65 years) had 24 % *h*-anlaut and the youngest group (< 35 years) nearly exclusively used the *s*-anlaut (in 98 % of cases).

Scheuringer's (1990; 1993) and Koch's (cf. 2007: 393) surveys indicate the prevalence of *s*-anlaut in the urban surroundings of the West-Central Bavarian dialect region of Upper Austria and Lower Bavaria. There are, however, no recent data which show that the *s*-anlaut also spreads through Salzburg's rural West-Central Bavarian base dialects. Mauser (cf. 2007: 61, 70) recorded mostly *h*-anlaut in the northern parts of Salzburg but also refers to the vertical pressure on the *h*-anlaut in rural areas. For him, dialect-to-standard advergence seems to be the most likely scenario regarding anlaut change. As already mentioned, the *s*-anlaut is used in intermediate speech levels and Standard Austrian varieties (see Figure 3). A possible development towards the *s*-anlaut is furthermore supported by horizontal dialect contact as the *s*-anlaut is prevalent in the East-Central as well as in the South- and South-Central Bavarian dialects. Due to this vertical and horizontal pressure, we assume an on-going change from *h*- to *s*-anlaut in the West-Central Bavarian dialects of Salzburg.[6]

The manifestation of the stem vowel in the 2PL of *sein* (present, indicative) is not a distinctive feature to separate West-Central and East-Central Bavarian dialects but it does distinguish Central from South (Central) Bavarian dialects. The SAO-data (Sprachatlas von Oberösterreich 'Linguistic Atlas of Upper Austria': Vol. II, Map 36) show exclusively *a*-monophthong forms (e.g. *hadds* / *sadds*) over the

5 Braunau's population fluctuated between 16,000 and 17,000 inhabitants between the 1980s and 2018.

6 A similar change is attested for the North Bavarian former *h*-anlaut areas in Bavaria (cf. Koch 2007: 392).

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entirety of Upper Austria. Only in the south-west and south-east of the city of Salzburg are some forms with the /*ai*/-diphthong (e. g. *haidds* / *saidds*) listed. The distribution for the South Bavarian part of Salzburg (Lungau) also seems to be fairly clear. Mauser (cf. 1998: 318) only recorded /*ai*/-forms for the Lungau in his study. Therefore, the variation of the stem-vowel instead seems to separate the Central Bavarian dialect region (monophthong /*a*/) from the South-Central Bavarian transition zone and the South Bavarian dialects (diphthong /*ai*/).

To understand the development of the stem vowel we again have to take into account vertical dialect contact. Here, the situation is much more complex compared to the anlaut. Base dialectal /*a*/-forms correspond with forms that are used in Central Bavarian and Viennese vernaculars (e. g. *sadds* 'you are') but not with the Standard Austrian form *seid* ('you are') which has a diphthong. The opposite can also be said: Base dialectal /*ai*/-forms correspond in this particular feature with the Austrian Standard form but not with the vernacular (see Figure 3).

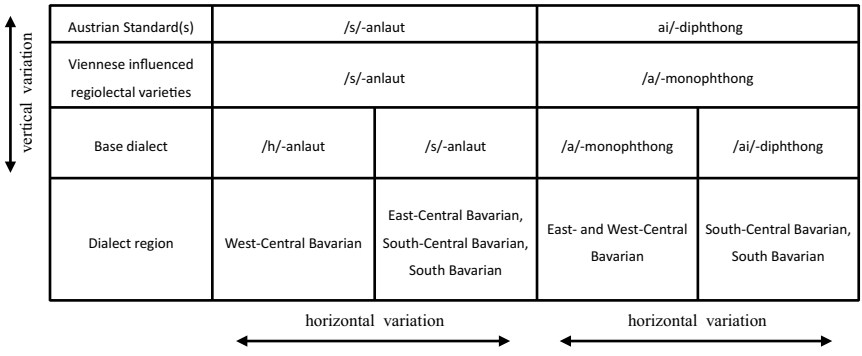

Figure 3: Variation in the dialect-standard continuum

Because the regiolectal form *sadds* ('you are') seems to prevail in all the bigger cities of eastern Austria (e. g. Vienna, Linz, St. Pölten, Salzburg), we assume that the form *sadds* ('you are') is more prestigious and influential in Austrian base dialects than the Austrian Standard form *seids* ('you are') (cf. Moosmüller 1991; Vergeiner 2019). Therefore, we predict for the 2PL of *sein* that the monophthong /a/ spreads into the South (Central) Bavarian dialects.

Regarding both the anlaut and stem vowel distribution, our goal is to answer the following research questions:

RQ 1: Is the *s*-anlaut going to replace the *h*-anlaut in the rural West-Central Bavarian dialects of Salzburg?

RQ 2: Is the /*a*/-monophthong or the /*ai*/-diphthong spreading in Salzburg's base dialects?

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RQ 3: Are there any correlations between the developments in the anlaut and the stem vowel?

The third variable that we investigate in this chapter is morphological and concerns the plural form of *sein*.[7]

2.2 Plural Verbs in German Varieties

In general, three types of plural verb paradigms can be distinguished for German varieties (cf. Bülow et al. 2019; Rabanus 2008 and 2005; Schirmunski 1962 [2010]: 522): the one-form plural, the two-form plural, and the three-form plural (see Table 3).

Plural paradigms	**Variety**	**'to take'**	**Category**	**Suffix Marker**	**Label**
Three-form plural	MHG	*nëm-en*	1pl	-EN	A
		nëm-et	2pl	-ET	B
		nëm-ent	3pl	-ENT	C
	South-Central Bavarian dialects	*nem-an*	1pl	-EN	A
		nem-dds	2pl	-TS	B
		nem-and	3pl	-ENT	C
Two-form plural	St. German	*nehm-en*	1pl	-EN	A
		nehm-t	2pl	-T	B
		nehm-en	3pl	-EN	A
	Regional Bavarian Vernaculars	*nem-en*	1pl	-EN	A
		nem-ts	2pl	-TS	B
		nem-en	3pl	-EN	A
One-form plural	Eastern High Alemannic	*nem-t*	1pl	-T	B
		nem-t	2pl	-T	B
		nem-t	3pl	-T	B

Table 3: Types of plural paradigms in different varieties (cf. Bülow et al. 2019)[8]

7 The suffix -TS for the 2PL has always remained clearly distinguishable from the suffixes of the 1/3PL. The morpheme {*-(e)ts*} (-TS) for the 2PL emerged due to an enclitic process of the personal pronoun *eß* (MHG *ëz*) with the MHG morpheme {*-(e)t*}. This process took place almost regularly in most Bavarian dialects. MHG {*-(e)t*} (-ET) is only preserved in some South Bavarian dialects (cf. Scheutz 2016: 84–85).

8 As in Rabanus (2004; 2008), the capital letters -EN, -TS, and -ENT symbolize suffixes. These letters indicate sound classes which correspond to the morphemes {*-en*}, {*-ts*}, and {*-end*}. Depending on the stem final sound and the dialect region, their allomorphic realization can contain very different sounds.

