

Research Article

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On explaining stable dialect features: A real- and apparent-time study on the variable (en) in Austrian base dialects

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Abstract: Referring to the so-called “actuation problem”, stability and change are two equally important problems in every theory of language change. However, apart from some exceptions, up to now studies predominantly focused on change, while stable linguistic features have been rarely considered. To address this desideratum and investigate factors that account for stability, the present article combines a real- and apparent-time analysis of the variable (en) in the Austrian base dialects by investigating data from 163 base dialect speakers from 40 locations across the country. The variable (en) occurs as a word-final ending in infinitive as well as in nominal forms, and – with respect to the preceding phonetic environment – shows a high degree of variation within and across all Austrian dialect areas. Although such a high degree of variation is considered a prerequisite for change, the analyses reveal a remarkable amount of stability for several variants of (en) in Austria. As will be argued, this fact can be attributed to both extra- and intralinguistic factors such as the variant’s areal distribution, its frequency, and morphological constraints.

Keywords: stability, German in Austria, phonological change, dialect loss

1 Introduction

Undoubtedly, the seminal paper by Weinreich et al. (1968) was fundamental for the establishment of present-day variationist linguistics. One of the key issues in this article was the so-called “actuation problem”: “Why do changes in a structural feature take place in a particular language at a given time, but not in other languages with the same feature, or in the same language at other times?” (Weinreich et al. 1968, 102). Thus, in line with Weinreich et al. (1968), a theory of language change has to account for both – why certain features change but also why some remain stable. Yet, as Gabriella Rundblad states, change has become the primary focus of research, whereas stability is mostly neglected: “In fact, most even forget to mention that it exists. Consequently, we know fairly well what will trigger change and when it occurs, but we cannot explain when it does not occur” (Rundblad 1998, 369). She concludes, “we need to know more about the reason(s) why at certain points an expected change did/does not occur” (Rundblad 1998, 369). However, with a few notable exceptions (e.g. Taeldeman 2009, Köhl and Braunmüller 2014, Schwarz 2020, Hinskens 2020), empirical research in variationist linguistics does not account for stability. One reason for this might be a certain publication bias in favour of studies with “eventful” outcomes.

In the present article, we will address this desideratum by discussing stability and change based on both a real- and an apparent-time analysis of the variable (en) in the Austrian base dialects. The variable

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(en) corresponds to the word-final ending which developed from Middle High German *-en* for example in infinitive forms (e.g. in *machen*, ‘make’) but also in other word classes (e.g. in nominal forms as in *Ofen*, ‘oven’). This variable has rarely been investigated. Though it is mentioned in several older dialectological studies and regional dialect overviews (see e.g. Kranzmayer 1956, Scheutz 1985, Wiesinger 1989, Scheuringer 1990, Mauser 1998), there are no recent, more comprehensive studies.

Based on the findings of traditional dialectology, one has to suppose that in the west, in the Alemannic parts of Austria, (en) generally developed into schwa (e.g. [maxə] for *machen*, ‘make’). In contrast, the Bavarian dialects are characterised by various realisations for (en), such as [ɐ], [ɛn], or [n] (e.g. [mɔxɐ], [mɔxɛn], [mɔxn] for *machen*, ‘make’). It has been stated that the distribution of these variants in Bavarian mostly depends on the preceding phonetic environment, but also on morphological and lexical factors. In addition, there is a complex interplay of intra-linguistic factors with spatial variation (Wiesinger 1989, 14–20). Previous research assumed that the complexity might be receding through the influence of urban vernaculars (e.g. of Vienna) corresponding more closely to the standard language (see e.g. Scheutz 1985, Wiesinger 1989, Scheuringer 1990). In general, several studies have shown that both regiolects and standard language varieties heavily influence the traditional base dialects in Austria (see e.g. Scheutz 1985, Scheuringer 1990, Bülow et al. 2019). In view of the diaglossic situation in the Bavarian parts of Austria, these tendencies do not come as a surprise (see e.g. Auer 2005, 22–23). In the case of (en), we would definitely have reason to expect a change. In the present article, we re-examine this claim by investigating the various variants of (en) in different parts of Austria.

In doing so, we analyse data from a comprehensive dialect corpus obtained by the project “Variation and Change of Dialect Varieties in Austria (in Real and Apparent Time)”. It consists of data from 163 dialect speakers from 40 locations throughout Austria, with at least four speakers per location from two generations, balanced for gender. Within the framework of both a real- and an apparent-time analysis, the realisations of 26 word forms – 22 infinitive forms and 4 nominal forms – are investigated.

In what follows, we firstly provide a brief overview of the factors of stability and change in theories of language change with a special focus on the distinction between primary dialect features (PDF) and secondary dialect features (SDF) (Section 2). Thereafter, we present findings on (en) in previous dialectological research (Section 3) before we explain the data material and methods of the present study (Section 4). The results are displayed in Section 5 and discussed in Section 6.

2 Stability and change

Before accounting for stability and change in variationist theory, one might attempt to define the terms “change” and “stability”. It is a truism within variationist linguistics that change requires variation. It is a precondition of change that a given linguistic feature becomes altered with another feature, which may either be newly developed or borrowed. Over time, the newer variant might become more and more frequent, gradually replacing the older variant, which eventually disappears. Yet, variation is a necessary but not sufficient condition for change. A new variant may not prevail, but either disappear or remain infrequent (cf. e.g. Croft 2000). If the latter is the case, Rundblad (1998, 370) speaks of “additive stability” as opposed to “replacive change” (when the new variant prevails) and “conservative stability” (when a given feature remains invariable) (cf. for further terminological distinctions concerning stability Tældeman 2009, 355).

As noted in Section 1, the phenomenon of stability is widely underrepresented in empirical research, although, on a conceptual level, most theories of language change account for it. Very often, stability is explained by either the influence of social norms, identity-related motives, and/or a strive for intercomprehension (cf. e.g. Milroy 1987, Keller 1990, Croft 2000, Schmidt and Herrgen 2011). Yet, in many cases these theories do not account for the question why particular linguistic features remain stable, whereas others do not. Apart from typological accounts (cf. e.g. Nichols 2003, Dediu and Cysouw 2013), only little research focused on this question. In traditional dialectology, however, at least one key concept relates to

this problem, namely the distinction between PDF and SDF. Since this concept is concerned with contact-induced phonetic change, which is also the focus of the present study, we will focus on this distinction for the remainder of this section.

According to Schirmunski (1930, 118), who was probably the first researcher who used the terms, “PDF” refers to features that are “conspicuous” in dialect speech when compared to the standard language (and/or other dialects), whereas SDF are “inconspicuous”. It is the SDF that are supposed to be (more) stable in contact-induced changes, whereas PDF are more susceptible to change. As Schirmunski (1930, 118) emphasises, the differentiation must be considered as continuous, not binary. And although Schirmunski’s initial notion has been criticised e.g. as being circular, not very informative and even completely useless (e.g. Trost 1968, Reiffenstein 1976, Scheutz 1985), the distinction has been developed further until today (Lenz 2010, 92). There are several attempts to clarify the prototypical properties of PDF and SDF (see e.g. Trost 1968, Reiffenstein 1976, Auer 2001, Auer et al. 1998, Lenz 2010, 2003, Taeldeman 2009, Schwarz et al. 2011, Schwarz 2020):

In contrast to PDF, SDF are supposed to affect small phonetic, non-phonological differences between a given dialect feature and the corresponding standard language form. In line with this assumption, SDF tend to be continuous (rather than categorical) variables, which are not displayed in written language. Some authors have suggested that SDF are ultimately the result of post-lexical rules, whereas PDF concern the underlying lexical forms (Reiffenstein 1976, cf. also Taeldeman 2009, 365, Hinskens 2020, 63). Consequently, with regard to the role of SDF in language change, we would expect a gradual shift of articulation patterns happening simultaneously in all affected lexemes. In contrast, a change of PDF is characterised by abrupt sound replacement and lexical diffusion. In general, PDF change before SDF do.

But SDF are not only more stable in language change – unlike PDF they are also believed to be transferred into other vertical strata. They provide the basis for regiolects or even the regional accents of the standard language (Lenz 2010, Schwarz et al. 2011, Vergeiner 2019, 162–163).¹ One reason for this may be that SDF are assumed not to cause any difficulties for inter-dialect comprehension. Non-native speakers, however, hardly ever learn to produce SDF actively (cf. Lenz 2010, 91–92; for discussion Auer et al. 1998). When it comes to their geographical distribution, SDF are supposed to cover larger areas, whereas PDF tend to be geographically more restricted (Hinskens 2020, Schwarz et al. 2011).

Another widespread claim is that speakers are unaware of SDF, so they neither label them, nor use them for indexing social identity. Usually, SDF are supposed to be non-salient variants without any stigma (or prestige, cf. Taeldeman 2009, 363) attached to them (cf. Auer 2014 and Lenz 2010 for a comprehensive discussion of the term “salience”). However, as e.g. Auer et al. (1998), Lenz (2003) and Lenz (2010) argue, salience is neither prerequisite for the stability of SDF, nor the change of PDF.

