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**The Do-periphrasis in
Greschòneytitsch**
A Diachronic and Synchronic Analysis

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Abstract

This thesis presents a comprehensive investigation into the diachronic and synchronic aspects of a distinctive linguistic feature known as the do-periphrasis in Greschòneytitsch, the Alemannic dialect spoken in the linguistic island of Gressoney, northwest Italy. The do-periphrasis, characterised by the non-finite nature of the main verb and the transfer of inflection to the auxiliary verb "do," represents a potential case of grammaticalisation within this dialect.

The diachronic dimension of this study involves an analysis of the "Prodigal Son" parable, translated into Greschòneytitsch in the 1850s, which stands as the oldest extant written document in this dialect. This historical examination is complemented by the analysis of modern texts and instances of language use, providing a longitudinal view of the do-periphrasis's evolution.

In parallel, the synchronic analysis is conducted through language elicitation tasks involving native speakers, who are tasked with describing a series of short videos. This approach not only offers insights into the current usage of do-periphrasis but also serves as a contemporary comparative framework against the historical data derived from the "Prodigal Son" parable.

The dual focus of this research aims to illuminate the phenomenon of do-periphrasis in Greschòneytitsch, seeking to determine whether the observed linguistic patterns signify a final stage of grammaticalisation in this diminishing language, or if they represent an independent linguistic event or variation. This study contributes significantly to the understanding of Alemannic dialects, particularly in the context of language change and grammatical evolution, and provides critical insights into the dynamics of a lesser-studied linguistic community.

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Introduction

The linguistic landscape of Europe is adorned with a multitude of dialects, each narrating a unique story of cultural and historical evolution. Among these, the Greschòneytitsch dialect, spoken in the secluded Gressoney valley, stands as a remarkable testament to linguistic resilience and adaptability. Originating from Walser German, this dialect encapsulates centuries of socio-political shifts, geographical isolation, and linguistic innovation.

This work examines the usage of the tue-periphrasis, with special focus on its origins; to this end, new language instances have been gathered through original research.

Part I presents a description of the history of the Walser people, who migrated from the Upper Rhone Valley into the Southern Alps. This migration, driven by socio-economic pressures, feudal conflicts, and the pursuit of new lands, culminated in the establishment of various German-speaking areas in the Italian Alps, including the Gressoney settlement. This historical backdrop is crucial for understanding the Walser dialect's unique characteristics, including its phonological, morphological, and syntactic features.

Part II illustrates the general characteristics of the language known as Greschòneytitsch, a Walser dialect which was uniquely influenced by contact with Romance languages. Greschòneytitsch maintains some archaic linguistic characteristics which can be traced back to Highest Alemannic, but lately it seems to have been going through a period of grammaticalisation.

This ongoing grammaticalisation is evidenced by the emergence of several periphrastic structures within the verbal complex, which include the tue-periphrasis, and periphrastic mood- and tense-markers. Moreover, evidence of grammaticalisation is found in several other aspects of language.

Part III presents a comprehensive description of the tue-periphrasis in Greschòneytitsch, a grammatical phenomenon that is found in several Germanic languages. This description relies chiefly on the work by Favre and Squindo (2022) and Angster (2005). Tue-periphrasis in Greschòneytitsch presents strong similarity with English do-support: “tue” is a dummy auxiliary, carrying no lexical meaning; whereas instances of periphrases involving “do” in other Germanic languages tend to express a specific mood, often causative.

The description of tue-periphrases is followed by the proposal of several theories aimed at pinpointing the origins of this structure in Greschòneytitsch.

Part IV describes preliminary considerations employed in the creation of an experiment aimed at gathering instances of spoken language from speakers. This includes the theoretical motivation behind the choice of a video-based experiment design, as well as a brief overview of existing literature - including the 'Prodigal Son' parable. Central to the preliminary considerations is an analysis of the usage of "tue" as recorded in the ClimAlp database, a corpus of Walser languages which is being developed by Gaeta et al. (2019). A description of experimental design, materials and participants follows.

Part V presents the findings drawn from the aforementioned experiment. The findings are processed through NLP tools, and then manually.

Part IV contains a summary of the findings, as well as a comparison with the theories detailed in Part III, and general conclusions.

The aim of this work is to pinpoint the origins of the tue-periphrasis in Greschòneytitsch, and to contribute to the dataset of a dying language. For this purpose, one of the main goals of the experiment was to gather as much cross-generational language data as possible; constraints of time and available tools resulted in a modestly-sized pool of new language data, but, as the experimental design proved successful, the premises of this work can certainly contribute to future research.

Part I

History

This chapter explores the Walser migration into the Alps, focusing on the Gressoney settlement in Italy. It traces the Walser's journey from the Upper Rhone Valley, examining factors that drove their migration, such as landowner invitations, socio-economic pressures, and feudal conflicts. The chapter then delves into Gressoney's history, highlighting significant events that shaped its culture and language. Finally, it assesses the current state of the Gressoney dialect, discussing its decline and the challenges in preserving this linguistic heritage amidst modern societal changes.

1 Historical overview of the Walser migration

The migration of the Walser populations from the Rhone Valley, which began in the 12th and 13th centuries, represents a significant chapter in the history of Alpine settlement. Originating from the Upper Rhone Valley in the Swiss canton of Valais, these Alemannic-speaking people embarked on a journey across the high mountain passes of the Alps, including the Monte Rosa massif, in search of new lands. The Walser migrants, known for their expertise in high-altitude farming and livestock rearing, settled in remote areas of what are now the Swiss, Italian, and Austrian Alps. Their settlements in the Italian regions of Piedmont and Valle d'Aosta, specifically the Lys Valley, are the main interest of this work. These migrations led to the establishment of unique Walser communities, characterised by their distinct dialects, customs, and architectural styles, which have been preserved to varying degrees to this day (Dotterweich 2013).

Starting from the end of the 13th century, these mountain peasants, later known as "Walser," left the Upper Valais, traveling along the southern slopes of the Alps. They settled in different regions, including the Bernese Haslital to the north and valleys near Monte Rosa to the south, as well as the Formazza Valley and Bosco/Gurin in Tessin . The main colonies were believed to be in the Rheinwald and Davos regions, colonised around 1280. Walser settlements were also established in Savoy, including regions like Morzine and Vallorcine, though their Valaisan dialect eventually disappeared there (Valais emigration platform 2024).

This migration was not a mass movement of the entire Walser population. Instead, it involved periodic departures of small groups from established settlements to establish new communities along the Alpine arc. This pattern of migration, characterised by its sporadic nature, poses challenges for historical study and comprehensive understanding. Most notably, there is no agreement on the reason for the migration itself (Viazzo 2004). The three predominant hypotheses frequently cited in academic discourse regarding the Walser migration encompass: the invitation extended by local landowners, socio-economic pressures in their homeland, and conflicts with regional feudal lords. To substantiate the three hypotheses, we can look at historical data and scholarly research that provide insights into these movements:

- Historical records support the hypothesis that local landowners in Northern Italy invited the Walser to settle in high-altitude pastures. Landowners such as the priory of Sion and the lords of Challand sought to develop

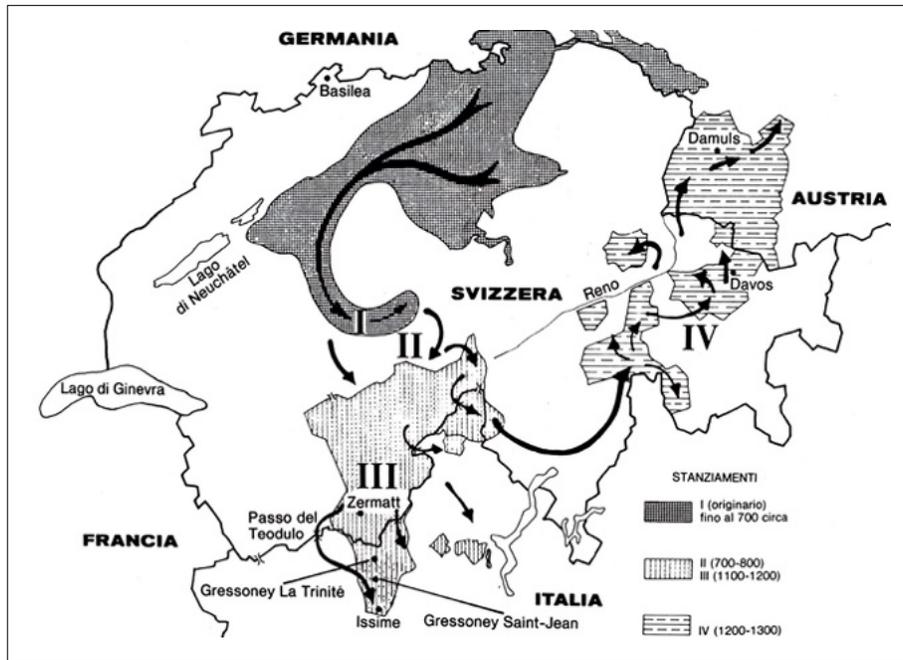


Figure 1: Walser migrations and settlements until the 14th century (Zinsli 2002).

these areas for agriculture and animal husbandry, viewing the experienced Walser farmers as valuable settlers. This is evidenced in charters and documents mentioning the granting of land to Walser communities by local lords (Viazzo 2004).

- Socio-economic factors like poverty and overpopulation in Valais are well-documented drivers of medieval migration. The Walser, facing limited agricultural land and resources in their native valleys, likely sought new territories for sustenance and survival. This aligns with broader European rural migration patterns during the Middle Ages, where populations moved in response to local resource scarcities (Curta 2013).
- Conflicts with feudal lords in the Rhone Valley might have spurred the Walser migration. Medieval Valais was marked by feudal strife and power struggles, potentially prompting the Walser to seek new lands for more autonomous living. While historical accounts of disputes and power dynamics in the Upper Rhone Valley support this theory, direct evidence

linking these conflicts to the Walser migration is less concrete (Fibicher 2013).

A combination of these factors – the invitation by local landowners, socio-economic pressures, and conflicts with feudal lords – likely contributed to the complex migration patterns of the Walser people. Additionally, the Walser settlers were often endowed with “Walserrecht,” a set of rights granted specifically to the incoming colonists encompassing personal freedom, the establishment of their own legal communities, and securing inheritable long-term lease property in exchange for nominal rent and military service commitments (Willkommen auf WalserAlps 2024; Centro Studi e Cultura Walser: Walser Kulturzentrum 2024a). There is also a significant scholarly consensus that a period of de-glaciation facilitated the Walser’s southward movement through passes like Theodul, Lys, and Felik (Centro Studi e Cultura Walser: Walser Kulturzentrum 2024b). The southwards migration culminated in the establishment of settlements at the head of the Lys Valley, near the Monte Rosa massif. Gressoney emerged as a recognised settlement between 1219 and 1242 (Willkommen auf WalserAlps 2024; Centro Studi e Cultura Walser: Walser Kulturzentrum 2024a).

2 History of the Gressoney settlement

The history of the Gressoney settlement (refer to the map in Figure 2) is a rich tapestry of events and transformations, deeply interwoven with the linguistic and cultural evolution of the region. Gressoney has witnessed significant socio-political changes over the centuries, each leaving an indelible mark on the community's identity and language.

2.1 From the prehistoric age to the 14th century

The early history of the Gressoney Valley is marked by sparse documentation, primarily from architectural and archival sources. These initial records place the valley within the larger historical context of the Aosta Valley. The lack of detailed historical data from these periods highlights the need for caution in drawing conclusions about the valley's early societal structures and cultural developments.

A pivotal era in the valley's history begins around the 6th century BC with the arrival of the Salassi, a Gallo-Ligurian tribe. This Iron Age community played a crucial role in the region, engaging in uninterrupted commercial activities with transalpine populations. However, their autonomy was disrupted in the 2nd century BC following defeats by Roman forces under Appio Claudio and later Terentius Varro. The subsequent Roman conquest led to the integration of the Aosta Valley, including the Gressoney Valley, into the 11th Italian Augustan region of the Roman Empire (Alpago-Novello et al. 1979).

The fall of the Roman Empire ushered in a period of transformation across Europe, with the Aosta Valley coming under the influence of the Ostrogoths in the late 5th century. The region's history during this time was also shaped by the wider geopolitical changes, particularly the Arab expansion, which redirected Europe's focus northwards. The Aosta Valley's inclusion in the Carolingian inheritance and its subsequent integration into the Kingdom of Burgundy are notable for their impact on the region's political and cultural landscape.

The 10th to 13th centuries marked significant feudal and societal developments in the valley. In 923, the Countship of Aosta was formally established, and by 999, the Bishop of Sion emerged as a feudal authority. The rights that the Abbey of Saint-Maurice d'Augaune has detained since 516 AD were a testament to the region's enduring ecclesiastical influence. This period also saw the arrival of the Walser settlers from the North (Centro Studi e Cultura Walser:

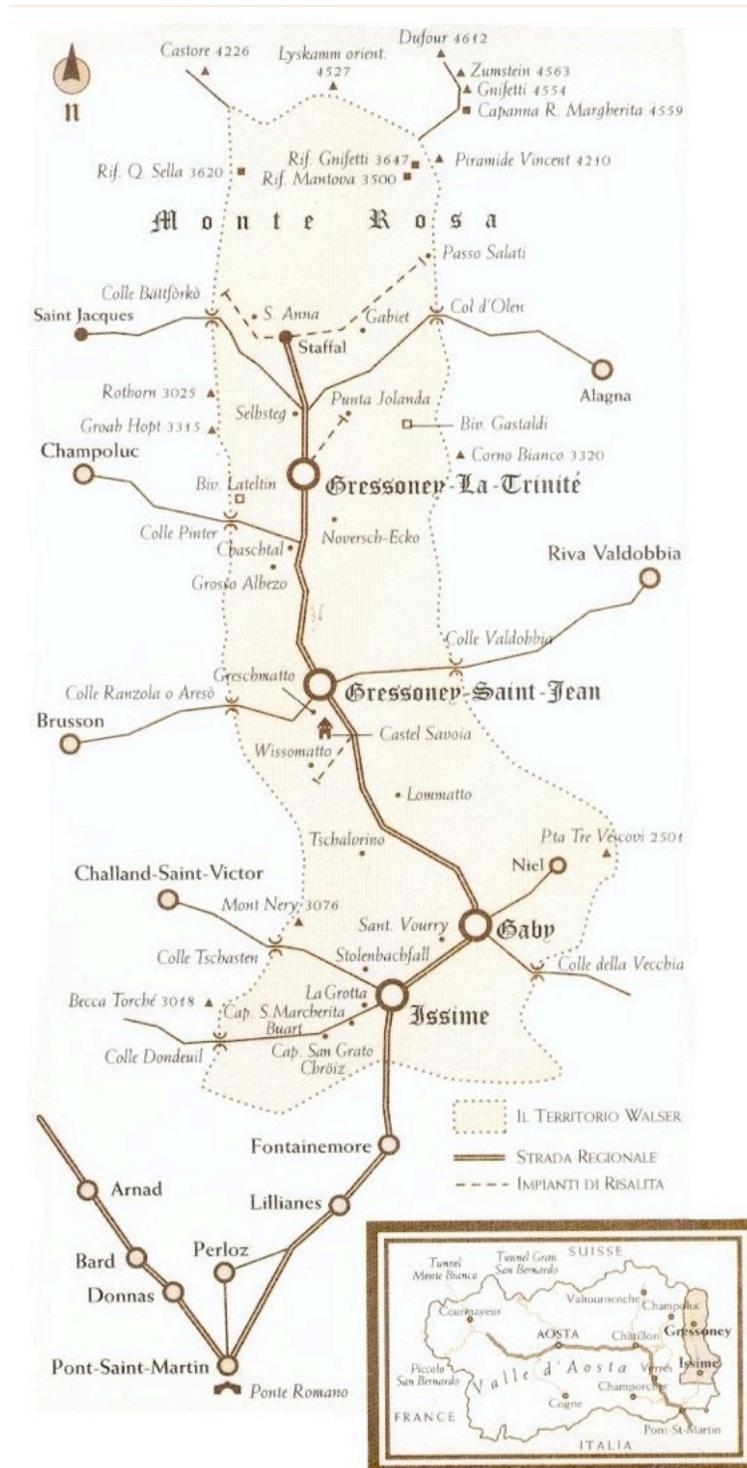


Figure 2: Map of the Gressoney Valley (Centro Studi e Cultura Walser: Walser Kulturzentrum 2024a)

Walser Kulturzentrum 2024d); the specific trigger of this migration, as discussed in Section 1, remains unclear, but their settlement patterns and integration into the valley's social fabric were instrumental in shaping its demographic and linguistic identity.

The 14th century was a period of heightened feudal activity and economic development in the Gressoney Valley, which also resulted in the emergence of Gressoney in more and more archival documents. The valley witnessed a complex interplay of feudal allegiances and commercial interactions: franchises and autonomous governance ("Walserrecht") were extended to the Walser communities by the local feudal lords, signifying a recognition of their established presence and contribution to the valley's economy (Centro Studi e Cultura Walser: Walser Kulturzentrum 2024c; Alpage-Novello et al. 1979). These communities, with their distinct cultural and linguistic identity, consolidated their integral role to the valley's social and economic fabric.

Entering the 15th century, the Gressoney Valley saw the introduction and consolidation of legal frameworks that would govern commerce, land use, and societal interactions. Economic agreements, particularly those regulating trade, became crucial in defining the valley's economic landscape; from this period on, the history of Gressoney is well documented (Alpage-Novello et al. 1979).

2.2 From the 15th century to World War II

Entering the 15th century, the Gressoney Valley saw the introduction and consolidation of legal frameworks that would govern commerce, land use, and societal interactions. Economic agreements, particularly those regulating trade, became crucial in defining the valley's economic landscape; from this period on, the history of Gressoney is well documented. Specifically, the year 1436 marked a significant shift in Gressoney's feudal landscape. The Challant family, influential in the region, granted franchises to their subjects (Alpage-Novello et al. 1979). This act, reflecting a broader trend of feudal lords providing freedoms, not only shaped the social and legal structures but also reinforced the Germanic linguistic elements in Gressoney. The Challant family's rule likely contributed to the maintenance of German customs and language, resisting Romance influences prevalent in neighbouring regions.

The construction of the Noversch bridge in 1540 was pivotal in the formation of local settlements (Alpage-Novello et al. 1979). It bridged the gap between Saint-Jean and La Trinité, fostering not just physical connectivity but also a

cultural exchange that subtly influenced the local dialect. While the primary language remained predominantly Germanic, these interactions introduced nuances from neighbouring Romance languages.

Francesco Carlo Amedeo of Vallaise's 1561 convention exempting Gressoney's men from tributes and military obligations further solidified the region's autonomy (Alpago-Novello et al. 1979). This autonomy supported the persistence of the German dialect, even as other regions began experiencing a shift towards Romance languages (Gaeta and Angster 2020; Angster and Gaeta 2021).

The separation of the church of Gressoney-Saint-Jean from Issime in 1660 had a profound impact. The financial contribution required for this separation not only underscored the community's growing independence (Alpago-Novello et al. 1979) but also reinforced its unique linguistic identity. This event marked a divergence from Issime, which leaned towards French influence, while Gressoney continued to uphold its Germanic linguistic heritage (Gaeta and Angster 2020; Angster and Gaeta 2021).

The year 1770 marked the shift towards common property ownership. This change was part of broader administrative and societal reforms (Alpago-Novello et al. 1979), subtly influencing the linguistic fabric of Gressoney. As the community gained more autonomy, there was a gradual shift in linguistic preferences, with the local dialect becoming more prevalent in public and private domains (Gaeta and Angster 2020; Angster and Gaeta 2021).

The devastating floods of 1849 and subsequent infrastructural developments had an unintended consequence on language. The efforts for riverbed management and infrastructure rebuilding brought in workers and influences from outside Gressoney (Alpago-Novello et al. 1979), introducing Italian and Piedmontese elements into the local dialect. The establishment of the consortium for the Pont-Saint-Martin-Gressoney-La-Trinité road between 1789 and 1894 marked a new era of modernisation. This infrastructure not only facilitated commerce but also exposed the region to broader cultural and linguistic influences. As Gressoney became more accessible, Italian and Piedmontese started permeating the local linguistic landscape, setting the stage for a diglossic community. In this environment, the local dialect served as the low variety, while the emerging Italian influence represented the high variety (Gaeta and Angster 2020; Angster and Gaeta 2021).

The Fascist regime from 1922 to 1943 imposed Italian as the sole language across all domains, including education. This Italianisation significantly marginalised German and other local languages, relegating them to private use

only. The period saw a dramatic shift in Gressoney's linguistic landscape, with Italian becoming dominant. This era's policies led to a widespread knowledge of Italian among the Walser communities, marking a departure from their traditional linguistic practices (Angster 2005).