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In Standard German, for instance, we find plural paradigms with two distinct suffixes – one for the 1/3PL (-EN) and one for the 2PL (-T) ('two-form plural').[9] Plural verb paradigms with only a single suffix for all forms ('one-form plural'), such as in Standard (British or American) English, are characteristic of, for example, some eastern High Alemannic dialects around Zurich (cf. Rabanus 2004: 342). Plural paradigms with three different suffixes—one for each personal form—('three-form plural') are about to disappear in recent German varieties. They were representative, for example, in MHG for strong and weak verbs (1PL vs 2PL vs 3PL—EN vs -ET vs -NT) and are reported, however, to be still present in some Alemannic and Bavarian base dialects. Lessiak (cf. 1903: 203), for example, shows how three-form plurals in South Bavarian dialects are used. Wiesinger (1989) and Mauser (2007) point to three-form plurals in Salzburg's base dialects. Based on *real-* and *apparent-time* studies, Bülow et al. (2019) also found recent evidence for the use of three-form plurals in Salzburg. Their results, however, indicate that the three-form plural has lost ground over the past hundred years, whereas the use of two-form plurals has largely increased.

Following Rabanus (2008), we identify certain types of suffixes with capital letters: Suffixes with nasal and without dental of the type -EN get the letter A, suffixes for the 2PL get a B, and suffixes with nasal and dental of the type -ENT or the type -NT get a C. Thus, the typical Standard German plural verb paradigm corresponds to the notation ABA. Note, however, that the plural forms of *sein* in Standard German do not correspond to ABA but CBC. The suffix -NT of the form *sind* (1/3PL 'we/they are') is historically equivalent to MHG suffix -ENT.

As mentioned above, Bülow et al. (2019) and Mauser (2007) point out that we have to distinguish different variants of three- and two-form plurals for *sein* in Salzburg's base dialects (see Table 1): Variant 1 (ABC = -EN, -TS, -NT) is a three-form plural and corresponds with the MHG three-form plural (cf. Paul [25]2007: 240–242; Table 3). Variant 2 (CBA = -NT, -TS, -EN) is also a three-form plural, but it is in the historically reversed order compared to the MHG system. Variant 3—a two-form plural (ABA = -EN, -TS, -EN)—is structurally similar to Standard German and the regional Bavarian vernaculars (see Table 3). Variant 4 (CBC = -NT, -TS, -NT) is also a two-form plural, but it has a suffix with dental in the 1/3PL.

The suffix *-ma* for the 1PL like in *mia ha-ma* or *sa-ma* ('we are') (see Table 2) shall not be considered as these forms are more or less restricted to the Central Bavarian dialects of Bavaria (Germany) and the South Bavarian dialects of Carinthia (Austria) (cf. Rabanus 2008; Wiesinger 1989). The suffix *-ma* is only occasionally expected in Salzburg's border regions (cf. Scheuringer 1990: 265).

9 Rabanus (cf. 2004: 345) reports on dialects in Bavarian Swabia that have the combination 1PL vs 2PL = 3PL.

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In summary, there has so far been little research into the different plural paradigms of *sein* in Salzburg's base dialects. Therefore, we aim to answer the following research questions:

RQ 4: What types of plural paradigms are used for *sein* by the informants, and how do they vary?

RQ 5: Are there correlations between the use of particular plural paradigms and socio-demographic factors like age and location?

3 Methods

Most dialectological fieldwork relies on *apparent-time* studies, implying that synchronic comparison of different age cohorts reflects the actual diachronic change (cf. Cukor-Avila / Bailey 2013). It is "the use of the present to explain the past" (Labov 1975: 825). This assumption is at best questionable, as even external linguistic factors such as age and social class interact with each other over time.

Furthermore, even with social grouping it remains unclear whether the language use of different generations reflects the same speech level within the dialect-standard continuum in a diaglossic situation. Thus, according to Labov (1966: 200) "the ideal method for the study of change is diachronic: the description of a series of cross sections in *real time*". Although *real-time* studies are more difficult to implement, its benefits are clearly visible. *Real-time* studies "can provide crucial data for studies of innovation, diffusion, social transmission, mechanisms of change, and many other fundamental concerns" (Chambers / Trudgill 2009: 149). On reflection, it is our considered opinion that a combined *real-* and *apparent-time* approach provides best insights into the mechanisms of language variation and change.

The following analysis is based on three different sets of data (see Figure 4). Our oldest set contains transcripts from a dialect survey from the 1970/80s that will be compared in a *real-time* trend study with data that were gathered in 2016/17 for a dialect atlas of Salzburg (cf. Scheutz 2017). With the latter dataset we also conducted an *apparent-time* study, as older and younger informants were recorded. Our third dataset consists of recordings which were carried out within the SFB-project "German in Austria" in 2016/17 (cf. Budin et al. 2019).[10] In the following, we use the German abbreviation DiÖ (*Deutsch in Österreich*) to refer to this project. These data allow an in-depth analysis of five additional locations.

10 For more information, see PP02 "Variation and Change of Dialect Varieties in Austria (in Real and Apparent Time (F 6002-G23)".

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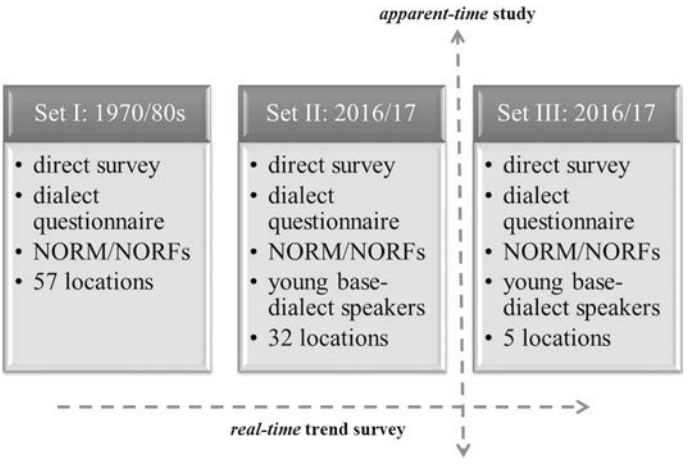

Figure 4: Research design and datasets

3.1 Survey Procedures, Material and Stimuli

All analysed data were gathered directly by trained fieldworkers using a dialect questionnaire (*Dialektfragebuch*). Although those questionnaires show broad similarities, the interviews were conducted under varying circumstances: The 1970/80s survey was carried out by Herbert Tatzreiter, Werner Bauer, Franz Patocka and Hermann Scheuringer. The dialect questionnaire was completed by several informants at each location, and all answers were immediately transcribed in *Theuthonista* during the interview. In addition, every transcript includes comments on the informants as well as general remarks on their specific dialect, but unfortunately, audio recordings were only occasionally made. The other two surveys were conducted by two trained fieldworkers (Hannes Scheutz, Dominik Wallner), and all of these interviews were tape-recorded. Here, every informant had to answer all the given questions. This procedure lasted between two to three hours.

To provide congruent material for a better comparison, the dialect questionnaires that have been used, closely follow those of larger dialect atlas projects (cf. *Sprachatlas von Niederbayern* (SNiB) 'linguistic atlas of Lower Bavaria', *Sprachatlas von Oberösterreich* (SAO) 'linguistic atlas of Upper Austria', *Deutsch in Österreich* (DiÖ) 'German in Austria'). The majority of the items consists of translation tasks and cloze tests. The verb *sein* was always prompted within its complete paradigm but for the DiÖ-data (2016/17) we also included complete sentences and phrases to ensure a larger quantity of items but also to embed the target items in a broader syntactical context (see Table 4). With these contexts, we

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prove for the influence of sentence-phonetic restrictions. Furthermore, the entrenchment of this high-frequency verb into syntactical structures supports the avoidance of learning effects and distraction caused by questioning verb paradigms.