As Auer (2014, 18) shows, one must additionally consider whether it is easy or difficult for dialect speakers to acquire a new (standard) language feature – if it is hard for them to adapt to a standard form, a corresponding feature in their dialect may remain stable even if it is strongly stigmatised. Similarly, Kehrein (2012, 268) observes that an unclear and inconsistent correspondence between a dialect and a standard feature may hamper the substitution of the former (cf. also Kühl and Braunmüller 2014, 19). In contrast, Hinskens (2020, 75) states that the predictability, regularity and productivity of a feature within the dialect system may favour its stability (cf. also Taeldeman 2009, 365). Furthermore, as Hinskens (2020, 75) points out, a certain relatedness/coherence with other stable language features might contribute to a greater stability. Another aspect to be considered is the presence or absence of concurring dialect forms in the same region, especially if those are closer to the standard language. Schwarz (2020, 115) argues that such forms may facilitate the loss of a feature. Features may be stabilised, however, by a high type and token frequency (Vergeiner 2019, 163) and the occurrence within a regular morpheme (Schwarz 2020, 121–122).

¹ To account for the fact that some dialect features show up in different strata in the “vertical dimension” in the triangle between standard varieties and base dialects, in addition to secondary also tertiary, quaternary and even quintary dialect features have been differentiated (cf. e.g. Lenz 2003); for a threefold division cf. Taeldeman (2009, 363).

It is one of the key objectives of the present study to re-examine whether these aforementioned prototypical properties account for stability and change. As will be shown in the next section, the variable (en) is very well suited for such an undertaking – on the one hand, because (en) includes various variants which differ in several properties outlined above (e.g. geographical reach, regularity, type-token-frequency), and on the other hand, because previous studies have already indicated that certain variants of (en) may be more prone to change, whereas others remain stable.

3 Previous findings on (en) in Austria

Findings on the phonology of (en) in the Austrian base dialects are largely based on older sources, most importantly Kranzmayer (1956, 115–117) and Wiesinger (1989, 13–25), both drawing on data collected in the first half of the twentieth century. More recent studies commenting on this phenomenon are limited to the description of the variation in individual dialect areas (cf. Scheutz 1985, 114–118, Scheuringer 1990, 378–379, Mauser 1998, 266–281, Mauser 2009, 57–62). Other data can be gained from maps in regional dialect atlases (e.g. SOB = Eichinger, Ludwig (2008–2010); TSA = Klein et al., (1965–1971); VALTS = Gabriel (1985–2006)).

To facilitate the localisation of the findings presented in this section, we first show a map of Austria, in which the most important isoglosses between the variants for (en) – based on Kranzmayer (1956) and Wiesinger (1989) – are drawn (cf. Figure 1). The roman numbers (I) to (V) refer to the core areas distinguished below (for reasons of clarity some minor isoglosses as well as the isoglosses with regards to the context (5) in Table 1 are omitted; cf. Section 5 for these isoglosses). Despite great similarities, the isoglosses identified by Kranzmayer (1956) and Wiesinger (1989) do not always overlap, especially in the eastern parts of Austria. One reason for this is that Wiesinger (1989) accounts for more recent sound changes (cf. e.g. the isogloss around Vienna). Figure 1 also shows the traditional dialect classification of Austria (upper left corner). Obviously, the traditional dialect classification coincides at least partially with the isoglosses for (en).

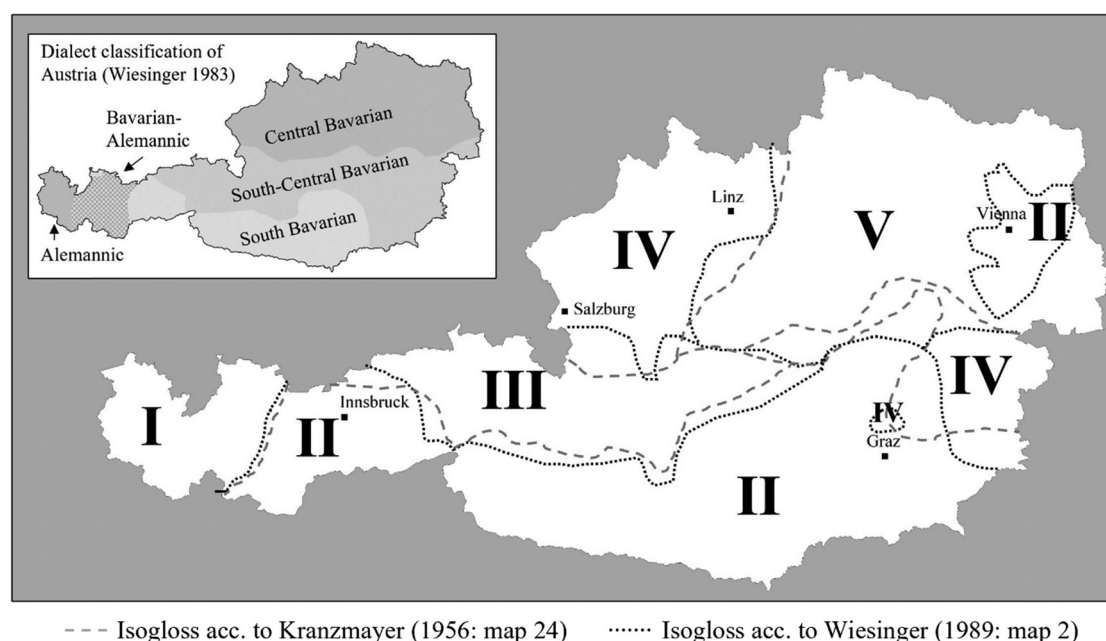


Figure 1: Core areas for variants of (en) in the Austria base dialects (the roman numbers refer to core dialect areas distinguished in Table 1).

Table 1: Prototypical realisations of (en) in individual dialect areas as documented by traditional dialectology (Kranzmayer 1956 and Wiesinger 1989)

Preceding sound	(Austrian) Standard German	Dialect area				
		I	II	III	IV	V
(1) Nasal	[ən] [bʁɛnən] (<i>brennen</i> , ‘burn’)	[ə/e] [bʁɛnə]	[ən/en]/ø [bʁɛnen/bʁɛn]	[e] [bʁɛne]		
(2) Palatovelar fricative	[(ə)n/ŋ] [maxŋ] (<i>machen</i> , ‘make’)	[ə/e] [maxə]	[ŋ] [mɔxŋ]		[e] [mɔxe]	
(3) Labiodental fricative	[(ə)n/m] [hɛlfm] (<i>helfen</i> , ‘help’)	[ə/e] [hɛlfə]	[m] [hɛlfm, hø:fm]			[e] [hø:fe]
(4) Plosive, liquid (post-)alveolar fricative	[(ə)n/m/ŋ] [ɛsn] (<i>essen</i> , ‘eat’)	[ə/e] [ɛsə]	[n/m/ŋ] [ɛsn]			
(5) Vowel, glide	[(ə)n] [baʊ(ə)n] (<i>bauen</i> , ‘build’)	[ə/e] [bʊə]	[ən/en]/[n]/ø [baʊen/baʊn/baʊ]			

Following Kranzmayer (1956, 115–117) and Wiesinger (1989, 13–25), the most important isogloss regarding the variants of (en) is located between Alemannic and Bavarian. In the Alemannic area (I – including the Bavarian-Alemannic transition zone – (en) is generally affected by a loss of the nasal, resulting in the ending schwa (either [e] or [ə]; see variants for area (I) in Table 1). In contrast, the nasal was at least partially maintained in Bavarian, depending on the preceding sounds:

- If (en) follows a nasal (see context (1) in Table 1), in both the Central Bavarian dialects and many South-Central Bavarian dialects the word-final nasal is lost, resulting in the ending schwa ([e]) (see area (III), (IV), and (V) in Table 1). In contrast, in most South Bavarian dialects the word-final nasal as well as the schwa is preserved (see area (II) in Table 1). It may be realised as [ən] (like in the Austrian standard language) or [en]. Additionally, there are some South Bavarian dialects where the ending is completely absent. Following Wiesinger (1989, 16), this is to be expected in parts of Tyrol as well as Carinthia and Styria.
- If (en) is preceded by a palatovelar² or labiodental fricative (see (2) and (3) in Table 1), some Bavarian dialects again have the ending [e]. Notably, [e] is more widespread after a palatovelar fricative since it occurs in both western and eastern Central Bavarian dialects (see areas (IV) and (V) in Table 1), whereas after labiodental fricatives only dialects in the east have [e] (see area (V) in Table 1).³ In those Bavarian dialects retaining the nasal, the schwa is dropped, which is also common in the standard language (cf. e.g. Duden 2015). As a consequence, /n/ may be assimilated to preceding palatovelar and labiodental sounds, resulting in [ŋ] or [m], respectively.
- A general preservation of the nasal is reported when (en) follows plosives, (post-)alveolar fricatives, and liquids (see (4) in Table 1). In this context, because of a syncope and eventually a progressive assimilation either [n], [m], or [ŋ] is realised.⁴
- After a vowel or glide there is a large area in Central and South-Central Bavarian, where the ending is completely lost (see (5) in Table 1). In contrast, in most South Bavarian dialects the nasal is preserved, in some local dialects even the schwa.