Post-World War II societal changes impacted the remote Walser villages, including Gressoney. Demographic shifts, depopulation, and increased intermarriage led to a decline in active speakers of Walser varieties. Gressoney, once a German diglossic community, began transitioning towards Italian monolingualism (Angster 2005). French and the local Titsch dialect played secondary roles, reflecting the broader societal shift towards Italian language and culture. This period witnessed the emergence of a new Walser identity (Angster and Gaeta 2021), grappling with the challenges of preserving traditional languages in a rapidly modernising society.

2.3 Present-day situation

The informal survey we conducted at the start of our investigation of this subject brings to light the critical condition of the Greschòneytitsch language. With under 15 young speakers and about 5 adolescents, this dialect is facing a high probability of extinction within the next century. This decline is attributed to several factors, notably the dominance of Italian in public and educational spheres, the influences of globalisation, urbanisation, and mixed marriages, leading to a decreased transmission of the language to the younger generations (Angster 2005).

Generation X, the last to largely have Greschòneytitsch as their mother tongue, are essentially heritage speakers. They were predominantly raised bilingual, fluent in both Italian and Greschòneytitsch. However, the growing dominance of Italian, particularly in its vocabulary, has led to a diminishing use of the dialect. There is also a concern that the younger generations are not only losing vocabulary but also vital grammatical structures of Greschòneytitsch, which poses a significant threat to its survival (Montrul and Polinsky 2021).

In contrast, the Baby Boomers have proven to be true custodians of the language, maintaining its vocabulary and grammatical structures relatively unaffected by Italian, as will become evident in Part V. However, this generation, the parents of Generation X speakers, are now predominantly deceased.

The absence of a recent official survey on Greschòneytitsch necessitated conducting an informal survey with support from the *Sportello Linguistico* and

Generation	Year of birth	Total
Generation Alpha	after 2012	4
Generation Z	1999-2012	7
Millennials	1981-1998	8
Generation X	1965-1980	33
Baby Boomers	before 1965	30
		82

Table 1: Breakdown of speakers (sample)

through local interviews. The findings are summarised in Table 1. It is essential to consider that these numbers likely represent only a portion of the actual speakers, given the unofficial nature of the survey and constraints in time and resources. The table was compiled considering whether individuals were native speakers, with most, especially older generations, retaining high proficiency to the present day.

2.4 Timeline

This timeline offers a comprehensive account of Gressoney and the Lys Valley’s historical evolution from the 15th century to the present day, compiled from legal records and archival sources (Angster and Gaeta 2021; Angster 2005; Centro Studi e Cultura Walser: Walser Kulturzentrum 2024b; Alpago-Novello et al. 1979).

- 1458-1596 The Challant family confirmed various concessions (“Walserrecht”) to feudal tenants or leaseholders, which included rights to properties like houses, pastures, woods, and others. These confirmations happened in multiple years: 1458, 1587, 1596, 1615, 1664, 1690, and 1739.
- 1540 Construction of the Noversch bridge, which played a significant role in the formation of local settlements by allowing crossing of the torrent between Saint-Jean and La Trinité.
- 1561 A convention by Francesco Carlo Amedeo of Vallaise exempted the men of Gressoney in the territories of the Vallaise house from annual tributes and military obligations.

- 1660 The church of Gressoney Saint-Jean was separated from that of Issime, and the community of Gressoney was obliged to contribute financially to this separation.
- 1770 A significant year marking the shift towards common property ownership in Gressoney. This was part of broader administrative and societal changes in the region.
- 1789-1894 Establishment and development of the consortium for the construction of the Pont-Saint-Martin—Gressoney La Trinité road, with works starting in 1888 and various segments being completed in subsequent years. This facilitated internal and transit commerce in the region.
- 1849 & 1879 Notable floods occurred in 1849, with subsequent efforts for riverbed management and infrastructure development to prevent such events.
- 1922-1943 Italicisation of the whole Valle d’Aosta region due to Fascism. Use of languages other than Italian is actively suppressed.
- 1943-present Processes of demographic loss, depopulation, and increased intermarriage with people from outside the communities lead to a considerable decline in the number of active speakers of Walser varieties. The late 20th century sees the emergence of a new sense of Walser identity.

Part II

Language

This chapter explores the Greschòneytitsch dialect, a variant of the Highest Alemannic dialects spoken in Valle d'Aosta. It delves into its phonological, morphological, and syntactic features, shaped by historical influences and contact with Romance languages. Key aspects include the evolution of its vowel system, consonant shifts, complex noun and verb declensions, and syntax diverging from Standard German. The chapter also examines the dialect's verbal morphology, clitic pronouns, and periphrastic expressions, highlighting its linguistic complexity and ongoing grammaticalisation. This detailed analysis sets the foundation for understanding the nuances and evolution of Greschòneytitsch in its sociolinguistic context.



Figure 3: Distribution of Highest Alemannic dialects (Dbachmann 2006)

3 Highest Alemannic languages

The Walser migrants brought with them their language, Walser German, a variant of the Highest Alemannic dialects, a subgroup of the Upper German languages. This language, through its unique history of contact and separation, evolved into several dialects, most of which are still spoken in Walser areas (Switzerland, Liechtenstein, Austria, and Northern Italy). The Highest Alemannic dialects exhibit several distinctive linguistic characteristics, which differentiate them from other Germanic dialects (Russ 2013).

One of these distinctive features can be seen in their phonology: Highest Alemannic dialect underwent the full High German consonant shift (Barbour 1990). Moreover, these dialects are considered to be fairly conservative, both in lexicon and grammar (Thuleen 1991): the southernmost dialects of Highest Alemannic, along with the Walser language islands, typically retain the three-form plural from Middle High German (Russ 2013); additionally, the vocabulary of Highest Alemannic dialects often includes more archaic words and expressions

not found in Standard German (Lohnstein and Trissler 2004).

The vowel system in Highest Alemannic dialects is quite complex, with a distinction between long and short vowels, and numerous diphthongs. These dialects often preserve the Middle High German vowel length, which has been lost in many other German dialects(Thuleen 1991).

The syntax of Highest Alemannic dialects can show significant variation from Standard German. This includes variations in word order, particularly in the positioning of verbs in main and subordinate clauses. The use of double negatives, a feature not present in Standard German, is also observed in some of these dialects (Lohnstein and Trissler 2004).

4 Greschòneytitsch: linguistic characteristics

Greschòneytitsch, which is the Walser dialect under examination in this paper, is currently spoken in the villages of Gressoney-Saint-Jean and Gressoney-La-Trinité, Valle d’Aosta. Despite the declining population, this dialect persists, albeit as a severely endangered language (Dal Negro 2020).

Greschòneytitsch shares many foundational linguistic characteristics with other Highest Alemannic dialects, but it also possesses unique features shaped by its specific geographical, historical, and cultural context, as discussed in Part I: over the centuries, this dialect evolved independently, influenced by the geographical isolation of the Walser communities in the high Alpine valleys. The dialect reflects a blend of Old High German linguistic features with influences from surrounding Romance languages, particularly Italian and Franco-Provençal (Dal Negro and Guerini 2007; Keller and Priebsch 1978). Phonetically, it underwent the full Second Consonant Shift. Morphologically, the dialect exhibits interesting inflectional patterns, especially in its verb conjugation and noun declension systems. Syntactically, Greschòneytitsch has been influenced by the sentence structure of neighbouring Romance languages, leading to a syntax that differs from standard German (Dal Negro 2014; Ruhlen 1991).

4.1 Language contact

The Alpine region, characterised by its diverse linguistic landscape, has played a pivotal role in the development of Greschòneytitsch. The language has been moulded by the ebb and flow of historical events, including trade routes, political shifts, and migration patterns. These events have facilitated the exchange of linguistic elements, leading to the assimilation of Romance language features into the fabric of Greschòneytitsch (Angster and Gaeta 2021). This is evident in the grammaticalisation of certain aspects, such as the causative particle *tònz* and the progressive adverb *eister*.

Historically, the 19th-century linguistic landscape in the neighbouring communities of Gressoney and Issime¹ was quite varied. Gressoney clung to German traditions, utilising literary German in churches and schools, and maintained close ties with German-speaking areas through migration. Their trade and commerce with Swiss-German and Southern German regions, particularly by the

¹A Walser community in the Gressoney Valley which is located closer to the southern mouth of the valley, and thus had earlier, more ample contact with Romance-speaking areas.

‘Krämer’², brought new ideas and experiences, likely reinforcing the Germanic elements in their language. In contrast, Issime showed a preference for French, using it in religious and written contexts, and had migration patterns leaning towards French-speaking regions, such as the Savoie and the Valais region. This connection to French-speaking areas facilitated a greater French influence on the local language, leading to a distinct linguistic evolution compared to Gressoney (Centro Studi e Cultura Walser: Walser Kulturzentrum 2024a).

The Italian Unification in 1861 marked a turning point for Gressoney, leading to a gradual Italianisation, particularly in administrative and educational spheres, where Italian became increasingly dominant. This change significantly impacted the community’s language use and preferences.

Some unique features of Greschòneytitsch, such as the causative particle *tònz*, are believed to have developed during the community’s isolation from German-speaking areas around the First World War. Moreover, the progressive constructions in Greschòneytitsch, particularly the use of the adverb *eister*, show similarities to the Italian *stare facendo* (“to be doing”). This indicates a significant adoption of Romance language structures into Greschòneytitsch (Dal Negro 2014).

4.2 Grammar overview

This subsection contains an overview of the grammar of Greschòneytitsch as presented by Favre and Squindo (2022). The aim of this description is to showcase instances of an evolution towards an analytic language, as well as aspects in which Greschòneytitsch maintains synthetic grammatical forms.

Determiners, nouns, and adjectives Firstly, Greschòneytitsch employs a hybrid system of synthetic and analytic cases. The synthetic approach includes Nominative, Accusative, Dative, and the Saxon genitive. However, in most cases, the genitive case is treated analytically, typically formed with *vòn* followed by the dative. It is important to note that case is not shown in nominal endings³, but through determiners (refer to Table 2 for an example of article declension)

²The Krämer, in medieval Europe, were merchants who not only managed local shops but also traveled extensively to trade. They were involved in buying and selling various goods, including textiles and spices, often transporting these commodities across regions to foster trade and commerce.

³Except the Saxon genitive, which is a clitic of the noun. However, this form is only used in specific cases of animate possession, authorship, and to indicate the family or place of origin. (Favre and Squindo 2022)

	Masc	Fem	Neut
Nom	de, der	d', de	z, z'
Acc	den		
Sax G	-dsch		
Dat	dem	der	dem

Table 2: The singular definite article (Favre and Squindo 2022, page 15)

	Masc	Fem	Neut
Nom	d', de		
Acc	d', de		
Dat	de, den		

Table 3: The singular indefinite article (Favre and Squindo 2022, page 16)

and declension of adjectives.

Table 2 shows that determinative articles have undergone a degree of simplification. The complexity in plural forms has diminished even further (Table 3), leading to uniformity across genders and cases. Indefinite and possessive articles show a similarly simplified declension, with no distinction between nominative and accusative or masculine and feminine articles.

Somewhat stronger variation in gender is retained in some demonstrative and indefinite determiners, as demonstrated in Table 4.

As mentioned above, nouns in GreschÛneytitsch show no case declension. Feminine and masculine nouns can generally be distinguished by their endings, barring some exceptions; neutral nouns share endings with masculine nouns, so gender of these nouns is generally shown through determiners or adjectival endings.

The plural declension is somewhat complex, involving various noun endings typically associated with different classes such as gender or derivations from adjectives; some monosyllabic words form the plural through root-vowel

	Masc	Fem	Neut
Nom	désche	désché	détz
Acc			
Sax G	déssche		
Dat	déschem	deschér	déschem

Table 4: Declension of demonstrative adjective “this” (Favre and Squindo 2022, page 21)

Strong	Masc	Fem	Neut	Plural
Nom/Acc	-e	-é	-s	.-é
Dat	-e	-é	-e	-e
Weak	Masc	Fem	Neut	Plural
Nom/Acc	-e	-ò	-	-ò
Dat	-e	-ò	-e	-e

Table 5: Strong and weak adjectival declension (Favre and Squindo 2022, pages 43-44)

metaphony. Diminutives are formed synthetically through several suffixes; monosyllabic sounds once again might form diminutives through root-vowel metaphony.

Compound nouns are head-final, aligning with the typological characteristics of the language.

Adjectives in Greschòneytitsch are predominantly found in pre-nominal position. They exhibit different endings based on gender, and possess both weak and strong declensions⁴; however, as can be gleamed from Table 5, adjectival endings show a degree of simplification. Some adjectives can be formed from other word classes using several suffixes.

Like most Germanic languages, comparatives and superlatives are formed synthetically, with an *-òr* and *-scht* ending. Comparatives used attributively show the same declension as adjectives – including weak and strong variants.

Pronouns Greschòneytitsch is formally a pro-drop language, possibly due to influence from Italian. Personal pronouns have different forms for the nominative, accusative, and dative. They tend to show a fair amount of variation, as shown in Table 6.

However, Greschòneytitsch shows a system of clitic personal pronouns as well: like independent personal pronouns, these exhibit different forms for nominative, accusative, and dative, with the third person singular differentiated by gender. Clitic pronouns seem to have some bearing on the tue-periphrasis, therefore they will be explored further in Subsection 4.5. Clitics include the accusative reflexive pronouns, which show a slightly different declension compared

⁴To clarify, the adjective takes strong declension when the noun it modifies is preceded by an indefinite article; in all other cases (after a definite, possessive, demonstrative, interrogative articles, etc.) the adjective adopts the weak declension. This is historically typical of several Germanic languages, and a weak and strong adjectival declension sill exists in some, like German and Icelandic (Hippisley and Stump 2016).

		Nom	Acc	Dat
Singular	1st	éch, é	méch	mier
	2nd	du	déch	dier
	3rd m.	éer	én	ém
	3rd f.	dschi	dschi	éra
	3rd n.	äs	és	ém
Plural	1st	wier	éendsch	éendsch
	2nd	ier	ou	ou
	3rd	dschi	dschi	éne

Table 6: Personal pronouns (Favre and Squindo 2022, page 31)

to accusative personal pronouns.

The relative pronouns *woa* and *das* are both used to introduce relative phrases, and speakers tend to use them indiscriminately despite the fact that formally *woa* refers to animate agents and *doa* is used for inanimate objects. The loss of this distinction is clearly another example of grammar simplification; similarly, *wòròm* (“why”) and *wèll* (“because”) are supposedly distinct by whether they introduce a question or an answer, yet most speakers prefer to use *wòròm* in both contexts⁵.

Regarding indefinite, interrogative, and exclamative pronouns, a few are invariable, while others show variations in declension, including singular, plural, and gender-based forms; only a few of these adjectives show a synthetic genitive form. All others present nominative and accusative forms which are morphologically identical, as well as a distinct dative form.

Other Parts of Speech Cardinal numerals are (mostly) invariable, while ordinal numerals behave like adjectives. Adverbs are typically invariable, with some showing synthetic formation from base words plus endings. However, their morphology is not systematic, so it is often impossible to recognise an adverb simply by its morphology; prepositions behave similarly.

Conjunctions are invariable, and subordinative conjunctions dictate verb placement in either indicative or subjunctive mood; however, the ability to use the subjunctive mood appears to have been partially or completely lost among the majority of speakers.

Verbal morphology is explored in detail in Subsection 4.4 on page 23.

⁵This could be a case of general grammatical bleaching, and it is very likely that this simplification is directly influenced by Italian - in which both answer and questions are introduced by the adverb “perché.”

Closing remarks Greschòneytitsch appears to maintain a balanced position in regards to the complexity of its morphology. While some aspects are fairly conservative – e.g. maintaining a distinction between strong and weak adjectives – others appear to have simplified over time, especially distinction of nominative and accusative cases, or female and masculine gender. Moreover, Greschòneytitsch strikes a balance between synthetic and analytic structures: while it relies on synthetic forms in many aspects (e.g., cases, diminutives, comparatives, superlatives), it also employs analytic constructions, especially in its genitive case and certain verbal forms – which will be explored in Subsection 4.4 on page 23. This blend may indicate an ongoing linguistic evolution, accommodating both archaic and modern linguistic tendencies.

In essence, Greschòneytitsch is a language of contrasts and complexities, blending synthetic and analytic elements, rich morphological structures, and a nuanced system of gender and case. Its linguistic features reflect both its historical legacy and its adaptability to the changing linguistic environment. However, it is imperative to acknowledge that the grammatical analysis presented in this section predominantly derives from the comprehensive study by Favre and Squindo (2022).

This crucial point bears significant implications for our understanding of Greschòneytitsch: firstly, the analysis likely represents the linguistic patterns of a limited speaker population – dialects like Greschòneytitsch typically exhibit considerable variation both across and within generations. Consequently, this account may not fully encapsulate the diverse linguistic nuances inherent in the broader speaker community (Aronoff 2007).

Secondly, the depiction by Favre and Squindo (2022) appears to lean towards an 'idealised' form of the language. Such an approach, while valuable for structured linguistic analysis, might not accurately mirror the current, possibly attenuated state of Greschòneytitsch. As languages evolve and adapt, especially those facing dwindling speaker numbers, they often undergo simplification and lose some of their original complexity. Therefore, this section, while grounded in rigorous academic research, should be interpreted with an understanding of these potential limitations and variances in the actual, contemporary usage of Greschòneytitsch (Aronoff 2007).

4.3 Some observations on syntax

The syntax of a language represents a complex and nuanced domain, often challenging to analyse and quantify due to its intricate rules and variations. In this Section, we have chosen to base our observations on the analysis presented by Favre and Squindo (2022), generally accepting their findings as accurate. However, we have also remained vigilant for deviations from the patterns they describe, recognising that the dynamic nature of language, especially a heritage language, inherently involves variation.

Heritage languages, embedded within communities that are often bilingual or multilingual, usually exhibit a fascinating spectrum of syntactic variability (Montrul and Polinsky 2021). This variation can be attributed to several factors, including the proficiency level of the speakers and their linguistic exposure. More proficient speakers may adhere to older, perhaps more traditionally grammatical structures, reflecting a deeper familiarity with the language’s historical syntax. Contrastingly, younger heritage speakers, who might navigate their linguistic environment as imperfect bilinguals, could exhibit a looser adherence to these established structures. Their syntactic choices may be influenced by other languages they use more frequently or by those more prevalent in public discourse – in this case, Italian. Such speakers might not only differ in their application of more archaic syntactic rules but also in their incorporation of syntactic elements from the dominant language, leading to a rich tapestry of linguistic variation within the community (Dal Negro 2020).

Firstly, the phenomenon of *verbklammer*, noted by Favre and Squindo (2022) as distinctive feature in the syntax of Greschòneytitsch, appears to be somewhat on the decline. This syntactic structure, pivotal in defining sentence construction in many Germanic languages, involves enclosing other sentence elements within the positions of the finite and infinite parts of the verb; the influence of Italian, a language in which this structure is ungrammatical, likely influenced heritage speakers in avoiding the *verbklammer* when speaking Greschòneytitsch.

Secondly, Favre and Squindo (2022) claim that question formation in Greschòneytitsch involves inversion of the subject and verb – a common strategy to signal interrogative mood in several languages. However, as mentioned in Subsection 4.2, Greschòneytitsch is formally a pro-drop language: therefore – if Greschòneytitsch has already made the journey from being non-pro-drop to pro-drop – it is possible that it also lost mandatory inversion in questions. However, the data on Greschòneytitsch is inconclusive, preventing a clear understanding of whether

archaic inversion rules apply, or if a different strategy was adopted – perhaps a calque of Italian, in which interrogative mood is expressed through tone⁶.

Regarding negation, observations suggest that Greschòneytitsch largely adheres to the rules outlined in Favre and Squindo (2022):

- There is no double negation;
- Different negative particles are used to negate single constituents or entire phrases;
- Within the verbal complex, negation follows the single verb or the auxiliary.

Negation in language often follows specific syntactic patterns, and the consistency with which different speakers of Greschòneytitsch stick to these prescribed patterns may indicate a degree of stability in this aspect of its grammar which is not present in others. This suggests that while certain areas of Greschòneytitsch grammar may be experiencing change, the mechanics of negation have remained comparatively resilient.

Lastly, the structure of infinitive sentences in Titsch, as described by Favre and Squindo (2022), posits that these are formed with the verb preceded by an infinitive marker, with the entire infinitive verb typically positioned at the sentence’s end: (1).

