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Bilingualism or Trilingualism? Social versus linguistic views: Evidence from the Germanic-speaking language group in South Tyrol (Italy)

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Bilingualism or Trilingualism?
Social versus linguistic views: Evidence from the
Germanic-speaking language group in South Tyrol
(Italy)

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¹ Leonardi, M. (2015). "The impact of diglossia in South Tyrol: Evidence from preschoolers in South Tyrol." 27.-29.05.2015. *International Conference on Language Variation in Europe (ICLaVE 8)*. Universität Leipzig, Germany.

Leonardi, M. (2015). "Receptive grammatical skills in German monolingual children and Bavarian-German children from South Tyrol." 05.-06.03.2015. *Sheffield Postgraduate Conference in Linguistics*, University of Sheffield, UK.

Leonardi, M. (2014). „A case study of diglossia in South Tyrol: German language comprehension at pre-school age." 12.09.2014. *PARLAY Conference*, University of York, UK.

Leonardi, M. (2014). „The impact of diglossia in early language development: Native Bavarian-speaking preschool children and their understanding of German." 04.04.2014. *9th Newcastle upon Tyne Postgraduate Conference in Linguistics*, Newcastle upon Tyne University, UK.

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SUMMARY

What is a ‘language’? What is a ‘dialect’? Officially and politically, South Tyrol (in north-eastern Italy) is an Italian–German bilingual region. The local Germanic variety spoken in the area is commonly referred to as a ‘dialect’ and therefore ‘subordinate’ to Standard German. The main aim of this dissertation is to investigate whether the community is bilingual (German–Italian) – due to socio-political distinctions and thus in line with the legal regulations – or whether it is actually trilingual (German–Italian–South Tyrolean) – due to linguistic distinctions. This dissertation contributes to the understanding of how relying only on socio-political distinctions (e.g., history, national borders) when defining the term ‘language’ can have an influence on both language acquisition processes and on educational institutions (e.g., teaching practices).

The South Tyrolean dialect is used for all informal purposes: it is the language used at home, in personal domains, and in everyday activities. Standard German is the main language used within educational institutions in South Tyrol. Thus, Standard German language learning in South Tyrol is routinely compared and assumed to be largely equivalent to the acquisitional path of a German monolingual child from Germany. Although Standard German and the South Tyrolean dialect are related, they also differ from each other in various ways. One way to determine how different languages or varieties are is to test the (mutual) intelligibility of the two languages/varieties. The intelligibility-based approach used in this dissertation demonstrated that the community in South Tyrol is indeed trilingual. Based on linguistic distinctions, therefore, I will show that the dialect can be classified as a distinct language. The second empirical study in this dissertation investigated whether this ‘hidden trilingualism’ has an impact on young children’s linguistic acquisitional process by using a standardized receptive language test in Standard German.

The main aim of this dissertation is to show that the problem lies in the clash between the socio-political stance and the linguistic reality.

CHAPTER ONE

Introduction

Two people who speak the same language understand each other without major communicative problems. This premise assumes that people from Germany and people from South Tyrol (in north-eastern Italy) understand each other as – officially – they speak the same language, namely Standard German. In reality, if two speakers from Germany and South Tyrol encounter each other, and each person uses his native language, they would most likely not be able to understand one another perfectly. The reasons for this communicative problem when a German and South Tyrolean speaker interact with each other shall be investigated in the following chapters. As a result, their communication/interaction usually happens through the medium of Standard German, as it would be too difficult otherwise.

In order to understand this predicament, one has to be aware of the wider context in South Tyrol. Officially and politically, members of the Germanic-speaking language group in South Tyrol are said to be native speakers of Standard German (see *Chapter 2*). The actual linguistic situation, however, is a bit more complex: the local language spoken at home and on the playground differs from the language officially designated as language of instruction. On the one hand, infants' socialisation takes place in the South Tyrolean dialect. Among the South Tyrolean community, this dialect is the most used variety in everyday communication. On the other hand, young children are exposed to German from early on, usually informally and indirectly, by watching television programmes and by being read stories. Standard German is then formally learned in school and is used in reading, writing, and in more formal domains. This strict functional differentiation, referred to as *diglossia* (Ferguson, 1959), broadly corresponds to the actual linguistic situation present in South Tyrol.

In this dissertation I shall examine whether the Germanic-speaking community is indeed *German-Italian* bilingual as officially labelled by the national and local government, or if it is

a case of trilingualism, namely *South Tyrolean–German–Italian*. The main aim of this dissertation is twofold.

The first aim is to investigate the degree of intelligibility between the South Tyrolean variety (often referred to as ‘dialect’) and Standard German. Thus, *Chapter 4* investigates how intelligible the South Tyrolean variety is for adult Standard German speakers.

The second aim is to investigate the extent of the impact caused by ignoring that there might be a certain degree of unintelligibility between the two genetically related varieties, South Tyrolean and Standard German. Therefore, the second empirical study conducted in *Chapter 5* asked whether the degree of intelligibility examined in *Chapter 4* has an impact on the South Tyrolean children’s early linguistic development in Standard German.

1.1. FRAMEWORK FOR THIS DISSERTATION AND RESEARCH QUESTIONS

My dissertation is organized as follows:

The following two chapters review the existing literature. *Chapter 2* outlines the political and historical context of South Tyrol. Since the linguistic situation can be broadly described as one of *diglossia*, I shall also discuss how the actual diglossic situation among the Germanic-speaking language group matches and diverges from the original definition given by Ferguson (1959). In doing so, I shall present six out of the nine rubrics defined by Ferguson (function, acquisition, stability, prestige, standardization, and literary heritage).

Chapter 3 introduces and presents crucial key concepts and definitions by discussing the problem of relying solely on socio-politically recognised languages (*Ausbau-* and *Abstandsprachen*) when defining bilingualism within a region, often underestimating the importance of (1) linguistic criteria, and (2) that some varieties have simply not undergone the process of *Ausbau-isation* (Fishman, 2008) for political and/or cultural reasons. Therefore, this chapter discusses the remaining three rubrics defined in Ferguson’s original definition of diglossia (lexicon, phonology, and grammar) by showing the extent to which Standard German and the South Tyrolean variety differ linguistically.

In *Chapter 4* an intelligibility based approach is applied in order to measure the degree of intelligibility between Standard German and the South Tyrolean variety. An online-survey conducted with 26 Standard German speakers who have had almost no contact with the South Tyrolean variety were asked to complete a short questionnaire and perform a sentence

intelligibility test based on Kalikow, Stevens and Elliott (1977). The data, which is reported and evaluated in *Chapter 4*, answers the first research question for this dissertation:

1. What is the intelligibility level of the South Tyrolean variety to Standard German listeners?

Chapter 5 examines whether and to what extent the degree of intelligibility obtained in the previous chapter has an impact on the South Tyrolean children's linguistic development in Standard German at the age of 3;0 and 4;11. Preschool is the first institution where Standard German is used when addressing South Tyrolean children (preschools in South Tyrol are meant for children between three and five years old). Thus, for the purpose of the second empirical study, a total of 98 preschoolers from Germany and South Tyrol completed a receptive language task. The task examined children's receptive lexical and grammatical skills in Standard German. Data from the children's performance is then analysed to address the second and third research question:

2. How do South Tyrolean-speaking preschool children perform on a standardized German assessment test? How do they compare with their age-matched German peers?
3. Which type or types of exposure positively affect acquisition of Standard German and to what extent? Do some types of input have more impact than others?

Chapter 6 (Conclusion) provides a brief overview and summary of the central arguments of this dissertation.

That the linguistic reality in South Tyrol, officially labelled a German–Italian bilingual region by the national and local governments, is slightly more complex than officially recognized is a main issue in this dissertation. The fact that the local population is referred to as German–Italian bilinguals without mentioning their native language, namely the South Tyrolean variety, underestimates the language skills of this population. In addition to their native language, there is no doubt that every South Tyrolean adult is able to communicate in Standard German and Italian – albeit some to a better degree than others. What is less understood, however, is what children's language comprehension in Standard German looks

like at the very early beginning of their linguistic process and the impact caused by ignoring or underestimating the degree of unintelligibility between Standard German and the South Tyrolean variety.

1.2. IMPORTANCE AND CONTRIBUTION OF THIS DISSERTATION

On the basis of South Tyrol, I am demonstrating that socio-political criteria (e.g., history, national borders, cultural similarities or differences) do not necessarily provide a satisfactory distinction when defining what a ‘language’ is and what a ‘dialect’ is. Actually, there is often too much reliance on socio-political criteria, being the only actual criteria behind definitions of ‘language’, ‘dialect’, and consequently also of the terms ‘bilingualism’ and ‘bilingual’. Structural (linguistic) features are often underestimated and should be taken more seriously. From an acquisitional point of view, people often assume that due to the genetic relatedness between the two varieties learned by the child, s/he faces little or no difficulties in its early developmental process. Based on the acquisitional development of South Tyrolean children, this dissertation argues that this is not always the case. South Tyrol is officially a German–Italian region and the South Tyrolean variety is commonly referred to as a German ‘dialect’. Consequently, this has an impact on how children are addressed in educational institutions (preschool and school) and how they learn and perceive Standard German. South Tyrolean children experience their first formal exposure to Standard German when they start preschool from the age of 3 or 4, and then more extensively when they start formal schooling at the age of 6 years. Although all children speak the South Tyrolean variety as their native language at home and outside, most children have a rudimentary knowledge (mainly at a receptive level) of Standard German. In testing young South Tyroleans, I am hoping to achieve greater clarity regarding the linguistic development of Standard German among preschoolers.

In this dissertation, therefore, I am interested in exploring how much knowledge of one variety (South Tyrolean) helps young South Tyrolean children in understanding another genetically related variety (namely Standard German). Even though being related, previous research has shown that (i) there are lexical differences between the two varieties (e.g., Schwienbacher, 1997; Moser, 2015), (ii) phonological differences (e.g., Riedmann, 1979; Wiesinger, 1990), and (iii) that some grammatical features of the South Tyrolean variety differ from Standard German, such as case marking or prepositions (e.g., Giacomozzi, 1982; Egger, 1982c, 1994a). Therefore, due to the fact that there are linguistic differences between Standard German and South Tyrolean (see section 3.1.4 in *Chapter 3*), several studies as well as research projects have focused on the school context (e.g., Egger, 1982b; Saxalber-Tetter,

1985; Beck & Dahl, 2006; Abel, 2007; Abel & Glaznieks, 2015¹; see also the project ‘KOMMA’² conducted at the Competence Centre for Language Studies at the Free University of Bolzano), demonstrating for instance that South Tyrolean interferes when writing or talking in Standard German. Although previous research has also shown that Standard German is still perceived as a ‘school language’ among many South Tyrolean pupils and adolescents (Riehl, 1997, 2001), very little research has been conducted at the very early stages of exposure to Standard German when German is introduced as an instruction language in preschools.

Summing up, it can be said that the constellation and interaction between three varieties (South Tyrolean, Standard German, Italian), and especially the daily interaction (reading, speaking, hearing) between the two related varieties (South Tyrolean and Standard German) have been focus of several publications, projects, and conferences in the past decades. One of the reasons of gaining so much interest among linguists, educators, and laymen is the fact that learning more than one language or variety has implications for both language acquisition as well as language teaching. Therefore, this specific language contact – *inner* and *outer multilingualism* (for a definition see section 2.3.2 in *Chapter 2*) – creates an interesting cutting point between didactics as well as linguistics.

¹ The project ‘KoKo’¹ (KoKo – Comparing “*Bildungssprache*”: analysis of the language competence of (especially South Tyrolean) German L1 learners on the basis of corpora, <http://www.korpus-suedtirol.it/KoKo/Pages/default.aspx>; accessed 04 December 2015) conducted at the European Academy of Bolzano (EURAC) compares written data produced by high school pupils from South Tyrol, Germany, and Austria.