These patterns result in a terrace-shaped landscape (“*Staffellandschaft*”) with certain conditional relationships. For example, if there is [e] in an Austrian dialect for (en) after labiodental fricatives, there is also

² With this term we are referring to the allophones [x] and [ç].

³ Note, however, that the variant [e] forms a coherent area within the Bavarian dialects, extending to the federal state of Bavaria in Germany; here also western Central Bavarian dialects have [e] after labiodental fricatives (cf. the SOB for further details).

⁴ One exception includes East Tyrol, where the ending may disappear when preceded by a /l/ (Wiesinger 1989, 17).

[ɐ] for (en) after palatovelar fricatives in this dialect. If a dialect in Austria has [ɐ] for (en) after palatovelar fricatives, it has [ɐ] for (en) after nasals.

Because (en) is an important morpheme for inflection in German, not only phonetic–phonological but also morphological factors have caused special developments in certain word forms and lexemes. For instance, in several forms of the strong past participle the expectable morpheme corresponding to (en) varies with a dental plosive as the weak inflection has been conveyed onto some strong verbs. Hence, for example, the Bavarian form *geritten* ‘ridden’ alters between [graɛtət] (without (en)) and [grɪtn] (with (en)). For the nominal inflection, there are similar exceptions (Kranzmayer 1956, 115). Since the present study is concentrated on stability and change in phonetics, infinitive forms – where special developments are least expectable (Kranzmayer 1956, 115) – will be focussed. However, because we do not want to completely ignore the influence of morphological factors on the phonetic variation of (en), we include some nominal lexemes (see Section 4).

Based on the aforementioned studies accounting for (en), one may suppose different directions in the development of the forms and areas outlined above: As several studies for Germany indicate, the Alemannic ending [ə/ɐ] might be predominantly stable, and it may not only be productive with regards to loan words (e.g. [mɛɪlə] for *mailen* ‘to send an e-mail’) but even be transferred into other vertical strata (both regiolects and the standard language) (Auer 1990, 52, Schwarz et al. 2011). Conversely, in Bavarian the ending [ɐ] is supposed to be replaced in favour of [ən/en] (after nasals) and [n/m/ŋ] (after other sounds). The same may account for the absence of the ending after vowels and glides (see e.g. Wiesinger 1989, 19–20).

Wiesinger (1989, 24) suggests that the loss of [ɐ] in Bavarian is influenced by the colloquial language of Vienna, diffusing to the city’s vicinity. Scheuringer (1990, 379) claims the loss of [ɐ] has spread to cities and towns throughout the Central Bavarian parts of Austria. From there it might also influence rural dialects. Interestingly, across the Austrian-German border Scheuringer (1990, 379) could not identify the same amount of change, a fact that he explains with the higher acceptability of [ɐ] in the federal state of Bavaria (cf. also Vergeiner 2021 for similar differences between speakers of Bavarian in Austria and Germany). Based on his study on vertical variation in the town of Ulrichsberg (Upper Austria), Scheutz (1985, 115) also describes a loss of [ɐ], but he explains this change as being strongly influenced by the phonetic context. As he asserts, in particular after nasals the ending [ɐ] is retained because speakers avoid a complete assimilation. However, since in both the Austrian standard language (cf. e.g. Vergeiner 2021) and the surrounding dialects the schwa is generally not omitted after nasals (contrary to other preceding sounds), this explanation is not very plausible.

4 Methods and data sample

To investigate the stability and change of (en) in the Austrian dialects, we conducted both a real- and an apparent-time study. Our main historical benchmarks for the real-time analyses are Kranzmayer (1956, 115–117) and Wiesinger (1989, 13–25) (Section 3). To investigate the current state of dialectological variation we will draw on a dialect survey conducted within the framework of the project “Variation and Change of Dialect Varieties in Austria (in Real and Apparent Time)”. The survey data consist of dialect recordings obtained by trained fieldworkers by means of a questionnaire. In what follows, we are describing the project’s research locations and informants in further detail (Section 4.1) before accounting for the stimuli analysed (Section 4.2).

4.1 Research locations and informants

The present study is based on a dialect survey conducted in 40 small, rural villages throughout Austria. Figure 2 shows the locations and, for a better orientation, the borders of the federal states of Austria. The numbers in Figure 2 refer to Table A1 in the appendix, where all research locations are listed.

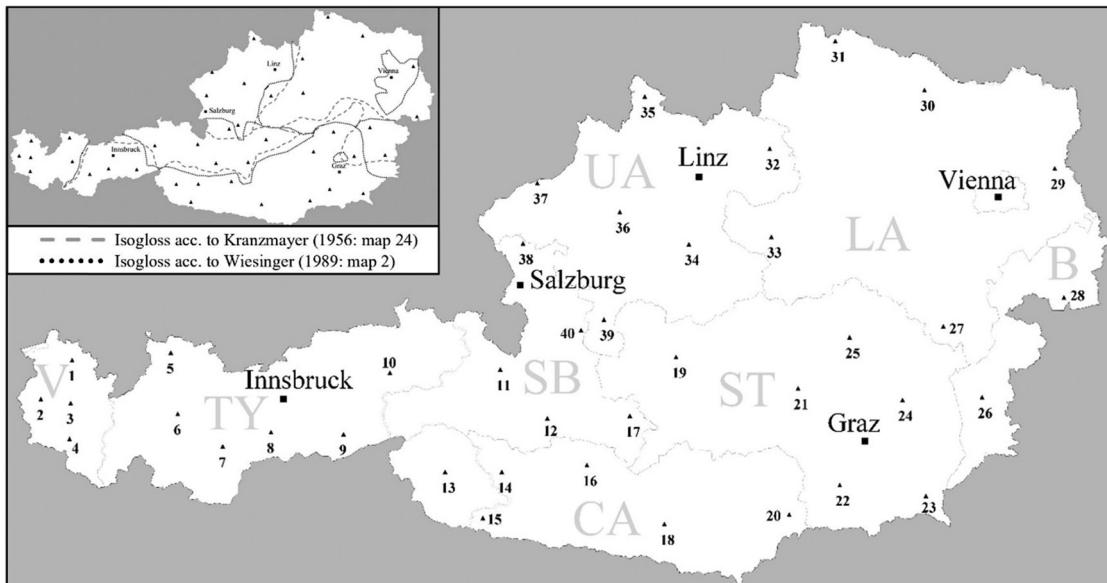


Figure 2: Research locations (V = Vorarlberg, TY = Tyrol, SB = Salzburg, CA = Carinthia, ST = Styria, LA = Lower Austria, UA = Upper Austria, B = Burgenland; for the numbers see Table A1 in the appendix).

In the upper left corner of Figure 2, the position of the research locations in the core areas concerning (en) is displayed (Section 3). Obviously, the survey covers all core areas. Note, however, that four locations cannot be allocated to one of these areas because they are located in-between the isoglosses drawn by Kranzmayer (1956) and Wiesinger (1989). As shown in Section 5, for all four locations the isoglosses drawn by Wiesinger (1989) prove to be valid.

In every village, four speakers of the local base dialect were surveyed. Each sample consists of two older (65+ years) and two younger speakers (18–35 years), with one male and one female speaker per age group. Comparing the data of the two age groups will allow us to supplement the real-time data with additional apparent-time data and thus to investigate recent dynamics in dialect change in more detail.

In sum, our sample consists of 163 informants.⁵ Apart from age and gender, traditional dialectological criteria for sampling were applied (cf. e.g. Chambers and Trudgill 1998). The older speakers are typical NORM/Fs (=non-mobile, old, rural males/females) and the younger informants can also be considered prototypical local base-dialectal speakers: They have been raised in an artisanal or agricultural background, they have not received higher education, and their parents were also born and raised in the location under investigation. Both their social and working lives take place in the same local environment.

4.2 Stimuli

As already mentioned, the direct dialect survey was conducted by means of a questionnaire. It includes several tasks, in particular picture naming tasks, completion tasks, and translation tasks, from which we drew and investigated 26 items containing (en) ($n/\text{token} = 4.097$).

The chosen items are primarily infinitive forms (22 items, $n/\text{token} = 3.464$), but additionally we also account for some nominal forms (4 items, $n/\text{token} = 633$; cf. Table 2). Note that in these nominal forms (en)

⁵ The village of Ulrichsberg in Upper Austria was a special focus of the survey; here, seven instead of four speakers were investigated.