(1)(Favre and Squindo 2022, page 124)

Hei-ber	em sé	z’London	z’goa
<i>Hä:pres.ind.1st.plur</i>	IND:OBJ	<i>IND:OBJ</i>	<i>INF:PH</i>
<i>with CLITIC:nom.1st.plur</i>			
“We have in mind to go to London”			

This claim might warrant further investigation, especially since the structural similarity to *verbklammer* raises the question of whether this pattern might also be subject to change. Given the influence of Italian on Greschòneytitsch, it’s conceivable that the placement of the infinitive phrase in the sentence could be evolving towards the Italian model, where such phrases often do not occupy the final position: (2). This potential shift could signal another aspect of grammatical change, mirroring broader trends within the language’s syntax.

⁶On this, we must balance the claims by Favre and Squindo (2022) and the assertions of Informant 0 (see Subsection 7.2 on page 54). While the former declare that inversion in questions is mandatory, the latter signals interrogative mood via tone alone – as it is generally done in Italian.

tue (“to do”) followed by the infinitive form of the verb – which is the main focus of this work and will be explored in detail in Part III. This shift indicates a move away from the traditional synthetic forms, reflecting a broader trend of apparent grammaticalisation in the evolution of the dialect.

Past Tense In the absence of a simple past or preterite form, the past tense in Titsch is articulated through a composite structure. This structure involves the use of the conjugated indicative or subjunctive forms of the auxiliary verbs “to have” or “to be”, followed by the past participle of the main verb (Favre and Squindo 2022). This method of expressing past events aligns Titsch more closely with other Germanic languages that also prefer compound tenses for past events (Putnam and Page 2020).

Future Tense The future tense in Greschòneytitsch (5) is typically indicated by the present form of the main verb accompanied by a temporal adverb (Favre and Squindo 2022), a method common to many Germanic dialects. As this tense is formally employing the simple present, it is also subject to the shift towards the *tue*-periphrasis. Interestingly, some speakers might instead employ the form *werde* + infinitive for future expressions. However, this construction is not standard in Greschòneytitsch and is likely influenced by Standard German.

(5)(Favre and Squindo 2022, page 88)

Mòre	Emma	chéemt	z'éndsch	hitt
<i>TEMP:ADV</i>	<i>SUBJ</i>	<i>CHÉEME:pres.ind.3rd.sing</i>	<i>IND:OBJ</i>	<i>ADV</i>

“Emma will come to ours today”

Subjunctive Mood The subjunctive mood in Greschòneytitsch, used for expressing hypotheticals or non-factual situations, presents two further aspects, in addition to the simple past and present tenses: the imperfect and the past perfect. However, all of these forms seem to have slightly fallen into disuse, especially among the current majority of speakers, who are characterised as ‘imperfect bilinguals (Montrul and Polinsky 2021)’ (see Part V for a more detailed analysis). This decline in usage suggests a simplification of the mood system in the dialect. The subjunctive forms also serve as the present and perfect conditional, but their usage is likely diminished, further indicating a trend towards simplification and possibly a shift towards analytic expressions.

Setting aside actual usage, the subjunctive mood as reported in Favre and Squindo (2022) reveals some intriguing patterns. The present tense in the sub-

junctive mood is consistently formed synthetically, using the root of the verb followed by the *-é* suffix. In contrast, the other three forms – perfect, imperfect, and past perfect – are compound constructions. As shown in Table 7, the imperfect subjunctive presents a synthetic form exclusively with the auxiliaries (*hä*, meaning “to have”; *si*, meaning “to be”) and with the verb *tue* (“to do”). The synthetic imperfect form of *hä* is then combined with the past participle of the main verb to construct the past perfect tense for all verbs, with the exception of *si*, which uses the imperfect form of *si*. This same process is applied to form the perfect tense, utilising the synthetic present tense of *hä*.

	Infinitive	Present	Perfect	Imperfect	Past perfect
“to have”	<i>hä</i>	<i>heigé</i>	<i>heigé kät</i>	<i>hetté</i>	<i>hetté kät</i>
“to be”	<i>si</i>	<i>siggé</i>	<i>siggé gsid</i>	<i>weré</i>	<i>weré gsid</i>
“to do”	<i>tue</i>	<i>tiegé</i>	<i>heigé toat</i>	<i>tetté</i>	<i>hetté toat</i>

Table 7: Subjunctive forms of “hä”, “si”, “tue” (Favre and Squindo 2022, pages 91-97)

All other verbs show a synthetic form in *-é* for the present subjunctive, and a compound form of the perfect (or past perfect) with the present (or imperfect) subjunctive *hä* and the past participle of the main verb. However, the imperfect subjunctive is shown as formed with the *tue*-periphrasis (refer to Table 8).

	Infinitive	Present	Perfect	Imperfect	Past perfect
“to load”	<i>lade</i>	<i>ladé</i>	<i>heigé gladet</i>	<i>tetté lade</i>	<i>hetté gladet</i>

Table 8: Subjunctive forms of “lade” (Favre and Squindo 2022, pages 98-99)

The unique reliance on *tue*-periphrasis in the imperfect subjunctive, as opposed to the present indicative’s dual options (synthetic or analytic), suggests a linguistic evolution. It is reasonable to theorise that the imperfect subjunctive once had a synthetic form, which gradually became obsolete and was replaced by the *tue*-periphrasis. This shift could exemplify the natural process of grammaticalisation in languages. However, our understanding is constrained by the scarcity of historical documentation: the earliest available record, a translation of the ‘Parable of the Prodigal Son’ from the early 1800s, was translated by a native speaker but transcribed by an individual from a neighbouring village who did not speak Greschöneytitsch, but a related language, possibly German. This lack of robust evidence, combined with the absence of a documented synthetic

	Nom.	Acc.	Dat.
1st sing.	-é	-mé	-mer
2nd sing.	-	-dé	-der
3rd sing. m.	-er	-ne	-mò
3rd sing. f.	-sch	-scha	-ra
3rd sing. n.	-s	-és	-mò
1st plur.	-ber	-néndsch/nendsch	-néndsch/nendsch
2nd plur.	-der	-dò	-dò
3rd plur.	-dsch	-sché	-ne

Table 9: Clitic pronouns (Favre and Squindo 2022, page 31)

form for the imperfect subjunctive in Greschòneytitsch, renders any definitive conclusions speculative. Therefore, while the tue-periphrasis in the imperfect subjunctive might indicate a broader linguistic trend, it remains a hypothesis grounded in the limited data available (refer to Part V for further details).

4.5 Clitic pronouns

As briefly discussed in Subsection 4.2 on page 16, the Greschòneytitsch language exhibits two distinct forms of personal pronouns: independent pronouns, which in nominative form are positioned before the verb, and enclitic pronouns (Table 9), seamlessly integrated into the verb ending.

Clitics in Greschòneytitsch attach themselves either to the main verb or to the auxiliary verb (including *tue*), when present. They can function as either subject or object pronouns, or adopt a dative form to denote an indirect object. Multiple clitic pronouns can concurrently attach to a single verb, forming a sequence akin to those found in neighbouring Romance languages, such as Italian; in a sentence like “I give him it,” Greschòneytitsch might use a single verb with attached clitics, resembling *givehimit*. Similarly, in Romance languages like Italian, a similar structure would be *darglielo* (*dar + gli + lo*). Clitic chains are discussed further in Subsection 9.2.

The behaviour of subject pronouns in Greschòneytitsch is somewhat unconventional. Being a pro-drop language, the pronouns may either be phonetically articulated or omitted. Consequently, the clitic might manifest solely or alongside the independent pronoun, leading to variations ranging from zero pronouns (6) to dual pronoun expressions (7) referring to the same entity:

- (6) bénn
 (PRO) *SI:pres.ind.1st.sing.*
 “I am”
- (7) éch bénné
PRO:1st.sing. SI:pres.ind.1st.sing.
with CLITIC:PRO.nom.1st.sing.
 “I am”

Angster (2005) has noted that the presence or absence of clitic pronouns – especially accusative clitics – may influence the use of the tue-periphrasis. Specifically, this periphrastic form is more frequently employed in conjunction with clitic pronouns across various verbs, irrespective of the semantic or grammatical categorisation of these verbs; this notion will be discussed further in Sections 6 and 11.

4.6 Periphrastic Expressions

Greschòneytitsch shows several periphrastic expressions. Apart from the tue-periphrasis, which will be thoroughly analysed in Part III, the language displays a variety of periphrastic constructions indicative of grammaticalisation. The causative *tònz* and the progressive *eister* may predominantly stem from grammaticalisation influenced by language contact, according to Gaeta and Angster (2020). On the other hand, the future periphrasis in Greschòneytitsch, despite its presence, has not been the focus of extensive discussion in academic literature. This lack of attention is likely due to its prevalence in Germanic languages, rendering it less noteworthy for detailed study. Consistent with this perspective, this examination will similarly not devote significant attention to the future periphrasis, aligning with its treatment in the broader scholarly discourse.

The future The formation of the future tense in Greschòneytitsch involves the use of the present indicative mode along with a future adverb, most commonly *de* – meaning “then” or “thereafter” (Favre and Squindo 2022). This method mirrors a common practice in Standard spoken German, thereby underscoring the structural similarity between these languages. The mechanics of this construction have been outlined in Subsection 4.4.

Within the specific framework of the tue-periphrasis, the future adverb *de* – or its equivalent – is positioned between *tue* and the lexical verb. This is a

positioning that will reveal itself as standard for most adverbs appearing in the context of the tue-periphrasis.

Eister In Greschöneytitsch, the expression of the progressive aspect in the present tense is achieved through the insertion of the adverbial particle *eister* within the verbal complex (Favre and Squindo 2022). This incorporation of *eister* serves to denote ongoing action or state, marking the progressive nature of the verb it accompanies.

The interplay between the tue-periphrasis and *eister* presents an interesting dynamic. While the use of the tue-periphrasis in conjunction with *eister* is not universally mandated, it is notably preferred by a significant portion of speakers (Angster 2005). In constructions featuring the tue-periphrasis, *eister* is positioned between the conjugated form of *tue* and the infinitive of the main verb. This placement has been observed consistently in all instances examined, underscoring a systematic approach to expressing the progressive aspect in Greschöneytitsch.

Angster (2005) provides a clear illustration of this syntactic arrangement in (8), showcasing how *eister* is effectively utilised within the periphrastic form to convey ongoing action. This example not only exemplifies the structural pattern but also may highlight linguistic flexibility and nuance in the usage of periphrastic constructions to articulate aspectual distinctions in Greschöneytitsch.

(8)(Angster 2005, page 55)

Luigi	tut	eister	ässe
<i>SUBJ</i>	<i>TUE:pres.ind.3rd.sing</i>	<i>PROG</i>	<i>äSSE:inf.pres.</i>

“Luigi is eating”

Tönz Standard German typically utilises the verb *lassen* (“to let”) in causative constructions, pairing it with the bare infinitive of the action verb to denote causation, which may be intentional, accidental, or permissive. This construction allows for a range of causative nuances to be expressed, reflecting the versatility of *lassen* in conveying different shades of causality (Gaeta and Angster 2020).

In contrast, Alpine German dialects exhibit a preference for causative constructions that employ verbs synonymous with “do” or “make”. This preference starkly contrasts with Standard German’s predominant use of *lassen* for expressing intentional causation. The inclination towards “do” or “make” in these dialects is largely attributed to the influence of Romance languages, which fea-

ture distinct causative constructions utilising equivalents of these verbs. This linguistic phenomenon underscores the impact of language contact on the evolution of causative expressions in Walser languages (Gaeta and Angster 2020).

Greschòneytitsch presents a specific instance of this broader linguistic trend with its causative construction involving the particle *tònz*, (Favre and Squindo 2022) exemplified in (9) and (10). This particle, likely stemming from the verb *tue* (“to do”), exemplifies the dialect’s adoption and adaptation of causative mechanisms influenced by contact with Romance languages. Such developments in Greschòneytitsch and similar dialects highlight the dynamic nature of linguistic evolution, where cross-linguistic interactions foster the emergence of novel grammatical constructions. The causative construction in Greschòneytitsch reflects a clear case of grammatical innovation prompted by the dialect’s exposure to Romance languages (Gaeta 2020; Angster and Gaeta 2021).

(9)(Angster and Gaeta 2021, page 88)

Tue	de	tälloré	tònz	wäsche	vòn Luis!
<i>TUE:imperative</i>		<i>OBJ</i>	<i>CAUS</i>	<i>INF</i>	<i>AGENT</i>

“Get the dishes washed by Luis!”

(10)[Speaker 0]⁷

Tue	tònz	wäsche	de	tälloré	dem Luis!
<i>TUE:imperative</i>	<i>CAUS</i>	<i>INF</i>	<i>OBJ</i>		<i>AGENT</i>

“Make Luis wash the dishes!”

The comparison of sentence structures between Italian and Greschòneytitsch, particularly in the context of causative constructions, reveals fascinating insights into language interaction and attrition. In (10), there is an almost perfect alignment between the Italian sentence and its Greschòneytitsch counterpart. This striking similarity underscores the profound influence of Italian on Greschòneytitsch, suggesting a high degree of linguistic assimilation or convergence in this instance.

Conversely, (9) demonstrates a divergence from this pattern, where a direct translation from Italian to Greschòneytitsch is not as straightforward. The discrepancy between these examples highlights the variability in the extent of language attrition and cross-linguistic influence within the same dialect. It is evident that while some elements of Greschòneytitsch have closely mirrored Italian structures, as seen in (10), others, like those in (9), maintain a degree of linguistic independence, resisting direct translation.

⁷Translation of the Italian “Fai lavare i piatti a Luis” by Speaker 0 (see Subsection 7.2)

Both examples, (9) and (10), signal some level of language attrition, with the former presenting a more pronounced case.

4.7 Closing remarks on grammar

Greschòneytitsch demonstrates a notable simplification in some aspects of its morphology. For instance, nouns do not undergo case inflection; instead, they depend on the inflection of articles and adjectives. While verbal morphology remains robust in the present indicative, the language exhibits a lack of several tenses and moods. Notably, the imperfect subjunctive is morphologically indistinguishable from the present conditional, and its expression requires the use of the *tue*-periphrasis. Additionally, the past perfect is formed as a composite tense, and the future tense is conveyed through periphrasis. Greschòneytitsch operates as a null-subject language, and it commonly employs the neutral third person to represent all genders in informal contexts.

However, the language retains complex structures, particularly when compared to morphologically simpler languages such as English. The clitic pronoun system stands out as a fascinating example of case morphology extending to verbs. The coexistence of alternative structures, such as the *tue*-periphrasis alongside regularly inflected verbs in the present tense, and the distinction between strong and weak classes of adjectives, showcase the language's intricate morphological system. Additionally, the approach to forming plurals of nouns adds to this complexity.

However, it is important to note that the analysis present in this chapter is mostly grounded in the work of Favre and Squindo (2022), rather than an independent investigation of language instances.

In our examination of Greschòneytitsch, it is crucial to consider the balance between complexity and simplification highlighted in this chapter. This perspective will guide our interpretation of the language data we have gathered through our interviews.

Part III

Do-periphrasis

The exploration of the *tue*-periphrasis in Greschòneytitsch delves into the grammatical, syntactic, and pragmatic applications of the verb *tue*, showcasing its pivotal role within verbal morphology. Favre and Squindo (2022) illuminate how *tue* facilitates a flexible sentence construction framework, diverging from conventional conjugation methods. Then follows an in-depth examination of the theories proposed to unravel the origins and linguistic implications of *tue*-periphrasis, emphasising the phenomenon's complexity and its significance in the study of language evolution.

Central to the discussion is the analysis of various hypotheses, from syntactic triggers and the influence of linguistic contact, to the role of clitics and the possibility of *tue*-periphrasis emerging as a unique syntactic feature independent of external linguistic factors. This section probes into the potential origins and catalysts behind this grammatical phenomenon, offering a nuanced understanding that spans historical, cognitive, and sociolinguistic dimensions.

English, they exhibit limited variation. Notably, the subjunctive forms across different tenses are almost entirely consistent, and even the present indicative – arguably the most frequently used form and thus expected to show the most variation – displays a trend towards assimilation. For instance, the second person singular now exclusively uses the form with the clitic subject pronoun (*tuescht*), and the first and third person plural forms have become morphologically identical (*tien*). These patterns suggest a significant trend of grammaticalisation within the language, a theory which will be further explored in Section 6.

Indicative

éer, dschi, äs	tuet/tòtz	tueter, tuetsch, tuets	tuetné, tuetscha, tuetés	Present		Past	
				clitic subject PRO	clitic object PRO		
éch	tuen/tuené	tuené	tuemé	éch	hän toat		
du	tuescht	tuescht	tuédé (?)	du	häscht toat		
wier	tien	tieber	tienénsch	wier	hein toat		
ier	tiet	tieder	tiedò	ier	heit toat		
dschi	tien	tiendsch	tienéshé	dschi	hein toat		

Subjunctive

Present				Past Perfect			
		clitic subject PRO	clitic object PRO				
éch	tiegé	tiegé	tiegemé	éch	heigé toat		
du	tiegéscht	tiegéscht	tiegedé (?)	du	heigéscht toat		
éer, dschi, äs	tiegé	tiegeder, tiegésch, tiegés	tiegene, tiegéscha, tiegés	éer, dschi, äs	heigé toat		
wier	tiegé	tiegeber	tiegenéndsich	wier	heigé toat		
ier	tiegé	tiegeder	tiegedò	ier	heigé toat		
dschi	tiegé	tiegésch	tiegésche	dschi	heigé toat		
Imperfect				Past Perfect			
		clitic subject PRO	clitic object PRO				
éch	tetté	tetté	tettémé	éch	hetté toat		
du	tetté	tettéscht	tettédé	du	hettéscht toat		
éer, dschi, äs	tettéscht	tettéder, tettésch, tettés	tetténe, tettéscha, tettés	éer, dschi, äs	hetté toat		
wier	tetté	tettéber	tetténéndsich	wier	hetté toat		
ier	tetté	tettéder	tettédò	ier	hetté toat		
dschi	tetté	tettésch	tettésche	dschi	hetté toat		

Non-finite

Imperative	Past participle	Infinitive
2nd sing	tue!	Present
1st plur	tien!	Past
2nd plur	tiet!	toat, toan
		tue
		hä toat

Table 11: “Tue” conjugation table (Favre and Squindo 2022, pages 96-97, modified)

6 Tue-periphrasis: a grammaticalisation phenomenon

In the broadest terms, the emergence of tue-periphrasis in Greschòneytitsch exemplifies a universal linguistic process known as grammaticalisation. Grammaticalisation is a phenomenon that, sooner or later, seems to affect all languages in various forms. It involves the evolution of lexical items and constructions into grammatical elements, typically marked by a transition from more concrete meanings or functions to more abstract ones. This process is not unique to Greschòneytitsch but is a fundamental aspect of language evolution worldwide.

However, the specific scope of this work is to identify the unique catalyst for the grammaticalisation of the tue-periphrasis in Greschòneytitsch. While grammaticalisation as a general phenomenon reflects the inherent adaptability and evolution of languages, pinpointing the precise triggers for specific instances, such as the tue-periphrasis, requires a detailed examination of historical, social, and linguistic contexts unique to Greschòneytitsch, which have been laid out in previous chapters. This endeavour aims to uncover the specific conditions and influences that facilitated the development of the tue-periphrasis, contributing to our understanding of how grammaticalisation processes are initiated and unfold in particular linguistic settings.

The following hypotheses serve as a foundation for investigating the specific triggers behind the grammaticalisation phenomenon of the tue-periphrasis in Greschòneytitsch. A detailed examination of language instances, with these theories in mind, is essential to identify the most plausible explanation or a combination of factors responsible for this linguistic evolution. The ultimate conclusions regarding the emergence of tue-periphrasis will be drawn in Part VI of this analysis, following a review of linguistic evidence.

The “Prodigal son” parable (Ködel 2014) At the dawn of the 19th century, Napoleon mandated the translation of the Parable of the Prodigal Son into all dialects within his empire. In 1810, under the direction of Charles Étienne Coquebert de Montbret, who was then leading the *Bureau de statistique*, an extensive survey was conducted. This endeavour has provided invaluable documentation of Greschòneytitsch as it was spoken at the onset of the 1800s.

This linguistic snapshot serves as the main contrasting standard for a wide-scope diachronic analysis; it reveals that the tue-periphrasis, commonly observed

in contemporary usage, was apparently absent during this period. Additionally, the text demonstrates a prominent use of *verbklammer*, a structure that has largely diminished in modern iterations of the language. There is also evidence of lexical erosion, indicating that some of the vocabulary present at that time has since faded from common use.

This examination not only offers a glimpse into the historical linguistics of Greschòneytitsch but also underscores the dynamic nature of language evolution, reflecting changes in syntactic structures, grammar, and lexicon over time, which will be explored further in Part VI.