No.	ITEM	Person
43	*Das waren die Allerklügsten!* 'These/those were the cleverest ones.'	3PL
67	*Wo sind Mutters Schuhe?* 'Where are mother's shoes?'	3PL
82	*Die Schlitten im Katalog sind aber ziemlich teuer.* 'The sledges in the catalogue are quite expensive.'	3PL
87	*Das waren aber schöne Tage.* 'But those were nice days.'	3PL
135	*Die Äpfel waren schon faulig.* 'The apples were already rotten.'	3PL
337	*Wir sind heute nach Wien gefahren.* 'We have travelled to Vienna today.'	1PL
338	*Wir sind im Hotel.* 'We are in the hotel.'	1PL
368	*Die sind am besten!* 'They are the best!'	3PL
377	*Diese Würste sind gesotten besser als gebraten.* 'These sausages are better boiled than fried.'	3PL
533	*Die Vögel, die dort sitzen, sind aber dick.* 'The birds that are sitting over there are really fat.'	3PL
543	*Jetzt höre ich zu fragen auf, weil wir fertig sind.* 'I will stop asking now, because we are done.'	1PL

Table 4: Items and target sentences in the DiÖ-questionnaire (2016/17)[11]

3.2 Informants and Locations

All of the informants were chosen by specific socio-demographic parameters. Though the 1970/80s survey only gathered typical NORMs / NORFs (> 65 years), the latter two studies also inquired data of a younger generation. To ensure a solid base-dialectal quality, these younger informants were characterized as young professionals (mostly of an artisanal background) under 35 years old, strongly connected to their localities, and without higher school education.

For the 1970/80s survey, interviews were conducted in 57 locations throughout Salzburg (9 Central Bavarian, 9 South Bavarian, 39 South-Central Bavarian transition zone). On average, six individuals were polled at each location to complete the questionnaire.[12] For the Salzburg dialect atlas project (2016/17), one

11 As Bavarian dialects originally do not use simple past forms, the items No. 43, 87 and 135 are normally expressed in the past perfect tense, with an auxiliary form of *to be* and a past participle. Nevertheless, informants may use simple past forms in these items—in that case, they were not included in our analysis.

12 Due to this method, only one person per location produced the *sein*-paradigm.

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informant of each generation was recorded at 32 locations (9 West-Central Bavarian, 5 South Bavarian, 18 South-Central Bavarian transition zone). Accidentally, one older informant (Fuschl_alt) did not complete the questionnaire, so we could only include 63 interviews in this dataset. The DiÖ-recordings (2016/17) encompass 20 informants. Considering gender-induced effects, we gathered data from each male and female informants of both age cohorts at five locations. Table 5 gives an overview of the number of informants and locations included in each dataset.

	1970/80s data	**dialect atlas data 2016/17**	**DiÖ-data 2016/17**
No. of locations	57	32	5
No. of informants	57	63	20

Table 5: Number of locations and informants in each dataset

4 Results

As the present contribution aims to investigate variation and change of *sein*-plurals in Salzburg's base dialects, we will, in the following section, first analyse the data from the 1970/80s (see Section 4.1). We then compare these data in a *real-time* trend study with the NORMs/NORFs which were recorded for the Salzburg dialect atlas 2016/17. The dialect atlas dataset is also suitable to conduct an *apparent-time* study (see Section 4.2). Lastly, we present an in-depth analysis of data from 20 informants that were gathered at five locations in 2016/17. These DiÖ-data also allow us to compare two generations (see Section 4.3).

4.1 Forms of *sein* in the 1970/80s Dataset

The 1970/80s dataset shows a clear areal distribution of the investigated parameters of *sein:* In the Central Bavarian dialect region, we only find the *h*-anlaut, while the *s*-anlaut was exclusively used in the South Bavarian region (see Table 6). A chi-square test reveals that the use of *h*- or *s*-anlaut significantly depends on where the informants are located within the three dialect regions of Salzburg ($\chi^2 = 22.326$, $n = 57$, $df = 2$, $p < .001$, Cramer's $V = .626$).

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Dialect region	*h*-anlaut	*s*-anlaut	Total
Central Bavarian	9	0	9
South-Central Bavarian	11	28	39
South Bavarian	0	9	9
Total	2	37	57

Table 6: Distribution of *h*- vs *s*-anlaut over the dialect regions (1970/80s)

Informants from the South-Central Bavarian transition zone prefer the *s*-anlaut (72 %), but a clear north-south division of the transition zone should be recognized (see Figure 5). The further north the informants are located, the more likely it is that they use the *h*-anlaut. Note, however, that the informants from the city of Salzburg already used the *s*-anlaut.

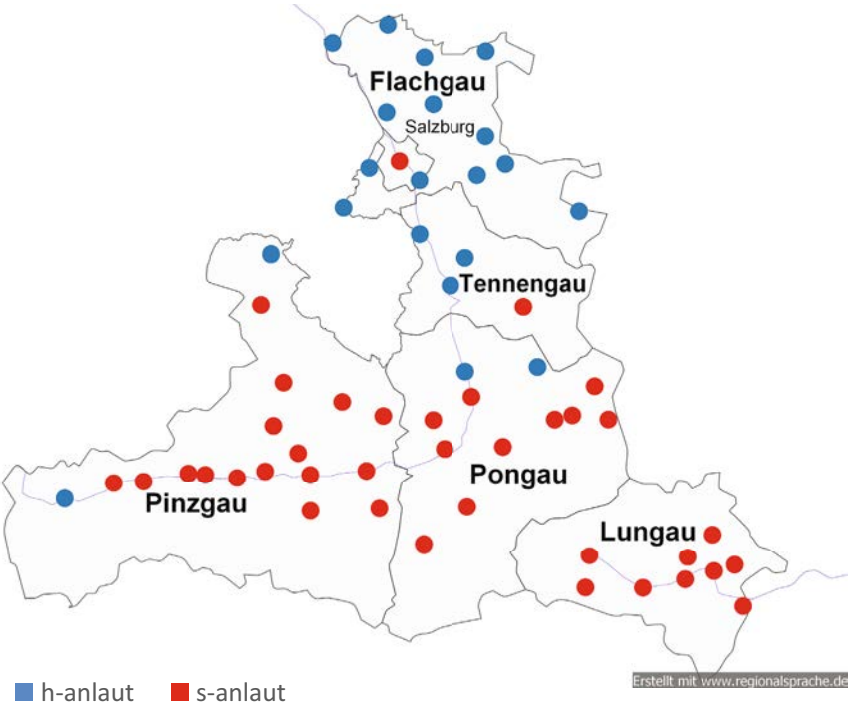

Figure 5: Distribution of *h*- vs *s*-anlaut over Salzburg (1970/80s)

Regarding the stem vowel of *sein* (/a/ vs /ai/), we can also find a spatial distribution in the 1970/80s dataset. In the Central Bavarian area, the use of the *a*-monophthong dominates (89 %), whereas the *ai*-diphthong prevails in the South-Central Bavarian transition zone (72 %) and the South Bavarian dialect region (78 %) (see Table 7). A chi-square test also demonstrates that the dialect regions

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have a significant effect on the use of *a*-monophthong or *ai*-diphthong (χ^2 = 12.555, n = 57, df = 2, p = .002, Cramer's V = .47).