Table 2: Items chosen for analysis

Preceding sound (MHG)	Infinitive forms	Nominal forms
Nasal	<i>regnen</i> ('rain'), <i>lernen</i> ('learn'), <i>bringen</i> ('bring'), <i>singen</i> ('sing'), <i>schämen</i> ('be ashamed')	<i>Armen</i> ('pauper')
Palatovelar fricative	<i>brauchen</i> ('need'), <i>rauchen</i> ('smoke'), <i>machen</i> ('make')	<i>Rechen</i> ('rake')
Labiodental fricative	<i>helfen</i> ('help'), <i>treffen</i> ('meet'), <i>kaufen</i> ('buy'), <i>hoffen</i> ('hope'), <i>dürfen</i> ('may')	<i>Ofen</i> ('oven')
Plosive, liquid, (post-)alveolar fricative	<i>fahren</i> ('drive'), <i>spielen</i> ('play'), <i>lesen</i> ('read'), <i>bluten</i> ('bleed'), <i>sagen</i> ('say'), <i>glauben</i> ('believe')	<i>Wagen</i> ('car')
Vowel, glide	<i>bauen</i> ('built'), <i>mähen</i> ('mow'), <i>nähen</i> ('sew')	

is part of the stem in three items and an inflectional morpheme (dative plural) in one ((*die Armen* 'the paupers'). Since the realisation of (en) is heavily influenced by the preceding phonetic–phonological environment (Section 3), we chose several items for every context. The classifications of the preceding sounds are all based on the Middle High German (MHG) proto-system. More recent developments, like the *l*- and *r*-vocalisation, seem not to affect the realisations of (en).

Since our data selection was limited by the underlying questionnaire, we do not have the same amount of data for all contexts. Hence, we will investigate a minimum of three and a maximum of six infinitive forms per context, supplemented by one nominal form for every context. The only exception includes (en) following a vowel or glide since there is no convenient nominal form in the questionnaire for this context. Table 2 shows all lexemes chosen for our study.

5 Results

The presentation of our results is based on the main contexts presented in Section 4.2. In doing so, we will focus on infinitives for most of this section (Sections 5.1–5.5). The core findings for infinitives are summarised in a preliminary conclusion in Section 5.6. In Section 5.7, we review upon (en) in nominal forms.

5.1 (en) following nasals in infinitive forms

The first context to be focused on is (en) preceded by nasals (Figure 3). For this context, the analysis includes five infinitive forms (n/token = 785). Based on the findings of previous research, we will distinguish here and in the following four main variants for the variable (en):

- (1) the vocalic variants [ɐ/ə],
- (2) the consonantal variants [n/m/ŋ],
- (3) the vocalic + consonantal variants [ən/en], and
- (4) the absence of the ending (∅).

Here and in the following maps the inner circles display which of these variants have been realised by the older speakers, whereas the outer circles represent those realised by the younger speakers. For the sake of the real-time comparisons, the maps show the relevant isoglosses drawn by Kranzmayer (1956) and Wiesinger (1989) (cf. Figure 1). Note that in addition to the isoglosses separating the variants [ən/en] and [ɐ/ə] already presented in Figure 1, Figure 3 also displays the isoglosses for those areas where the ending is deleted completely when preceded by nasals (the broken lines with two dots).

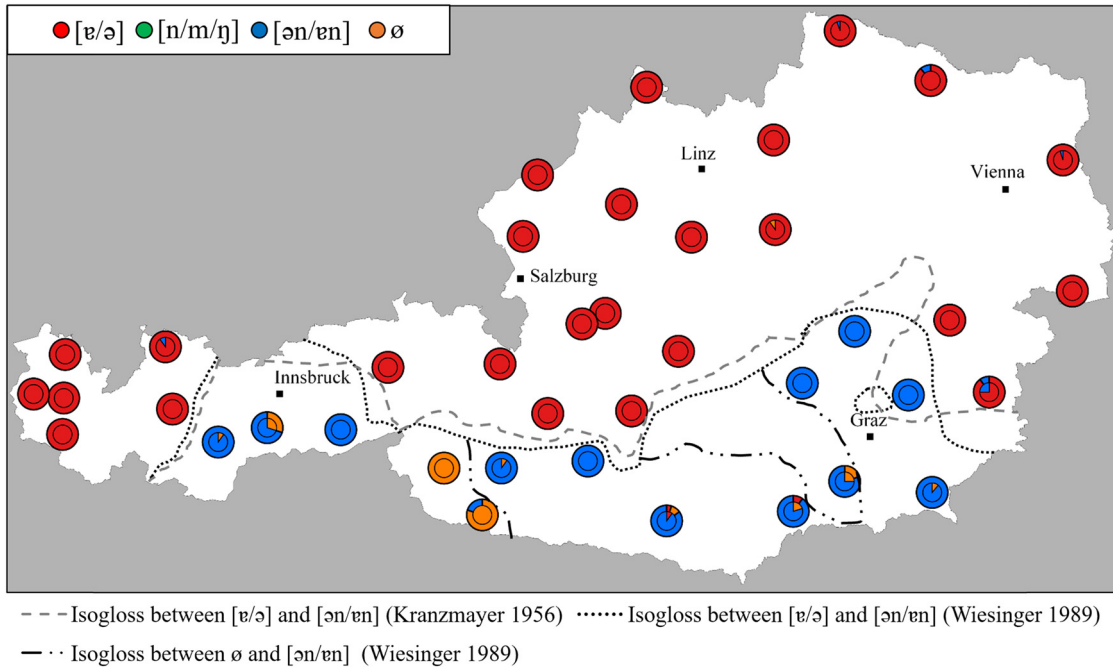


Figure 3: (en) following nasals (inner circles = percentage of variants realised by older speakers; outer circles = percentage of variants realised by younger speakers).

In general, Figure 3 indicates both stability and change: As previously reported in dialectological studies (Section 3),⁶ [ɐ/ə] is predominantly used in the locations belonging to the core areas (I), (III), (IV), and (V) (see (1) for examples taken from the present corpus; the acronyms used refer to the location and the sociodemographic characteristics of the cited informants, e.g. SW = Schönwies; M = male; Y = young).

- (1) [sɪŋə] (*singen* ‘sing’, SW-MY, area I), [lɛɐnə] (*lernen* ‘learn’, UB-FO, area IV)

As there is nearly no variation in these areas, there is no real-time evidence for change with regards to [ɐ/ə] in this context. This is validated by the fact that there are also no significant differences between old and young speakers. Consequently, there is no apparent-time evidence for change.

The situation is different with regard to area (II). The variant [ən/ən] predominates here as to be expected (see (2) for examples).

- (2) [sɪŋən] (*singen* ‘sing’, PE-FY, area II), [lɛənən] (*lernen* ‘learn’, HB-MO, area II)

There are, however, two regions of area (II) where a complete loss of the ending is reported (Wiesinger 1989) – firstly in Tyrol, in particular in East Tyrol in the south-east of Innsbruck (including a small part of Carinthia further south), and secondly in the area between Carinthia and Styria southwest of Graz. As indicated in Figure 3, only in East Tyrol – generally considered a very conservative dialect region (see Vergeiner et al. 2021) – the omitted forms are regularly employed (see (3) for examples).

⁶ The only exception may include Feistritz close to Graz, where according to Kranzmayer (1956) the variant [ɐ/ə] is to be expected. However, one can assume that the isogloss drawn by Kranzmayer (1956) is too far in the west. Wiesinger (1989) locates it further east, which is why one may expect the variant [n/m/ŋ] for the area around Feistritz.

- (3) [sɪŋ] (*singen* ‘sing’, HO-MO, area II), [lɛən] (*lernen* ‘learn’, HO-FY, area II)

In Carinthia and Styria, however, the omitted forms are only rarely used. This finding is in line with Wiesinger (1989, 16), who already reports a loss of the elided forms in favour of [ən/en]. Furthermore, Wiesinger also states that the loss of the ending was formerly more widespread throughout South Bavarian, which may explain why there is an occasional occurrence of the elided forms all over area (II).

5.2 (en) following palatovelar fricatives in infinitive forms

The next context to be presented is (en) following palatovelar fricatives. Here, three infinitive forms were analysed (n/token = 473). The variation for (en) in this context is indicated in Figure 4. In accordance with previous research (Section 3), [ɐ/ə] is used in a considerably smaller area when compared with the context after nasals. As expected, all informants realising [ɐ/ə] in the present context also use [ɐ/ə] for (en) after nasals (Section 5.1). Figure 4 indicates again a considerable amount of stability with regards to [ɐ/ə] (see (4) for examples).