6.1 Theory 1: English-like do-support

The tue-periphrasis in Greschòneytitsch and the English do-support system display a superficial resemblance, primarily in how auxiliary verbs in both languages assume the inflectional responsibilities traditionally held by the main verb, thus occupying a more prominent syntactic position. In English, do-support is a well-documented feature, primarily evident in interrogative and negative sentences, where the auxiliary “do” takes on all inflectional forms that the main verb would typically assume. This is visible even in English’s limited morphology, most notably in the third person singular and the preterite tense, exemplified by “does” and “did,” respectively. Such behaviour aligns English with languages that feature a rich usage of auxiliary verbs, including “be” and “have,” and hints at a deeper syntactic similarity with Greschòneytitsch (Angster 2005).

However, a closer examination reveals significant differences, particularly in their usage contexts and specific syntactic roles. Unlike English, where do-support has become largely restricted to negative and interrogative sentences, tue-periphrasis in Greschòneytitsch consistently appears in declarative sentences, maintaining a broader syntactic role. Moreover, while *tue* takes inflection, it appears to avoid negation, prompting further examination of its interaction with adverbs and the positioning relative to the infinitive verb form.

Historically, English also utilised do-support in declarative sentences, a practice dating back to the Middle English period. This period marked a significant shift from the synthetic verb forms of Old English to more periphrastic constructions, including the incorporation of do-support in declarative contexts. Such usage underscores a broader shift in English grammatical structure, influenced by dialectal, register, and stylistic variations (Fischer 1992; Warner 1993).

As English evolved, the role of do-support in declarative sentences diminished, becoming predominantly associated with interrogative and negative constructions in Modern English. This shift illustrates the dynamic nature of syntactic evolution, highlighting how grammatical features can become restricted or repurposed over time (Los 2005). Despite this historical narrowing, non-standard variants of Modern English continue to employ declarative do-support, indicating its persistence within the linguistic landscape (Angster 2005).

Both *tue* and "do" derive from Proto-Germanic **dōną* Wikitionary (2023), and variants of "do" in Germanic languages have consistently shown a tendency to lose lexical meaning and become grammaticalised. This evolution towards auxiliary status might predate written language, with the origins of English and Dutch do-support, for example, being identical in early stages. Notably, "do" was instrumental in creating causative constructions in Dutch as early as the 13th century, though conclusive theories explaining its emergence remain elusive.

English periphrastic "do" began to appear in written documents around the 14th century, though it was likely used much earlier, and possibly stigmatised as belonging to lower varieties or child speech (Langer 2001). Initially, periphrastic "do" in Middle English had no specific grammatical function and appeared optionally in declarative sentences lacking other auxiliaries, much like the *tue*-periphrasis. By the Early Modern English period, "do" transitioned from an optional auxiliary to the obligatory do-support of today, used in interrogative, negative, and emphatic sentences, but excluded from declarative sentences (Langer 2001).

The comparison with *tue*-periphrasis reveals that any similarity with English "do" aligns more with its Middle English usage than with the modern do-support system. Moreover, the Dutch periphrastic "do," linked to a causative construction, shares origins with a similar construction in *Greschòneytitsch* involving the particle *tònz* (Angster and Gaeta 2021). Unlike *tue*, which also serves as a lexical verb, *tònz* is invariable and lacks independent lexical content, except when forming causative constructions with verbs.

While the *tue*-periphrasis in *Greschòneytitsch* and the English do-support system initially appear to share syntactic functions, detailed analysis reveals distinct differences in their usage, syntactic roles, and historical development. The broader application of *tue*-periphrasis in declarative sentences and its avoidance of negation contrast with the more restricted, interrogative, and negative sentence usage of do-support in Modern English. Despite these divergences,

the shared Proto-Germanic roots of *tue* and "do" and their tendency towards grammaticalisation reflect a common linguistic heritage.

The earliest emergence of periphrastic "do" in Germanic languages remains a subject of considerable debate among linguists, largely because there is no unified theory explaining its origin. Despite its widespread presence as both a periphrastic and lexical verb across these languages, periphrastic "do" is not a feature directly inherited from Proto-Germanic. Instead, it appears that a form of do-periphrasis developed independently in all the descendant languages of Proto-Germanic (Langer 2001). This situation has led scholars to speculate about the inherent qualities of Proto-Germanic **dōnq* that might predispose it to grammaticalisation.

One prevailing assumption is that Proto-Germanic **dōnq* contained specific characteristics conducive to its evolution into a grammatical marker: semantic flexibility, frequency of use, or perhaps its syntactic positioning within sentence structures. The process of grammaticalisation often involves a shift from a word's original lexical meaning to a more functional or grammatical role within language, a transition that **dōnq* seems particularly suited for.

Therefore, a plausible theory emerges suggesting that English do-support and Greschōneytitsch tue-periphrasis share foundational syntactic characteristics that initially facilitated the grammaticalisation of "do" in both languages. However, their subsequent development diverged significantly after this initial evolution. This divergence is likely attributed to the distinct syntactic environments, linguistic influences, and usage contexts that characterised each language's evolution. While both languages started from a similar point of grammaticalisation for their respective "do" constructs, the paths they took reflect the complex interplay of linguistic change driven by social, regional, and historical factors.

In conclusion, although tue-periphrasis and English do-support are not identical phenomena, the evidence suggests that both constructions likely share a common origin rooted in the Proto-Germanic **dōnq*, which exhibited a strong propensity for grammaticalisation. This commonality points to the inherent characteristics of **dōnq* that made it particularly susceptible to evolving beyond its original lexical function, adapting into various grammatical roles across the Germanic language family.

6.2 Theory 2: *tònz*

The transformation of *tue* into *tònz* in the Greschèneytitsch language, utilised to form causative constructions, mirrors a developmental trajectory common to the "do" variant in many West Germanic languages (Langer 2001). This process involves the lexical verb being required to take an infinitive form, which in earlier stages of Greschèneytitsch (and potentially other Swiss German dialects) manifested as: *tue* + *z'* (an infinitive marker) + the base verb. Over time, the infinitive marker assimilated with *tue*, leading to a reanalysis by speakers who adopted *tònz* as an invariable particle for creating causative sentences (Angster and Gaeta 2021).

The initial use of *tue* in causative constructions may not be pivotal for this analysis, especially considering our previous discussion that **dōnq*'s inherent characteristics might naturally predispose it to such grammatical functions. When the construction involving *tue* followed by an infinitive was reanalysed, it effectively distinguished itself from its original form. This phenomenon raises questions about the recurrence of the tue-periphrasis: Why does it emerge again, especially when causative *tònz* demonstrates that the verb *tue* (along with its cognates *tun* and "do") tends to lose its independent lexical meaning? This pattern has already manifested in Greschèneytitsch, yet it appears to be occurring once more.

The transition of *tue* from a purely lexical element to an analytical form within a periphrastic construction effectively occurred twice. Importantly, *tue* still retains its lexical meaning when used independently, whereas *tònz* does not.

It might be tempting to speculate that the emergence of *tònz* directly influenced the development of a new tue-periphrasis. However, there is no concrete evidence to support this direct causality. While the general cause for the reanalysis of both *tònz* and the periphrastic *tue* might stem from the same linguistic tendencies, it is not necessarily the case that one directly led to the other. Instead, this situation highlights the complex dynamics of language evolution, where similar processes of grammaticalisation and reanalysis can lead to the emergence of distinct grammatical phenomena.

6.3 Theory 3: clitic as trigger

Greschèneytitsch's classification as a pro-drop language illuminates the critical function clitics serve in denoting grammatical relationships, notably as subjects or objects, within languages that exhibit complementiser agreement. The

extensive use of clitics, especially in the first and second persons, facilitates their attachment to verbs and complementisers, effectively signalling subject-verb agreement. This mechanism obviates the need for explicitly stating the subject pronoun, potentially leading to its reanalysis as either part of the verbal inflection or complementiser. Such a transformation paves the way towards pro-drop features, whereby the verb conjugation or complementiser form implicitly carries the grammatical function and presence of the subject, eliminating the necessity for an overt subject pronoun (Putnam and Page 2020).

This syntactic framework is observable in Bavarian and specific Dutch dialects, where clitics, by attaching to verbs and complementisers, denote subject-verb agreement and could facilitate a pro-drop context. Nevertheless, it remains uncertain if clitics alone have ever driven a language to fully adopt pro-drop characteristics (Putnam and Page 2020).

The phenomenon of clitics in influencing syntactic movement is notably pronounced in languages where they are a significant feature. As morphologically independent yet syntactically dependent entities, clitics can instigate the movement of sentence elements, particularly verbs. This movement, often necessitated by agreement or feature checking, allows verbs to align with subject clitics in grammatical features such as person, number, and sometimes gender. Such dynamics are especially prominent in languages with extensive inflectional morphology (Rizzi 1982).

Furthermore, "clitic climbing" exemplifies clitics' capacity to trigger syntactic movement, whereby a clitic exits an infinitive phrase to attach to a superior verb. This adjustment, motivated by specific syntactic conditions or the interpretive necessity of the clitic's positioning, underscores their influence on the arrangement and movement of auxiliary verbs, negation particles, and adverbs within sentences (Cecchetto 2000).

The impact of clitics extends to various languages, including Romance languages like Italian and Spanish, where they can trigger verb movement to ensure syntactic coherence and proper agreement. Similarly, in some Slavic languages, clitics are instrumental in determining verb position within complex sentences, emphasising their crucial role in syntactic structuring.

The intricate relationship between clitics and syntactic structures in Greschòneytitsch provides a compelling framework for understanding the emergence of the tue-periphrasis. Clitics, particularly nominative ones, serve a pivotal role in indicating grammatical relationships without the explicit mention of subject pronouns, thereby contributing to the language's pro-drop characteristics. This syntactic

feature, wherein clitics attach to auxiliary or main verbs, suggests a dynamic interplay that could have catalysed the development of periphrastic constructions involving *tue*.

The *tue*-periphrasis could have originated as a linguistic adaptation to accommodate the requirements posed by clitic use. As clitics required a verb to attach to, *tue* might have increasingly assumed this role, especially in contexts where the lexical verb's movement was constrained. The lexical verb, potentially a heavy constituent unable to ascend syntactically, necessitated a placeholder or auxiliary verb to maintain the syntactic coherence and fluidity of expression. *Tue* naturally filled this role, evolving into a periphrastic form that allowed for the continuation of clitic attachment while still adhering to the language's grammatical rules.

6.4 Theory 4: language contact

Language change is a phenomenon often triggered by contact with dominant language groups (Angster and Gaeta 2021), leading to significant shifts in the linguistic landscape of a community. This process encompasses alterations in vocabulary, syntax, and the functional aspects of a language. Understanding these changes necessitates a consideration of both social and structural factors that arise from language contact scenarios, which are predominantly fuelled by social interactions stemming from migration, trade, or colonisation. The scholarly discourse underscores the complexity of outcomes such as code-switching, which are contingent upon the context and prevailing attitudes. These are, in turn, shaped by a myriad of factors including the motivations behind the contact, the relative prestige of the speaker groups, societal pressures, and the perceived instrumental value of the languages in question for socioeconomic advancement (Austin and Sallabank 2011).

As explored in Part I, the linguistic history of *Greschòneytitsch* is marked by its extensive interaction with other languages and its subsequent demotion to a 'low' variety over time. The dynamics of language learning and the desired level of proficiency are profoundly influenced by these historical and social contexts, along with psychological factors such as learning strategies, attitudes towards languages, and individual or societal language dominance. The concept of language dominance can reflect the sociolinguistic standing of a language or an individual's predilection in language usage (Austin and Sallabank 2011).

In the case of *Greschòneytitsch*, certain grammaticalised structures, such as

the causative *tònz* and the progressive *eister*, are postulated to have emerged through language contact (Angster and Gaeta 2021). These developments underscore the intricate ways in which languages influence each other, leading to evolutionary changes in their structure and use.

Regarding the tue-periphrasis, its genesis through direct influence from neighbouring languages (Italian, Franco-Provençal, Piedmontese) appears improbable, as none exhibit this specific structure. Nevertheless, a body of research suggests that grammaticalisation can indeed be a consequence of language contact, even in the absence of direct structural borrowing (Montrul and Polinsky 2021; Austin and Sallabank 2011; Angster and Gaeta 2021; Angster 2005). This phenomenon highlights the subtle yet profound impact of dominant languages on the grammatical repertoire of less dominant ones.

The development of *tònz* might be illustrative of such influence, potentially making the use of a periphrastic "do" compulsory in certain contexts. This raises the question of whether the construction involving periphrastic *tue* could be a linguistic adaptation resulting from these contact-induced changes. The evolution of this periphrasis may reflect a deeper, underlying process of language change, where external influences catalyse internal linguistic developments, thereby enriching the linguistic diversity and complexity of Greschòneytitsch.

6.5 Theory 5: low proficiency and heritage language

As previously highlighted, Greschòneytitsch is experiencing a decline, leading to its potential categorisation as a heritage language. This status may have had a significant impact on the natural evolution or disappearance of certain linguistic features, either slowing down or accelerating changes within its structure.

This situation prompts the consideration of all current speakers of Greschòneytitsch as potentially having lower proficiency levels. Consequently, these speakers might resort to the tue-periphrasis as a linguistic simplification strategy, owing to challenges in verb conjugation accuracy. Heritage speakers often exhibit a preference for unmarked syntactic forms, favouring analytic and periphrastic constructions over more complex alternatives (Montrul and Polinsky 2021). This trend underscores the adaptation of the language to the competencies of its speakers, reflecting a broader phenomenon observed in the dynamics of heritage language use.

However, analysing Greschòneytitsch within the framework of heritage languages presents unique challenges, primarily due to the absence of a clear base-

line for comparison. Unlike languages such as the Italian spoken by Italian-Americans, which have a well-documented standard form against which the heritage language variant can be measured, Greschòneytitsch lacks a comparable reference point. This absence complicates efforts to definitively categorise linguistic shifts as simplifications or evolutions driven by reduced proficiency.

On the other, hand, plenty of data seems to support this hypothesis, as will be discussed throughout the following chapters.

6.6 Theory 6: a language-specific syntactic feature

Finally, we posit the theory of the tue-periphrasis as a unique syntactic feature emerging independently of the influences and scenarios outlined in the preceding theories. This approach posits that while external factors such as language contact, grammaticalisation processes, and sociolinguistic dynamics undoubtedly play significant roles in the evolution of language, the specific development of the tue-periphrasis in Greschòneytitsch may be attributed to the language's internal dynamics and the creativity of its speakers.

Syntactic autonomy suggests that languages can develop complex and unique grammatical features in isolation from external linguistic influences. This theory posits that the cognitive capacities of human language processing are sufficient to generate novel linguistic structures independently (Heine and Narrog 2015). In the case of Greschòneytitsch, the tue-periphrasis could represent an internal innovation, stemming from the language's own syntactic potential and the communicative needs of its speakers.

Internal motivations for linguistic innovation can include the need for clarity, efficiency, or expressiveness in communication. Languages evolve to meet the changing communicative demands of their speakers, which can lead to the creation of new syntactic constructions (Montrul and Polinsky 2021). The tue-periphrasis may have arisen as a means to achieve a particular communicative function more effectively, such as emphasising action, delineating aspectual distinctions, or facilitating narrative flow.

Cognitive and psychological factors also contribute to the development of unique syntactic features. Language users' cognitive biases towards certain structures or patterns can drive the emergence of new grammatical constructions (Heine and Narrog 2015). The tue-periphrasis might reflect a cognitive preference for periphrastic constructions over synthetic forms, influenced by the way speakers conceptualise actions and processes.

Speaker innovation is a crucial driver of language change. The creative use of language by individual speakers can lead to the adoption and normalisation of new linguistic forms within a speech community (Ledgeway and Roberts 2017). The tue-periphrasis in Greschòneytitsch may have originated from innovative uses of language that became conventionalised over time, reflecting the community's adaptability and creativity in language use.

While the preceding theories have drawn parallels with other languages and historical developments, it is essential to recognise the possibility of convergent evolution in linguistic phenomena. Similar grammatical constructions can arise independently in unrelated languages due to universal principles of language change and human cognition (Heine and Narrog 2015). Thus, the tue-periphrasis might not necessarily be a result of direct influence from language contact or other external factors, but could be an instance of linguistic convergence.

Part IV

Experiment materials and design

The groundwork for an experiment aimed at extracting instances of Greschòneytitsch language use is laid through the analysis of *tue*-periphrasis and its interaction with Italian, leveraging the ClimAlp database and introducing the merits of video-based elicitation methods. These efforts shape the design of a new experiment that utilises video prompts and background questionnaires for cross-generational linguistic analysis. Supported by community-led transcription, this approach focuses on documenting *tue* usage in lexical and syntactic contexts, as well as probable sociolinguistic or cross-generational shifts.

7 Preliminary considerations

The primary aim of our research was to examine the authentic use of the *tue-periphrasis* among *Greschòneytitsch* speakers, spanning various generations and levels of linguistic proficiency. Beyond exploring the *periphrasis*'s origins and patterns of use, our investigation sought to address the significant sociolinguistic shifts within the *Greschòneytitsch*-speaking community. Over the last decade, the demographic changes, marked by the passing of the last native speakers born in the early 20th century and the increasing dominance of Italian, have presumably led to a substantial dilution of the *Greschòneytitsch* language. Our experiment must be designed to empirically test this hypothesis by presenting speakers with everyday scenarios and observing their linguistic choices.

Other studies Our experimental design was initially informed by a review of the literature, which highlighted a variety of methodologies employed in the study of language use and grammaticality judgments across different languages. This included:

- Angster (2005): focused on translations from Italian and binary grammaticality judgments for *Greschòneytitsch*;
- Cognola, Baronchelli, and Molinari (2019): employed grammaticality judgments using a 5-point scale for *Mòcheno*;
- Angster and Gaeta (2021): conducted analyses of written language instances over the past 40 years in *Greschòneytitsch*;
- Cognola (2013): utilised translation tasks from Italian and grammaticality judgments for *Mòcheno*.

These studies provided a foundation for our methodological approach, although we chose to diverge from translation tasks to avoid redundancy and minimise potential language attrition effects.

Our initial consideration of using images to elicit language use was dismissed due to the challenge of finding images that could unequivocally convey action (therefore, verbal) meaning. We thus opted for video as the most direct and effective medium to showcase action, which allowed us to circumvent the limitations associated with static images, as explored further in Section 8.

The screenshot shows the 'Word in Context' search interface for the Gressoney dialect. The search results are as follows:

Parola	Lemma	Id Frase	Frase	Titolo Brano	Testo Brano	Id Brano
tued	tue	68	Am Morge, we no de Maanod tued schline, gelt de Puur of d Matte far z meeche	VAM WEÄRCH VOM PUUR	Am Morge, we no de M...	DOK_0017
tued	tue	70	Am säggsche tued eär dschils Wiip os dem teife Schloaf erwegge	VAM WEÄRCH VOM PUUR	Am Morge, we no de M...	DOK_0017
tued	tue	71	Dschi tued sche zääre, tretschof era lengs Hoar, on gelt embre en de topp Chäär	VAM WEÄRCH VOM PUUR	Am Morge, we no de M...	DOK_0017

Figure 4: ClimAlp database web interface (Gaeta et al. 2019)

7.1 ClimAlp database

During the initial phase of our experiment’s design, we obtained access to the ClimAlp database’s Greschòneytitsch segment (Gaeta et al. 2019). This extensive online repository, which archives all documented instances of the Greschòneytitsch language in written form, proved to be a cornerstone for our research foundation.

Through the web interface in Figure 4, we isolated all instances of *tue* as a lemma. The results were downloaded in Excel format, which did not retain PoS tagging and lemmatisation of tokens, as can be seen in Figure 5.

Our methodology entailed a detailed exploratory analysis focusing on the usage of *tue* and its co-occurrence with lexical verbs. Initially, our approach involved extracting from the database sentences that featured the verb "tue" in various forms. Subsequently, we aimed to differentiate its application within periphrastic constructions versus its role as a lexical verb. To aid in this analysis, the *Sportello Linguistico* was enlisted to translate all extracted sentences, providing an additional layer of linguistic insight.