² The project ‘KOMMA’ (‘KOMMA – Sprachkompetenzen von Maturantinnen und Maturanten: Schulsprache Deutsch und Kontaktphänomene im mehrsprachigen Kontext’, <https://www.unibz.it/en/public/research/languagestudies/projects/KommaProjektbeschreibung.html>; accessed 18 August 2015) analyses written as well as spoken data from South Tyrolean high school graduates.

CHAPTER TWO

*„Jede Region liebt ihren Dialekt, sei er doch eigentlich das Element,
in welchem diese Seele ihren Atem schöpfe.“³*
(JOHANN WOLFGANG VON GOETHE)

South Tyrol

In this dissertation I will focus on South Tyrol, an area in Northern Italy, where a complex linguistic situation exists. In order to fully understand the linguistic situation in the target area, it is necessary to present briefly the history of the region as well as provide a linguistic overview.

2.1. NUMBERS AND FACTS

The Autonomous Province of Bolzano/Bozen (Italian: *Südtirol*, or *Alto Adige*; Standard German: *Südtirol*) – henceforth South Tyrol – is situated in north-eastern Italy on the border with Austria and Switzerland (Map 2.1). Three official languages are spoken in South Tyrol: Standard German⁴, Italian, and Ladin. According to the 2011 Census, the South Tyrolean population of 509,626 inhabitants was divided as follows (ASTAT, 2012a, 2012b, 2012c):

German	314,604	69.41%
Italian	118,120	26.06%
Ladin	20,548	4.53%

³ ‘Each region loves its dialect, being the element, in which the soul takes its breath’ (my translation) (Johann Wolfgang von Goethe).

⁴ It is known that German vernaculars were spoken since the 6th century in South Tyrol, mainly deriving from Bavaria, Southern Germany (Larch & Unterholzner, 2004). Nowadays, Standard German is one of the twelve officially recognised languages in Italy (National law – 482/1999 ‘*Norme in materia di tutela delle minoranze linguistiche storiche*’, Law governing the protection of historical linguistic minorities).

The numbers above show that the German-speaking language group counts as a minority within Italy as a whole (in 2011 Italy had 59,433,744 inhabitants, ISTAT 2011⁵), but they form the majority at the provincial level (almost 70%, see Map 2.2). “The group of South Bavarian dialects spoken in South Tyrol”, as stated by Dal Negro (2008: 134), “is by far the largest and most spoken German dialect in Italy” (see also Born & Dickgießer, 1989).



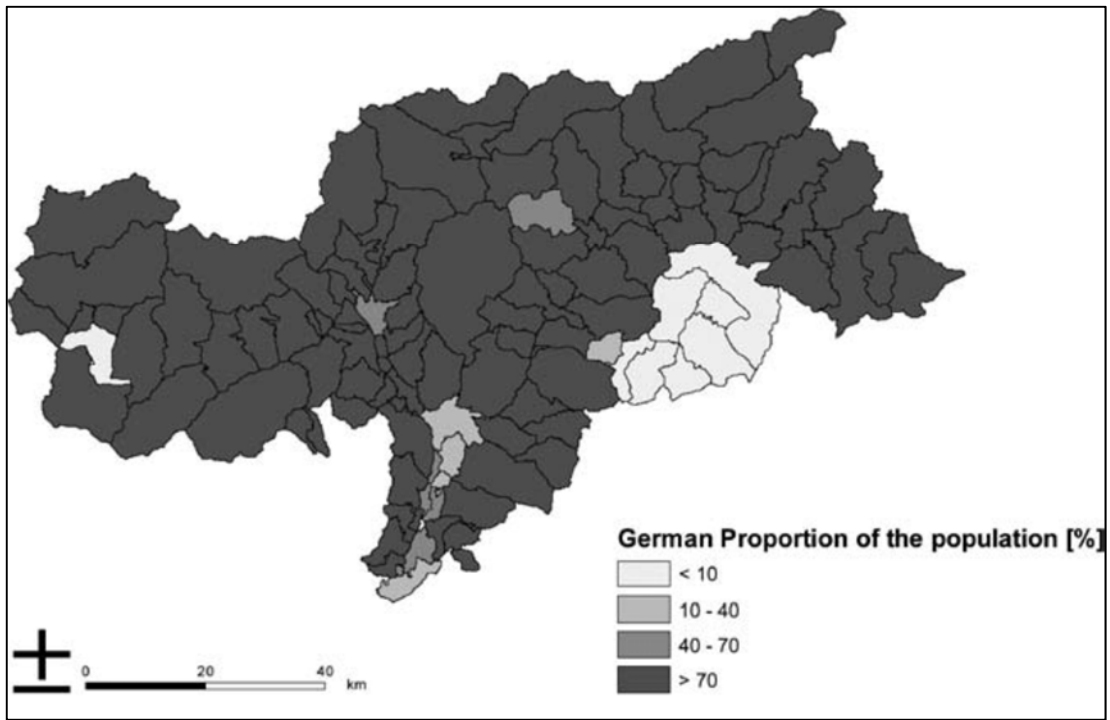
Map 2.1. Geographical position of South Tyrol in Italy⁶.

Although the Italian- and Ladin-speaking communities are not the main subject of this dissertation, I will briefly introduce and present them as they are part of the South Tyrolean situation (see Map 2.3 and Map 2.4).

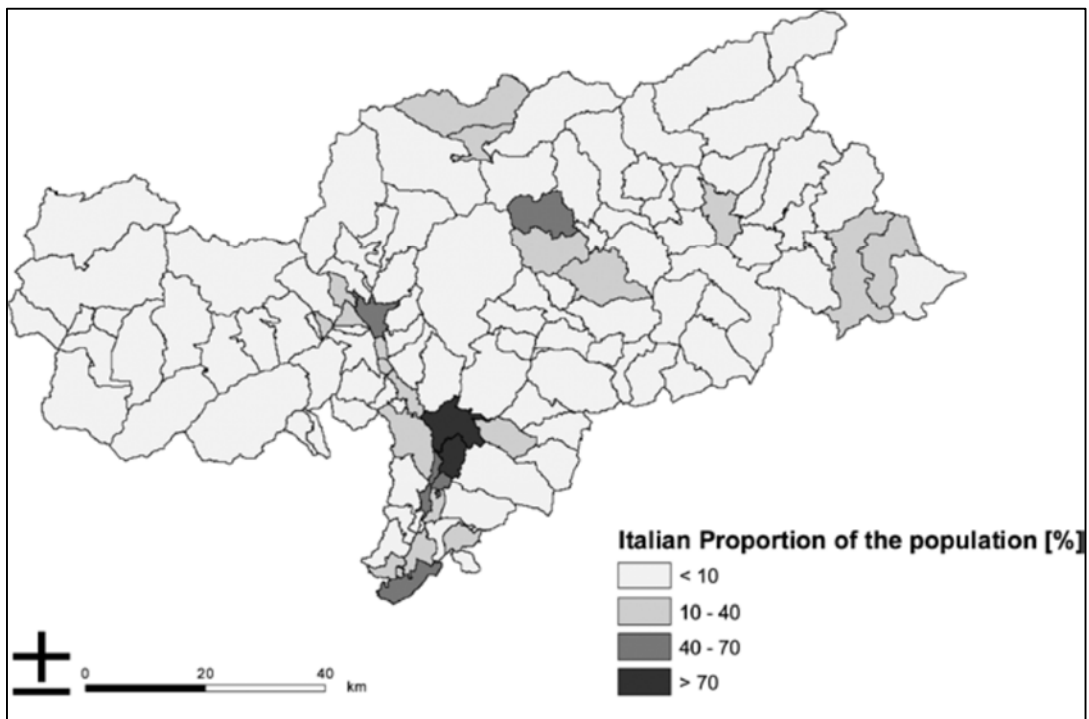
Looking at the demographic/geographic data (see Map 2.2 and Map 2.3), it can be seen that the linguistic communities in South Tyrol are not homogeneously distributed over the whole territory: The German-speaking community is mainly concentrated in villages, towns, and in the valleys (>90%), while the Italian-speaking community is numerous in the capital Bolzano (74%) and in several communes in the Bassa Atesina/Unterland (near the Italian province Trentino). This unequal distribution is mainly due to the result of forced migration from Italy which was imposed under the Fascist regime in order to outnumber the German-speaking language group in South Tyrol (Voltmer et al., 2007).

⁵ Accessed 26 February 2016: <http://www.istat.it/it/archivio/77877>.

⁶ Accessed 23 February 2016: http://wikitravel.org/upload/en/thumb/2/29/South_Tyrol_in_Italy.svg/250px-South_Tyrol_in_Italy.png

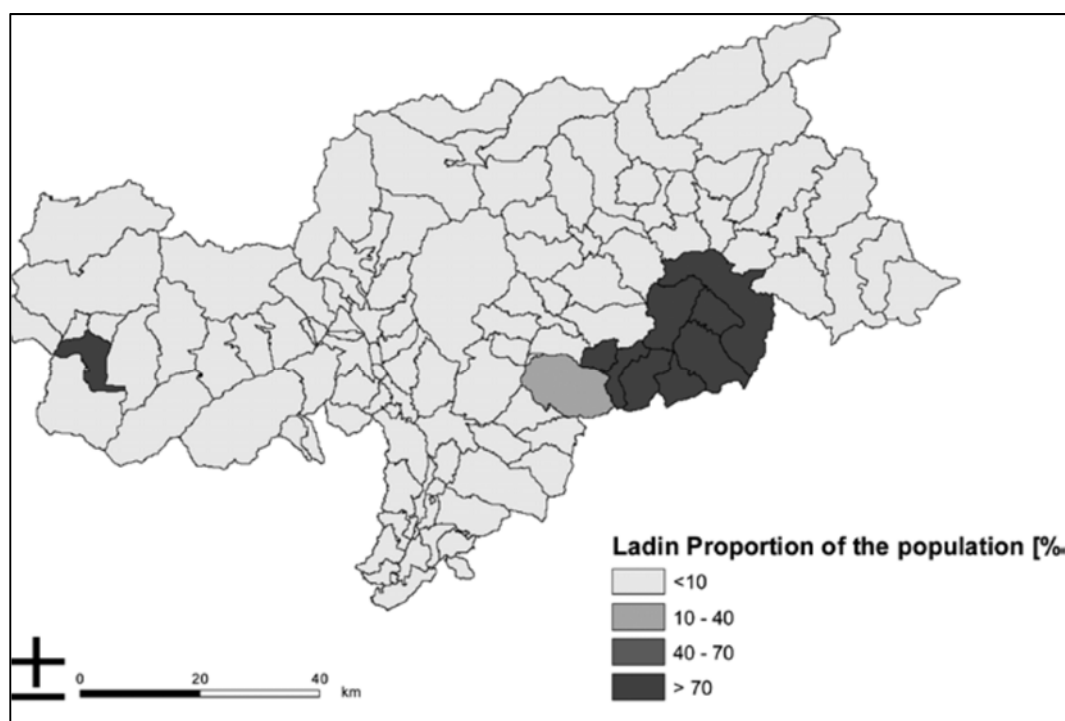


Map 2.2. Distribution of the German-speaking language group in South Tyrol (Voltmer et al.: 2007: 203).



Map 2.3. Distribution of the Italian-speaking language group in South Tyrol (Voltmer et al.: 2007: 203).

Besides Standard German and Italian, Ladin is the third officially recognized language of South Tyrol: its written and spoken form is taught in schools and is used in everyday communication among the Ladin-speaking community. Ladin is a Romance language which is mainly spoken in two South Tyrolean valleys, Val Gardena (Ladin: *Val Gherdëina*, Italian: *Val Gardena*, German: *Gröden*), and Val Badia (Ladin and Italian: *Val Badia*, German: *Gadertal*), and in some parts of the Province of Trentino and Belluno (for an overview of Ladin and its educational programmes, see for instance Balboni, 1997; Wisthaler, 2013).



Map 2.4: Distribution of the Ladin-speaking language group in South Tyrol (Voltmer et al.: 2007: 204).