- (4) [bru:xə] (*brauchen* ‘need’, LI-MY, area I), [raʊxə] (*rauchen* ‘smoke’, BD-MY, area IV)

In area (I), apart from one instance when one informant realises the variant [n/m/ŋ], [ɐ/ə] is constantly used. In areas (IV) and (V) the situation is similar,⁷ in particular in the west. The isogloss within area (V) is

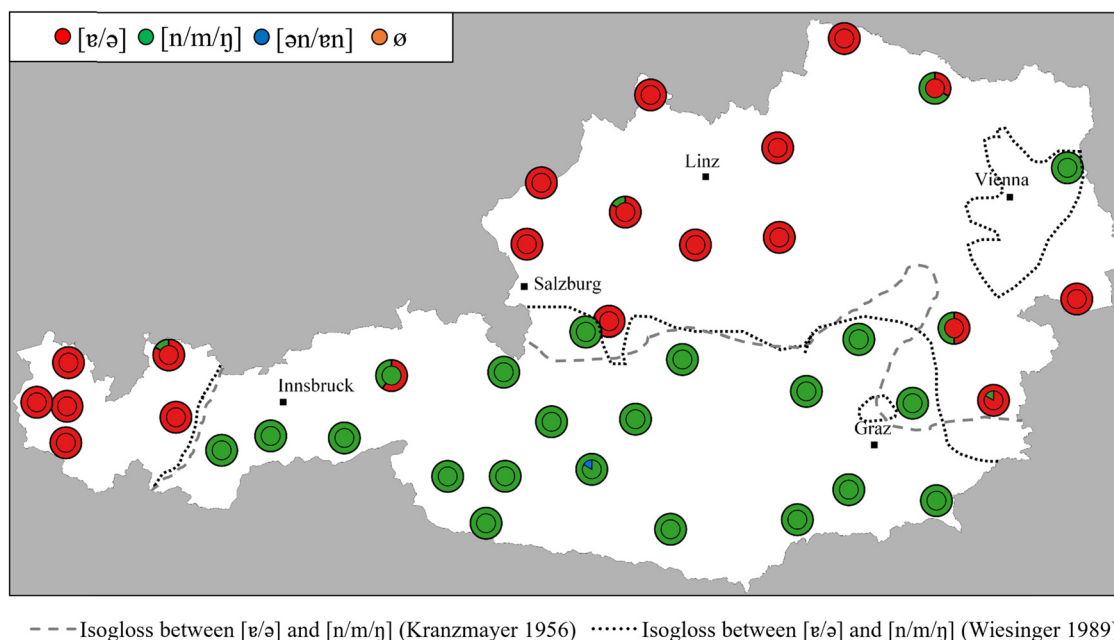


Figure 4: (en) following palatovelar fricatives (inner circles = percentage of variants realised by older speakers; outer circles = percentage of variants realised by younger speakers).

⁷ In the east one can notice that the informants in Feistritz again realise [n/m/ŋ] constantly – as noted in Section 5.1, this seems to be the case because Feistritz actually belongs to area (II). The situation is alike for Rußbach in the south of Salzburg and Weikendorf in the east of Vienna – in line with Kranzmayer (1956) one would presume the variant [ɐ/ə] to be realised in these locations, hence they should belong to area (IV). However, in accordance with Wiesinger (1989) one would count them to area (III) and thus expect the use of [n/m/ŋ], which is indeed the case.

drawn by Wiesinger (1989) because he notes a spread of [n/m/ŋ] from Vienna to the city's vicinity. That this is indeed the case is indicated by the apparent-time differences in two locations close to Vienna, namely Pulkau in the Northwest and Kirchberg in the Southeast of Vienna. Here, [v/ə] is altered with [n/m/ŋ] by the young speakers.

In areas (II) and (III), the variant [n/m/ŋ] is obviously stable (see (5) for examples).

- (5) [braɔxŋ] (*brauchen* 'need', RB-FO, area III), [ʁa:xŋ] (*rauchen* 'smoke', MO-MY, area II)

Only in Kelchsau, a village east of Innsbruck, the young male speaker uses [v/ə].

5.3 (en) following labiodental fricatives in infinitive forms

To investigate the variation of (en) when preceded by labiodental fricatives, five infinitive forms were selected (n/token = 778). In this context, the use of the variant [v/ə] is limited to an even smaller area, as indicated in Figure 5. As to be expected, all speakers realising [v/ə] in this context also use [v/ə] when (en) follows palatovelar fricatives and nasals (see (6) for examples).

- (6) [ko:fə] (*kaufen* 'buy', NE-FY, area I), [tʁefə] (*treffen*, 'meet', AP-MY, area V)

Once again, the map indicates a high amount of stability for area (I). Only two informants in the village of Nesselwängle west of Innsbruck realise [n/m/ŋ] once. In the rest of Austria – according to previous research (Section 3) – [v/ə] is only to be expected in the northeast, in area (V).⁸ However, although [v/ə]

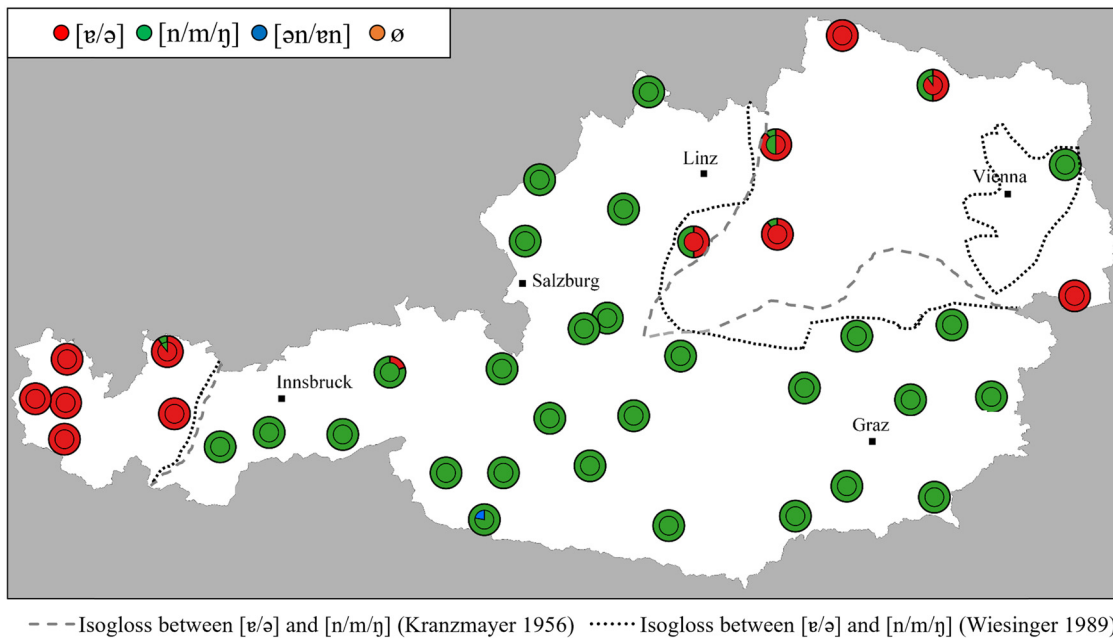


Figure 5: (en) following labiodental fricatives (inner circles = percentage of variants realised by older speakers; outer circles = percentage of variants realised by younger speakers).

⁸ This includes the village of Adlwang south of Linz, which is no part of area (V) according to the isogloss drawn by Kranzmayer (1956). However, in line with Wiesinger (1989) the isogloss seems to run a bit further to the west than Kranzmayer (1956) acknowledges.

occurs in all locations belonging to area (V), in four out of six locations there is variation with [n/m/ŋ]. In three of these locations the younger speakers even realise [n/m/ŋ] more often. Thus, there is both real-time and apparent-time evidence for a spread of [n/m/ŋ] in area (V).

In areas (II), (III), and (IV), the variant [n/m/ŋ] dominates nearly undisputed (see (7) for examples).

- (7) [kafm] (*kaufen* ‘buy’, KS-FY, area III), [trɛfm] (*treffen* ‘meet’, BD-FO, area IV)

The only exception includes again the young male speaker in Kelchsau who is using [v/ə] twice.

5.4 (en) following plosives, liquids, and (post-)alveolar fricatives in infinitive forms

When (en) is following either plosives, liquids, or (post-)alveolar fricatives, there is only little variation as indicated in Figure 6. Our analysis is based on six infinitive forms here (n/token = 956).

According to previous research results, [v/ə] is only realised in area (I), and as the map displays, this proves to be generally true (see (8) for examples).

- (8) [ʃpi:lə] (*spielen* ‘play’, LA-MY, area I), [lɛɪsə] (*lesen* ‘read’, SW-MO, area I)

Notably, there is no variation in area (I). Everywhere else, [n/m/ŋ] is the predominant variant (see (9) for examples).