	A	B	C	D
1	Id Frase	Id Brano	Struttura	Frase
2	68	DOK_0017	PREP N:m CONJ ADV ART:det N:m V:tr V:s:intr V:intr ART:det N:m ADV ART:det N:f PREP CONJ V:s:tr	Am Morge, we no de Maanod tued schiine, geit de Puur of d Matte far z meeche
3	70	DOK_0017	PREP N:f V:tr N:f ADJ N:n PREP ART:det ADJ N:m V:tr	Am säggsche tued eär dschiis Wiip os dem teife Schloaf erwegge
4	71	DOK_0017	PRO V:tr PRO V:s:tr rif V:w:tr ADJ ADJ N:n CONJ V:intr ADV ART:indet ART:det ADJ N:m	Dschi tued sche zääre, treshot era lengs Hoar, on geit embre en de topp Chäär
5	72	DOK_0017	PRO V:intr ADV N:m N:m CONJ N:m CONJ V:tr ADV PREP N:n ART:det N:n V:w:tr	Dschi geet doa Ange, Cheesch on Heärfa on tued dernoa em Fiiirus ds Fermes hanno
6	75	DOK_0017	ADV V PRO ART:det N:m V:w:tr ADV V:tr PRO ART:det ADJ N:n V:w:tr ART:indet ART:det N:f V:tr CONJ V:tr ADV ADV ART:det N:	Hei zeämerächo, en de Diele eetroage on tueds doa of dem Heischtock met der Heigabelo emom zerzette, (derno tued mos no stampfo
7	76	DOK_0017	ADV V:tr ART:det N:n ADV ADV V:s:tr	doa tien de Zocht geng geäre hälfe
8	77	DOK_0017	ADV ART:det N:n V:tr PRO ADV V:w:tr	Noa dem Heieetroage tued mo no stritscho)
9	81	DOK_0017	ART:det N:f V:intr ART:indet V:tr ADV ART:det N:f V:intr	D Morbene piffen, es tien scho d Stuudomeie blieche
10	305	DOK_0013	PREP N:prop:top N:f CONJ V:tr V:tr ADV V:s:tr PREP V:w ADV CONJ ADV V ART:det N:n ART:indet ART:det ADJ N:f V:w:tr	Em Ougschteland, persöne woa chennen, tien jeza scribe fer zelle wétte òn wie hein d'liitté en den oalté zitte gloubt

Figure 5: Excel spreadsheet downloaded from ClimAlp

The process of extracting relevant data from the database and analysing the data introduced several challenges:

- Despite the lemmatisation of all tokens within the ClimAlp database, the downloaded dataset of sentences containing *tue* in Greschòneytitsch lacks explicit Part-of-Speech (PoS) tagging. This absence necessitated alternative approaches to linguistic analysis.
- The lack of Natural Language Processing (NLP) tools specifically designed for Greschòneytitsch significantly hindered direct computational analysis. Consequently, our NLP efforts were redirected towards the Italian translations of the sentences. This shift introduced complexities, notably the lack of a direct one-to-one lexical correspondence. For instance, both *machò* (“to make”) and *tue* (“to do”) in Greschòneytitsch translate to *fare* in Italian, illustrating the nuanced challenge of maintaining lexical fidelity.
- The database’s sentence segmentation technique mechanically divides entries at full stops or equivalent punctuation, such as line breaks or semicolons. This segmentation strategy resulted in the extraction of sentences from the *tue* lemma search that were not optimally segmented into single-verb phrases. The reliance on such mechanical separation, rather than nuanced linguistic segmentation, reflects the inherent limitations of manual processing for a database of substantial size, underlining the logistical

impracticality of manually curating sentence separation without the aid of specialised NLP tools for Greschòneytitsch (Jurafsky and Martin 2023). A practical consequence of this is that the mathematical average of verbs resulted to roughly 2.5 verbs for each sentence extracted.

- Finally, the orthographic standardisation of Greschòneytitsch remains inconsistent. Despite several attempts by linguists to establish uniform spelling conventions, the variability in historical documents predates these efforts, introducing further complexity to data compilation and analysis.

Despite these challenges, we employed Jupyter Lab for our preliminary data analysis. The obstacles encountered necessitated a more creative and adaptable approach to data processing; we attempted to circumvent these difficulties wherever feasible, aiming to maintain a rigorous analytical process under constrained conditions.

Lexical analysis Our initial approach focused on analysing the Italian translations of sentences from the ClimAlp database. As mentioned above, this decision was driven by the dataset’s challenges, such as non-standardised spelling and the absence of part-of-speech (PoS) tagging for Greschòneytitsch texts, which hampered direct analysis. Although our exploratory analysis did not aim at specific outcomes, it shed light on the fundamental aspects of *tue* usage.

The very first approach involved a manual analysis of all sentences and their translations. The *Sportello Linguistico* had been asked to highlight any sentence that contained lexical *tue*, and thus we gathered our first piece of data: out of 586 sentences analysed, only 76 utilised *tue* as a lexical verb, with the remainder featuring it within periphrastic constructions.

Then, we used NLP tools – specifically, SpaCy (Montani et al. 2023) – to process all Italian translations (Jurafsky and Martin 2023). We disregarded other parts of speech and extracted only the verb lemmas, and organised them into a frequency list. Table 12 reports the frequency of verbs that appeared 7 times or more. The analysis amounted to a total of 1498 verbs, which means that, as mentioned earlier, each sentence of the database presents an average of 2.5 verbs.

Despite the data’s unrefined state, this preliminary analysis of the Italian translations yielded intriguing insights, particularly regarding verb type co-occurrence with the *tue*-periphrasis. Excluding “be” and “have”, which typ-

Verb		Frequency	Verb		Frequency
do/make	tue/machò	95	see	gsé	10
be	si	44	remember	erénnerò	10
have	hä	36	need	mossò	9
say	séege	32	prepare	hannò	9
carry	troage	31	cut	schnide	9
go	goa	24	read	läse	8
put	leche	15	ask	frege	8
pass	vergoa	15	take	gé	8
find	fénne	14	stay	si	8
come	chéeme	14	add	ersetze/derzulecke	8
know	wéssò	14	pick up	ufläse	7
sing	sénge	14	tell	verzelle	7
speak	redò	14	help	hälfe	7
give	gä	12	feel/hear	kéré/gschpérre	7
arrive	achéeme	11	change	tischò	7
think	denge	11	remove	kwenke	7

Table 12: Most frequent lexical verbs co-occurring with the tue-periphrasis in ClimAlp database (translated from Italian to English)

ically function as lexical verbs independent of the tue-periphrasis, as well as the modal verb *mòssò*, the findings suggest that *tue* can accompany an extensive array of verb types, including those most frequently utilised across languages. Remarkably, our analysis also revealed several instances where *tue* can co-occur with itself, showcasing its unique flexibility within the language’s verb structure.

This exploration of the ClimAlp database underscored the complexity of Greschòneytitsch’s linguistic landscape. Although the inherent limitations of the data warrant a cautious approach to our conclusions, these initial findings significantly informed our experiment’s content design, highlighting the versatility and ubiquity of the "tue" periphrasis within the language.

Grammatical and morphological analysis A second step of the analysis involved creating a RegEx (Jurafsky and Martin 2023) that would match any form of the verb *tue*, including spelling variations and appearance with nominative clitic pronouns. The results are summarised in Table 13. The total of matches amounts to 581, which is reassuringly close to the total number of sentences containing the tue-periphrasis originally matched in the ClimAlp database (586).

- The third person singular of the present indicative is noted 223 times,

Verb	Frequency	
tuet	pres. ind. 3rd sing.	170
tien	pres. ind. 1st/3rd plur.	142
tue	present infinitive/imperative 2nd sing.	66
tued	spelling variation of “tuet”	37
tiege	pres. subj. (any person except 2nd sing.)	30
toat	past participle	25
tuescht	pres. ind. 2nd/3rd sing. with clitic Nom pronoun	17
thue	spelling variation of “tue”	14
tieber	pres. ind. 1st plur. with clitic Nom pronoun	9
thued	spelling variation of “tuet”	8
tuetz	spelling variation of “tuets”	7
tette	imperfect subjunctive (any person except 2nd sing.)	7
tuen	pres. ind. 1st sing.	7
thien	spelling variation of “tien”	5
tied	spelling variation of “tiet”	5
tuetsch	pres. ind. 3rd sing. with clitic Nom pronoun	4
tiendsch	pres. ind. 3rd plur. with clitic Nom pronoun	4
tiet	pres. ind. 2nd plur.	4
toad	spelling variation of “toat”	3
thoad	spelling variation of “toat”	3
thuescht	spelling variation of “tuescht”	2
thuen	spelling variation of “tuen”	2
tuene	spelling variation of “tuen”	2
tie	?	1
tueter	pres. ind. 3rd sing. with clitic Nom pronoun	1
tiegeder	pres. subj. 3rd sing./2nd plur. with clitic Nom pronoun	1
tettescht	imp. subj. 2nd sing.	1
tuets	pres. ind. 3rd sing. with clitic Nom pronoun	1
tieder	pres. ind. 2nd plur. with clitic Nom pronoun	1
tiegesch	pres. subj. 3rd sing./plur. with clitic Nom pronoun	1
tettesch	impe. subj. 3rd sing./plur. with clitic Nom pronoun	1

Table 13: Frequency of forms of “tue” in ClimAlp database

encompassing spelling variations and including 8 instances with the clitic nominative neutral pronoun *-s*.

- The present indicative first or third person plural (which are morphologically identical) register 147 appearances. This total is augmented by an additional 9 occurrences as the 1st person plural with the nominative clitic pronoun and 4 more as the 3rd person plural with the nominative clitic pronoun.
- The present infinitive or 2nd person imperative is noted 66 times. A closer manual examination indicates that in approximately 52 of these instances, *tue* is involved in periphrastic constructions. Notably, not all these instances with *tue* at the infinitive or imperative form convey an infinitive or imperative meaning, which appeared at first rather intriguing. However, further data collection through interviews suggested that the observed phenomenon might often be a contracted form of *tuet*, where the terminal dental sound diminishes. While this could hint at a potential trend toward uniformity with the infinitive form – as seen in English – the evidence currently falls short of definitively supporting this direction.
- The present subjunctive, recorded 30 times, initially seems significant, especially as we posited in Subsection 4.4 that the usage of subjunctive is likely diminished. However, the form "tiege" encompasses all persons except the second singular, which dampens its statistical impact, especially when contrasted with the present infinitive or the past participle.
- The 25 instances of the past participle signify 25 instances of the lexical use of *tue*, and also account for numerous appearances of the verb *hã* ("to have") as the auxiliary of *tue*. Additionally, these instances may include the use of the modal *mòssò* ("to need to/must"), which appears in Table 12.
- Forms appearing fewer than 25 times, which together account for 7% of the total verb frequency and 20% of all *tue* forms, including tokens appearing only once, are largely overlooked in the analysis due to their minimal statistical relevance to the foundational considerations of designing the experiment.

7.2 Speaker 0

Speaker 0, a native speaker of Greschòneytitsch, played a pivotal role in shaping and addressing our inquiries, particularly with the recurring concern that there might be a slight bias from official sources. These sources, such as the official grammar (Favre and Squindo 2022) and the *Sportello Linguistico*, are primarily focused on the conservation of the language and may, therefore, portray more archaically grammatical but less commonly used structures as being typical. Speaker 0 evaluates their language proficiency as native-like, albeit reduced by limited use in adulthood – a situation that appears to be common among a significant portion of speakers. They also note a pronounced disparity between their language usage and that of the previous generation or the language promoted by the *Sportello Linguistico* and its publications.

Their contributions were chiefly valuable in differentiating the language preservation efforts evident in publications from the actual, everyday use of the language. While the insights provided by Speaker 0 alone are not sufficient to draw definitive conclusions about the language – acknowledging the need for a larger sample size to test or confirm theories – they were nevertheless crucial in gaining an understanding of typical language use and determining the direction for our analysis. Specifically, their feedback led to a focus on the lexical meaning of main verbs rather than their more complex verbal characteristics. This decision was influenced by Speaker 0’s admission of using the *tue*-periphrasis almost exclusively, except for a select few frequently used verbs in the first person (e.g., “I think,” “I believe”), which are among the few verbal forms Speaker 0 employs in a synthetic manner.

7.3 Final considerations

The analysis of lexical verb meanings in conjunction with the form *tue* offers several preliminary insights:

- First, a morphological analysis indicates that the third person singular of *tue* comprises approximately 38% of all observed forms. This is a significant increase compared to the second most frequent form, which represents about 25% of the total. This finding aligns with Zipf’s Law (Jurafsky and Martin 2023). However, these percentages necessitate consideration of the data type under review. The language instances examined originate not from spontaneous literature, such as letters or diaries, but from formal

publications. These are likely to be narrative texts, which predominantly use the third person, or formal research writings, which may frequently employ the second person plural.

- Lexical analysis does not offer definitive conclusions. The co-occurring verbs do not share consistent characteristics, other than being commonly utilised. The list in Table 12 closely resembles the list of the most common verbs in English, and several other languages

This leads to the necessity for a structured approach to design our experiment. While employing video observation as the modality may not yield a diverse array of verb forms beyond the third person, it stands as the most pragmatic method under the constraints of time and resources. The primary challenge with a less structured format, such as free narration, lies in the volume of data required to discern meaningful patterns; a more open-ended approach would undoubtedly generate a richer dataset, but it would also necessitate a significant increase in the workload associated with transcribing and translating the collected data – resources we are limited in.

Therefore, we opted for a method that strikes a balance between spontaneity and structure: watching and describing videos. This task, though more constrained than free narration, is still sufficiently open to encourage spontaneous language use. Its structured nature is designed to maximise the efficiency of our data collection, allowing us to identify linguistic patterns and verb usage with a more manageable dataset. The decision to adhere to video-based elicitation stems from this strategic consideration: it enables us to conduct a controlled examination of lexical verb meanings, ensuring that we can achieve meaningful insights within the scope of our available resources and time constraints.

The selection of verbs for our study was inspired by the classification system proposed by Bertinetto (1986) and utilised by Angster (2005), which includes six classes of verbs along with several *kurzverben* (strong, monosyllabic verbs). Given that Bertinetto’s categories had been thoroughly investigated by Angster, we decided to focus almost exclusively on the lexical meaning rather than grammatical verb types or classes (Goldberg 1992). The verbs selected encompass ten categories:

- Mental Verbs (e.g., remember, think)
- Perceptive Verbs (e.g., see, hear)
- Bodily Verbs (e.g., jump, sleep)

- Verbs of Speech (e.g., argue, explain)
- Verbs of Giving (e.g., give, offer)
- Verbs of Creation (e.g., cook, build)
- Verbs of Destruction (e.g., demolish, break)
- Verbs of Movement (e.g., run, swim)
- Verbs of Existence (e.g., be, exist)
- Verbs of Possession (e.g., have, own)

This diversity aims to cover a broad spectrum of everyday language use. Given that the selection of lexical verbs was unrestricted, a contrast to the constraints typically encountered in translation tasks, we anticipated the prevalence of commonly used verbs in our data. This strategic choice for verb selection diverges from Noam Chomsky’s approach, which often emphasises the analysis of uncommon language examples to illustrate specific linguistic phenomena. In our experiment, however, the setup is designed to facilitate a broader analysis, focusing not on singular, isolated examples but on the extensive application of similar lexical verbs across a diverse range of speakers.

This approach allows us to capture a more comprehensive picture of language use, reflecting the natural variability and complexity of spontaneous verbal communication. By examining the use of lexical verbs in a wider context, we aim to uncover patterns and insights that are representative of the everyday language practices of the speakers involved, offering a richer understanding of linguistic dynamics than could be achieved through the examination of isolated instances alone.

To address the challenge of visually representing abstract verbs, such as those indicating existence, possession, or perception, we elected to integrate follow-up questions into each scenario (refer to Appendix B and Table 14 on page 58). This method aims to elicit a wider variety of verb forms – modals, different persons, several moods and tenses – that video descriptions alone might not prompt. Additionally, these questions might be crucial for guiding participants towards using the targeted lexical verbs, particularly when the video content is open to interpretation. This approach will enrich our data collection by ensuring a comprehensive range of verb forms and securing specific verb usage, thereby overcoming the potential ambiguity of the video stimuli.

However, a necessary compromise was encountered in the need to conduct follow-up questions in Italian, due to the linguistic capabilities of the research team. Although this could potentially introduce minimal attrition effects, this trade-off was considered essential to maintain the experiment’s overall comprehensiveness and validity.

In summary, the preliminary considerations in designing our experiment are driven by a desire to capture the nuanced and natural use of language among Greschòneytitsch speakers. By carefully selecting the methodological tools and considering the linguistic and sociocultural context of our target community, we aim to contribute meaningful insights into the dynamics of spontaneous language use across different generations, amidst the evolving linguistic landscape of the Greschòneytitsch-speaking areas.

8 Experiment

Following the comprehensive pre-investigation and analysis of the ClimAlp database, our experiment’s design phase transitioned towards selecting appropriate stimuli to elicit specific linguistic responses. Ultimately, we chose video prompts designed to directly encourage the use of a curated set of verbs (Table 14), categorised by their lexical functions:

- Remember (Mental)
- Smell (Perceptive)
- Jump (Bodily)
- Argue (Speech)
- Give (Giving)
- Cook (Creation)
- Demolish (Destruction)
- Run (Movement)

We recognised that verbs of existence and possession posed a challenge for direct elicitation through singular video prompts. However, we correctly anticipated that these verbs would naturally emerge in participants’ descriptions related to other videos. Indeed, many speakers initiated their descriptions with verbs

Video	Target Verb	
1	Remember	Erénnerò/Dragä
2	Smell	Schmecke
3	Jump	Spring
4	Argue	Stritte/Hoarò
5	Give	Gä
6	Cook	Chockò/Firò
7	Demolish	Vernéchte/Abbräche
8	Run	Loufe

Table 14: Target verbs for videos

Video ID	Target structure	Question
1	Present/Progressive	What is the man thinking about?
2	Future	What will the dog find?
3	Present/Progressive	What is the boy feeling?
4	Past/Causative	What did the man do to make the woman angry?
5	Future	What will the woman do with the present?
6	Past/Modal	What did the man do before starting to cook?
7	Modal/Future	What does the workman want to do?
8	Modal/Past	Why did the man decide to run?

Table 15: Target structures for questions

of existence, in phrases like “in this video, there is...” or referenced possession (e.g., “he has a glass of water in one hand”), ensuring coverage of all targeted verb categories across most interviews.

The structure of the interview aimed to elicit declarative sentences primarily in the narrative present, using the indicative mood. While our approach did yield some examples of subjunctive and conditional moods, these were not explicitly sought. Additionally, the experiment captured a range of sentence types, including negative constructions and infinitive phrases, enriching the linguistic data collected.

Follow-up questions were strategically employed to further prompt the use of anticipated verb types, enhancing the depth and diversity of linguistic phenomena observed (see Table 15). This methodology ensured a comprehensive examination of the natural use of language, aligning with our objectives to understand the dynamics of Greschòneytitsch usage among its speakers.

8.1 Speakers

The selection of speakers was strategically designed to facilitate a cross-generational analysis, highlighting the diachronic evolution of the Greschòneytitsch language. Recruiting younger speakers presented more challenges compared to older generations, leading to a relatively modest cohort size of 24 participants. Notably, the majority of these individuals had not previously participated in studies on Greschòneytitsch, ensuring the novelty of our data. Interviews included members from the same families, introducing the potential to explore familial dialect variations.

The proficiency levels among our speakers varied significantly, with most exhibiting native or near-native fluency. A subset, however, demonstrated proficiency ranging from moderately low to severely low. These interviews with lower proficiency speakers were invaluable, serving as a sort of control group to examine the influence of language proficiency on linguistic patterns.

8.2 Materials and design

Our methodological approach involves the use of video prompts to elicit natural language usage, chosen for their ability to minimise linguistic bias. The inherent limitation of this method is the lack of control over the specific verbs and structures employed by the speakers, which may restrict the scope of our findings. Despite these challenges, the decision to utilise videos was predicated on their non-linguistic nature, allowing for a purer form of language elicitation. Time constraints necessitated the selection of only eight videos for the experiment, with the potential for future expansion based on the success of this initial study. Additionally, we developed a questionnaire to gather detailed linguistic background information from the participants.

The experiment was practically conducted as follows:

- Background information gathering: the investigator begins by asking the participants about their linguistic and sociolinguistic backgrounds using a standardised questionnaire. In cases where participants struggle with self-assessing their proficiency levels according to the Common European Framework of Reference for Languages (CEFR), the investigator provides them with definitions from the Self-assessment grid available on the Council of Europe website. Responses are directly recorded into a computer file to streamline subsequent analysis.

- Language task explanation: participants are briefed on the language tasks using a consistent script: "I'll show you a video. You'll have to describe what happens in the video as soon as the video ends. After your description, I'll ask you a question that requires a response in Titsch. You'll need to make up an answer, any answer is fine: there are no right or wrong answers. You can speak as simply or elaborately as you wish; imagine you're speaking to a relative, friend, or someone you regularly converse with in Greschòneytitsch."
- Video descriptions and questions: the investigator presents each video to the participant, who describes it. The description of the video is followed by a related question. This sequence is repeated for all selected videos. This portion of the experiment is audio-recorded to capture the verbal responses accurately.