After having introduced the official linguistic diversity present in South Tyrol, I shall now present some historical and educational facts before demonstrating that the linguistic situation is slightly more complicated than appearing at first glance.

2.1.1. History and education

South Tyrol was part of the Austro-Hungarian Empire until the end of World War I at which time it was annexed by Italy (*Peace Treaty of Saint Germain*). In the years following World War I, South Tyrol was characterized by fascist aspirations which aimed at the so-called *Italianization*, which dramatically changed the lives of the German-speaking language group

in many different domains: *Italianization* meant the repression of people's native language and culture. The South Tyrolean variety and Standard German were completely forbidden and Italian replaced Standard German in many official domains. There were also considerable changes in the press, police, and military (see Prader, 1988; Egger, 1977; Alcock, 2000; Baur, 2000; Stocker, 2007; Voltmer et al., 2007; Lantschner, 2008). For an overview of historically relevant facts, see Egger (1977), Kramer (1981), Alcock (2000), Voltmer et al. (2007), Jancsi (2008), and Abel (2009).

The *Gruber-Degasperi-Agreement* of 1946 (also known as the *Treaty of Paris/Pariser Vertrag*) and especially the *Second Autonomy Statute* of 1972 had significant political, cultural, and social consequences for the region by granting specific rights to each of the three linguistic groups (Italian, German, and Ladin) in South Tyrol: protection and promotion of their language and culture, and autonomous powers in the school sector (Prader, 1988; Alcock 2000, 2001; Dal Negro, 2005; Voltmer et al., 2007; Jancsi, 2008; Abel, 2009; Meraner, 2013). Along with Italian, German has been the co-official language of South Tyrol since 1972 (Russ, 2005), meaning that it enjoys special protections and is explicitly referred to in regional language policy (see Article 19 of the *Statuto Speciale per il Trentino-Alto Adige/Sonderstatut für Tentino-Südtirol*, and see Article 1 of the *Gruber-Degasperi-Agreement* 1946). The text of the *Gruber-Degasperi-Agreement*⁷ was as follows (the irrelevant clauses 'c' and 'd' are not reproduced)⁸:

1° German-speaking inhabitants of the Bolzano Province and of the neighbouring bilingual townships of the Trento Province will be assured a complete equality of rights with the Italian-speaking inhabitants within the framework of special provisions to safeguard the ethnical character and the cultural and economic development of the German-speaking element.

In accordance with legislation already enacted or awaiting enactment the said German-speaking citizens will be granted in particular:

- (a) elementary and secondary teaching in the mother-tongue;
- (b) parification of the German and Italian languages in public offices and official documents, as well as bilingual topographical naming.

⁷ The *Gruber-Degasperi-Agreement* of 1946 did not provide any protection for the Ladin-speaking community, which did not change until the *Second Autonomy Statute* of 1972.

⁸ http://www.regione.taa.it/codice/accordo_d.aspx, accessed 28 January 2015; see also Alcock (2000: 169-170).

Nowadays, educational institutions in South Tyrol are separated according to their ethnic affiliation and each child has the right to be provided education in the ‘mother-tongue’ (see Article 1 of the *Gruber-Degasperi-Agreement*, clause ‘a’). Two types of schools exist in South Tyrol:

- (a) preschools⁹ and schools in which Italian is the main language of instruction and Standard German is taught as the second language (L2); and
- (b) preschools and schools in which Standard German is the main language of instruction while Italian is taught as L2.

Teachers must be ‘mother-tongue speakers’ of the language of instruction or, in citing words which are often used within the South Tyrolean literature, “children are educated in their mother tongue” (Vettori et al., 2012: 438) by “teachers whose mother-tongue is the language of tuition” (Votmer et al., 2007: 273), namely Standard German and Italian respectively (see also Kramer, 1981: 90; Born & Dickgießer, 1989; Alcock, 2000; Egger, 2001c; Abel et al., 2012a; Meraner, 2013).

2.2. A LINGUISTIC OVERVIEW: DIGLOSSIA

After having provided a brief introduction to the historical and educational situation in South Tyrol, it should be noted that the linguistic situation is a bit more complex than the legal documents would suggest. For example, in addition to the three official languages (Italian, German, and Ladin), the South Tyrolean variety is omnipresent within the Germanic-speaking community of South Tyrol. The relationship between the two codes, namely Standard German and the South Tyrolean variety, can be described as one of *diglossia*, as defined by Ferguson (1959: 336):

Diglossia is a relatively stable language situation in which, in addition to the primary dialects of the language (which may include a standard or regional standards), there is a very divergent, highly codified (often grammatically more complex) superposed variety, the vehicle of a large and respected body of written literature, either of an earlier period or in another speech community, which is learned largely by formal education and is used for

⁹ Language of instruction seems a bit inappropriate when talking about preschools. In this sense I intend the language of interaction/communication used between educators and children.

most written and formal spoken purposes, but is not used by any sector of the community for ordinary conversation.

In his definition, Ferguson differentiates between two codes: *high* (H) refers to the codified superposed variety (Standard German in South Tyrol), and *low* (L) refers to other dialects or varieties (the South Tyrolean variety in South Tyrol). In other words, there is an oral and a written register, with the L variety referring to the oral mode and the H variety to the written mode. H is learned largely through formal education and is used for most written and formal speaking purposes, whereas L is used for informal spoken communication. This shows that there is a rigid socio-functional complementarity use of the two codes. Very often (but not always, as shall be presented below) the two codes are linguistically related.

Ferguson's original definition is going to be my point of departure. However, it is important to note that his definition has been modified, revised, and extended by various other scholars over the past 50 years (Gumperz, 1961, 1962; Kloss, 1966; Fishman, 1967; Fellman, 1975; Keller, 1982; Ferguson, 1991/1996, 2007; Hudson, 1992, 2002; Tamburelli, 2012; Snow, 2013). Based on Ferguson's work, Kloss (1966) proposed that a distinction should be made when studying the co-existence of linguistic varieties within a speech community. He suggested the terms *in-diglossia* (*Binnendiglossie*) and *out-diglossia* (*Außendiglossie*) in attempting to characterize these multilingual communities. The former describes communities where two varieties (H and L) are closely genetically related, as in the classical definition (Ferguson, 1959). An example of in-diglossia would be Standard German (H) and the Alemannic dialect of Switzerland (L), or Modern Standard Arabic (H) and Spoken Arabic (L) in the Arabic-speaking world. Out-diglossia refers to situations where two varieties are unrelated or distant, as in Fishman's (1967) extended definition. An example of out-diglossia would be Spanish (H) and Guaraní (L) in Paraguay (Rubin, 1972; Trudgill, 2000; Romaine, 2006; Fishman, 2007). Under this definition, South Tyrol is a case of in-diglossia because the South Tyrolean variety is linguistically related to Standard German. It is therefore in-diglossia in particular which will be the focus of the dissertation.

Beyond South Tyrol, the term diglossia in general has been used in order to describe numerous kinds of speech communities. Here are some notable examples, just to name a few:

- Alemannic Switzerland (Keller, 1982; Sieber & Sitta, 1986; Ammon, 1995; Werlen, 1998; Haas, 1998; 2004; Rash, 2002; Berthele, 2004; Gyger, 2005, 2007; Weinreich, 2011),

- the Arabic-speaking world (Feitelson et al., 1993; Wagner, 1998; Wagner et al., 1989; Abu-Rabia, 2000; Dakwar, 2005; Ibrahim, 1983, 2009a, 2009b; Saiegh-Haddad, 2004; Saiegh-Haddad et al., 2011),
- Germany (Barbour, 1987; Cornelissen, 2004; Kremer & Van Caeneghem, 2004; Wiggers, 2006), and
- Italy (Berruto, 1987; Horvath & Vaughan, 1991: 136-139; Gensini, 2005; Tamburelli, 2012).

In this dissertation I will argue that the concept of diglossia can raise a number of complex issues. Additionally, defining the South Tyrolean situation as simply '(in)-diglossic' is an oversimplification of the reality, as I shall argue in the following chapter. However, before examining these points in greater detail (see *Chapter 3*), I shall first describe the current linguistic situation of the Germanic-speaking language group in South Tyrol using Ferguson's definition of diglossia as a frame of reference.

2.3. DIGLOSSIA AND BILINGUALISM IN SOUTH TYROL

As already addressed above, a high form (H), Standard German, and a low form (L), the South Tyrolean variety, co-exist within the same speech community in South Tyrol. The South Tyrolean variety is acquired within the family and is considered the native language of South Tyroleans (socially and emotionally). An observation made by Keller (1982: 91) more than thirty years ago in Switzerland can be applied to South Tyrolean speakers as well, namely that "it is psychologically impossible for any two Swiss of any class or occupation ever to address each other privately in anything but the 'Low' variety."

The South Tyrolean variety is used for all informal purposes: it is the language used at home, in personal domains (with family, friends, and community members), and in everyday activities. In a diglossic situation, the linguistic decision regarding whether the family transmits the L form or not depends on the societal system (Tamburelli, 2012). The ability to speak L does provide a social advantage, as it is used in almost all informal contexts and therefore enables communication within the speech community. Moreover, South Tyroleans' local variety is highly valued, it is connected to their own personality and ethnic identity. I shall return to this point in section 2.3.3.6. This nearly exclusive use of L in such informal contexts and the positive attitudes towards the local variety, in turn guarantee the successful transmission to the next generation. Despite the nearly exclusive use of L in informal context, it is nevertheless essential that South Tyroleans are also able to write, read, and speak in

Standard German, the H variety, in order to be employable (see Ferguson, 1959; Romaine, 1989; Hudson, 1994). Standard German, therefore, has to be learned consciously through the educational medium and thus is learned somewhat later in life once children enter school.

While at school, pupils address their peers in the South Tyrolean variety (as they would also do outside of school), but address their teachers (mostly) in Standard German. A study conducted in the mid-1990s revealed that the South Tyrolean variety is rarely spoken in communication with teachers: 270 pupils, aged between 14 and 18 who attended a school in Bolzano (the capital of the region), were questioned about their language usage and their language attitudes. Regarding their language use at school, 0% stated that they always use the South Tyrolean variety in communication with teachers, 2% use it often, 63% sometimes, and 35% never (Riehl, 2007). Despite the fact that self-reports may be unreliable in a socio-linguistically marked situation and that this study was conducted almost 20 years ago, these results provide a general overview of the language usage within the school environment in South Tyrol. More recently, in 2007/2008, a project was conducted using South Tyrolean pupils in their fourth year of high school (which means at the age of 18) (Abel et al., 2012a). The authors found that pupils almost always used the South Tyrolean variety in their everyday life (98.8%), while practically none reported using Standard German (0.9%). Very recently, a study conducted among 1,514 South Tyroleans showed that 45.3% of the Germanic-speaking language group used Standard German with their teachers and only 17.3% used the South Tyrolean variety (ASTAT, 2015). However, it is not specified in which situations the South Tyrolean variety is spoken, i.e. during lessons, after lessons, or in private pupil-teacher communication. Language usage among schoolmates is very similar to the results presented above: 2.8% used Standard German, and 71.2% used South Tyrolean (ASTAT, 2015: 152). These figures emphasize the very strong use of the local variety in South Tyrol. Outside of school, Standard German has restricted usage, and is used mainly in reading, writing, and for certain official and ‘higher’ purposes. Although it is understood very well, it is rarely used in speech. It can be summarized that the South Tyrolean variety is the code used not only with strangers in trains, restaurants, shops, and on the street, but it is also the code for local business relations. As claimed by Hudson (2002: 6), “in diglossia, it is context not class, or other group membership, that controls use.” In other words, the usage of H and L does not depend on social speakers’ identity, on social class/status or occupation, but it is solely based upon situational context (Hudson, 2002).

Italian, on the other hand, is used in both spoken and written communication, and in both formal and informal situations. Since 2003 Italian has been taught as a second language

(L2) in the first year of German-speaking primary schools (primary schools are meant for pupils between six and ten years old, grades one to five) (Baur et al., 2009; Meraner, 2013), whereas prior to 2003 it was not taught until the second year of primary school¹⁰.