- (9) [ʃpy:n] (*spielen* ‘play’, UW-FY, area V), [lɛɪsn] (*lesen* ‘read’, EZ-MO, area IV)

Other forms occur only in Hopfgarten in East Tyrol and in Neustift south of Innsbruck. In both locations, there are some special developments in the case of a preceding liquid (cf. for these developments

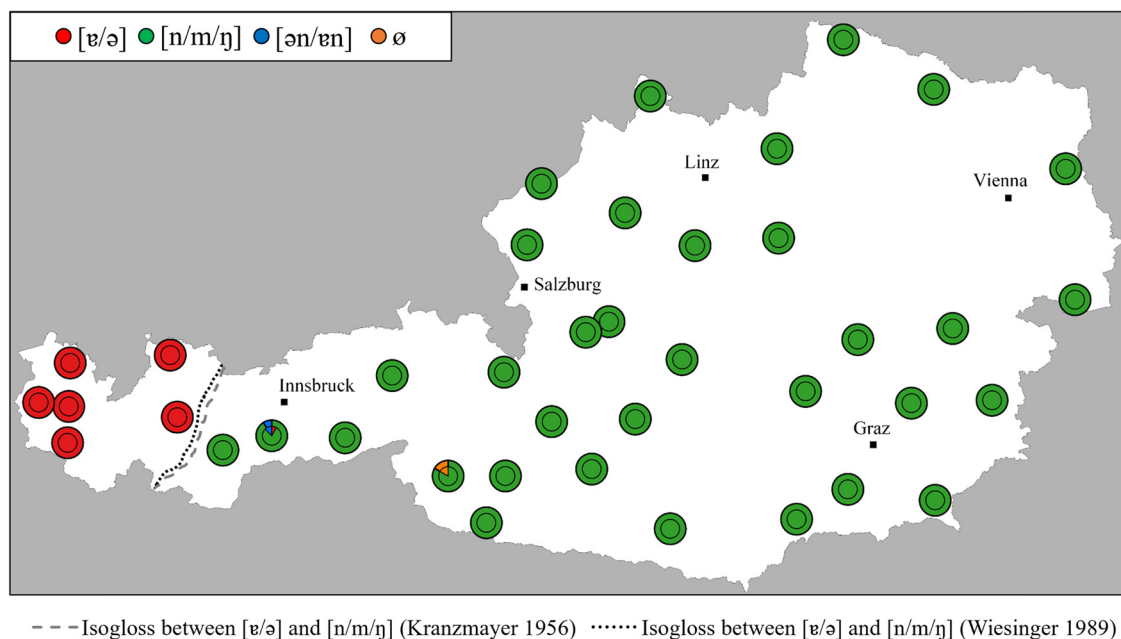


Figure 6: (en) following plosives, liquids, and (post-)alveolar fricatives (inner circles = percentage of variants realised by older speakers; outer circles = percentage of variants realised by younger speakers).

Wiesinger 1989, 17): In Hopfgarten, the ending is lost in this context, in Neustift, in turn, there is no syncope and thus the ending [ɐn/ən] appears (see (10) for examples).

- (10) [ʃpi:l] (*spielen* ‘play’, HO-FY, area II), [ʃpi:lən] (*spielen* ‘play’, NS-MO, area II)

Neither of these exceptions can be attributed to change, thus there is an overall stability for (en) following plosives, liquids, and (post-)alveolar fricatives.

5.5 (en) following vowels/glides in infinitive forms

The last context to be discussed for infinitive forms is (en) when preceded by vowels/glides. According to the data by Kranzmayer (1956) and Wiesinger (1989), there is a complete loss of (en) in this context in many areas of Central and South-Central Bavarian. In most South Bavarian dialects, in turn, the nasal should be preserved, partially also the schwa. With regard to all other contexts presented so far, in area (I) the variant [ɐ/ə] is to be expected.

Figure 7 indicates which variants occur in our research locations based on the analysis of three infinitive forms (n/token = 472). It also shows the relevant isoglosses: In the west, we find an isogloss separating area (I) from the rest of Austria. In the north of the long isogloss reaching from Tyrol to Burgenland the loss of the ending is to be expected (based on Wiesinger 1989). The other isoglosses (represented by broken lines with two dots) enclose several areas where [ɐn/ən] are to occur (also based on Wiesinger 1989).

As shown in Figure 7, the variant [ɐ/ə] is once again stable in area (I). Notably, none of the informants from area (I) varies in the present context (see (11) for examples).

- (11) [nɛɐ] (*nähen* ‘sew’, TS-FO, area I), [majə] (*mähen* ‘mow’, SW-MY, area I)

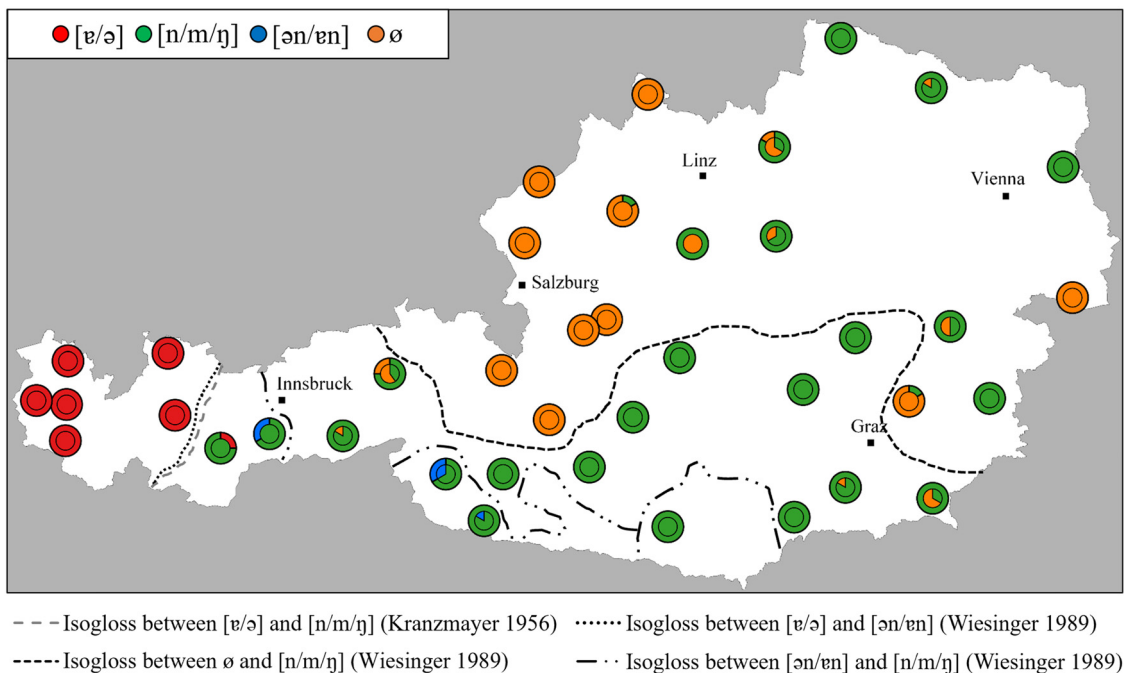


Figure 7: (en) following vowels/glides (inner circles = percentage of variants realised by older speakers; outer circles = percentage of variants realised by younger speakers).

Conversely, in the rest of Austria the situation is quite different. Generally speaking, the omission of the ending, expectable in both Central and South-Central Bavarian, seems to be given up in favour of [n/m/ŋ], especially in the east. Here only some of the older speakers use the omitted forms with generally low frequencies. Most young speakers, in turn, realise [n/m/ŋ] constantly. In the north west, the zero ending is more constantly used (see (12) for examples).

- (12) [na:] (*nähen* ‘sew’, HU-FO, area III), [ma:] (*mähen* ‘mow’, BD-FY, area IV)

Thus ultimately, the real-time and apparent-time differences clearly indicate a language change, most probably accelerated by the influence of Vienna in the east. In the South, [n/m/ŋ] is dominant, as was to be expected (see (13) for examples).⁹

- (13) [na:n] (*nähen* ‘sew’, SG-MY, area II), [ma:n] (*mähen* ‘mow’, SS-MY, area II)

The variant [ən/ən] is only rarely realised in three locations in the respective areas reported by Wiesinger (1989); in these locations, [ən/ən] is restricted to the lexeme *bauen* (‘built’) (see (14) for an example).

- (14) [baɔən] (*bauen* ‘built’, HO-FO, area II)

Hence, the variant [n/m/ŋ] is already established throughout the South Bavarian area as the main variant.

5.6 Preliminary conclusion: (en) in infinitives

The detailed analyses in the previous sections have shown stability as well as change with regard to (en) in infinitive forms in the Austrian base dialects. Table 3 summarises the results numerically for both old and young speakers. For the sake of comparability, for all contexts the same five core areas – based on Wiesinger (1989, see Section 3) – are differentiated. The main variants used by old respective young speakers are highlighted in grey.