Dialect region	*a*-monophthong	*ai*-diphthong	Total
Central Bavarian	8	1	9
South-Central Bavarian	11	28	39
South Bavarian	2	7	9
Total	21	36	57

Table 7: Distribution of *a*- vs *ai*-stem vowel over the dialect regions (1970/80s)

Therefore, the use of the stem vowel strongly corresponds with the anlaut. Informants who prefer *h*-anlaut also prefer *a*-monophthong and informants who use *s*-anlaut seem to prefer *ai*-diphthong (compare Figure 5 and 6).

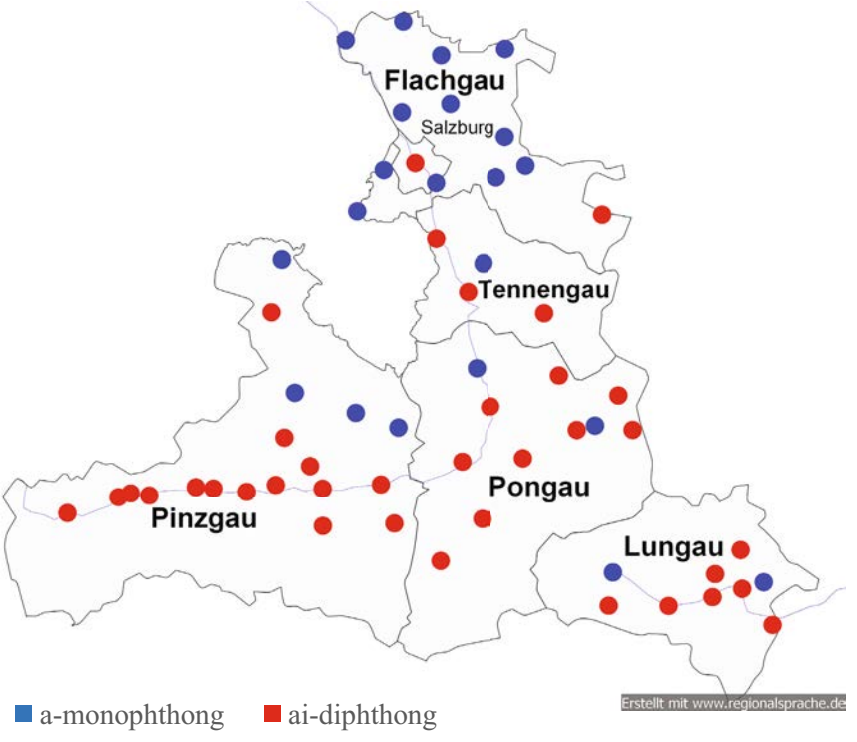

Figure 6: Distribution of *a*- vs *ai*-stem vowel over Salzburg (1970/80s)

Also, the distribution of the plural paradigm variants corresponds to Salzburg's dialect regions (χ^2 = 17.413, n = 57, df = 6, p = .008, Cramer's V = .39). Note, however, that this correlation is weaker than the correlation between the dialect

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regions and the two phonetic variables. Overall, the variant 4 (CBC) two-form plural dominates in Salzburg (cf. Bülow et al. 2019). It was applied in 77 % of cases and was, for example, exclusively used in the Central Bavarian dialect region, and 82 % of cases in the South-Central Bavarian transition zone. Less clear is the dissemination over the South Bavarian dialect region, where variant 1 (ABC) and variant 4 (CBC) were equally used (see Table 8).

n = 57	**Variant 1 (ABC)**	**Variant 2 (CBA)**	**Variant 3 (ABA)**	**Variant 4 (CBC)**	**Total**
Central Bavarian	0	0	0	9	9
South-Central Bavarian	6	0	1	32	39
South Bavarian	3	1	2	3	9
Total	9	1	3	44	57

Table 8: Distribution of the plural paradigm variants according to dialect region (1970/80s)

In sum, the 1970/80s dataset shows relatively clear spatial patterns for the distribution of the different *sein* plural forms. In the Central Bavarian area, we mostly find *h*-anlaut, *a*-monophthong in the second person plural and the plural paradigm variant 4 (CBC). In contrast, informants from the South Bavarian area preferred the *s*-anlaut and the *ai*-diphthong. Here the three-form plural in the form of variant 1 (ABC) is still present in 50 % of cases. The South-Central Bavarian transition zone shows a north-south division for the analysed features of *sein*. The typical patterns of Central Bavarian dialects prevail in the northern parts, whereas the South Bavarian features are present in the southern parts of the transition zone.

Regarding the anlaut distribution the results are in line with Wiesinger's (2004: 22) observations which are based on the map 108–111 of the "Deutscher Sprachatlas" (cf. Section 2.1, Figure 2).

The data, however, challenge Wiesinger's (1989) comments (based on Wenker's questionnaires and about 50 local monographies) on the distribution of the plural verb morphology. According to Wiesinger (cf. 1989: 36–50), the three-form plural in the form of variant 1 (ABC) should be prevalent in Salzburg's base dialects. This is definitely not the case for the 1970/80s dataset.[13] These data are more consistent with Scheuringer's (1993: 78) observation that the two-form plural in the form of variant 4 (CBC) prevails in both the West-Central Bavarian dialect region and the South-Central Bavarian transition zone.[14]

13 For an in-depth analysis of 22 plural verbs, the reader is referred to Bülow et al. (2019).

14 "Während die mittelbairischen Verkehrssprachen heute überwiegend unter standardsprachlichem Vorbild zu Gleichklang zwischen 1. und 3. Person mit Ausgleich nach dem {*en*}-Morphem der 1. Person tendieren, tritt in einem großen Gebiet im Westen des Mittelbairischen und Südmittelbairischen, das sich in etwa mit dem salzburgischen Einflußbereich in

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Even if the plural variants of *sein* seem to be well distributed over the dialect regions in the 1970/80s, recent data, indicate that contact-induced change took place. Vertical language contact has already been insinuated by Scheuringer (cf. 1990: 322; 1993: 78), who states that only the most conservative dialects preserve variant 1 (ABC), thus, a three-form plural. Scheuringer (cf. 1990: 322) also applies this observation to the anlaut distribution. He assumes that the *h*-anlaut is only used by very conservative speakers of the base dialect.[15]

In what follows, we compare the 1970/80s data in a *real-time* trend survey with recent dialect atlas data from 2016/17 to trace ongoing change. With the help of the 2016/17 dataset, we also conduct an *apparent-time* survey in which we compare NORMs and NORFs with younger informants.

4.2 Forms of *sein* in the 2016/17 Salzburg Dialect Atlas Dataset

As all informants in the 1970/80s dataset were NORMs/NORFs, we can compare them in a *real-time* trend survey with the NORMs/NORFs of the 2016/17 Salzburg dialect atlas survey. These two groups seem to behave similarly regarding the anlaut distribution and the use of the stem vowel (see Figure 7) (anlaut: $\chi^2 = .859$, $n = 88$, $df = 1$, $p = .354$, Cramer's $V = .099$; stem vowel: $\chi^2 = .185$, $n = 88$, $df = 1$, $p = .667$, Cramer's $V = .046$).