2.3.1. Linguistic competences in South Tyrol

The opportunity of actively using Standard German and Italian outside school, and subsequently the linguistic abilities of each citizen, varies widely across South Tyrol. Previous studies have shown that sometimes language competence among the Germanic- and Italian-speaking community in South Tyrol is limited (e.g., Riehl, 2001; Leonardi, 2011; Abel et al., 2012b). Therefore, they have been defined as largely monolingual oriented societies and South Tyrol has even been described as a “reality consisting of two ‘parallel worlds’” (Abel et al., 2012a: 21; see also Egger, 2001a; Riehl, 2001; Abel, 2007; Ciccolone, 2010b). Though some South Tyroleans are *balanced bilinguals* in Italian and Standard German, meaning an individual has acquired a similar degree of proficiency in both languages (Peal & Lambert, 1962; Myers-Scotton, 2006), most people are not and their linguistic repertoire includes therefore ‘some knowledge’ of the other language, Standard German and Italian respectively (*unbalanced bilingualism*) (e.g., Putzer, 1997; Riehl, 2001; Vettori, 2005; ASTAT, 2006; Paladino et al., 2006; Leonardi, 2011).

2.3.2. Inner and outer multilingualism in South Tyrol

In the South Tyrolean literature two further definitions are often used when talking about the linguistic reality, and in terms of completeness I shall not withhold them: *inner* and *outer multilingualism* (see Egger, 1994b; 2001b). On the one hand, there is *outer multilingualism*¹¹ since Standard Italian and Standard German enjoy the same equal and official status within the Italian state. The Germanic-speaking community, on the other hand, is characterized by *inner multilingualism*¹², as they are competent users of both Standard German and the South Tyrolean variety. Inner multilingualism and diglossia were widely used as synonyms in the past (Voltmer et al., 2007). In this dissertation I will use the terms in-diglossia and inner multilingualism interchangeably.

¹⁰ Since 2007/08, English has been taught in the fourth class of primary school (Baur et al., 2009).

¹¹ Defined as “*plurilinguismo esterno*” in Italian (Egger, 2001b: 40) and “*äußere Mehrsprachigkeit*” in Standard German (Egger, 1994b: 115).

¹² Defined as “*plurilinguismo interno*” in Italian (Egger, 2001b: 40) and “*innere Mehrsprachigkeit*” in Standard German (Egger, 1994b: 115).

2.3.3. Ferguson’s rubrics applied to South Tyrol (Part I)

In the following subsections I am discussing six of Ferguson’s original nine rubrics: function or specialization for H and L (section 2.3.3.1), acquisition (section 2.3.3.2), standardization (section 2.3.3.3), literary heritage (section 2.3.3.4), stability (section 2.3.3.5), and prestige (section 2.3.3.6) – and I will show how they apply to the South Tyrolean case. In preparation for the discussion in *Chapter 5*, I shall introduce the term ‘*Umgangssprache*’ (section 2.3.3.1.1; see also Löffler, 2005) and expand on the rubric ‘acquisition’ in more detail by introducing some important concepts relevant for the reader’s understanding (section 2.3.3.2.1). Linguistic aspects, such as grammar, lexicon, and phonology, are discussed in more detail in *Chapter 3*.

2.3.3.1. Function or Specialization for H and L

As already mentioned above, a diglossic situation is characterized by the stable co-existence of two varieties (H and L respectively) serving different social functions, defined as functional specialization, and suggesting that the two linguistic varieties play *unequal roles* within a communication process. This complementarity of H and L is emphasized by Ferguson, who argued that “in one set of situations only H is appropriate and in another only L, with the two sets overlapping only very slightly” (1959: 328-329) and that “the social importance of using the right variety in the right situation can hardly be overestimated” (2007: 36). It is therefore not surprising that in psychological terms South Tyroleans are unable to use Standard German in intimate spaces – such as with parents, siblings, close friends, and people from the same town or community (Lanthaler, 2001). Lanthaler (2001) further argued that a speaker is not as free as s/he might believe in the selection of the register. Rather, this choice is dictated by powerful and specific constraints.

The functional specialization – which is “one of the most important features of diglossia” (Ferguson, 1996: 27) – rarely overlaps in South Tyrol. Even though Table 2.1 oversimplifies the complexity of multilingual interaction in South Tyrol and the actual reality might not be as straightforward as represented below, there are two reasons why such a model is useful in a number of ways. Firstly, it gives us an overview of what we know about the patterns of language use in the community and illustrates the choices a person *has* to make in selecting the right code. Secondly, it allows us to compare the different domains/situations with other speech communities.

Depending on the purpose and on the addressee, Standard German is usually used in the professional environment (for writing and reading purposes), and is the instrument of

authority. Nowadays, however, the South Tyrolean variety may also be used for writing purposes¹³ – mainly among the younger generation (text message). Fishman admits that the modern life of today untightens the strict compartmentalisation of the two varieties, especially because of the increase in social mobility and open networks (Romaine, 1989).

	Standard German (H)	South Tyrolean (L)
Family	-	+
Friendship	-	+
Religious service	+	-
Education (preschool, school, University)	+	-
Speech in parliament, political speech	+	-
Shops	-	+
Personal letter, SMS, E-Mail	+	+
Commercial letter, E-Mail	+	-
Conversation with family, friends, colleagues	-	+
News broadcast	+	-
Radio programmes	+	+
Television	+	-
Newspaper	+	-
Poetry, Literature	+	-
Folk literature	-	+

Table 2.1. Domains of language use in the Germanic-speaking community in South Tyrol. Adapted from Ferguson (2007: 35-36).

Standard German and South Tyrolean usually do not overlap, as shown in Table 2.1. However, in two categories they do: personal communication (personal letter, E-Mail, or text message) and listening to radio programmes (some local radio stations use both South Tyrolean and Standard German). Over the past few years, the South Tyrolean variety has spread over to domains which were once reserved for Standard German only, thus revealing that the distribution of domains, initially reserved for one variety only, can vary and shift: advertising, literature (see Oberhammer, 2007), television, radio, internet (E-Mail, Facebook, and Twitter) and mobile phones (texting) create new opportunities to use the South Tyrolean variety in written (informal) context (Egger, 2001b; Abel, 2007; Voltmer et al., 2007; Huber, 2013; Glaznieks & Stemle, 2014¹⁴). For instance, Huber (2013) analysed more than 1,700 text messages from 304 South Tyroleans, aged 10 to 70. She concluded that among the 10-29 year olds 90% of the SMS are written in the South Tyrolean variety, among the 30-39 year olds

¹³ It should be noted that the South Tyrolean variety is mainly spoken. Nonetheless, as I shall present and explain in section 2.3.3.3 and section 2.3.3.4, several books and dictionaries have been published about the different local varieties spoken in South Tyrol.

¹⁴ Currently, the European Academy of Bolzano (EURAC) is recording and documenting language use of South Tyroleans on Facebook.

there are still 73% who write in the South Tyrolean variety. People over 40 write more often in Standard German (60%) than in their local variety. This means that there is a higher acceptability especially among younger generations to use the L-code, originally reserved exclusively for speaking, in written communication. This phenomenon has also been observed in other diglossic situations, such as Switzerland (see Petkova, 2009). As opposed to the situation in the rest of Italy where Italian dialects (L) have been increasingly given way to Standard Italian (H), in South Tyrol the South Tyrolean variety is spreading upwards and invading some of the spaces traditionally reserved for Standard German.

2.3.3.1.1. ‘*Umgangssprache*’

Ferguson’s description of a diglossic situation tends to be very categorical, without noticing the range of variation often encountered in a speech community. The varieties spoken by South Tyroleans are not as rigid and as categorical as initially defined by Ferguson and Fishman, i.e., that it is either H or L. I shall expand on this a bit more.

First of all, it is worth noting that the term L variety should not be reduced to one variety only, but that there are different local L varieties (Egger, 2001a; Lanthaler, 2012b; Pallaver, 2015). Pronunciation, grammar, and vocabulary of these local L varieties have wide variation in South Tyrol, depending on whether one is in a rural or urban area, and depending on the speaker’s educational level, gender, age, occupation, socioeconomic class, and social network (Moser, 1982b; Daniel et al., 2001; Eichinger, 2001b; Lanthaler, 2001; Voltmer et al., 2007). Such a linguistic situation has been referred to as a *dialect continuum*, where the far ends of the continuum might well be mutually unintelligible¹⁵ (Wardhaugh, 2006). The adult speaker is able to move along a continuum where his/her own variety constitutes one extreme and Standard German the other, and where forms and functions vary depending on linguistic and sociolinguistic situations.

Secondly, between L and H there is a third level, the so-called *Umgangssprache* or everyday colloquial speech (Rowley, 2011), as shown in Figure 2.1. It is neither L nor H, but this colloquial variety has been developed under the influence of Standard German (for an example see section 3.1.4.1 in *Chapter 3*). It is often claimed that *Umgangssprache* is the variety spoken by South Tyrolean politicians, as they want to be understood within South Tyrol as well as in other German-speaking countries, such as Austria or Germany.

¹⁵ Ciccolone (2010b: 87) interviewed several local South Tyroleans who speak an L variety. One of his interviewee from Merano claimed that sometimes she did not understand her friend from the Pustertal/Val Pusteria, a valley in South Tyrol, and that certain unknown words had to be clarified.

In this dissertation, whenever using the term *Umgangssprache*, I am referring to a colloquial, but somewhat more formal, L variety as opposed to the everyday South Tyrolean speech (for a more detailed description regarding the term *Umgangssprache*, see Löffler, 2005).

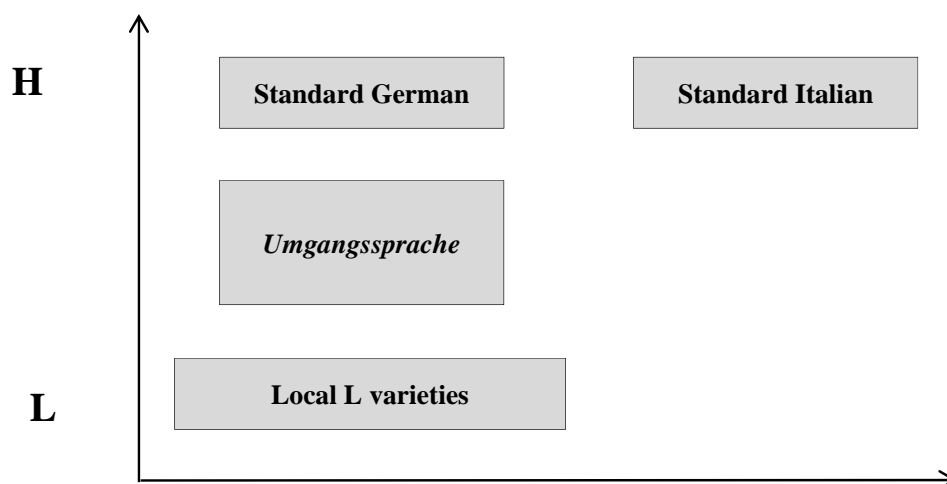


Figure 2.1. Linguistic repertoire of the Germanic-speaking community in South Tyrol.

Similarly, the development of such colloquial varieties can be observed in other countries too, such as in Germany (West, 2000), and the Arabic world (Rosenhouse & Goral, 2004). This highlights the fact that diglossia is less straightforward than initially described by Ferguson. In fact, at one point, Ferguson (1991) himself even emphasized that diglossia itself is not completely homogeneous, a point which has been argued by others as well (e.g., Platt, 1977; Rosenhouse & Goral, 2004).

Returning to the linguistic repertoire of a South Tyrolean speaker (Figure 2.1), previous research has suggested that South Tyroleans do not reach the far end of the H continuum (Standard German). Ciccolone (2010b), for example, argued that the Standard German spoken in South Tyrol can be inserted neither within the German nor the Austrian standard. Lanthaler (2001) claimed that it is very difficult to define the Standard German language spoken by South Tyroleans. On the lexical, morphological, and phonological level South Tyroleans' written and spoken Standard German is influenced by their native language as well as by Italian (see *Chapter 3*, section 3.1.4).