8.3 Transcriptions

The transcription process for this study was a collaborative effort, primarily initiated with the assistance of individuals from the *Sportello Linguistico*, a linguistic support centre dedicated to the preservation and promotion of the dialect. As the project progressed, the scope of assistance broadened to include volunteers from the community, eager to contribute to this linguistic endeavour. Three of the speakers transcribed their own interviews.

Given the diverse group of contributors involved in the transcription process, it is important to acknowledge the potential for variability in spelling conventions. Despite concerted efforts to standardise and correct the transcriptions, the possibility that some inconsistencies and errors remain cannot be entirely discounted. An attempt was made to rectify these discrepancies to ensure the highest possible accuracy and consistency across the transcriptions.

The transcription task was particularly challenging for interviews involving five speakers who exhibited proficiency levels ranging from medium-low to severely low, as detailed in Subsection 8.1. These interviews presented unique difficulties not only because of the limited use of the target language but also due to the complex task of accurately capturing the essence of the speakers' contributions. In cases of low linguistic proficiency, the sparse instances of actual language use meant that traditional transcription might not fully encapsulate the value or the intended meaning of the spoken words.

Part V

Results & new corpus data

The chapter presents detailed findings from linguistic research, emphasising the nuanced use of linguistic elements such as clitic pronouns, verb forms, and periphrastic constructions in Greschòneytitsch. It reveals insights into language evolution, proficiency levels' impact on language usage, and the influence of Italian on Greschòneytitsch syntax.

9 Overview of results

The conducted interviews yielded a total of 304 valid verbal responses: 152 were elicited through video stimuli and another 152 through direct questioning, as detailed in Section 8. Given that 24 interviews were conducted, one might anticipate a total of 384 responses. However, due to the inclusion of 4 participants with significantly low proficiency in the language under study, these interviews produced few linguistic instances. Despite this, the data from these 4 interviews still offered valuable insights, which are elaborated upon in the ‘Low proficiency speakers’ paragraph of Subsection 9.2.

An additional interview with a near-native speaker was excluded from the analysis, a decision that merits further discussion due to the intricate challenges it presents in linguistic research. This exclusion was based on the participant’s difficulties in understanding the interview format, leading to a series of irrelevant responses. Although this participant demonstrated high linguistic proficiency, their misunderstanding of the interview structure yielded data that did not meet the study’s structured research objectives. These responses, despite being linguistically rich, were misaligned with the specific research questions, underscoring the importance of clear communication between researchers and participants in data collection.

Furthermore, data was collected from a 4-year-old child. Given their age, they were unable to participate in the standard interview format. Instead, a conversation between the child and a parent was recorded. While this provided valuable linguistic data, it was ultimately deemed outside the scope of the current study and therefore not included in the analysis. Nonetheless, this data is preserved for potential future research.

The sociolinguistic background data collected from the participants is summarised in a table located in Appendix C. Whenever a specific speaker is mentioned, refer to Appendix (C) for background information.

9.1 NLP

To steer our comprehensive analysis, we implement similar Natural Language Processing (NLP) techniques to those utilised for the ClimAlp database in Subsection 7.1.

Initially, we employ Regular Expressions (RegEx) to identify the different variations of *tue*. This method does not differentiate whether *tue* functions as a

Person	without clitic	nominative clitic	accusative clitic	dative clitic ⁹
1st singular	1	3	none	2
2nd singular	none	none	none	none
3rd singular m	108	24	2	16
3rd singular f		3	5	none
3rd singular n		3 + 2 ¹⁰	none	none
1st plural	17	4	none	none
2nd plural	none	none	none	none
3rd plural	none	8	none	none

Table 16: Distribution of “tue” in interview data, present indicative

lexical verb or is part of the tue-periphrasis, with the exception of all instances of the past participle *toat*. Notably, there were no occurrences of the present subjunctive found. The RegExes are designed to detect only instances of single clitic pronoun usage. Therefore, there may be verb forms incorporating multiple clitic pronouns simultaneously, which we will need to identify manually.

As shown in Table 16, the occurrence of the 3rd person singular form without a clitic pronoun, totalling 108 instances, is more than three times as frequent as the 3rd person singular form accompanied by a nominative clitic.

Some instances of the accusative clitic have been pointed out by the person doing the bulk of the translations as rendering the usage of tue-periphrasis obligatory. This points us in the direction of the clitic-as-trigger theory.

The frequency list in Table 17 significantly diverges from the one presented in Subsection 7.1, an outcome that aligns with our expectations given that our experiment was designed to influence verbal choice.

The position of negation Official literature delineates a clear distinction in the syntactic positioning of negation within its grammatical framework. It is imperative to differentiate between verbal negation, which employs the negative particles *nid* or *ni*, and negation that targets a single constituent, such as a noun. When addressing verbal negation, particularly in constructs involving a simple verb within a verbal complex, the negation particle is placed immediately after the verb, as showcased in (15) and (16). This positioning is retained even in the presence of adverbs (Favre and Squindo 2022).

(15) [Speaker 7]

⁹Possibly impersonal or reflexive, especially the 1st person

¹⁰2 instances of the abbreviated form of the 3rd person with neutral clitic pronoun: “tòtz”

Verb	Frequency	Verb	Frequency
be	98	cook	13
do/make	53	smell	12
see	52	open	12
think	48	take	10
have	44	eat	10
know	33	demolish	9
run	30	find	8
believe	29	prepare	7
go	23	clean	7
seek	19	break	7
jump	18	pass	6
look	17	give	6
say	17	stay	5
put	15	want	5
fight	14	stir	4

Table 17: Distribution of 30 most common lexical verbs in interview data, translated from Italian

weise nit
WéSSò:pres.ind.1st.sing NEG

“(I) don’t know”

(16) [Speaker 3]

éscht nid sottége schene tag
SI:pres.ind.3rd.sing NEG ADV IND.OBJ

“(It) is not such a nice day”

For composite verbs, including the tue-periphrasis, negation follows a slightly different rule: the negative particle typically appears right after the auxiliary verb, as in (17); the introduction of an adverb, however, presents an exception to this arrangement: in some sentences, like (18), the adverb may take precedence, positioning itself before the negation. This reveals a notable divergence from the English do-support system: since the auxiliary in (18) is separated by another adverb, it is clear that it is not connected to negation. Therefore, *tue* in the context of tue-periphrasis does not necessarily serve as a direct host for negation.

(17) [Speaker 23]

hätts nid eppés a poscht gleit
AUX:pres.ind.3rd.sing NEG ADV IND.OBJ LECKE:past.part

“He has not put something in its place”

(18) [Speaker 3]

hätts appo nid chònnò goa [...]
AUX:pres.ind.3rd.sing *ADV* *NEG* *MODAL* *INF*
 “He maybe hasn’t been able to go [...]”

Imperfect subjunctive and present conditional As outlined in Subsection 4.4, the morphologically identical forms of the imperfect subjunctive and present conditional serves as a further illustration of linguistic simplification and grammaticalisation within Greschòneytitsch. The imperfect subjunctive in Greschòneytitsch is exclusively formed using the *tue*-periphrasis, unlike its non-mandatory use in the present indicative. This distinct approach to the imperfect subjunctive indicates the language’s grammatical evolution, where *tue*-periphrasis has become fully grammaticalised. This reflects broader trends in the language’s development, highlighting a significant aspect of its verbal system and usage.

Our analysis of the language data collected reveals only three instances where *tue* (and therefore the lexical verb) appears in either the imperfect subjunctive or present conditional forms. This observation lends support to our initial hypothesis regarding the gradual decline of these forms among Greschòneytitsch speakers, signalling a diminishing complexity in the language’s verbal system. Example (19) stands out as the sole instance of the analytical imperfect subjunctive being used, a distinction held by Speaker 7. This individual’s unique linguistic environment, characterised by native proficiency and regular communication with a relative from the Baby Boomer generation, likely facilitated the preservation of certain archaic grammatical structures that are no longer prevalent among their contemporaries.

(19) [Speaker 7]

ésch wie so tetté eppés sieché
SI:pres.ind.3rd.sing *ADV* *CONJ* *TUE:imperf.subj.3rd.sing* *ADV* *INF*
with clitic.3rd.sing.nom.fem
 “It’s like he was looking for something”

Furthermore, example (20) draws from the linguistic repertoire of Speaker 16, who boasts a significant background in the academic study and preservation efforts of Greschòneytitsch. This speaker’s formal engagement with the language has perhaps contributed to their use of the present conditional, a form that is otherwise in decline.

(20) [Speaker 16]

nia	éscht	eschò	lang	wò
<i>CONJ</i>	<i>SI:pres.ind.3rd.sing</i>	<i>ADV</i>	<i>ADV</i>	<i>REL</i>

chocht-er,	dia	tetté	séege
<i>CHOCHò:pres.ind.3rd.sing</i> <i>with clitic:3rd.sing.nom.masc</i>	<i>PRON</i>	<i>TUE:pres.subj.1st.sing</i>	<i>INF</i>

“But it’s already long that he cooks, I would say”

Lastly, example (21) was extracted for Speaker 19’s interview. Although this individual does not share Speaker 16’s formal linguistic training, their active use of Greschòneytitsch in communication with a significantly older relative, akin to Speaker 7’s situation, showcases the role of intergenerational language transmission in the maintenance of less commonly used grammatical forms.

(21) [Speaker 19]

tetté-mo	gsé	sotte
<i>TUE:pres.subj.3rd.sing</i> <i>with clitic:3rd.sing.dat.neut</i>	<i>INF</i>	<i>ADV</i>

“It would seem this way”

These examples collectively underscore the nuanced and varied factors influencing language use and evolution among speakers of Greschòneytitsch.

Both (20) and (21) are instances of the present conditional used in short sentence-tags, which naturally lead to speculate that these ‘tags’ are in fact formulaic hedging markers (Heine and Narrog 2015; Aronoff 2007): fixed, formulaic expressions that might retain an older, less used grammar, like the English phrase “as it were.” In this case, it is possible that the present conditional structure was retained in this formulaic construction but not in the broader language.

(22) reveals that there is further usage of the present conditional outside of lexical verbs. Modals do not need to lean on the tue-periphrasis to create subjunctive of conditional meaning. There is a total of 4 instances of the modal *chònned* (“can”), all of which present the imperfect subjunctive form used with present conditional meaning, as showcased in (22)¹¹.

(22) [Speaker 14]

Alltsche	chennté	das wib	hät toat
<i>ADV</i>	<i>MODAL</i>	<i>SUBJ</i>	<i>TUE:imperf.ind.3rd.sing</i>

“That woman could have done anything”

¹¹Which also shows evidence of *verbklammer*.

in contrast, examples (26) and (27) exhibit a strong *verbklammer* structure¹³, indicative of a syntactic arrangement closer to German.

(25) [Speaker 2]

de *man hät toat eppés /sbagliato/
SUBJ TUE:imperf.ind.3rd.sing ADV IND:OBJ
 “The man has done something wrong”

(26) [Speaker 15]

sécher hätts eppés toat
ADV AUX:pres.ind.3rd.sing ADV TUE:past.part
 “Surely he has done something”

(27) [Speaker 15]

Détz hänné ou géere toat
ADV AUX:pres.ind.1st.sing ADV ADV TUE:past.part
 “I also did this gladly”

Interestingly, (51) provides an instance of negation, which ties back to our previous discussion on the positioning and function of negation within the language’s grammatical framework, as well as the nominative-accusative clitic structure, which will be addressed in the next Subsection.

(28) [Speaker 16]

hätt-er-s ni toat
AUX:pres.ind.3rd.sing NEG TUE:past.part
with CLITIC.nom.masc.3rd.sing
and CLITIC.acc.neut.3rd.sing
 “He has not done it”

Infinitive *Tue* at the present infinitive or 2nd singular imperative form appears 11 times. If we assume these 11 instances are all infinitives (there is no real reason for our video prompts to elicit imperative forms) this could also suggest 11 further usages of lexical *tue*, but there are a few issues with directly assuming that these examples do not contain the *tue*-periphrasis. Firstly, we have seen in Subsection 7.1 that *tue* might also represent a phonetically reduced form of 3rd person singular present indicative *tuet*. Secondly, *tue* can in fact co-occur with itself in the context of the *tue*-periphrasis, as shown in (29).

¹³Considerations on *verbklammer* will appear throughout the analysis, and especially in the conclusions. In general, it seems that several speakers have at least partially lost this syntactic structure.

(29) [Speaker 15]

dem was tuets eister tue
ADV REL TUE:pres.ind.3rd.sing ADV:PROG INF
 “That which he is doing”

Eister The continuative adverb, analysed in Subsection 4.6, appears a total of 40 times. This highlights its importance in the Greschòneytitsch language as a whole, yet it is important not to overrepresent it in the dataset: the video stimuli elicited the usage of the narrative present, and the progressive construction is widely used in this context. Nevertheless, 40 instances means that the progressive construction appeared in nearly one-sixth of all language instances. Its widespread usage means that it would be more efficient to analyse single instances manually, as not to overload this chapter with examples. Therefore, *eister* will be discussed further in Subsection 9.2.

Tònz The minimal presence of the causative particle *tònz* (see Subsection 4.6 for details) in our dataset can be attributed to the experimental design, which was not conducive to eliciting its usage.

(30) stands out for its linguistic implications, particularly when analysing the causative particle *tònz* as a fully grammaticalised variant of *tue*. This instance suggests a striking similarity to the Italian expression “mi fa venire in mente,” rendering it an almost perfect calque.

(30) [Speaker 15]

tue-mer tònz zé chéeme [...]
TUE:pres.ind.3rd.sing CAUS IND:OBJ INF
with CLITIC:dat.1st.sing
 “(It) makes me come to mind...”

(31) illustrates the use of *tònz* in a manner that aligns with its characterisation by Angster (2005) as a particle expressing an external causative.

(31) [Speaker 22]

tuet-s-és tònz spréngé us [...]
TUE:pres.ind.3rd.sing CAUS INF
with CLITIC:nom.neut.3rd.sing
and CLITIC:acc.neut.3rd.sing
 “He makes it jump up”

Other structures Analysing future tense constructions through Natural Language Processing (NLP) tools presented insurmountable challenges, primarily because the adverb *de*, integral to forming future periphrasis, is morphologically indistinguishable from both the nominative and accusative plural article *de*, as well as the feminine singular article *de*. Additionally, the use of *de* in future tense formation is not mandatory; virtually any adverb with a future meaning might be employed, with *de* simply being the most common.

Further complications arose with verbs that incorporate more than one clitic pronoun. As outlined in Subsection 4.5, it is possible for multiple clitics, corresponding to the nominative, accusative, and dative cases, to attach to a verb simultaneously. Given the existence of eight clitics for each of these three morphological cases, attempting to craft a Regular Expression (RegEx) capable of matching all potential combinations would be impractical and time-consuming. Similar issues arose in finding synthetic verb form without specific PoS tagging.

Therefore, it becomes evident that manually identifying instances of further grammatical structures would be more efficient than relying on automated methods. This approach allows for a more nuanced and accurate analysis of the language’s syntactic features.

9.2 Manual Analysis

Given the absence of Natural Language Processing (NLP) tools capable of handling Greschòneytitsch, and considering the dataset is not overwhelmingly large, we proceed to manually review all results to identify potential trends.

Our analysis begins by examining the grammatical structures inaccessible to NLP tools, specifically focusing on the future tense and clitic chains. Following this, we broaden our examination to encompass various aspects of the language. This includes an in-depth look at instances of lexical *tue* and a discussion on some noteworthy cases of analytical verb forms. A particularly intriguing find was the usage patterns of Speaker 16, who exhibited a notably low frequency of *tue*-periphrasis. We wrap up our analysis with a comprehensive overview of what the tendencies among low-proficiency speakers reveal about language attrition.

The future As outlined in Subsection 4.6, the future periphrastic construction is generally considered to have minimal impact on the *tue*-periphrasis. This assessment is supported by the following analysis, which highlights the

limited instances of the adverb *de* ("then, thereafter") having any bearing on periphrastic *tue*.

There are only few instances of the adverb *de* ("then, thereafter") being used to construct the future periphrasis: (32), (33), and (34) are the only representatives of this small subset.

(32) features *de* alongside a modal verb, illustrating a straightforward application of the adverb in constructing future meaning. However, (33) presents a more intriguing case, where two future adverbs are used within the same sentence, suggesting an overemphasis on future intent. This redundancy is particularly noteworthy given that *de* is not strictly necessary for forming future periphrasis, indicating that any adverb could theoretically serve this purpose. This usage by Speaker 19, who is a native, may hint at the beginning stages of grammaticalisation, where *de* could potentially evolve to lose its lexical meaning, akin to the trajectory of the progressive adverb *eister*. On the other hand, this might be a calque on the colloquial Italian *poi dopo*. Given the isolated nature of this example, these hypotheses remain inconclusive.

(32) [Speaker 22]

de grä wélz ässe
ADV:FUT ADV MOD INF

"Maybe (he) will want to eat them"

(33) [Speaker 19]

de denroa grä tuet-s lecke en tér oder e fäntschrò
ADV:FUT ADV TUE:pres.ind.3rd.sing INF OBJ

with CLITIC.nom.neut.3rd.sing

"Maybe he will put in a door or a window"

(33) and (34) both show *de* being used in conjunction with the *tue*-periphrasis. In (34), *de* occupies a position typically reserved for adverbs, situated between *tue* and the lexical verb; (33) on the other hand gathers all adverbs at the beginning of the sentence, outside of the verbal complex, further illustrating the flexible and evolving nature of adverb placement and function within the language's grammatical framework.

(34) [Speaker 21]

where clitic pronouns are assigned genders that deviate from traditional expectations. Notably, in (36), Speaker 24 uses the dative clitic *-mò* (typically masculine or neuter) when referring to a woman. Similarly, in (37), the same clitic is applied to a man, indicating that *-mò* serves as Speaker 24’s default dative third person clitic, irrespective of the referent’s gender. Inconsistencies in the usage of clitics, especially involving gender, seem to be quite common in Greschòneytitsch.

Example (37) also showcases a clitic chain involving a nominative third person neutral clitic and an accusative third person neutral clitic. This pattern appears to be relatively common, identified in at least 13 instances within the dataset. Importantly, the individual responsible for the majority of the transcriptions has highlighted that omitting *tue* in some of these constructions involving accusative clitics would result in ungrammaticality. This concept is explored further in the upcoming paragraph ‘The case of Speaker 16.’

(36) [Speaker 24]
 de ma tue-mò eppés spleziere
SUNJ TUE:pres.ind.3rd.sing ADV INF
with CLITIC:dat.fem.3rd.sing
 “The man explains something to her”

(37) [Speaker 24]
 tuet-s-és appa artue
TUE:pres.ind.3rd.sing ADV INF
with CLITIC.nom.neut.3rd.sing
and CLITIC:acc.neut.3rd.sing
 “She probably opens it”

Lexical *tue* From our NLP analysis, we have identified what appears to be 53 potential instances of lexical usage of *tue*. Our next step will be to locate these instances to examine how *tue* is utilised within the context. This approach will enable us to gain deeper insights into its application and significance in the language.

A notable example is found in instance (29), previously extracted. This instance showcases the use of *tue*-periphrasis, with *tue* serving as the lexical verb, mirroring the usage observed in (38). Additional examples of lexical *tue* are documented in the ‘Past Participle’ paragraph of Subsection 9.1.

Example (38) presents a fascinating instance of potential direct influence from Italian on the Greschòneytitsch language. Typically, Germanic languages associate actions like "taking a bath" with verbs that convey the meaning "to take." However, (38) deviates from this pattern, using *tue* in a manner directly reminiscent of the Italian expression *fare il bagno* ("do/make a bath"), highlighting a clear calque from Italian.

(38) [Speaker 19]

tien-tsch	nätschò	fer	das	woa	tuet-sché	bévor	badò
<i>tue:ind.pres.3rd.plur</i>	<i>INF</i>	<i>PREP</i>	<i>REL</i>	<i>REL</i>	<i>tue:ind.pres.3rd.sing</i>	<i>ADV</i>	<i>INF</i>
<i>with clitic :3rd.plur.nom</i>					<i>with clitic:3rd.plur.acc</i>		

“They fight on who takes a bath first”

Further evidence of Italian’s impact on Greschòneytitsch is observed in (39) by Speaker 17, illustrating another dimension of linguistic attrition. This example reveals semantic convergence between *tue* (“to do”) and *machò* (“to make”) in Greschòneytitsch, closely mirroring the overlap between “do” and “make” in English and other Germanic languages. In contrast, Italian uses a single verb, *fare*, to encompass both meanings. Speaker 17, the oldest native speaker we interviewed, appears to have merged the meanings of *tue* and *machò* to align with the Italian *fare*, employing them interchangeably.