Also, the spatial distribution of the anlaut and the stem vowel is similar between the two groups (compare Figure 5 and 8). What counts for the 1970/80s data is still valid for the NORMs/NORFs of the 2016/17 dataset (see Table 9): Whereas the *h*-anlaut dominates in the West-Central Bavarian dialect region (100 %), the *s-anlaut* prevails in the South Bavarian dialect region (100 %) and in the South-Central Bavarian transition zone (67 %) ($\chi^2 = 14.849$, $n = 31$, $df = 2$, $p = .001$, Cramer's $V = .692$).

diesen Räumen deckt, in den beiden Personen Ausgleich zugunsten der 3. Person und ihrem {*ent*}-Morphem ein." 'While Central Bavarian vernaculars in general—due to standard advergence—established unsion in the flection of 1st and 3rd person plural, following the {*en*}-morpheme of the 1st person, a large area in the western part of Central Bavarian as well as South-Central Bavarian, which roughly coincides with the Salzburg area, shows leveling within the inflection in favor of the 3rd person plural and its {*ent*}-morpheme.' (Scheuringer 1993: 78)

15 "Wie schon erwähnt, ist die *h*-Lautung in ihrem ganzen Hauptverbreitungsgebiet im Dreieck München–Linz–Nürnberg als rein basisdialektal einzustufen (Freudenberg 1974, S. 752 'fernab der Verkehrssprache')." 'As mentioned before, the *h*-sound has its main distribution area in the triangle between Munich–Linz–Nuremberg and can be classified as a purely base-dialectal feature. (Freudenberg 1974, p. 752 'Far from the vernacular').' (Scheuringer 1990: 322)

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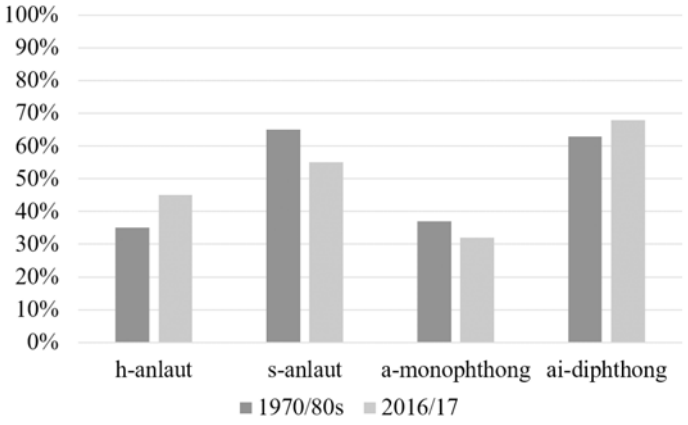

Figure 7: Anlaut and stem vowel variation in the 1970/80s and the 2016/17 dialect atlas dataset

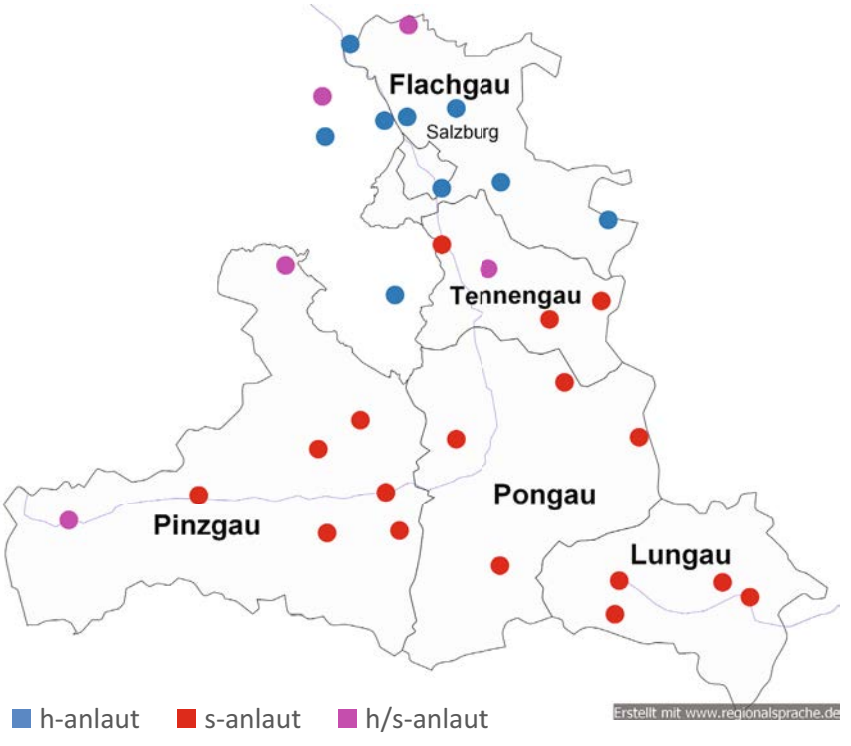

Figure 8: Spatial distribution of the *h*/*s*-anlaut NORM/Fs 2016/17 Salzburg dialect atlas dataset

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The *a*-monophthong still dominates in the West-Central Bavarian dialect region (62.5 %), whereas the *ai*-diphthong prevails in the South Bavarian dialect region (100 %) and the South-Central Bavarian transition zone (72 %) ($\chi^2 = 5.896$, $n = 31$, $df = 2$, $p = .052$, Cramer's $V = .436$).

$n = 63$	Dialect region	*h*-anlaut	*s*-anlaut	/a/	/ai/
NORMs/NORFs	West-Central Bavarian	8	0	5	3
	South-Central Bavarian	6	12	5	13
	South Bavarian	0	5	0	5
Younger informants	West-Central Bavarian	4	5	6	3
	South-Central Bavarian	2	16	16	2
	South Bavarian	0	5	4	1

Table 9: Anlaut and stem vowel variation according to dialect region in the 2016/17 Salzburg dialect atlas dataset

However, we found a rather strong correlation between the use of plural paradigms and the two group of NORM/NORFs ($\chi^2 = 16.847$, $n = 85$, $df = 3$, $p = .001$, Cramer's $V = .45$). As Table 10 illustrates, the informants from the 2016/17 dataset used variant 3 (ABA) to a much higher degree, i. e. the two-form plural that has -EN suffix for the 1/3PL. The younger informants and the NORMs/NORFs from the 2016/17 Salzburg dialect atlas dataset less often applied variant 4 (CBC) and variant 1 (ABC). Within the NORMs/NORFs of the 2016/17 data the distribution of the plural paradigm variants over the dialect regions is not significant ($\chi^2 = 9.245$, $n = 28$, $df = 6$, $p = .16$, Cramer's $V = .406$).

	Variant 1 (ABC)	Variant 2 (CBA)	Variant 3 (ABA)	Variant 4 (CBC)
NORMs/ NORFs 1970/80s	9	1	3	44
NORMs/ NORFs 2016/17	4	1	11	12
Younger informants 2016/17	0	1	22	8

Table 10: Variants of *sein* plural paradigms according to the 1970/80s and the 2016/17 Salzburg dialect atlas dataset

An *apparent-time* study reveals striking differences for all variables between the older (NORMs/NORFs) and the younger informants of the 2016/17 Salzburg dialect atlas dataset. For the anlaut, a chi-square test demonstrates a weak correlation between the age groups and the anlaut variants ($\chi^2 = 3.946$, $n = 63$, $df = 1$, $p = .047$, Cramer's $V = .25$). The younger informants use more *s*-anlaut than the older informants (compare Figures 8 and 9). This means vice versa that the older informants use the *h*-anlaut more often (see Table 11). Note, however, that 8 of the 63 informants (5 old and 3 young) show intra-individual variation in using

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the anlaut.[16] These informants use both the *h*- and the *s*-anlaut in the same paradigm (e. g. *san–sadds–han* 'we/you/they are').