2.3.3.2. Acquisition

Language acquisition is another important feature of diglossia. While acquiring language, children are not taught in that language, rather “they extract the rules (and much of the lexicon) from the language around them” (Fromkin et al., 2011: 367). Thus, throughout this dissertation, the terms *acquire* and *acquisition* are used for a native language acquisition, since it happens mostly unconsciously and describe the informal and spontaneous development. On the other hand, I will use the term *learning* henceforth to refer to the process of conscious knowledge and formal study in which the learner is not yet fully familiar, as for instance in school (Krashen, 1981, 1982; Egger, 1994a: 183; Edmondson & House, 2000: 11; Nodari & De Rosa, 2003: 39; Baker, 2007). Due to the particular acquisitional process present in a diglossic situation I decided to make a clear distinction between *informal acquisition* and *formal learning*.

The extent to which infants in a multilingual setting hear code A (e.g., South Tyrolean), code B (e.g., Standard German) or code C (e.g., Italian) might differ noticeably across infants and across conditions. Most South Tyrolean infants hear code A almost every day and code B only from some people (e.g., teachers, tourists) and therefore in restricted conditions only. As a result of natural exposure, the South Tyrolean variety is acquired by children at home as their native language and is used throughout life. Parents use the South Tyrolean variety with their children and they speak it to one another. Hence, infants growing up in a family where only the South Tyrolean variety is spoken, will only hear Standard German and Italian in specific conditions and inconsistently. For instance, it is possible to watch Italian and German television programmes which means that children are confronted with both languages on an auditory basis, but are not necessarily addressed in these languages. At this early stage, children’s language knowledge can be defined as *passive bilingualism*, whereby the infant understands more than one language but only the South Tyrolean variety (L) is produced¹⁶. Both Standard German and Italian are then learned through formal education¹⁷, defined in the literature as *sequential learning/childhood bilingualism* (for a detailed definition see Hoffmann, 1991; Baker, 2006) or *early second language acquisition* (De Houwer, 2009: 4).

¹⁶ Based on observations made by myself in a German-speaking preschool in Lana in May 2013, children’s responses indicated that although they understood the story read to them in Standard German, they always answered in the South Tyrolean variety. This shows that preschool children are either not yet able to adapt the right language to the needs of the situation, or – more probably – their expressive language skills in Standard German are not yet developed enough.

¹⁷ In contrast to the Arabic world, where schooling is conducted orally in Spoken Arabic (L) and textbooks are given in Literary Arabic (H) (Khamis-Dakwar & Froud, 2007), in South Tyrolean schools speech and writing are provided in Standard German only.

According to Ferguson (2007: 38), the ‘method of acquisition’ is important as “the speaker is at home in L to a degree he almost never achieves in H.” Furthermore, whereas “the grammatical structure of L is learned without explicit discussion of grammatical concepts; the grammar of H is learned in terms of ‘rules’ and norms to be imitated” (Ferguson, 2007: 38). In other words, parents do not usually address their children in Standard German (H), which means that Standard German words are not learned naturally in everyday interactions as are words in the South Tyrolean variety. That this, however, is slightly more complex shall be presented in the subsection below (section 2.3.3.2.1). Since language acquisition is of particular importance for *Chapter 5*, I will briefly expand further by focusing on the linguistic behaviour of South Tyrolean parents and children.

2.3.3.2.1. Linguistic behaviour

In recent years, research on child-directed speech between standard languages and vernacular forms/dialects/non-standard varieties has been explored more in details (e.g., De Houwer, 2003; Lenz, 2003; Foulkes et al., 2005; Smith et al., 2007; Van De Mieroop et al., 2016). In Flanders, for instance, a recent study showed that parents alternate between Standard Dutch and Colloquial Belgian Dutch when communicating with their children (Van De Mieroop et al., 2016). In an online study conducted in Austria using internet-based surveys and asking participants to self-report on their language use patterns, Ender and Kaiser (2009) reported that 45% of the Austrian participants use/would use *Umgangssprache* with their children and 49% the local dialect. Although the authors do not go into too much detail, this shows how both forms, namely *Umgangssprache* and the dialect, are nowadays present within families in the Bavarian-speaking part of Austria. As argued by De Houwer (2003) and Van De Mieroop et al. (2016), this special linguistic behaviour between parents and infants/children changes as soon as the child grows older, and parents gradually use more local/vernacular utterances. De Houwer (2003), for instance, demonstrated that parents indeed adjust their speech when addressing their children by showing that the maternal speech differed in how she addressed the 7-year old child (more local utterances) and how she addressed the 4-year old child (less local utterances). As a possible explanation for this linguistic behaviour it has been claimed that varying between the standard and vernacular forms within the family context is another way of familiarizing the child with the social and sociolinguistic values of the two varieties in different situations as well as providing a more comprehensive knowledge of the speech community (Kerswill & Williams, 2000; Smith et al., 2007; Van De Mieroop et al., 2016).

These studies show that it is not unusual that parents use fewer dialect features with their young children than with other adults.

Although the L variety is assumed to mark informality and intimacy, this switching behaviour also occurs within the intimate context of many families in South Tyrol. Parents (often unconsciously) change or adapt their local South Tyrolean variety when addressing their young (or youngest) child, in other words they use fewer local South Tyrolean features. This linguistic behaviour observable in South Tyrol can be surprising if we consider that the local South Tyrolean variety is commonly perceived as a highly prestigious form (see section 2.3.3.6). Nonetheless, based on the results found in other countries where an H and L variety is present (e.g., Austria: Ender & Kaiser, 2009; Flanders: Van De Mierop et al., 2016), it does not seem surprising anymore that South Tyrolean parents use a language with their child that diverges from the normal variety spoken by adults, in the sense that it combines both Standard German and the South Tyrolean variety (Saxalber-Tetter, 1982; Egger, 1994a). Mainly mothers¹⁸ occasionally use a few Standard German lexical items when interacting with their very small children, which decrease as the child ages. In order to describe this behaviour, Egger (1994a: 93) used the well-known term *Kinderorientiertes Sprechen*, known in English as *child oriented talk* or *child directed speech*. ‘Child oriented talk’ or ‘child directed speech’ is characterized by having specific linguistic features and simple structures, such as shorter utterances, more repetitions, more questions, simplified syntax and lexicon, exaggerated intonation (higher pitch), slow speaking rate, new information is emphasised, and restricted range of conversational topics (Grimm, 1982: 536; Cameron-Faulkner et al., 2003; Foulkes et al., 2005; Rowe, 2008).

Due to the fact that the parent-child interaction is quite complex, some South Tyrolean studies shall briefly be presented below, but further studies in South Tyrolean families are necessary in order to complete the rather opaque picture of parental linguistic behaviour. As we have seen so far, parents use both the South Tyrolean variety as well as some Standard German lexical items. At this point, however, it should be remarked that South Tyrolean parents do not constantly talk in *Umgangssprache* to their children, but they rather use only specific or single terms. Nonetheless, as far as I am aware of, no previous study has shown whether the usage of single words or phrases in *Umgangssprache* may help South Tyrolean children in their process of understanding and learning Standard German. That this *way of*

¹⁸ That especially women switch to the usage of the H form when interacting with their children has been found in other studies too, such as Lenz (2003). She found that mothers use Standard German more often and more consistently when talking to their children, instead of *Plattdeutsch*.

speaking, consequently, is adapted by the young child when playing with toys, dolls, or with other children seems reasonable. As presented below, the two example sentences demonstrate that these children develop language awareness from early childhood. Example 1 and 2 report the speech of Matthias (age 2;6) while he is playing with animals. The underlined expressions are pronounced in Standard German (such as ‘*aussteigen*’ or ‘*Kuh*’), and the words in bold are *Umgangssprache* (such as ‘*musch*’ or ‘*håbm*’) (extracted from Egger, 1994a: 94-95).

(1) **Griß** *Gott*, ‘s *Gott*! *Do* *kimmp die* *Ziege*. *Aussteigen!*
 Greetings! Here comes the-FEM goat-FEM. Step off!
 “Greetings (*Griß Gott*: German greeting expression)! The goat is coming. Step off!”

Musch *inner!* ***Musch*** *inner zi* *die* *Kuh*.
 You have inside! You have inside to the-FEM cow-FEM
 “Come inside! You have to come inside where the cow is.”

(2) *Do* *do* ***håbm*** *se* *a* *gute* *Milch* *gebracht*.
 Here here have they a-FEM good-FEM milk-FEM brought
 “Here, they have brought good milk.”

After a few weeks in preschool the same child, Matthias, uses several expressions in Standard German, such as ‘*komm*’ (‘come’), ‘*Ruh*’ (‘silence’), ‘*Ball*’ (‘ball’), and ‘*Apfel*’ (‘apple’), instead of the South Tyrolean words (Egger: 1994a: 96-97). For longer expressions, it is interesting to note that he mixes the articulations of both codes, which means that one part is expressed with the Standard German articulation (underlined part) and the other in the South Tyrolean variety, as for instance: ‘*oargfalln*’ (‘tumble down somewhere’), ‘*amal*’ (‘once’), and ‘*a Ruh*’ (‘do not bother me’) (Egger, 1994a: 96-97).

Research on simultaneous acquisition of two or more languages from birth has shown that children are able to distinguish the languages both structurally and functionally from an early age (see Meisel, 2001, 2004). In fact, bilingual language research has demonstrated that 2-year old children are already able to differentiate their two languages on a pragmatic and morpho-syntactical level, and consequently, they are able to use the appropriate language with different interlocutors (e.g., Ronjat, 1913, Köppe & Meisel, 1995; Genesee et al., 1996; Nicoladis & Genesee, 1996; see review in Nicoladis & Genesee, 1997; Meisel, 2001). Youssef (1991b) claimed that the extent to which a child differentiates between English-

lexicon based Trinidadian Creole and Standard English depended on the degree as well as on the context of exposure. In selecting the form to use, the child was sensitive principally to the addressee (Trinidadian Creole and Standard English), but also to the setting (school vs. home), and the emotional tone (Youssef, 1991a, 1991b).

Based on the two examples presented above (1 and 2) and based on several more (see Egger, 1994a: 93-94), Egger (1994a) argued that preschool children are already aware not only of the existence of two spoken German vernaculars in the target area, but also that the H and L varieties are used for specific situations or purposes. Since children hear a combination of Standard German and South Tyrolean varieties from early on, they not only mix them (as shown in the examples above) but occasionally they express themselves in German (Egger, 1994b: 195). For instance, in his role-playing game Matthias uses the *Umgangssprache* when his figure is talking to a person who is a ‘stranger’, thus a person who does not belong to his family. This shows that children have already had contact with Standard German before visiting preschool and they are aware of the different linguistic usage of H and L (Egger, 1994a). Because of this contrast between school language and language used elsewhere (home, public areas, shops), the child must learn which form is appropriate in which situation (Clark, 2009). Similar findings have also been found in Switzerland, where Neugebauer (2004) observed that some young children possessed a high degree of awareness and flexibility related to language usage of Standard German and *Schwyzertütsch*. She concluded that the consequent practice/application of Standard German used by educators supported the children’s existing language awareness and the practice received further strengthens this knowledge (see also Häcki Buhofer & Burger, 1998; Landert, 2007).

2.3.3.3. Standardization

The H variety is standardized, which means “there is an established norm for pronunciation, grammar, and vocabulary which allows variation only within certain limits” (Ferguson, 1959: 332). Thus, there is a strong tradition of linguistic study, such as grammar itself, dictionaries, treatises on pronunciation, vocabularies, and style (Ferguson, 2007). For L, in contrast, descriptive and normative studies do not exist or are relatively recent: L is often not codified meaning that there is no settled orthography, as well as a lack of morphological and lexical standards.