Table 3 reveals the great stability in area (I): The variant [e/ə] predominates in both generations regardless of the preceding sound. The linguistic situation in area (II) is also quite stable. However, the variants [en/ən] (in the context of preceding nasals) and [n/m/ŋ] (in all other contexts) are more frequently realised by younger speakers when compared with older speakers. Conversely, some minor variants – for example, the omitted forms after nasals and vowels/glides – have been replaced or are being replaced. In the rest of Austria, the omitted forms after vowels/glides are also considerably diminished. The ending [e/ə] is stable after nasals in the areas (III), (IV), and (V). In case of a preceding palatovelar fricative, [e/ə] is also more or less stable, although in particular in the east (area (V)) there are some indications for a change influenced by Vienna. Such a change becomes apparent in case of a preceding labiodental fricative.

⁹ There are some locations in the south of the respective isogloss where also elided forms are realised, namely Kelchsau and Ginzling in the west of Innsbruck as well as Sankt Georgen and Rassach in the south of Graz. The fact that the older informants use the elided forms more often in these locations indicates that the elided forms are the older ones, thus Wiesinger’s (1989) isogloss seems to be located too far north.

Table 3: Results for (en) in infinitives

Old					Young				
Area	[e/ə] (%)	[n/m/ŋ] (%)	[en/ən] (%)	Ø (%)	Area	[e/ə] (%)	[n/m/ŋ] (%)	[en/ən] (%)	Ø (%)
Nasal									
I	98	0	2	0	I	100	0	0	0
II	1	0	78	21	II	1	0	81	18
III	100	0	0	0	III	100	0	0	0
IV	96	0	4	0	IV	99	0	1	0
V	97	0	1	2	V	98	0	2	0
Palatovelar fricative									
I	100	0	0	0	I	97	3	0	0
II	0	99	1	0	II	0	100	0	0
III	0	100	0	0	III	7	93	0	0
IV	100	0	0	0	IV	96	4	0	0
V	100	0	0	0	V	89	11	0	0
Labiodental fricative									
I	98	0	0	0	I	98	0	0	0
II	0	98	2	0	II	0	100	0	0
III	0	100	0	0	III	3	97	0	0
IV	0	100	0	0	IV	0	100	0	0
V	91	9	0	0	V	79	21	0	0
Plosive, liquid (post-)alveolar fricative									
I	100	0	0	0	I	100	0	0	0
II	0	97	1	2	II	0	98	1	2
III	0	100	0	0	III	0	100	0	0
IV	0	100	0	0	IV	0	100	0	0
V	0	100	0	0	V	0	100	0	0
Vowel/glide									
I	100	0	0	0	I	100	0	0	0
II	0	81	4	15	II	1	88	5	6
III	0	46	0	54	III	0	54	0	46
IV	0	20	0	80	IV	0	28	0	72
V	0	50	0	50	V	0	81	0	19

5.7 (en) in nominal forms

So far, this section has focused solely on infinitive forms. In the remainder of this section, we will expand the scope of our analysis and investigate (en) in nominal forms. In doing so, we limit ourselves to the analysis of four items:

- *Armen* ('paupers') to investigate (en) preceded by a nasal (n/token = 159),
- *Rechen* ('rake') to investigate (en) preceded by a palatovelar fricative (n/token = 151),
- *Ofen* ('oven') to investigate (en) preceded by a labiodental fricative (n/token = 162), and
- *Wagen* ('car') to investigate (en) preceded by a plosive (n/token = 161).

Unfortunately, there is no convenient nominal form for the context of (en) preceded by a vowel/glide, thus we cannot consider this context. In order to save space, this section will not present detailed results in maps like above. Instead, in Table 4 our findings are summarised numerically for all five core areas (again based on Wiesinger 1989).

Table 4: Results for (en) in nominal forms

Old					Young				
Area	[ɐ/ə] (%)	[n/m/ŋ] (%)	[ɐn/ən] (%)	Ø (%)	Area	[ɐ/ə] (%)	[n/m/ŋ] (%)	[ɐn/ən] (%)	Ø (%)
Armen ('pauper')									
I	100	0	0	0	I	100	0	0	0
II	2	0	89	9	II	0	0	100	0
III	85	0	15	0	III	39	0	61	0
IV	67	0	33	0	IV	47	0	53	0
V	67	0	33	0	V	45	0	55	0
Rechen ('rake')									
I	100	0	0	0	I	100	0	0	0
II	8	77	12	4	II	9	91	0	0
III	0	100	0	0	III	0	100	0	0
IV	85	15	0	0	IV	50	50	0	0
V	75	25	0	0	V	45	55	0	0
Ofen ('oven')									
I	100	0	0	0	I	100	0	0	0
II	4	96	0	0	II	0	100	0	0
III	0	100	0	0	III	0	100	0	0
IV	0	100	0	0	IV	0	100	0	0
V	67	33	0	0	V	42	58	0	0
Wagen ('car')									
I	100	0	0	0	I	100	0	0	0
II	0	100	0	0	II	0	100	0	0
III	0	100	0	0	III	0	100	0	0
IV	0	100	0	0	IV	0	100	0	0
V	0	100	0	0	V	0	100	0	0

As indicated in Table 4, in area (I) the variant [ɐ/ə] is again predominantly used by both old and young speakers. There is no variation, in none of the nominal forms. Thus, in area (I) the variant [ɐ/ə] proves to be very stable not only in infinitive forms but also in nominal forms (see (15) for examples).

- (15) [ɔrmə] (*Armen* 'pauper', FO-FO, area I), [rɛɛɛ] (*Rechen* 'rake', LI-MO, area I), [ɔ:fə] (*Ofen* 'oven', NE-FY, area I), [vɔ:ge] (*Wagen* 'car', SW-MY, area I)

In area (II), [ɐn/ən] is the main variant for the lexeme *Armen*. In addition, the elided forms occur sporadically – as with regards to (en) in infinitive forms (Section 5.1); this is the case in East Tyrol in Hopfgarten as well as south of it in the Carinthian village Sankt Lorenzen. Unlike with infinitive forms, however, in these locations only the old speakers realise this variant, which is an indication for its replacement in favour of [ɐn/ən] (see (16) for examples).

- (16) [ɔɐm] (*Armen* 'pauper', HO-MO, area II), [ɔɐmən] (*Armen* 'pauper', HO-MY, area II)

In the other nominal forms in area (II), the variant [n/m/ŋ] is predominately used by both old and young speakers, although in *Rechen*, in particular, other variants occur ([ɐ/ə] is constantly used by the speakers of Sankt Lorenzen in Carinthia, the other variants have no coherent spatial distribution) (see (17) for examples).

- (17) [rɛ:çŋ] (*Rechen* ‘rake’, ST-FY, area II), [rɛxə] (*Rechen* ‘rake’, SL-MY, area II)

In areas (III), (IV), and (V), [ɐ/ə], [n/m/ŋ], and [ɐn/ən] vary. Like in the infinitive forms, [ɐ/ə] is used in all three areas when (en) is preceded by a nasal in *Armen* (Section 5.1). Likewise, [ɐ/ə] is articulated only in areas (IV) and (V) when (en) follows a palatovelar fricative in *Rechen* (Section 5.2). In the context of (en) after a labiodental fricative in *Ofen*, only in area (V) the variant [ɐ/ə] is realised (Section 5.3). Finally, when (en) is preceded by a plosive in *Wagen*, [ɐ/ə] occurs in none of the three areas – as was to be expected (Section 5.4). Thus, one may conclude that the overall use of [ɐ/ə] in Bavarian dialects coincides with its appearance in the infinitive forms (Section 5.6). However, as indicated in Table 4, [ɐ/ə] is under no circumstances constantly used in the respective areas. Instead, there is much variation with [ɐn/ən] in *Armen* and with [n/m/ŋ] in *Rechen* and *Ofen* (see (18), (19), and (20) for examples).

- (18) [ɔrmə] (*Armen* ‘pauper’, KS-MY, area III), [ɔəmən] (*Armen* ‘pauper’, DB-MY, area III)
 (19) [ʁɛçɐ] (*Rechen* ‘rake’, UB-FY, area IV), [ʁɛiçŋ] (*Rechen* ‘rake’, EZ-FY, area IV)
 (20) [ɔʊfə] (*Ofen* ‘oven’, UW-MY, area V), [o:fm] (*Ofen* ‘oven’, WE-FY, area V)

A closer look into the data sample reveals that it is the younger speakers who use [ɐ/ə] less often. For them, it is in almost every context the lesser used variant, [ɐn/ən] and [n/m/ŋ], respectively, being the dominant variants. Ultimately, these apparent-time differences suggest an ongoing language change for (en) in nominal forms which obviously outnumbers the changes occurring in infinitive forms (Section 5.6). Interestingly, this ongoing change is not restricted to the east (area (V)), but applies to all regions. This fact can be attributed to the more advanced stage of change for (en) in nominal forms when compared with infinitive forms.