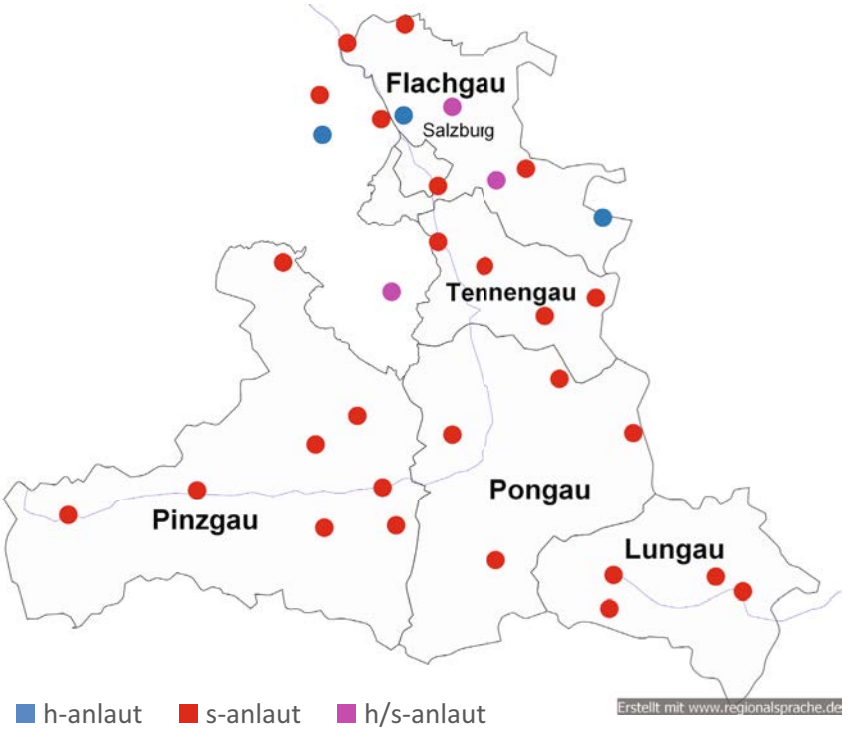

Figure 9: Spatial distribution of the *h*/*s*-anlaut younger informants 2016/17 Salzburg dialect atlas dataset

n = 63	no *s*-anlaut	*s*-anlaut	Total
NORMs/NORFs	9	22	31
Younger informants	3	29	32
Total	12	51	63
n = 63	*h*-anlaut	no *h*-anlaut	Total
NORMs/NORFs	14	17	31
Younger informants	6	26	32
Total	20	43	63

Table 11: Use of anlaut according to age-group in the 2016/17 Salzburg dialect atlas dataset

16 A chi-square test reveals no significant difference between the two age groups ($\chi^2 = .648$, $n = 63$, $df = 1$, $p = .421$, Cramer's $V = .10$).

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Furthermore, an interesting change begins to emerge regarding the use of the stem vowel for the 2PL. We found a significant correlation between the stem vowel variants and the two age groups ($\chi^2 = 9.908$, $n = 63$, $df = 1$, $p = .002$, Cramer's $V = .397$). The younger informants use the *a*-monophthong more frequently than the older informants. The older informants prefer the *ai*-diphthong (see Table 12).

$n = 63$	*a*-monophthong	*ai*-diphthong	Total
NORMs/NORFs	10	21	31
Younger informants	23	9	32
Total	33	30	63

Table 12: Use of the stem vowel according to age-group in the 2016/17 Salzburg dialect atlas dataset

The areal distribution of *a*-monophthong or *ai*-diphthong over the dialect regions is still significant within the younger group ($\chi^2 = 9.354$, $n = 32$, $df = 2$, $p = .009$, Cramer's $V = .541$): Whereas the *a*-monophthong dominates in the West-Central Bavarian dialect region (67 %) and the South-Central Bavarian transition zone (89 %), the *ai*-diphthong still prevails in the South Bavarian dialect region (83 %) (see Table 9).

Regarding the use of the plural paradigm variants, variant 3 (ABA) is frequently used in the 2016/17 dataset. Whereas the older informants stick much more to variant 4 (CBC, 42.9 %) which has -NT suffix for the 1/3PL, the younger informants clearly prefer to use variant 3 (ABA, 71 %) which shows -EN suffix for the 1/3PL. Variant 1 (ABC) is only used by the older informants in 14.3 % of cases (see Table 10). A chi-square test demonstrates a significant correlation between the two age cohorts and the use of plural paradigm variants ($\chi^2 = 8.336$, $n = 59$, $df = 3$, $p = .040$, Cramer's $V = .38$).

As mentioned above, the use of anlaut variants significantly correlates with the three dialect regions for the NORMs/NORFs of the 1970/80s and the 2016/17 dialect atlas data. Interestingly, this no longer counts for the younger informants ($\chi^2 = 5.744$, $n = 32$, $df = 2$, $p = .057$, Cramer's $V = .47$). Here, the *s*-anlaut clearly prevails in all of Salzburg's dialect regions. For the younger group, plural paradigm variant 3 (ABA) also dominates in all of these dialect regions ($\chi^2 = 5.920$, $n = 31$, $df = 4$, $p = .201$, Cramer's $V = .31$), while variant 4 (CBC) remains strong in the western parts of the South-Central Bavarian transition zone. It is, however, striking that the younger informants from the West-Central Bavarian region only use variant 3 (ABA) (see Figure 10).

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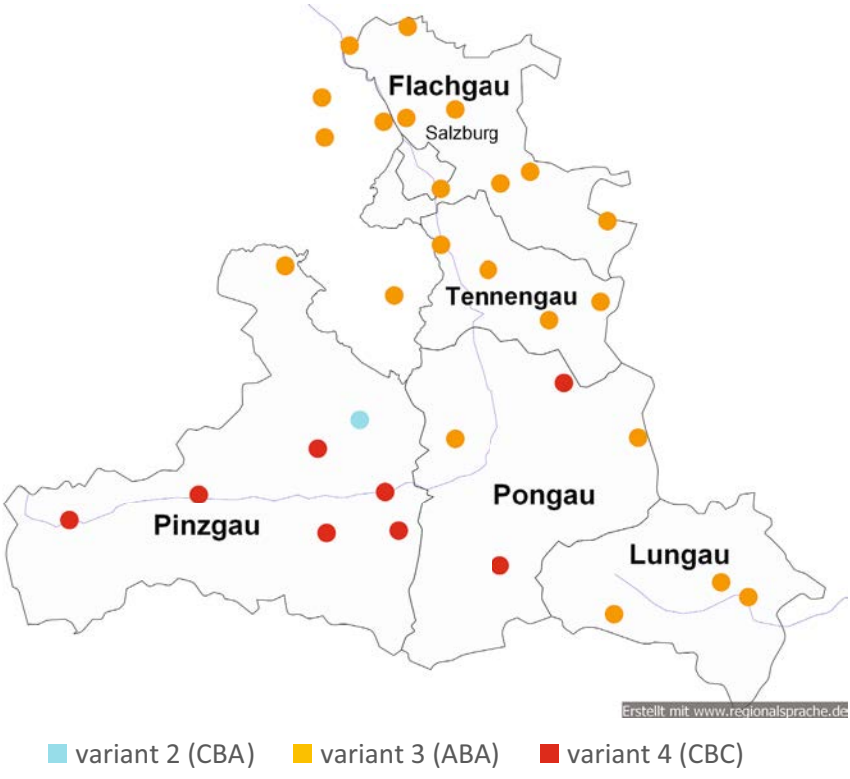