(39) [Speaker 15]

tue	tueter	zémléch	stombò
<i>TUE:inf/pres.ind.3rd.sing</i>	<i>TUE:pres.ind.3rd.sing</i>	<i>AVV/ADJ</i>	<i>OBJ</i>
<i>(phonetically reduced)</i>	<i>with CLITIC.nom.masc.3rd.sing</i>		

“He makes a lot of dust”

(40) [Speaker 17]

tue-mò	wòhl	ginnasticò	loufe
<i>TUE:pres.ind.3rd.sing</i>	<i>AVV</i>	<i>IND.OBJ</i>	<i>INF</i>
<i>with CLITIC.dat.neut.3rd.sing</i>			

“(it) does him good to run for gymnastics”

(41) and (42) represent two reformulations of the identical sentence, articulated by the same individual, first at the beginning and then at the conclusion of their response to the question, ‘Why did the man decide to run?’ The crux of our interest in these instances lies in the speaker’s employment of different clitic pronouns to convey an identical meaning.

In (41), the usage of clitic pronouns highlights a nuanced aspect of language mechanics: a masculine 3rd person singular nominative is employed to refer to the subject of the sentence, a young man, while a neutral 3rd person singular accusative is used to denote the object, in this case, the act of running. Notably, the neutral accusative 3rd person singular clitic is identified as *-és*; however, given that *-s* typically serves as the nominative clitic, we posit – based on word order and phonetic reduction – that in this instance, *-s* represents a phonetically reduced form of *-és*. The presence of two nominative clitic pronouns would otherwise be linguistically illogical.

Conversely, in (42), the clitic pronouns uniformly adopt a neutral form. A distinctive feature of this sentence is the explicit mention of the subject pronoun *eèr* (“he”), diverging from the earlier example’s pronoun usage patterns.

(41) [Speaker 16]

Warschindléch	tuet-er-s		jade	tag
<i>ADV</i>	<i>TUE:pres.ind.3rd.sing</i>		<i>ADJ</i>	<i>IND.OBJ</i>
	<i>with CLITIC.nom.masc.3rd.sing</i>			
	<i>and CLITIC.acc.neut.3rd.sing</i>			

“He probably does it every day”

(42) [Speaker 16]

alsò	tuet-s-ès	warschindléch	jade	tag
<i>CONJ</i>	<i>TUE:pres.ind.3rd.sing</i>	<i>ADV</i>	<i>ADJ</i>	<i>IND.OBJ</i>
	<i>with CLITIC.nom.neut.3rd.sing</i>			
	<i>and CLITIC.acc.neut.3rd.sing</i>			

“So he does it probably every day”

(43) further illustrates the phenomenon of neutral clitic usage alongside the explicit expression of the subject pronoun. These instances however do not seem to reflect a pattern in the gathered dataset; plenty of speakers seem to have re-analysed the nominative neutral clitic pronoun as the 3rd person singular verb ending.

(43) [Speaker 15]

Äs	tuet-s-és	fer	sché
<i>PRO.nom.neut.3rd.sing</i>	<i>TUE:pres.ind.3rd.sing</i>	<i>CONJ</i>	<i>PRO.refl.3rd.sing</i>
	<i>with CLITIC.nom.neut.3rd.sing</i>		
	<i>and CLITIC.acc.neut.3rd.sing</i>		

hä in forma
INF IND.OBJ

“He does it to stay in shape”

The observation of merely two examples featuring neutral clitics alongside overt subject pronouns may not constitute a statistically significant pattern, yet it offers intriguing insights into the potential linguistic evolution within the speaker community. This pattern suggests a theoretical reanalysis by speakers of clitic nominative pronouns as verb endings. Specifically, in (41), the necessity to denote the subject via a clitic pronoun might override the use of the neutral clitic. However, in scenarios where the subject’s identity is apparent, the neutral nominative clitic appears to be the default choice.

Moreover, the preference for neutral pronouns over gender-specific ones in contexts of familiarity¹⁵ is evident in examples like (29). This tendency towards linguistic simplification could imply that (42) represents an extension of this simplification process. The consistent use of neutral pronouns may reflect an overarching strategy by speakers to streamline linguistic expression, potentially signalling a shift in the grammatical categorisation of clitics.

(44) [Speaker 8]

Wòròm	tuet-s	wòl	
<i>ADV</i>	<i>TUE:pres.ind.3rd.sing</i>	<i>ADV</i>	
	<i>with CLITIC.nom.neut.3rd.sing</i>		

“Because it does (him) good”

Lexical *tue* also appears with the progressive adverb *eister*. (45) and (46) were produced by speakers 14 and 24, both natives.

As explored in Subsection 4.6, there is a strong inclination among speakers to incorporate *tue*-periphrasis alongside other periphrastic expressions, such as the causative *tònz* and the progressive *eister*. This trend is illustrated in (45) and (46), which validate our observation. Remarkably, even when *tue* – a lexical verb whose paradigm is evidently familiar to the speakers – serves as the main verb, the preference for employing *tue*-periphrasis is observed.

¹⁵Favre and Squindo 2022.

(45) [Speaker 14]

dem	was	tuet-s	eister	tue
<i>DEM.ART.dat.neut</i>	<i>REL</i>	<i>TUE:pres.ind.3rd.sing</i>	<i>PROG</i>	<i>INF</i>
		<i>with CLITIC.nom.neut.3rd.sing</i>		

“What he is doing”

(46) [Speaker 24]

was	tuet-s	eister	tue
<i>REL</i>	<i>TUE:pres.ind.3rd.sing</i>	<i>PROG</i>	<i>INF</i>
	<i>with CLITIC.nom.neut.3rd.sing</i>		

“What he is doing”

Synthetic verb forms In our analysis of the interview dataset, we observe that synthetic verb forms predominantly occur in the first person, limited to a select group of verbs. Additionally, a few instances of third-person "is" also emerge. For impersonal forms, the choice to use synthetic construction over the tue-periphrasis is not prevalent, but possible.

Our discussion begins with verbs functioning as hedging markers, such as expressions of uncertainty or opinion (e.g., "I think," "I believe"). Within our dataset, two lexical verbs serve this purpose: *denge* (“to think”) and *meine* (“to think/suppose”).

The verb *meine* is consistently found in the synthetic 1st person singular present indicative form, appearing a total of 28 times. Notably, 6 of these instances seem to function as sentence tags, as illustrated in examples (47), (48), (49), and (50).

(47) [Speaker 3]

emmene	restaurant	meiné
<i>IND.OBJ</i>		<i>MEINE:pres.ind.1st.sing</i>

“In a restaurant, I think”

(48) [Speaker 12]

meiné	fésch
<i>MEINE:pres.ind.1st.sing</i>	<i>OBJ</i>

“I think fish”

(49) [Speaker 13]

Hät-scha stösst meiné
STòSS:imperf.ind.3rd.sing *MEINE:pres.ind.1st.sing*
 with *CLITIC:acc.fe.3rd.sing*
 “(He) has pushed her, I think”

(50) [Speaker 24]

eppés z’allecke meiné
OBJ:infinitival.ph *MEINE:pres.ind.1st.sing*
 “Something to wear, I think”

The remaining occurrences typically introduce a relative construction, indicating a thought or belief, as in "I think that..." This pattern is demonstrated in examples (51) and (52).

(51) [Speaker 1]

Meiné dass dschi escht schalu
MEINE:pres.ind.1st.sing *REL:PHRASE*
 “I think that she is jealous”

(52) [Speaker 13]

Meiné dass tueter loufe fer sché tréniere
MEINE:pres.ind.1st.sing *REL:PHRASE*
 “I think that he runs to train himself”

Following our examination of *meine*, we turn our attention to the usage of *denge* (“to think”). Unlike *meine*, *denge* demonstrates a more varied application and is not confined exclusively to the analytic form. In fact, the analytic form of *denge* is encountered just once within our dataset, as evidenced in example (53), which showcases the analytic 1st person singular.

(53) [Speaker 12]

ech deng dass es tòz lecke z’maje
PRO *DENGE:pres.ind.1st.sing* *REL:PHRASE*
 “I think that she will wear the shirt”

All other instances of this verb are found to co-occur with the tue-periphrasis. Within this context, there are four further instances of 1st person singular usage, three of which are attributed to Speaker 2, who possesses medium language proficiency.

Furthermore, *denge* appears in the 3rd person singular form in seven instances across different speakers, again consistently employing the tue-periphrasis.

z'wib éscht dechtég bés
SUBJ SI:pres.ind.3rd.sing PRED:ADJ
 “The wife is very angry”

(57) [Speaker 10]

hie éscht e hònn
ADV SI:pres.ind.3rd.sing OBJ
 “Here (there) is a dog”

(58) [Speaker 1]

èscht-er doa mò tuet
SI:pres.ind.3rd.sing ADV PRO:dat? TUE:pres.ind.3rd.sing
with CLITIC.nom.neut.3rd.sing
 eppés denge
OBJ INF

“He is there who thinks about something¹⁶”

Similarly, when "have" is present, it appears in synthetic form. This aligns with the observation that auxiliary verbs *si* and *hä*, along with modal verbs, are forbidden from co-occurring with the tue-periphrasis.

A critical observation regarding auxiliary verbs is their capability to incorporate clitic pronouns. In contrast, within our interview dataset, lexical verbs predominantly accommodate only reflexive pronouns. This hypothesis will be further explored in subsequent sections.

The case of Speaker 16 Speaker 16’s interview is notable for their infrequent use of the tue-periphrasis. Instead of relying on periphrastic *tue*, Speaker 16 often opts to conjugate verbs directly. Despite this tendency, there are instances where Speaker 16 employs the tue-periphrasis; according to the person transcribing their interview, the use of tue-periphrasis by Speaker 16 was typically out of necessity. Being a scholar of Greschòneytitsch, Speaker 16’s approach to verbal complexes might be influenced by their academic expertise. Speaker 16’s interview is particularly valuable as it provides examples of compulsory tue-periphrasis usage, offering insights into its fundamental characteristics, which other speakers might have then applied more broadly to various verbal contexts.

¹⁶This sentence does not appear to be especially grammatical. We posit that the speaker used the dative pronoun “mò” in lieu of a relative pronoun, because of a calque on Italian “è lì a pensare.”

As explored in Subsection 4.6, the progressive periphrasis mandates, or strongly suggests, the use of the tue-periphrasis. Consequently, we correctly anticipate finding instances of tue-periphrasis in examples (59) and (60), where its application is either obligatory or highly preferred.

(59) [Speaker 16]

dschi tien eister kriege
PRO:subj *TUE:pres.ind.3rd.plur* *ADV:prog* *INF*
 “They are fighting”

(60) [Speaker 16]

tuet eister e wann abrisse
TUE:pres.ind.3rd.sing *ADV:prog* *OBJ* *INF*
 “(He) is demolishing a wall”

A commonality among the examples cited is the use of the accusative clitic pronoun, which refers back to a previously mentioned entity. The sole additional instances of Speaker 16 employing the tue-periphrasis are found in (41) and (42), which were discussed previously. These examples too incorporate accusative clitic pronouns, underscoring a consistent pattern in Speaker 16’s use of the tue-periphrasis.

In (61), there are some interesting inconsistencies in the usage of clitic pronouns. Assuming the order of clitics is nominative-dative-accusative, as observed in the ‘Clitic chains’ paragraph, the expectation would be to find the form *tuetés* in both instances of the tue-periphrasis in (61), with nominative neutral *-s* referring to the subject¹⁷ and accusative neutral *-és* referring to the object (in this case, an item of clothing). However, the second *tue* presents a confusing clitic chain.

(61) [Speaker 16]

¹⁷As already observed, in familial contexts, the neutral third person can be used in substitution of its feminine or masculine counterparts. (Favre and Squindo 2022)

Tuet-s-és	warschindléch	alecke,
<i>TUE:pres.ind.3rd.sing</i>	<i>ADV</i>	<i>INF</i>
<i>with CLITIC:nom.neut.3rd.sing</i>		
<i>and CLITIC:acc.neut.3rd.sing</i>		
tuet-s-er	ammesse	
<i>TUE:pres.ind.3rd.sing</i>	<i>INF</i>	
<i>with CLITIC:nom.neut.3rd.sing?</i>		
<i>and CLITIC:nom.neut.3rd.sing?</i>		
“She probably wears it, she tries (it?) on”		

The occurrence of two nominative clitics within the same verbal complex presents a logical inconsistency, prompting a search for explanations within the linguistic structure of the sentence. One speculative explanation is that *-er* represents a phonetic evolution of the dative/reflexive *-ra*, attempting to align with reflexive constructions like the Italian *se lo prova* (“she tries it on herself”). However, this theory, while interesting, remains speculative and somewhat tenuous.

A more plausible interpretation suggests that the appearance of two nominative clitics results from an inadvertent error by the speaker. This hypothesis gains credence from (62) and (63), where the clitic chains adhere to a more conventional pattern, suggesting that the anomaly observed may indeed be an isolated mistake rather than indicative of an underlying grammatical rule or trend.

(62) [Speaker 16]

tuet-er-s	schtére	métt emmene potsch
<i>TUE:pres.ind.3rd.sing.</i>	<i>INF</i>	<i>IND:OBJ</i>
<i>with CLITIC:nom.masc.3rd.sing</i>		
<i>and CLITIC:neut.masc.3rd.sing</i>		
“He stirs it with a ladle”		

(63) [Speaker 16]

Tuet-er-sche	abrisse	méttem hoamer
<i>TUE:pres.ind.3rd.sing.</i>	<i>INF</i>	<i>IND:OBJ</i>
<i>with CLITIC:nom.masc.3rd.sing</i>		
<i>and CLITIC:acc.3rd.plur</i>		
“He demolishes them with a hammer”		

We can therefore conclude from this evidence that, at least for Speaker 16, the only two contexts in which the tue-periphrasis is mandatory is in conjunction

with other periphrastic expressions¹⁸, and when the accusative clitic needs a verb to attach to.

Low-proficiency speakers The findings derived from speakers with low proficiency primarily highlight the impact of the attrition of different languages on the use of Greschòneytitsch. Speakers with current low to medium proficiency, who nevertheless acquired the language under native conditions during early childhood, maintain essential syntactic structures. In contrast, those who learned Greschòneytitsch in their youth or as adults, and possess low proficiency, seem to lack these fundamental syntactic features.

Speaker 2, who has medium proficiency in Greschòneytitsch and was exposed to the language in a native environment, demonstrates the retention of fundamental syntactic structures despite infrequent use throughout their life. This speaker’s ability to employ the tue-periphrasis for verb conjugation exemplifies the resilience of early language acquisition. Interestingly, when resorting to Italian due to limited vocabulary, Speaker 2 still applies the Greschòneytitsch syntactic rule by using the infinitive form of the lexical verb in conjunction with a conjugated form of *tue*, as shown in (64).

(64) [Speaker 2]

Sinn	zwei oalte litte	wo	tien
<i>SI:pres.ind.3rd.sing</i>	<i>SUBJ</i>	<i>REL</i>	<i>TUE:pres.ind.3rd.sing</i>
scambiare	gschenge		
<i>INF</i>	<i>OBJ</i>		

“(There) are two old people who exchange presents”

Speaker 9’s case further illustrates the impact of early exposure followed by prolonged disuse. Having learned Greschòneytitsch in a native-like setting but ceasing its use from elementary school onwards, Speaker 9 experienced significant language attrition, exacerbated by frequent use of English in professional settings. This attrition manifested as a tip-of-the-tongue state during the interview. However, upon being prompted with the infinitive form of a target verb in Greschòneytitsch, Speaker 9 instinctively reverted to using the tue-periphrasis without any external cues, as evidenced in (65).

(65) [Speaker 9]

¹⁸We assume the phenomenon observed with “eister” also extends to the causative particle “tònz”, as observed by Angster (2005), and the future periphrasis.

*Der *man tòtz loufe
SUBJ TUE:pres.ind.3rd.sing INF
with CLITIC:nom.3rd.sing.neut

“The man runs”

In contrast, Speaker 5’s experience underscores the challenges of L2 acquisition at a later stage. Despite sharing low proficiency levels with Speaker 9, Speaker 5’s introduction to Greschòneytitsch as a young adult resulted in a different linguistic approach. When faced with a tip-of-the-tongue situation, and given the infinitive form of a Greschòneytitsch verb (mirroring the conditions faced by Speaker 9), Speaker 5 used the verb exactly as provided, without employing the tue-periphrasis, as depicted in (66). Absent the verb suggestion, Speaker 5 resorted to using conjugated verbs in Italian, as shown in (67) – a strategy also mirrored by Speaker 6, who shares a similar proficiency level and learning background with Speaker 5.

(66) [Speaker 5]

De *man *ond de wib stritte
SUBJ INF

“The man and the woman fight”

(67) [Speaker 5]

d’ *hund annusa de grass
SUBJ ANNUSARE:pres.ind.3rd.sing OBJ

“The dog smells the grass”

Part VI

Conclusions

This chapter presents a summary of findings extracted from the interview dataset, compares the findings with the hypotheses detailed in Part 6, then draws conclusions.

10 Summary of findings from examples

Influence from adverbs The adverbs *eister* and *tònz* seem to necessitate in our findings the use of periphrastic constructions when an auxiliary verb is absent. This indicates a grammatical structure where these specific adverbs require more complex verb forms to accurately express actions. Future research should aim to explore whether this requirement extends to all adverbs, as our current dataset did not allow for a definitive conclusion in this regard.

Additionally, the lack of examples where the future marker *de* coincides with the synthetic present indicative form suggests a similar grammatical constraint for *de* and potentially other future adverbs. This observation implies that *de*, much like *eister* and *tònz*, may also influence the necessity for periphrasis under certain conditions, reflecting a comparable impact on syntactic choices.

Lexical verbs Our investigation sought to identify potential variations in verb usage across different lexical meanings. However, our findings did not reveal a discernible pattern that would support the hypothesis that lexical meaning significantly impacts the use of *tue*-periphrasis. This conclusion is particularly evident in the analysis of *meine* and *denge* within the context of synthetic verb forms, where lexical meaning appears to have minimal influence on their syntactic structure.

The examination of synthetic verb forms in Greschòneytitsch revealed a critical linguistic phase: the language might be transitioning from synthetic to analytical structures. This transition suggests we are observing a pivotal moment in its evolution towards potentially acquiring a fully analytical verbal system, but it is unlikely that this process will conclude due to the endangered status of the language. The absence of *tue*-periphrasis in the 'Prodigal Son' parable further indicates that the emergence of this construction is a relatively recent development.

A distinct observation emerged regarding auxiliary verbs *si* ("to be") and *hã* ("to have"), as well as modal verbs, which do not appear alongside *tue*-periphrasis. This separation highlights a unique syntactic behaviour distinguishing auxiliary and modal verbs from lexical verbs in their interaction with *tue*-periphrasis. It raises the possibility that the grammatical capacity to incorporate accusative clitic pronouns may be exclusive to auxiliaries and modals, though further investigation is required to solidify this conclusion.

Moreover, the role of *tue* as a lexical verb underscores the linguistic versatility

and complexity within Greschòneytitsch, particularly under the influence of Italian. The adoption of *tue* in scenarios akin to the Italian *fare il bagno* (“to take a bath”) exemplifies this cross-linguistic influence, highlighting how Italian contributes to shaping verb usage patterns in Greschòneytitsch.

Clitic usage Our research leads us to a few findings about clitics:

- Low and medium proficiency speakers tend to avoid using clitics.
- Clitics, including nominative, dative, and accusative forms, can appear individually or in sequences. Unique instances demonstrate clitic chains comprising multiple clitics on the same verb, indicating a specific sequence (nominative-dative-accusative) in which clitics are likely to appear.
- There are peculiarities in gender assignment for nominative and accusative clitics. For example, feminine forms are used unexpectedly, such as a feminine nominative clitic referring to a male subject. This could indicate a form of grammaticalisation or represent a consistent error among native speakers. Additionally, there are instances where the dative clitic at the masculine or neuter form is used for female referents, suggesting further gender deviations in clitic usage.
- In the presence of some clitic chains involving nominative and accusative third person neutral clitics, omitting the *tue*-periphrasis would result in ungrammaticality. This suggests that accusative clitics can only attach to auxiliaries or modals¹⁹. Furthermore, there is a possibility that nominative clitics are being reanalysed as part of the verb endings by some speakers.
- Instances of clitic usage that seem influenced by Italian are noted, suggesting language contact effects. The use of clitics in ways that align with Italian grammatical structures points to the impact of Italian on Greschòneytitsch, particularly in areas of syntax and pronoun usage.

Influence of proficiency In summary, the influence of proficiency reveals that:

- Speakers with low to medium proficiency who acquired Greschòneytitsch during early childhood under native conditions tend to maintain the *tue*-periphrasis despite their low proficiency level, as opposed to low proficiency late learners, who do not use the *tue*-periphrasis at all.