In South Tyrol, several years ago two dictionaries – the *Variantenwörterbuch* (Ammon et al., 2004) and the *Österreichisches Wörterbuch* (2006) – have entered many South Tyrolean lemmas. For the first time, South Tyrolean German has been codified to a certain

extent (Lanthaler, 2012d). Nevertheless, South Tyrol does not have its own reference book for ‘correct’ South Tyrolean German (Ammon, 2001). As there is still no *Sprachkodex* (linguistic codex), the variety is still primarily codified abroad, such as in Germany and Austria (Alcock, 2000; Ammon, 2001).

2.3.3.4. Literary heritage

The lack of a norm is typical in diglossic situations. The body of literature (books, newspapers) in Italian is produced in the rest of Italy (outside South Tyrol), and German literature is produced mainly in Austria and Germany. Interestingly, for a long time the South Tyrolean Germanic-minority group was oriented linguistically towards the standard of Germany, being perceived as a more prestigious variety, instead of the Austrian language tradition which is geographically closer. For example, the Standard German word ‘*Sahne*’ (‘cream’) is used instead of the Austrian word ‘*Schlagobers*’. School books were taken over from Germany¹⁹, television and radio announcers were trained in Germany (Kramer, 1981; Riehl, 1994; Lanthaler & Saxalber, 1995; Meraner, 2013). According to Eichinger (2001a: 132), this trend represented the search for a “norm and equal value in the whole German language area.”

Ferguson argued that “there is in no case a generally accepted orthography for L” (2007: 35), whereas H has a rich written literary tradition. This is only partially appropriate for the South Tyrolean situation (as seen in section 2.3.3.3). The technical developments (e.g., internet) of the past two decades have changed the use of the South Tyrolean variety, taking it from an almost exclusively spoken variety, to one which is nowadays also used in written form (see Table 2.1 in section 2.3.3.1). Recently, the desire to produce distinct literature has increased. Several South Tyrolean books have been published over the past years, which describe linguistic concepts, along with the grammar and vocabulary of the regional variety. These books and dictionaries offer the opportunity for a non-South Tyrolean to learn the variety and to provide the inhabitants of the given area with somewhat standardized form or a written form. Here is a sample of some of the regional varieties described in such texts:

- the variety spoken in *Val Passiria/Passeiertal* (Haller & Lanthaler, 2004; Lanthaler, 1974, 2012a),
- the variety spoken in *Val Sarentino/Sarntal* (Kühebacher, 1977, Gruber, 2005),

¹⁹ Nowadays, many school books are produced in South Tyrol itself.

- the variety spoken in *Val d’Ultimo/Ultental* (Schwienbacher, 1997),
- the variety spoken by people over the age of 60 in *Valle Aurina/Ahrntal* (Kühebacher, 1978, Duregger et al., 2009),
- the variety spoken in *Val di Vizze/Pfitscher Tal* (Christensen, 2014),
- the variety spoken in *Val d’Ega/Eggental* and *Regglberg* (Kühebacher, 1975),
- the variety spoken in *Valle Isarco/Eisacktal* (Kühebacher, 1972),
- a dictionary about the variety spoken in *Lazfons/Latzfons*, a small fraction in *Valle Isarco/Eisacktal* (Demetz, 2004),
- a collection of common words used in *Lana* (Sagmeister, 2009),
- a dictionary about the fraction *Ridanna/Ridnaun* (Wild, 2005),
- a collection of old vernacular words and expressions of the village *Martell* in *Val Venosta/Vinschgau* (Pfitscher et al., 2001),
- a dictionary about South Tyrolean varieties (Moser, 2015),
- a small dictionary entitled *Sprechen Sie Südtirolerisch?* (‘Do you speak South Tyrolean?’), Larch & Unterholzner, 2004), and
- a general dictionary for foreigners and tourists about the South Tyrolean variety itself, *Südtirolerisch–Deutsch* (‘South Tyrolean–German’), which has recently reached its third edition (Demetz, 2008).

Comic books have been translated from other languages into the South Tyrolean variety, such as four *Asterix* volumes (see Heidegger 2002, 2003, 2006, 2014), which open new opportunities to read in the local South Tyrolean variety, especially for children. All these publications have been positively received by the population and have a twofold aim: 1) creating a new feeling of appreciation for the regional variety (L), and 2) developing language consciousness and awareness (Lanthaler, 2006, 2012h).

A further interesting development of the last few years has been the increased use of the South Tyrolean variety on the internet, through blogs about South Tyrol and its inhabitants in which both Standard German and the local variety are the main tools of communication:

- “*Barfuss*”, www.barfuss.it (accessed 8 November 2013), and
- “*Das Südtiroler Dialekt Wörterbuch. Jetzt lerne ich südtirolerisch!*” (‘The South Tyrolean dialect vocabulary. I’m learning South Tyrolean!’) is an online dictionary, www.oschpele.ritten.org (accessed 26 October 2012).

In addition to the several supra-regional newspapers from other German-speaking countries (e.g., Austria and Germany), nowadays several daily and weekly newspapers and magazines are produced in Standard German in South Tyrol.

Another area where the South Tyrolean variety seems to be gradually replacing Standard German is music. There are several recordings available where the language of lyrics is the local variety.

Through these examples it is obvious that several domains, which had previously been the exclusive preserve of Standard German, now include the use of the South Tyrolean variety as well.

After having discussed contextual and social aspects of diglossia in South Tyrol, linguistic aspects of the South Tyrolean variety, such as lexicon, grammar and phonology, will be presented in *Chapter 3* (see sections 3.1.4.1-3.1.4.3).

2.3.3.5. Stability

Ferguson (1959: 325) described very clearly the particular socio-linguistic situation or relationship in which “two or more varieties of the same language are used by some speakers under different conditions.” Due to this clear cut-off there is usually no contest between both H and L. Related varieties, or in-diglossia, have proven to be a reason for relative stability of the two varieties. As claimed by Egger (1977) and more recently by Lanthaler (2012d), the in-diglossia present in South Tyrol is such a case of relative stability.

This means that the speaker of the diglossic community has a clear notion of which variety is socially appropriate: L is the variety of casual and informal discourse while H is the variety of formal interaction. This strict norm orientation is required not only within the school system, but also by society (Riehl, 1994). Further, nobody in the diglossic community regularly uses Standard German as the normal medium of everyday conversation (Ferguson, 1959), and a member of the community would never be as comfortable in Standard German (H) as s/he is in the local variety (L) (see Hudson, 2002), partly due to the acquisitional differences mentioned earlier. For these reasons, in a situation where L is required and the speaker uses H (or vice versa), this mistake would be seen as an object of ridicule (see Ferguson, 1959; Hoffmann, 1991). The fact that no one uses Standard German for ordinary conversation is “the most important factor in a diglossic situation and one that makes for relative stability” (Keller, 1982: 90), which has recently also been underscored by Tamburelli (2012).

2.3.3.6. *Prestige*

Ferguson (1959: 330) argued in his original definition of diglossia that the speakers of a diglossic community “regard H as superior to L in a number of respects.” For example, speakers may regard H as being “more beautiful, more logical, better able to express important thoughts” than the L variety. Furthermore, he claimed that some speakers might even deny their knowledge of L. As in the case of educated Arabs, for example, Ferguson (1959) claimed that although adult Arabs argued that they never use L, observations showed that they spoke it regularly in ordinary conversation.

Ferguson’s observation, however, is only partially accurate for South Tyrol. Firstly, the idea that diglossic speakers consider H to be superior to L, is hardly true in South Tyrol (or in Switzerland, see for example Häcki Buhofer & Burger, 1998). Secondly, attitudes towards the two varieties seem to be much more complicated in South Tyrol than Ferguson’s explanation would suggest. As argued by Trudgill (2003: 73), “the attitudes which people have towards different languages, dialects, accents and their speakers [...] may range from very favourable to very unfavourable [...]. Sociolinguistics notes that such attitudes are social in origin, but that they may have important effects on language behaviour, being involved in acts of identity, and on linguistic change [...]” The question of prestige of Standard German and the South Tyrolean variety constitutes an essential topic in the South Tyrolean literature and reveals controversial responses. Therefore, the rubric of ‘prestige’ will be discussed in more detail.

On the one hand, there still remains a feeling of inferiority and of insecurity in language use, in comparison to its neighbouring states, mainly Germany and partly Austria too²⁰. The population in South Tyrol has developed a considerably weaker *gehobene umgangssprachliche Register* (an ‘enhanced colloquial register’, my translation) (Moser, 1982b: 87) compared to North Tyrol (in Austria). For a long time, there was (and to some extent still is today) a widespread opinion that South Tyroleans spoke (and speak) *bad* or *inadequate* Standard German (Lanthaler & Saxalber, 1995; Lanthaler, 2007; Ciccolone, 2010b), and that they will never be fully competent speakers of a *pure German* because of the existence and use of the South Tyrolean variety (Ciccolone, 2010a: 165). This opinion had led to a sense of inferiority within the larger Germanic-speaking community (Abel, 2007). For

²⁰ According to the literature, there is a historical reason for this inferiority. After the fascism regime and the so-called *Option* (in 1939 Germanic-speaking South Tyroleans had to choose whether they wanted to immigrate to Germany which meant leaving behind their homeland, or whether they wanted to stay under the Italian fascism regime in South Tyrol and therefore giving up their German identity, see Lantschner, 2008), Germanic-speaking South Tyroleans valued Standard German as something high and as their only connection to other German-speaking countries.

instance, Lanthaler (2006; 2012c) noted that the announcements in regional trains are spoken with a northern Standard German accent, which means that some place names are even pronounced incorrectly. According to him, this shows that South Tyroleans still do not accept the way they speak Standard German, i.e. it is not ‘good enough’ to be used in more official contexts. This insecurity of South Tyrolean speakers has often been emphasized in the literature (e.g., Riehl, 1998; Ciccolone 2010b). Ciccolone (2010b: 125) claimed that Standard German spoken in Germany is often considered by South Tyroleans as better, in the sense that it is correct, elegant, and global. At the same time, however, several standard terms are perceived as foreign and are not valid within the South Tyrolean context, such as ‘*Abendbrot*’ (‘supper’) or ‘*Brotzeit*’ (‘light meal’). Daniel et al. (2001), for instance, illustrated in their article the insecurity/worries suffered by South Tyrolean parents about the transmission of adequate Standard German in South Tyrolean schools. Therefore, the topic of Standard German has become widely discussed within South Tyrolean politics, in the media, and in everyday life (Moser, 1982a; Ammon, 2001; Daniel et al., 2001). It is not surprising, that the usage of Standard German makes South Tyroleans feel awkward, since many adults have little practice in actively using Standard German, at least on the productive level (see also Sieber & Sitta, 1986). Standard German is often perceived as ‘school language’ or as a *Distanzsprache*, similar to the second language Italian (see Riehl, 1997: 306; Riehl, 2001). Recently, Abel (2007: 11) noted that for some South Tyrolean pupils and students, Standard German is perceived almost as a ‘foreign language’. All these reasons mentioned above (e.g., insecurity of speaking the language, the feeling of inferiority towards speakers from Germany), indicate that Standard German is not spoken with the effortlessness of a first language. These observations, however, are less surprising if we consider the domains in which Standard German is usually used, due to functional separation (section 2.3.3.1), and language acquisition process (section 2.3.3.2). There is a discrepancy between speaking (production) and reading (comprehension) in Standard German: the local varieties are allocated to the speech domain and Standard German to the writing domain. As a written form, Standard German is unquestionably and unproblematically accepted. People are used to reading in Standard German (books and newspapers), and they are used to hearing Standard German on TV and on the radio. Speaking Standard German, on the other hand, is often associated with formality, intellectuality, or even arrogance (Sieber & Sitta, 1986). The restricted usage of Standard German does not really allow the development of an unforced, multifunctional, and expandable attitude towards the language. Standard German is usually allocated to very formal situations, such as writing and testing, and it is rarely linked with

more informal situations, such as joking around. In other words, South Tyroleans do not have negative attitudes towards Standard German in the realm of comprehension, but become uncomfortable when they speak it, as for example pronunciation and intonation differ from monolingual German speakers from Germany (Sitta, 1994). In line with previous studies, this feeling of not properly being able to speak the standard language is not uncommon and is observable in other diglossic countries too, such as in Switzerland for instance (Sieber & Sitta, 1986; Hägi & Scharloth, 2005; Scharloth, 2006; Ender & Kaiser, 2009: 281).