6 Discussion

Every comprehensive theory of language change has to account for the fact that certain linguistic features undergo change whereas others remain stable (Weinreich et al. 1968, 102). Yet, the question why certain features are less prone to change than others has received little attention in variationist research until now (Rundblad 1998, 369). Some of the few exceptions include early studies which distinguish between primary and secondary dialect features (see Section 2, cf. Schirmunski 1930). With respect to this differentiation, certain criteria for more or less stable dialect features in dialect-to-standard contact have been identified (Auer et al. 1998, Auer 2001, Lenz 2003, Lenz 2010, Tældeman 2009, Schwarz et al. 2011, Schwarz 2020).

One criterion frequently stressed in this regard is the geographical distribution of a variant – the wider distributed a feature is, the more stable it is supposed to be (cf. e.g. Lenz 2003, 2010, Schwarz et al. 2011, Hinskens 2020). This assumption can account for several patterns of stability and change shown in Section 5. Most importantly, it sheds light on the fact that in Bavarian (at least in Austria) the variant [ɐ/ə] is more stable in the context of a preceding nasal than in the context of a preceding palatovelar fricative, where [ɐ/ə], in turn, is more stable than in the context of a labiodental fricative. Ultimately, the stability of [ɐ/ə] proves to be proportional to the extent of its geographical distribution in the Bavarian dialects. One reason for this pattern is probably the fact that a smaller distribution of [ɐ/ə] goes along with a larger distribution of other variants in the original base dialects of Austria – in particular those corresponding to the regiolectal as well as the standard language varieties (e.g. [n/m/ŋ]). The wider distribution of such variants in the standard language might result in a stronger incentive to adopt them (cf. Schwarz 2020, 115).

The fact that the omitted forms (Ø) in the context of preceding nasals tend to be replaced by [ɐn/ən] can also be explained by the existence of dialect variants which both have a wider distribution and correspond more closely to regiolectal and standard variants. Remarkably, Alemannic [ɐ/ə] turns out to be the most stable variant, although it is not very widespread within Austria. One could argue, however, that in the whole German-speaking area Alemannic [ɐ/ə] has indeed a wide geographical reach as it occurs not only in

western Austria but also in most of neighbouring Switzerland and South-West Germany (cf. Schirmunski 2010 [1961], 447–451). Yet, as Lenz (2003, 193) notes, one must consider how the speakers perceive the geographical reach of a variant too. Supposedly, Austrian speakers are at best partly aware of the variants in neighbouring countries because the state boundaries turn out to be significant communication barriers (cf. e.g. Scheuringer 1990). Hence, the wider distribution of [ɐ/ə] outside Austria is not sufficient to explain the stability of the Alemannic variant [ɐ/ə] in Austria.

In fact, other factors seem to be more important: One has to consider, firstly, that the Alemannic dialects in their entirety are structurally very different from Bavarian dialects, and, secondly, that the sociolinguistic role of the Alemannic dialects is somewhat unique in Austria (relatively stable diglossia in Alemannic Vorarlberg vs. dynamic diglossia the Bavarian dialect regions; cf. for discussion e.g. Ender and Kaiser 2014, Schönherr 2016). Consequently, features/variants of Alemannic dialects remain relatively unaffected by processes of variation and change, compared to dialect features/variants in the Bavarian regions.

The spatial distribution of certain variants of (en) alone, thus ultimately, cannot fully account for their differences in stability and change. To provide another example, the omitted forms in the case of a preceding vowel/glide are being replaced even though these forms were originally more widespread across Central and South Central Bavarian. With regard to these omitted forms, another criterion may play a crucial role, namely type-token frequency (Vergeiner 2019, 163, Schwarz 2020, 121–122): The elided forms are generally restricted to a very specific context with rather infrequent lexemes affected. The variant [ɐ/ə], in turn, affects many more lexemes and contexts and may thus be more stable. This accounts, in particular, for the Alemannic dialects, where the variant [ɐ/ə] is generalised for (en) regardless of the preceding sound. This predictability and regularity may favour the variant's stability (Hinskens 2020, 75, cf. also Taeldeman 2009, 365).

With regard to the Bavarian dialects, however, it has been shown that [ɐ/ə] is least stable in area (V), where, in principle, most contexts and lexemes occur with [ɐ/ə]. Thus, based solely on frequency, one would expect [ɐ/ə] to be more stable in area (V) when, for instance, compared to area (IV) in the context of (en) preceded by palatovelar fricatives. To account for this finding, we have to consider the role of Vienna as a centre of linguistic innovation from where the variant [n/m/ŋ] is obviously spreading into other Bavarian dialect areas, in particular into the East Central Bavarian dialects (cf. already Wiesinger 1989, 24, Scheuringer 1990, 378–379). In contrast, the West Central Bavarian dialects prove to be much more stable, maybe because there is no comparable urban centre influencing its vicinity. In general, it seems crucial to consider such sociolinguistic factors in any theory of language stability and change.

Morphology is another relevant dimension. In particular for the variant [ɐ/ə], only morphological factors can explain why it turns out to be more stable within infinitive forms than within nominal forms. In this context, it has to be noted the occurrence of (en) within a regular morpheme – as e.g. Schwarz (2020, 122) claims – is not sufficient to account for the extent of stability and change alone. As we can notice, in the nominal form *Armen* ('paupers'), the (en) occurs within an inflectional morpheme (dative plural), but (en) is much more susceptible to change here than in infinitive forms. To account for this difference, one has to consider that (en) occurs always as an inflectional morpheme within verbal paradigms, whereas (en) can be either an inflectional morpheme or a part of the stem in nominal forms. This polyfunctionality in morphological terms seems to contribute to the greater instability of (en) in nominal forms, whereas the clear morphologisation of (en) in infinitives might have a stabilising effect.

Ultimately, our study indicates that several factors contribute to the stability and change of certain areas and variants with respect to (en). Most of these factors were already identified by Schirmunski (1930) and his successors in the course of the discussion on primary and secondary dialect features (e.g. the geographical reach of a variant, its phonetical distance to the standard form as well as its predictability and regularity, its type-token frequency, or its morphologisation; see in detail in Section 2). Our study indicates that these factors might indeed be relevant for a variant's stability. However, our study also shows that these factors do often not coincide, and they are neither sufficient nor necessary for a variant to be stable or unstable. Consequently, the relevance of the individual factors needs to be examined in more detail. In any case, there is a continuum between more or less stable features and no dichotomy between two types of

variants characterised by distinct (intra- or extralinguistic) properties. Because of this reason, it is nearly impossible to classify (en) and its variants as either primary or secondary dialect features.

Finally, one also has to emphasise that there is generally more stability with regards to (en) in our data than one might expect, especially in light of the fact that already 30 years ago a language change for (en) was predicted (Scheutz 1985, Wiesinger 1989, Scheuringer 1990). This overall stability is at first sight surprising. However, one has to consider the methods used in our present study: It is a well-known fact that direct dialect surveys tend to elicit more conservative forms than those actually spoken (cf. e.g. Auer 2010, Schwarz 2015). The methods used in this study thus have a stabilising effect too. Notably, however, with regards to other phonological variables (e.g. the reflexes of MHG *ê*, *œ*, *ô*, see Vergeiner et al. 2021, postvocalic /r/, see Vergeiner submitted, or the diphthong /æ/, see Vergeiner et al. submitted) the exact same data and methods have allowed us to identify ongoing changes. Thus ultimately, (en) is definitely more stable than other phonological variables in Austria.

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Appendix

Table A1: Research locations, numbers referring to Figure 2

No.	Location	State	No.	Location	State
1	Lingenau	Vorarlberg	21	St. Stefan	Styria
2	Laterns	Vorarlberg	22	Rassach	Styria
3	Fontanella	Vorarlberg	23	Straden	Styria
4	Tschagguns	Vorarlberg	24	Feistritz	Styria
5	Nesselwängle	Tyrol	25	Turnau	Styria
6	Schönwies	Tyrol	26	Eisenzicken	Burgenland
7	Huben	Tyrol	27	Kirchberg	Lower Austria
8	Neustift	Tyrol	28	Apetlon	Burgenland
9	Ginzling	Tyrol	29	Weikendorf	Lower Austria
10	Kelchsau	Tyrol	30	Pulkau	Lower Austria
11	Maria Alm	Salzburg	31	Kautzen	Lower Austria
12	Hüttschlag	Salzburg	32	Unterweissenbach	Upper Austria
13	Hopfgarten	Tyrol	33	Allhartsberg	Lower Austria
14	Mörtschach	Carinthia	34	Adlwang	Upper Austria
15	St. Lorenzen	Carinthia	35	Ulrichsberg	Upper Austria
16	Malta	Carinthia	36	Gaspoltshofen	Upper Austria
17	Lessach	Salzburg	37	Mining	Upper Austria
18	Pernegg	Carinthia	38	Berndorf	Salzburg
19	Donnersbach	Styria	39	Lasern	Upper Austria
20	St. Georgen	Carinthia	40	Russbach	Salzburg