Figure 10: Distribution of *sein* plural paradigms (younger informants 2016/17)

4.3 In-depth Analysis of *sein* Plurals in the DiÖ-dataset

Our third dataset provides recordings from five locations: Berndorf (BD), Rußbach (RU), Hüttschlag (HÜ), Maria Alm (MA) and Lessach (LE). These locations represent the rural areas of Salzburg's five districts (Flachgau, Tennengau, Pongau, Pinzgau, and Lungau). Four informants (2 NORM/NORFs and 2 younger speakers) were recorded at each location. The verb *sein* was tested in two contexts. Firstly, it was surveyed in its isolated (plural) paradigm and secondly, its forms were embedded in a broader syntactic context (see Table 12). In total, 255 tokens were analysed for this dataset.[17]

Regarding the anlaut distribution for the NORM/NORFs the results show a clear distinction between the Central Bavarian region and the other two dialect

17 Unfortunately, 25 out of 280 occurrences did not qualify for evaluation due to incorrect answers or bad audio quality.

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areas. The NORM/NORFs in Berndorf (Central Bavarian) exclusively used *h*-anlaut in both contexts (paradigm and syntactic context) whereas all other NORM/NORFs in Rußbach, Hüttschlag, Maria Alm (all South-Central Bavarian) and Lessach (South Bavarian) used *s*-anlaut in both contexts. The apparent-time effects towards the use of the *s*-anlaut are also confirmed in this dataset. Only one younger informant from Berndorf used the *h*-anlaut in three cases (see Table 11).[18] All other informants invariably realized *s*-anlaut in both contexts, giving evidence that the tendency towards *s*-anlaut is strongly prevalent in this area.

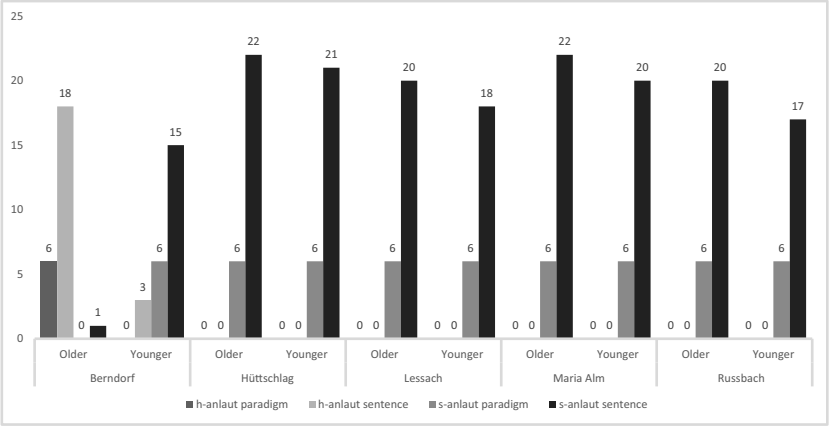

Figure 11: Use of anlaut according to location and age

Furthermore, the stem vowel of the 2PL seems to be strikingly stable. Informants from Berndorf and Maria Alm only use the monophthong */a/*. In Lessach, Hüttschlag and Rußbach, the diphthong */ai/* prevails.

The DiÖ-data also reveal variation for the realization of the stem vowel of the 1/3PL. Informants used either an *a*-monophthong (e. g. *mi(a) san*), an *e*-monophthong (e. g. *mi(a) sen*) or a diphthong (e. g. *mi(a) sain*).[19] This variation is restricted to the South Bavarian informants from Lessach and the syntactic context (see Table 13).

18 BD_male_young uses the *h*-Anlaut three times for 3PL when embedded in syntactic structures (Item No. 82, 135, 533).

19 Further evidence for the use of the *e*-monophthong and the *ai*-diphthong in *sein* plural forms can be found in Mauser (1998).

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No.	ITEM	Person	young female	young male	NORF	NORM
43	'These were the cleverest ones.'	3PL	n.a.	n.a.	n.a.	*sain(d)*
67	'Where are mother's shoes?'	3PL	*sen(d)*	*sen*	*send*	*sain*
82	'The sledges from the catalogue are quite expensive.'	3PL	*san*	*sen*	*sain*	*san*
87	'But those were nice days.'	3PL	*sen*	n.a.	*san*	*sain*
135	'The apples were already rotten.'	3PL	*sen*	n.a.	*sen*	*sa(i)n*
337	'We have travelled to Vienna today.'	1PL	*sen*	*sem(ma)*	*sen*	*sain*
338	'We are in the hotel.'	1PL	*sen*	*sem(ma)*	*san*	*sain*
368	'They are the best!'	3PL	*san*	*sain(d)*	*sain*	*sa(i)n*
377	'These sausages are better boiled than fried.'	3PL	*sain*	*saind*	*sain(d)*	*sain*
533	'The birds that are sitting over there are really fat.'	3PL	*sain*	*sen*	*sen*	*san*
543	'I will stop asking now, because we are done.'	1PL	*sem(ma)*	*sen*	n.a.	*sen*

Table 13: Variation of *sein* plural forms in Lessach in the 2016/17 DiÖ-dataset (sentence context)

The younger informants always applied *e*-monophthong for the 1PL, whereas the NORM/NORFs varied between all three forms. Both older informants showed intra-individual variation: *LE_fem_old* (NORF) varied between *e*- and *a*-monophthong, LE_male_old (NORM) used both *ai*-diphthong and *e*-monophthong. The same three variants are also used in both age groups when forming the 3PL, showing a remarkable amount of intra-individual variation (see Table 14).

stem vowel 3PL	LE_fem-old	LE_male_old	LE_fem_young	LE_male_young
/a/	2	-	1	2
/e/	3	3	3	-
/ai/	2	2	3	6

Table 14: Use of the stem vowel for 3PL in Lessach in the 2016/17 DiÖ-dataset

The use of the stem vowel is not related to certain items or syntactical contexts; in other words, there are no coincidences. What becomes clear is that the *a*-monophthong, which is dominant in all other dialect regions, plays a minor role in the South Bavarian dialects (only five realizations).