The criticism and reputation of being a *bad German speaker* held by South Tyroleans, on the other hand, has changed over the past 25 years as the role of the South Tyrolean variety increased in the society. As claimed by Lanthaler (2001), the attitudinal as well as the linguistic approach (e.g., insecurity in language use) of the South Tyrolean speech community towards the local South Tyrolean varieties has changed in the meantime. Similarly, people in Switzerland also attribute high prestige to their variety (e.g., Sieber & Sitta, 1986; Scharloth, 2006), as do people in northern Bavaria, Germany (Rowley, 2000). Even though the complaints about lack of proficiency in Standard German have not stopped, it is only recently that the South Tyrolean variety is used with more self-awareness and is highly valued as a marker of membership in a group. A very recent study conducted with the Germanic-speaking language group in South Tyrol examined their territorial, ethnical, and national identity (ASTAT, 2015). The answers revealed that most Germanic-speaking respondents defined themselves as *Südtiroler/in* (South Tyrolean) (80.7%), and far less as Italian (9.3%), German (4%), or Austrian (2.2%) (more than one answer was possible). These results are congruent with those of other studies, such as Riehl (2001, 2007), and Ciccolone (2010b). Through these studies we see that people in South Tyrol construct their own identity as *Südtiroler* (see also Riehl, 2007). More precisely, people who speak the South Tyrolean variety belong to a group who speak their own variety of German (Riehl: 2007: 111; see also Eichinger, 2002; Abel, 2007), and construct their own identity by defining their language as a prestigious variety (Riehl, 2001; Abel, 2007; Voltmer et al., 2007). This means that the South Tyrolean variety has the function of an ‘in-group’ language, while speakers of Standard German are perceived as an external group. This is confirmed by a study conducted with high school students in South Tyrol which revealed that the South Tyrolean variety is perceived as ‘more emotional’ and ‘more fluent’, while Standard German is ‘more rigid’ and ‘choppy’ (Abel, 2007: 10). Similar results have also been found in Switzerland, where pupils define *Schwyzertütsch* as ‘personal’, ‘simple’, ‘familiar’ and Standard German as ‘impersonal’, ‘complicated’, and ‘rigid’ (Sieber & Sitta, 1986: 69).

This shows that ‘prestige’ is not necessarily always equated with the standard language and that any variety can be prestigious among its speakers. As claimed by Shin (2013: 69), “linguistic prestige is not an indication of intrinsic beauty in languages but rather of the perceived status of those who speak them.” In sociolinguistics, the terms *overt prestige* and *covert prestige* have been introduced in order to indicate the degree as well as the type of prestige (as ‘prestige’ is too broad as a concept), of social approval of a speech variety. As stated by Wolfram (2004: 71), “in the case of overt prestige, the social valuation lies in a unified, widely accepted set of social norms, whereas with covert prestige the positive social significance lies in the local culture of social relations. It is therefore possible for a socially stigmatized variant in one setting to have covert prestige in another” (see also Trudgill, 1972). Both, covert prestige and overt prestige are reflected within the South Tyrolean society. The standard language, in this case Standard German, has overt prestige as it is socially acknowledged as ‘correct’. Nonetheless, for South Tyroleans their local variety is highly valued, it is connected to their own personality and ethnic identity, and it transmits a sense of security and signifies of belonging to a certain group (Egger, 1982a; Riehl, 2001; Abel, 2007), therefore it can be said to have covert prestige. Lanthaler claimed that a reason for this “renaissance” (2007: 230) of the South Tyrolean variety could be the fear of losing one’s traditions and roots, since external contacts, media exposure, and mobility have changed the original valley varieties over the past 55 years (see also Lanthaler, 2012b). Hence, Lanthaler (2007: 230) stated that “the language of the small group is perceived as a safe haven in the globalisation context.” Nevertheless, one should not forget the observed shift in the linguistic behaviour of South Tyrolean parents when talking to their young children (as mentioned in section 2.3.3.2.1). Their linguistic behaviour, however, does not appear contradictory anymore once we split the concept of prestige into overt and covert. On the one hand, there are signs that the South Tyrolean variety (L) is gaining prestige in some domains, while on the other hand lexical items of Standard German (H) are often perceived as more appropriate when speaking to their very small children (though this tendency decreases as the child ages).

2.4. INTERIM SUMMARY

In this chapter I have presented some of the key concepts which are important when dealing with South Tyrol and its speakers. I have shown that South Tyrol represents a classic diglossic situation, as defined by Ferguson (1959) and more recently by Hudson (2002), which includes the following linguistic and social features.

First of all, as described in Ferguson's (1959) original definition, the two Germanic varieties – Standard German (H) and the South Tyrolean variety (L) – co-exist within the same community. Secondly, Standard German and the South Tyrolean variety are genetically related to each other. Thirdly, there is a rigid socio-functional complementary distribution: the two varieties are used in different domains (stable societies), which are known to the members of the speech community through (early) linguistic experience. Fourthly, the South Tyrolean variety is the result of spontaneous acquisition only and therefore the native language of its speakers. Standard German, on the other hand, is never (or almost never) used in informal or everyday conversation. Finally, although being related, there is a differentiation between the written and oral modes (e.g., lexicon, grammar, phonology) which will be discussed in more detail in *Chapter 3*. Diverging from Ferguson's original definition, nowadays the South Tyrolean variety can also be found in domains which were initially reserved for Standard German only. As presented in section 2.3.3.1, the South Tyrolean variety may also be used for writing purposes – mainly among the younger generation (text messages) (e.g., Huber, 2013; Glaznieks & Stemle, 2014). Moreover, numerous books and dictionaries about various local South Tyrolean varieties were published in the past, thus providing interested people with a selection of written literature about South Tyrol and its spoken varieties (e.g., Larch & Unterholzner, 2004; Gruber, 2005; Demetz, 2008; Sagmeister, 2009; Christensen, 2014; Moser, 2015; see also section 2.3.3.4).

As pointed out earlier in this chapter, both the term and the phenomenon diglossia do not completely provide a satisfying explanation on how to describe the speech community in South Tyrol. Up until now, I have been simplifying the current linguistic reality present in the target area. I have introduced South Tyrol as an official German–Italian bilingual province (section 2.1) by citing one of the most important articles of the *Gruber-Degasperi-Agreement* (Article 1). I have then gone on to show that the reality is a bit more complex, as the Germanic-speaking community is diglossic, with Standard German and the local South Tyrolean variety in a socio-functional complementary distribution (section 2.3, see also Lanthaler, 1990; Baur, 2000).

In the next chapter I shall argue that the commonly known and accepted definitions of 'bilingualism' and 'diglossia' raise issues and create further difficulties when defining the linguistic situation present in South Tyrol, especially from an acquisitional point of view (section 3.1). Sections 3.1.4.1-3.1.4.3 will discuss Ferguson's remaining three rubrics (grammar, lexicon, and phonology). By addressing linguistic aspects of Standard German and

the South Tyrolean variety, I will show the major linguistic features that set South Tyrolean apart from Standard German.

At the end of *Chapter 3* (section 3.3), I will discuss the structure of this dissertation as well as presenting the research questions discussed in this dissertation (section 3.3.3).

CHAPTER THREE

Bilingualism with Diglossia

In the previous chapter I introduced South Tyrol's historical and educational context. Moreover, I have shown how six (function for H and L, acquisition, standardization, literary heritage, stability, and prestige) of Ferguson's nine rubrics apply to the South Tyrolean diglossic context. The overall focus of this chapter is to question the social construct of how the terms 'diglossia' and 'bilingualism' are defined, by also taking into account the linguistic reality. On the one hand, the two terms are hardly definable themselves and it is sometimes difficult to differentiate between a diglossic and a bilingual speech community (Hudson, 2002). On the other hand, there are some conceptual issues that need to be addressed, as it is not clear whether a diglossic community is to be considered monolingual or bilingual. This latter point, however, plays a key role within the educational context as well as within the speakers' linguistic and developmental process, which shall be discussed in more detail in *Chapter 5*.

In this chapter I begin by presenting some definitions given in the literature, and by presenting the terms *Abstand-* and *Ausbausprachen* (Kloss, 1967) in more detail. I demonstrate that linguistic criteria (*Abstand* criteria) should not be overlooked when talking about linguistically related varieties. Although often underestimated and difficult to measure, linguistic properties of related varieties are of great importance especially from an acquisitional point of view, as shall be discussed below. Hence, section 3.1.4 goes on to describe Ferguson's three remaining rubrics (grammar, lexicon, and phonology). By addressing linguistic aspects of Standard German and the South Tyrolean variety, I will show the major linguistic features that set South Tyrolean apart from Standard German.

In the final section (section 3.3), I provide an overview of this dissertation and present the research questions that arise from the discussion developed so far.

3.1. SOCIAL VERSUS LINGUISTIC VIEWS

While the term *monolingual* is defined as a person who knows or speaks only one language, the term *bilingualism* is more difficult to define, as the term itself, along with the related terms *bilingual individual* and *bilingual population*, is heterogeneous. As bilingualism is a multi-faced phenomenon, researchers still have to agree upon a satisfying and acceptable definition. In the following I give a selective overview of how the term has been defined in the past – going beyond issues of proficiency, functional capability, intelligence, personality or age of acquisition (for an overview, see Baetens Beardsmore, 1982; August & Hakuta, 1997). In addition, I shall show how the terms will be used for the purpose of this dissertation.

Definitions range from describing a *bilingual person* as someone who has “native-like control of two languages” (Bloomfield, 1933: 56), to a less restricted definition where someone is fluent in at least one language but has different degrees of proficiency in another language (even to a minimal degree) – according to the given needs (Macnamara, 1967; Haugen, 1972; Hakuta, 1986; Grosjean, 1989).

The concept of *bilingualism* has been described as “the practice of alternately using two languages” (Weinreich, 1953: 1), or simply a situation which emerges “as a result of contact” (Hoffmann, 1991). In addition to proficiency, Weinreich (2011: 11) further argued that in characterizing the term bilingualism, it is crucial “to refer to the amount of difference between the two languages involved.”

If we define *bilingualism* as speaking or using two languages or dialects, it raises the following questions: What is a language and, what is a dialect? How do we define a language on its own and how do we define a dialect? By means of what criteria do we decide whether a variety is considered a language rather than a dialect? Do we distinguish two languages on the basis of structural (linguistic) criteria or according to socio-political criteria (e.g., history, national borders, cultural similarities or differences)? Scholars show different points of view, with some considering for instance Ladin, Piedmontese, or *Plattdeutsch* as ‘dialects’ whereas others consider them to be languages (for further information, see Price, 2000), demonstrating that these questions are “unanswerable in the sense that there are no universally applicable criteria that will enable us to decide objectively in every doubtful case” (Price, 2000: xii). I return to this topic later.

Others have argued that the notion of bilingualism “becomes debatable when there is knowledge of two linguistic systems, one of which is considered (by extra-linguistic criteria) to be a dialect, the other its corresponding standard language” (Weinreich, 2011: xxxi). Very often a bilingual or bidialectal distinction depends on social, cultural, political and/or

ideological reasons or processes rather than on the linguistic properties of the codes at issue (Berthele, 2004; Wardhaugh, 2006; Crystal, 2010; Tamburelli, 2014). This selection process, whereby one variety has been favoured over another is “never neutral in that any form could qualify to become a standard feature” (Langer & Davies, 2005: 8). This was the case for several varieties which are nowadays regarded as *Ausbausprachen* (*languages by development*) and *Abstandsprachen* (*languages by distance*) – as defined by Kloss (1967: 29). Examples for *Ausbausprachen* are Slovak in relation to Czech, Catalan in relation to Occitan, and Macedonian in relation to Bulgarian. Examples for *Abstandsprachen* are Occitan and Sardinian (Romance languages), as well as Kashubian and Sorbian (Slavic languages) (Kloss, 1978). Kloss (1978: 25) further stated that the majority of today’s “*Einzel-sprachen*” are both *Abstand-* and *Ausbausprachen*.