¹⁹Although Favre and Squindo (2022) do not directly support this hypothesis.

- The influence of Italian is evident in the syntactic structures employed by Greschòneytitsch speakers. This influence varies with proficiency levels, as speakers with different proficiency levels exhibit different degrees of attrition in their Greschòneytitsch usage, particularly in the adoption of Italian syntactic structures and vocabulary. High proficiency speakers who cease using Greschòneytitsch extensively, especially those who learned it in a native-like setting and then experienced prolonged disuse, show moderate to significant language attrition.

Low proficiency speakers reveal that the periphrastic *tue* construction is a fundamental, basic part of the language's syntax. Low-proficiency native speakers made mistakes in assigning genders and articles to nouns, or did not use the *ver-klammer* structure that is supposedly obligatory in the language, or couldn't retrieve basic lexicon; yet, the *tue*-periphrasis persisted. *Tue*-periphrasis also shows no attrition from Italian.

11 Comparing findings with hypotheses

This final section juxtaposes the conclusions summarised in Part 10 with the hypotheses explored in Part 6.

English-like do-support The emergence of *do*-support in English and the *tue*-periphrasis in Greschòneytitsch illuminates a fascinating facet of linguistic evolution – namely, the adoption of inflectional roles by auxiliary verbs, roles traditionally occupied by main verbs. The phenomenon of *do*-support in English exemplifies a transition towards a more extensive utilisation of auxiliary verbs. This transition hints at a syntactic convergence with Greschòneytitsch. Nonetheless, a detailed examination reveals marked disparities, especially concerning their usage and syntactic functions. *Tue*-periphrasis in Greschòneytitsch is found in declarative sentences and eschews negation, indicating a wider syntactic utility compared to the relatively limited application of *do*-support in contemporary English.

Historically, the role of *do*-support in English has narrowed, now mainly confined to interrogative and negative formulations in Modern English, a departure from its broader application in Middle English. This shift underscores the fluidity of syntactic evolution and the impact of dialectal and stylistic variations across time. The roots of "do" in both English and Greschòneytitsch, traceable

to Proto-Germanic **dōnq* (Wiktionary 2023), point to a common linguistic ancestry. Yet, the evolutionary trajectories of do-support in these languages diverged, shaped by distinct syntactic landscapes and historical influences.

While the hypothesis connecting tue-periphrasis with English do-support cannot be entirely dismissed, particularly when considering the Middle English variant of do-support, it nonetheless leaves unanswered questions regarding the catalysts behind the emergence of this periphrasis. The origins of English do-support, attributed to a mix of specific historical, social, and linguistic factors, remain partially understood. Consequently, it is imprudent to directly transpose insights from the study of English do-support to the analysis of Greschòneytitsch tue-periphrasis.

Tònz The transformation of *tue* into *tònz* within Greschòneytitsch, grammaticalising causative constructions, exemplifies a linguistic evolution which is fairly common among West Germanic languages. This evolution depicts the journey of a lexical verb towards becoming a grammatical marker.

Initially, this journey began with the structure *tue* + an infinitive marker + the base verb, over time evolving through phonetic assimilation into *tònz* as a specialised particle for causative expressions. Such a transformation highlights the language’s capacity for reanalysis and adaptation, mirroring the grammaticalisation paths observed in similar verbs across other Germanic dialects. This illustrates a linguistic pattern where verbs akin to *tue* shed their original meanings to adopt grammatical functions.

Despite the causative role solidified by *tònz*, the later reemergence of tue-periphrasis invites further examination into the cyclical nature of linguistic changes and the driving forces behind the repeated simplification and grammaticalisation of verbs. The current dual role of "tue" - retaining lexical significance when used independently while transitioning into a grammatical marker in specific contexts - reveals the intricate dynamics of linguistic evolution. Although a direct causal link between *tònz* and the reinvigorated tue-periphrasis may not exist, their concurrent development highlights the intricate processes of grammaticalisation, reanalysis, and innovation pivotal to the evolution of Greschòneytitsch and the Germanic languages at large.

The exact reasons behind the dual emergence of do-periphrasis remain undetermined. Nonetheless, *tònz* underscores the potential of *tue* for full grammaticalisation. It is likely that *tònz* developed through contact with Romance languages, drawing parallels with the morphological equivalence of “make” and

“do” in Italian, and its construction as a calque of the Italian causative *fare* + infinitive.

There exists a possibility that *tònz*, initially mirroring today’s tue-periphrasis, diverged into a causative construction retaining the *z*’infinitive, and then, when *tònz* fully lost lexical meaning, the non-causative tue-periphrasis emerged. Alternatively, there may be no direct connection, as current speakers do not perceive *tònz* as a variant of *tue*.

Therefore, there is no evidence towards the particle *tònz* triggering tue-periphrasis directly; yet, the emergence of *tònz* showcases the lexical and syntactic properties of *tue*, which make it a prime candidate for grammaticalisation.

Clitics as triggers In Greschòneytitsch, clitics – particularly nominative ones – play an indispensable role in delineating grammatical relationships, often without the explicit mention of subject pronouns. This syntactic characteristic underscores the language’s pro-drop attributes, indicating a sophisticated interplay between clitics and verbs. Such interaction likely facilitated the development of periphrastic constructions involving *tue*. The incorporation of *tue* within these constructions may represent a linguistic adaptation to the demands imposed by clitic usage, enabling *tue* to evolve into a periphrastic form conducive to clitic attachment, in harmony with the language’s grammatical norms.

The significance of clitics extends to their critical role in syntactic movement within languages where they are prevalent. As entities that are morphologically independent yet syntactically bound, clitics can instigate the rearrangement of sentence elements to conform to grammatical attributes such as person, number, and occasionally gender. This phenomenon is illustrated in ‘clitic climbing,’ where a clitic ascends out of an infinitive construct to join a superior verb, influencing the configuration and mobility of auxiliary verbs, negation particles, and adverbs.

Empirical evidence lends support to this theory, notably through observations of Speaker 16, who presents instances where the usage of *tue* is compulsory for attaching clitic accusative pronouns. Although accusative clitics are rather infrequent in the collected data, it is conceivable that their obligatory association with *tue* led speakers to reinterpret the tue-periphrasis as mandatory in contexts involving clitics broadly.

This phase may represent a transitional period: certain synthetically inflected lexical verbs – particularly those in frequent use – tend to adopt the first-person nominative clitic pronoun, or reflexive and dative pronouns; yet,

several speakers show a very strong preference for using the tue-periphrases in most verbal complexes.

Additionally, many speakers appear to have reinterpreted nominative clitics as though they were verbal endings: if the speakers reset the paradigm to rendering the tue-periphrasis mandatory with any clitic pronoun, and later re-analyse all clitic pronouns as verb endings, this would potentially make the tue-periphrasis a requisite in all verbal complexes that do not already include a composite verb. However, the aforementioned presence of inflected verbs, especially in the first person, poses a challenge to this theory so far.

In summary, pronominal clitics, especially those in the accusative, significantly influence the preference for synthetic or analytic forms within Greschòneytitsch.

Language contact The linguistic trajectory of Greschòneytitsch, marked by significant interlingual interactions and its categorisation as a 'low' variety, has profoundly shaped language acquisition and mastery. This impact is nuanced by a confluence of factors, including historical and social contexts, learning methodologies, attitudes towards different languages, and the dominance of languages – both in terms of sociolinguistic status and individual linguistic preferences.

The development of grammaticalised structures within Greschòneytitsch, such as the causative *tònz* and the progressive *eister*, illustrates how language contact may spur evolutionary shifts in linguistic structure and application. Although the emergence of the tue-periphrasis is not directly traceable to influence from neighbouring languages, existing research supports the notion that grammaticalisation processes can occur as a result of language contact, even without direct structural borrowing.

This observation propels the hypothesis that the construction involving periphrastic *tue* could represent a linguistic adaptation to changes induced by language contact.

Our analysis demonstrates the impact of language contact or attrition on linguistic structures: a notable number of speakers have abandoned the *ver-klammer* configuration. The influence of Italian is particularly apparent in terms of lexical choice and the rise of additional periphrastic constructions.

Language contact may thus be implicated in the genesis of the tue-periphrasis to the extent that such contact facilitates the causative *tònz*, which, in turn, may lead to the tue-periphrasis. Alternatively, this phenomenon might be understood within a broader context where language contact contributes to the marginalisation of Greschòneytitsch, compelling speakers to favour periphrastic

over synthetic forms – a shift potentially indicative of reduced linguistic proficiency.

Low proficiency The potential classification of Greschòneytitsch as a heritage language, in light of its declining usage, carries profound implications for the evolution or disappearance of its linguistic features. Such a designation could influence the pace of structural changes within the language, moderated by the proficiency levels of its current speakers. A notable trend among these speakers is the increasing reliance on the tue-periphrasis as a strategy to simplify verb conjugation, suggesting an adjustment to the challenges posed by maintaining conjugation accuracy. This tendency towards unmarked syntactic forms, particularly analytic and periphrastic constructions, signifies the language’s adaptation to the competencies of its speakers, reflecting broader patterns observed in the dynamics of heritage languages.

However, framing Greschòneytitsch as a heritage language presents unique challenges, especially due to the absence of a clear standard for linguistic comparison. This absence complicates efforts to categorise observed linguistic shifts as simplifications or natural evolutions stemming from reduced proficiency. Unlike well-documented languages with established standard forms – for instance, Italian among Italian-Americans – Greschòneytitsch lacks a similar benchmark, posing difficulties in conclusively determining the characteristics of its linguistic modifications.

Despite these obstacles, forthcoming analyses will delve into the hypothesis that diminished proficiency among speakers leads to linguistic simplifications in Greschòneytitsch. This premise is bolstered by comprehensive data, including our interviews, where four were identified with low proficiency speakers. Yet, upon reflection, it may be more accurate to consider all speakers of the language as heritage speakers exhibiting varying degrees of proficiency. These speakers are navigating a language that has gradually become more analytic, a transformation that might be natural for languages over time but appears accelerated or more pronounced in heritage language contexts. Such a trend could be accounted for in the general decline in the language’s vitality, evidenced by the loss of morphological endings on nouns, the proliferation of periphrastic constructions, and the assimilation of verb forms.

Tue-periphrasis as a language-specific feature The theory positing the independent emergence of the tue-periphrasis in Greschòneytitsch offers a com-

elling testament to the language's syntactic innovation and autonomy. This perspective illuminates the notion that, notwithstanding the significance of language contact and sociolinguistic dynamics in linguistic evolution, the genesis of the tue-periphrasis could primarily derive from the intrinsic dynamics and ingenuity of Greschòneytitsch speakers. The concept of syntactic autonomy underscores the inherent capability of languages to evolve complex grammatical features independently, propelled by the cognitive faculties involved in human language processing.

The role of speaker innovation is central to language change, highlighting how individual linguistic creativity can catalyse the community-wide adoption of novel linguistic forms. The establishment of the tue-periphrasis in Greschòneytitsch could well be a testament to such communal linguistic adaptability and inventiveness, emerging from the grassroots and solidifying over time as a conventional feature.

Upon final analysis, it appears that a confluence of factors – encompassing clitic usage as a catalytic trigger and compounded by issues of low proficiency, the impact of *tònz* and *eister*, and broader language contact – may offer the most plausible explanation for the emergence of the tue-periphrasis. While acknowledging that the structural similarities and the grammatical predispositions of *tue* lend credence to its selection for periphrasis, such attributes may not necessarily serve as direct triggers. Instead, they provide insight into why *tue*, as opposed to other verbs, became the focal point for grammaticalisation, pointing towards a multifactorial causation rather than a singular, isolable cause.

12 Final remarks

In conclusion, our theory merges concepts of language erosion with paradigm shifts to elucidate the emergence of the tue-periphrasis in Greschòneytitsch. We know for certain that, in the 'Prodigal Son' translation, which is the oldest surviving document in Greschòneytitsch, does not contain any instance of tue-periphrasis, even in contexts where it would be expected. Therefore, the tue-periphrasis must have emerged (at least in its current widespread usage) after 1810.

We categorise the speakers of Greschòneytitsch as heritage speakers, tracing the critical moment of linguistic transformation as early as 1849. During this period, the dialect began to function as a 'low' variety amidst escalating contact

with Piedmontese and Italian due to new infrastructural developments. This era fostered full bilingualism among speakers, possibly precipitating the emergence or consolidation of the grammaticalised *tònz*. Subsequently, under conditions reminiscent of Middle English – characterised by language contact and the necessity for a simplified language variant for communication with foreigners, or simply as a feature of child-speech – the *tue*-periphrasis materialised.

We point to the inherent characteristics of *tue* variations in Germanic languages as the reason this verb specifically was selected, as exemplified by English *do*-support and causative periphrastic constructions involving “do” in Dutch.

The Fascist regime’s prohibition of dialect use further entrenched this linguistic status, intensifying the transition from fully bilingual speakers to heritage speakers. Initially, the *tue*-periphrasis might have been employed solely to accommodate the use of accusative clitic pronouns. However, a paradigm shift ensued, broadening the application of the *tue*-periphrasis to encompass all clitic pronouns and rendering it a simpler alternative to analytic verbal conjugation. It is around this juncture that the imperfect subjunctive might have entirely abandoned its analytic form.

Following this period, the language swiftly progressed towards grammaticalisation and simplification – a trend that continues to the present day. The accelerated pace of this evolution is attributed to the ‘heritage’ status of the language, which lacks a robust standard in opposition to the official language, Italian. Presently, we observe further simplifications, such as the assimilation of gendered clitics to a neuter form, the incorporation of nominative clitics into verb endings, and the loss of the subjunctive and *verbklammer*, alongside lexical bleaching and impoverishment.

Had *Greschòneytitsch* not been critically endangered, it is conceivable that we might have witnessed the emergence of a fully grammaticalised verbal system akin to that of modern English. However, given the bleak prognosis for the language’s vitality – with extinction anticipated within the next century, optimistically – we may never witness the culmination of this linguistic evolution.

Appendices

A Interview structure



Video 1: an old man looks at a picture and remembers his family or his past.

Link: <https://www.pexels.com/video/a-man-looking-at-a-picture-frame-8057878/>



Video 2: A dog smells the grass in a field.

Link: <https://www.pexels.com/video/dog-german-shepherd-4166356/>



Video 3: a child jumps up and down on a white bed in a white room.

Link: <https://www.pexels.com/video/a-boy-jumping-up-high-and-down-in-a-bed-3201085/>



Video 4: a couple argues in a bathroom.

Link: <https://www.pexels.com/video/a-couple-arguing-with-each-other-5657608/>



Video 5: an old man gives a Christmas gift to his wife.

Link: <https://www.pexels.com/video/an-elderly-husband-giving-a-gift-to-her-wife-3209767/>



Video 6: a man cooks a seafood dish in a kitchen.

Link: <https://www.pexels.com/video/cooking-a-crab-dish-in-the-kitchen-2882090/>



Video 7: a workman demolishes a brick wall with a hammer.

Link: <https://www.pexels.com/video/man-destroying-wall-855672/>



Video 8: a young man runs on the beach on a cloudy day.

Link: <https://www.pexels.com/video/a-man-running-on-the-beach-shore-3125907/>

B Follow-up questions

Video ID	Target structure	Question
1	Present/Progressive	What is the man thinking about?
2	Future	What will the dog find?
3	Present/Progressive	What is the boy feeling?
4	Past/Causative	What did the man do to make the woman angry?
5	Future	What will the woman do with the present?
6	Past/Modal	What did the man do before starting to cook?
7	Modal/Future	What does the workman want to do?
8	Modal/Past	Why did the man decide to run?

C Questionnaire data

This appendix contains the sociolinguistics data gathered from speakers during the interviews. The speakers are identified through unique ID numbers, from 1 to 24.

ID	Year of birth	Family members who speak Titsch	Other languages	Titsch: age of acquisition	Titsch: proficiency self-assessment	Titsch: formal education	Titsch: contexts of usage	Italian: age of acquisition
1	1960	both parents (deceased), aunts and uncles, cousins, daughter	English A1, French C1	First language	C1 (declares that they have lost their fluency since the mother passed and they speak it very little)	Regional course: learned to write	Socially, family (limited), work (in the past)	At school
2	1992	one parent, older cousins	English B1 high, French B1, German A1	First language	Comprehension C2, Production A1	Library course	Family (rarely)	First language
3	1965	both parents (deceased), siblings	French A1, Piedmontese C2, Patois A1	First language	C2 (slightly lost because they don't talk to many people anymore)	No	Family, socially (limited)	At school
4	1937	husband (deceased), in-laws (deceased), children	Piedmontese C2, English A1 low, French B2	20 YO	B2	No	Family (especially before the death of her husband in July 2024)	At school (First language: Piedmontese)
5	1996	One parent, uncle, cousins	English B1, French B2, German A1 low (higher comprehension)	As a small child in the home (limited)	Comprehension A2, production A1 (low)	Library course, some activities at elementary school	Family, socially (limited)	First language
6	1959	One parent (deceased), cousins, ex-spouse	French C2, English A1, German studied at school, doesn't speak it anymore	As a small child in the home (limited), no usage later	Comprehension C2, production A1	No	No	First language
7	1973	both parents, siblings, cousin	French B1 high, English B1, German A1, Piedmontese B1 comprehension, Patois B1	First language	Mother tongue	Regional course: learned to write	Family, socially, (also via message)	First language
8	1965	one parent, siblings, aunts and uncles	French A1, Piedmontese A1	First language	Mother tongue	No	Family, socially	First language
9	1998	both parents, sibling	English B2, French B1, German A1 low, Piedmontese B2	First language, stopped before 8 YO	Comprehension Mother tongue, production A1	No	Family (in the past)	At school
10	1961	both parents (one deceased), siblings, children, spouse, sibling-in-law, nephew	French A1, Piedmontese comprehension B2 production A1	First language	Comprehension Mother tongue, production C2	No	Family, socially (limited)	First language
11	2001	Both parents, cousin, neighbor	Piedmontese comprehension C2 production B2, French A2, English A1 High, German A1	First language, stopped before 8 YO	Comprehension B2, production A1	No	Family (limited), socially (limited)	First language
12	1968	one parent (deceased), aunt, grandparents (deceased)	French C1, English B1, German B1	First language	Comprehension Mother tongue, production C1	No	Socially (rarely)	First language
13	1973	both parents (one deceased), siblings, aunts and uncles, cousins, grandparents (deceased)	French C1 low, German B2, English B2, Piedmontese A1	First language	Mother tongue	Regional course: learned to write	Work, Family, Socially	Shortly after
14	1949	both parents (deceased), grandparents (deceased), cousins, children	French B1, German B1	First language	Mother tongue	Library courses	Socially, family (in the past)	Shortly after, at school (more frequently)
15	1960	both parents (deceased), siblings, cousins, aunts and uncles	French C2, English B1 low, Piedmontese comprehension C2	First language	Mother tongue	No	Family, socially (limited)	First language (farmer mostly inside the home)
16	1974	both parents (deceased?), sibling, grandparents (deceased), children, spouse	English B1, German C2, French C2	First language	Mother tongue	No	Family, socially	At school
17	1941	both parents (deceased), siblings (deceased?), grandparents (deceased), aunts and uncles (deceased)	French A2, German A2, Piedmontese B2, Patois of Gaby A1	First language	Mother tongue	No	Family, socially	At school
18	1956	one parent (deceased), aunts and uncles, spouse	French B1, English A1 low, Piedmontese B1	20 YO (limited)	A2	Library course	No	First language
19	1980	one parent, aunts and uncles, grandmother (deceased)	French B2, English A1, Piedmontese C2, Patois of Gaby C2	First language	Mother tongue	No	Family, socially	At school
20	1996	One parent, uncle, cousins	French B2, Piedmontese B1, Toitschu comprehension A2	First language, stopped before 6 YO	A1	Library course	Family (rarely)	First language
21	2005	one parent, aunts and uncles, siblings, grandmother, cousins	French B2 low, German A2, English A2, Piedmontese A2, Patois comprehension C2	First language	Mother tongue	No	Family, socially (limited)	First language
22	2007	one parent, aunts and uncles, siblings, grandmother, cousins	French B2 low, German A2, English A2, Piedmontese A2, Patois comprehension C2	First language	Mother tongue	No	Family, socially (limited)	First language
23	1973	Both parents, aunts and uncles and uncles, children	French B1, German A2, Piedmontese C2	First language	Mother tongue	No	Family, Socially, Work	First language
24	2003	one parent, aunts and uncles, siblings, grandmother, cousins	French B2, German A2, English B1, Piedmontese mother tongue, Patois comprehension C2	First language	Mother tongue	No	Family, socially (limited)	First language (also Patois of Fontenimore, later lost)

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