Regarding the realization of the plural paradigms, we also found a considerable amount of intra-individual variation, particularly for the syntactic context. Here, every informant showed intra-individual variation using either -EN or -NT suffix to form the 1/3PL (see Table 15). We found less intra-individual variation in Berndorf and Lessach insofar that six informants (the two NORM/

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NORFs from Berndorf and all four informants from Lessach) showed consistency in using only one suffix for the 1PL. As displayed in Table 15, for example, the informants *LE_female_old* and *LE_male_old* consistently used -EN suffix to form the 1PL. This result indicates for the conservative South Bavarian dialect area a higher degree of intra-individual stability. Informants from Lessach only varied suffixes for the 3PL, although -EN forms (female: 6, male: 8 times) are preferred to -NT (female: 2, male: 1 times). The same accounts for the West-Central Bavarian dialects in Salzburg (e. g. *BD_female_old*), whereas the South-Central Bavarian dialects exhibit the highest amount of intra-individual variation: For example, informant *HÜ_female_old* shows a clear tendency towards -NT suffix for the 1PL and 3PL but also used -EN suffix for both personal forms. Thus, informant *HÜ_female_old* seems to vary between variant 1 (ABC), the three-form plural, and the two-form plural variants 3 (ABA) and 4 (CBC). These dynamics might be considered as further indication of ongoing language change in this region.

Suffix	**BD old** ♀/♂	**BD young** ♀/♂	**HÜ old** ♀/♂	**HÜ young** ♀/♂	**LE old** ♀/♂	**LE young** ♀/♂	**MA old** ♀/♂	**MA young** ♀/♂	**RU old** ♀/♂	**RU young** ♀/♂
1PL -EN	3/-	3/3	1/3	3/2	3/4	4/4	1/3	2/3	3/2	3/2
1PL -NT	-/4	1/1	3/1	1/2	-/-	-/-	3/1	2/1	1/2	1/2
3PL -EN	4/1	6/7	2/1	3/3	6/8	7/4	2/3	3/3	1/2	4/2
3PL -NT	2/7	1/0	7/8	3/6	2/1	1/2	7/6	5/5	6/7	3/4

Table 15: Individual realizations of -EN and -NT suffix forms for the 1/3PL of *sein*

To sum up, the data show that the *s*-anlaut is spreading into the West-Central Bavarian dialects in Austria while the *a*-stem vowel (2PL) is spreading into the South-Central Bavarian dialects. Furthermore, the two-form plural variant 3 (ABA) is spreading. The high amount of intra-individual variation in the data, however, indicates that the change is still ongoing.

5 Discussion

Section 4 has provided variation and clear trends in the data. To answer our first research question, the *real-time* trend survey (Section 4.1 and 4.2) indicates that the *s*-anlaut will replace the *h*-anlaut in the rural West-Central Bavarian dialects of Salzburg. Whereas we found a clear pattern of regional distribution in the 1970/80s data (see Figure 5), the younger informants recorded in 2016/17 (dialect

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atlas data and DiÖ-data) clearly preferred the *s*-anlaut across Salzburg. The *h*-anlaut is only used in a few cases by older informants (see Section 4.2 and 4.3). This means that the *s*-anlaut spreads into the West-Central Bavarian dialects. Therefore, this feature seems to lose its status to clearly separate West- from East-Central Bavarian dialects in Austria. It would be interesting to see whether or not this development stops at the Austrian-German (Salzburg-Bavarian) or Salzburg-Upper Austrian border. It is well known that political borders influence the dialect landscape in many European regions (cf. Auer et al. 2015; Auer 2018: 163–164 and 2004).

To answer research question two, the *a*-monophthong seems to replace the *ai*-diphthong in South-Central and South Bavarian dialects. Even in the South Bavarian Lungau, the younger informants prefer /*a*/—over /*ai*/-forms.

As a consequence, we find correlations between the developments in the anlaut and the stem vowel for the 2PL. To answer research question three, in the 1970/80s dataset *h*-anlaut appears very frequently with *a*-monophthong, whereas *s*-anlaut is more likely to appear with *ai*-diphthong. This seems to change over the years. For the younger generation, *s*-anlaut is now very likely followed by *a*-monophthong. Thus, the most common form for the 2PL in the 2016/17 Salzburg dialect atlas dataset is *sadds* ('you are').

In simple terms, both developments indicate that (East-)Central Bavarian dialect features are spreading into Salzburg's base dialects.[20] These dialect features very often correspond with features that prevail in the regional vernaculars. That means that we have to consider any convergence between both the different dialect areas (horizontal dialect contact) and the dialect-to-standard advergence (vertical dialect contact). In particular, the spread of *sadds* forms (2PL 'you are') illustrates the importance of the Viennese-influenced regional vernaculars (cf. Moosmüller 1991: 50f.; Vergeiner 2019: 156).[21]

Regarding research questions four and five, a very similar development holds for the plural paradigm. We found a clear tendency towards a variant that corresponds structurally (ABA two-form plural = -EN, -TS, -EN) to a variant that is well established in the regional Bavarian vernaculars (see Table 3). Whereas the two-form plural variant 4 (CBC) dominates in the 1970/80s dataset (except in the South Bavarian region, see Section 4.1), the two-form plural variant 3 (ABA) prevails in the 2016/17 datasets, particularly among the younger informants (see Section 4.2 and 4.3). The in-depth analysis (see Section 4.3), however, reveals that this change is far from complete. In addition to the trend towards the two-form

20 Note, however, that the *s*-anlaut is also dominant in the South and South-Central Bavarian dialect regions, whereas the /a/-monophthong is a general Central Bavarian dialect feature.

21 This example underlines the diaglossic situation in the Bavarian parts of Austria which is characterised by a dialect-standard continuum with intermediate forms (cf. Auer 2005: 22; Scheutz 1999: 108; Wiesinger 2014: 76–84).

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plural variant 3 (ABA) we found a considerable amount of inter- and intra-individual variation. The three-form plural variant 1 (ABC), for example, is not only used for *sein*-plurals all over Salzburg's base dialects but also other plural verbs (cf. Bülow et al. 2019). It is, however, most commonly used in the South Bavarian dialects. Furthermore, Bülow et al. (2019) point out that, particularly in the older generation, all forms were used variably, and it is frequencies that change over time.

6 Conclusion

The studies of *sein*-plurals in *real-* and *apparent-time* clearly show that the *s*-anlaut, the *a*-monophthong (2PL) and the two-form plural variant 3 (ABA) are becoming more prevalent among younger speakers and are replacing the *h*-anlaut, the *ai*-diphthong (2PL), the three-form plural variant 1 (ABC) and the two-form plural variant 4 (CBC). Those forms are associated with older speakers or, in the cases of the *ai*-stem vowel and the three-form plural (ABC), with speakers from the South Bavarian dialect region. The conclusion to be drawn from this is, that the base dialectal features of *sein* become more similar with both regional Bavarian vernaculars (dialect-to-standard advergence), which are strongly influenced by Viennese colloquial language and with East-Central Bavarian base dialects (convergence), which themselves are linguistically influenced by Vienna. Even if the data show clear trends (Sections 4.1 and 4.2), we found a large degree of inter- and intra-individual variation to indicate ongoing change (Section 4.3).

In sum, we attest for base dialectal *sein*-plurals a development towards regiolectal forms. We explain this process as leveling through the loss of base dialectal features. "Traditional dialect features are being replaced by regiolectal ones, and these in turn by near-standard ones." (Auer 2018: 169) This movement involves a continuous process of horizontal and vertical dialect contact-induced change. Therefore, dialect leveling in Austria almost seems to be in line with a general trend that is apparent in many European dialect-standard constellations (cf. Auer 2018). For Austria (except Vorarlberg), we can observe an ongoing emergence of more regional dialects.

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ISBN Print: 9783847111443 – ISBN E-Lib: 9783737011440

ISBN Print: 9783847111443 – ISBN E-Lib: 9783737011440