An *Ausbau* language is seen as a separate language for various political, historical, cultural, and/or linguistic reasons, but it is primarily a social construct (see Kloss, 1967; Hinderling, 1984; Trudgill, 1992, 2002; Riehl, 1994). Consequently, by being standard languages, they are codified (development of standardized grammar and official dictionaries), and recognised as prestigious varieties (Holmes, 2008; see also Ammon, 1986). Having undergone this process of *Ausbau-isation* (Fishman, 2008), they are socially regarded as ‘languages’. However, in Kloss’ words (1967: 29-30), these languages have “been molded or remolded” and “have deliberately been reshaped”, which consequently emphasises that they are social constructs.

Most minority varieties, therefore, reveal very low levels of *Ausbau* simply because in the past “they have been socially subordinate to some other heavily *Ausbau*-ised variety” (Tamburelli, 2014: 252). In his recent article, Tamburelli (2014) questions Berruto’s claim, namely that “the key criterion to establish whether we have community bilingualism or not” (Berruto, 1989: 557) is the occurrence of two (or more) linguistic systems which are both *Ausbausprachen* and *Abstandsprachen* in the Kloss’ sense (1967, 1987). In other words, separate languages differ only if they have both dissimilarity (*Abstandsprachen*) and elaboration/cultivation (*Ausbausprachen*). Tamburelli (2014: 254), however, argued that the *Ausbau* criterion is not “the only viable criterion for deciding what counts as ‘speaking the same language’.” He further goes on to say that even nowadays the literature distinguishes between “the terms ‘language’ and ‘dialect’ almost exclusively in the *Ausbau* sense” (Tamburelli, 2014: 254). Nonetheless, the *Abstand* criterion (i.e., structural-linguistic criteria), following Kloss’ work, should not be overlooked. Especially from an acquisitional point of view, the above mentioned entirely socio-linguistically driven decision about whether a

speaker's variety has become a 'language' or a 'minority language/variety', then, can have momentous consequences for the speaker's linguistic behaviour, i.e. whether a variety is transmitted to the next generation or not. As claimed by Fishman (1967: 36), "without separate though complementary norms and values to establish and maintain functional separation of the speech varieties, that language or variety which is fortunate enough to be associated with the predominant drift of social forces tends to displace the other(s)." For instance, the H (high) variety, or standard language, may invade private spheres (e.g., family), which were very recently still reserved exclusively for the L (low) variety, or minority language. Once the H variety replaces the L variety, and once the H variety becomes the native language of the population, one can observe the linguistic and cultural loss of the minority language among younger generations (e.g., Lombard in Italy, Tamburelli, 2012).

In the case of South Tyrol we are faced with the highly disputed issue of evaluating the degree of intelligibility between linguistic systems and between varieties of the same linguistic system. From a linguistic perspective the transition from 'two languages that are closely related' to 'two dialects of the same language' is gradual rather than discrete. As stated by De Houwer (2010: 269), "depending on the extent of the structural differences between the two varieties in question, such situations might well be termed bilingual or diglossic." In the same way, it was argued by Ferguson that "simply based on the affinity or non-affinity of the linguistic variants involved" one can distinguish between bilingualism and diglossia (Francescato, 1986: 397). This is one of the reasons why the acquisition of Standard German in Germanic-speaking Switzerland is sometimes described as first language acquisition (e.g., Häcki Buhofer & Burger, 1998). This is purely due to the fact that the two forms – Standard German and Swiss German – are structurally and linguistically similar. Nonetheless, no one would claim that a Standard German speaker learning Dutch or an L1 Italian speaker learning Spanish is acquiring a further L1, even though the other language – Dutch and Spanish respectively – is structurally and linguistically similar to the speaker's first language. This, again, shows how the distinction between languages and varieties is more a socio-political and a historical one, rather than one based on (solely) linguistic properties.

Having introduced the terms *Abstand-* and *Ausbausprachen*, we are now better equipped to address the issue of defining bilingual and diglossic communities. Specifically, I will address how the decision to term a situation as bilingual or diglossic changes the way the language or variety in question is taught in school and how it is perceived by its speakers as well as by other people who do not speak the language or variety in question. Even more importantly, therefore, it seems to underline that there is sometimes a very thin line between

what is characterized as a diglossic or a bilingual situation and who is a bilingual or bidialectal speaker.

3.1.1 Bilingualism vs. Diglossia

There are two unique features which can help to characterize diglossia (see Table 3.1).

The first feature involves the language learning process: while bilingual language or second language (L2) learning is either spontaneous or guided (*simultaneous* or *successive*), diglossic language learning happens as a result of spontaneous learning only (simultaneous only) (Francescato, 1986). Learning two languages between birth and age 3 has been defined as *simultaneous bilingualism*. If an infant learns the second language after age 3, it has been defined as *successive* or *sequential bilingualism* (McLaughlin, 1978; Myers-Scotton, 2006; Baker, 2011). In diglossia, H is largely learnt formally rather than through exposure, which makes the diglossic case different from the simultaneous bilingual case. In South Tyrol, all children are exposed to more than one language from early on: the local variety (L), Standard German (H), and Standard Italian (H). Therefore, this illustrates that South Tyrolean children cannot be described as monolingual, neither as L1 German.

The second characteristic also concerns the acquisitional context. While in a bilingual society the majority or more prestigious language happens to be the native language of at least one specific group within the community in question (Hudson, 1992, 2002; Tamburelli, 2012), in a diglossic situation no one has the H variety as his native language. Furthermore, in a bilingual situation the speaker may choose and is able to have a regular conversation in either language, depending for instance on the interlocutor or the topic. In a diglossic context, however, the use of the H variety in an ordinary conversation might be considered snobbish, artificial or absurd (Ferguson, 1959; Hudson, 2002; Crystal, 2010).

	Bilingual community	Diglossic community
Both languages are used in informal contexts	+	-
Co-existence of two languages which both serve as native languages within the community	+	-

Table 3.1. Characteristics of bilingual and diglossic communities.

Within the South Tyrolean diglossic context, the fact that the South Tyrolean variety is labelled as a ‘dialect’ of Standard German has an impact on educational institutions, too. Officially, Standard German is the only language used within schools. In Italian-speaking schools, Standard German is taught as an L2. In German-speaking schools it is used as the

sole medium for teacher-pupils interaction. Currently, therefore, South Tyrolean Germanic-speaking children are officially treated as German first language (L1) learners, L1 referring to the language an individual learns from birth (De Houwer, 2009). Data will show that this L1 assumption is empirically flawed. Some South Tyrolean linguistic features are discussed in the sections 3.1.4.1-3.1.4.3, which will motivate the empirical study conducted in *Chapter 5*.

3.1.2. Intelligibility

I will now briefly present the importance of the criterion of (mutual) intelligibility before discussing it in more detail in *Chapter 4*.

As argued by Maamouri (1998: 30), “the concept of ‘diglossic continuum’ relates to the notion that the size of the dividing gap which exists between two separate but linguistically, socially and culturally related language forms in a differentiated functional situation is going to vary according to the linguistic distance which separates the two varieties.” Therefore, a further and important aspect linked to (genetically) related languages or varieties is (mutual) intelligibility. As defined by Myers-Scotton (2006: 18-19), “mutual intelligibility means that two speakers can understand each other; it equals understandability.” If two varieties are very close and thus mutually intelligible, it is commonly said that they are ‘dialects of the same language’. If comprehension between variety A and B fails and the structural difference is relatively large, it usually means that the speakers of variety A and B are ‘speaking different languages’ (Trudgill, 2000; Myers-Scotton, 2006; Genetti, 2014). The former describes a situation with minimal linguistic difference, little or no actual *Abstand*, between the varieties in question. The latter describes a situation with large linguistic difference, therefore considerable levels of *Abstand*.

On the one hand, however, there are cases in which two speakers are speaking two related varieties which are only marginally intelligible, yet they are labelled as speaking dialects of the same language. Tamburelli (2014) determined that the mean intelligibility rate of Lombard to Italian speakers is 44%. Yet, in the linguistic literature Lombard is often labelled as an Italian ‘dialect’. On the other hand, in spite of their mutual intelligibility and relatively minimal linguistic differences, some official European languages – such as Spanish and Portuguese (Jensen, 1989), or Dutch and German (Barbour & Stevenson, 1990) – are defined as ‘separate languages’.

As seen so far, in the past a variety has become a standard language because of several external, but non-linguistic reasons. Whether (related) varieties within the same language family are mutually intelligible or not is a central point for those who wish to undertake the

difficult task of distinguishing ‘dialects from languages’. As seen above and as pointed out by Tamburelli (2014), relatedness and a tendency to favour *Ausbau* analyses allows drawing together varieties, even though they might have a (very) low degree of mutual intelligibility. While learning Standard German, for instance, the South Tyrolean young child is faced with certain linguistic features in Standard German (e.g., grammar, vocabulary, phonology) which have been previously unknown to him/her because it is different to the local variety acquired at home. In other words, there is an acquisitional gap to overcome. So far, not much is known about the types of gaps South Tyrolean children have in their knowledge. The language/dialect issue mentioned previously (e.g., the lack of adequate definitions) is important in this dissertation as the results will show that the German L1 assumption is unsupported by the two empirical studies conducted in this dissertation (see *Chapter 4* and *Chapter 5*), and consequently has a real impact on young children.

3.1.3. Taxonomic and socio-political issues

As I have demonstrated above, we have a taxonomic problem, as it is difficult to distinguish between a diglossic or bilingual situation and who is a bilingual or bidialectal speaker. Due to the opaque and diverse definitions of the terms ‘bilingualism’ and ‘diglossia’ in the literature, at this point it is important to introduce two additional concepts: *bilingualism without diglossia* and *bilingualism with diglossia* (Fishman, 1967, see Figure 3.1).

In South Tyrol, diglossia and societal bilingualism are not opposed to each other but they co-exist with each other (Kloss, 1987; Romaine, 1989; Fishman, 2007). Figure 3.1 gives an overview of Fishman’s model. As observed by Fishman (1967: 32), such an approach “provides a single theoretical framework for viewing bilingual speech communities and speech communities whose linguistic diversity is realized through varieties not (yet) recognized as constituting separate ‘languages’.”

		<i>Diglossia</i>	
		+	-
<i>Bilingualism</i>	+	(1) Both Diglossia and Bilingualism	(2) Bilingualism without Diglossia
	-	(3) Diglossia without Bilingualism	(4) Neither Bilingualism nor Diglossia

Figure 3.1. Fishman’s extension of Diglossia (2007: 48).

In the present dissertation, the term ‘bilingualism without diglossia’ (Number 2 in Figure 3.1) refers to an individual bilingual speaker who has knowledge of two languages with a relatively large amount of *Abstand* and which have also undergone the process of *Ausbau-isation* (development of standardized grammar and official dictionaries), such as a French-German bilingual or a Spanish-English bilingual speaker. Different to the next situation, in this case either language can be used for almost any function.

When using the term ‘bilingualism with diglossia’ (Number 1 in Figure 3.1), I am referring to an individual speaker who has knowledge of two varieties which can be structurally and linguistically different (*Abstand*), but due to socio-political reasons not all varieties have undergone the process of *Ausbau-isation*, such as an individual who knows the South Tyrolean variety (L), Standard German (H), and Standard Italian (H). In such a community, the H varieties are used for education and more formal purposes while the L variety is used in the family and everyday communication.

That a diglossic speech community can misleadingly be defined as a monolingual community was recognised by Fishman from early on. He (1967: 32) pointed out “that many modern speech communities that are normally thought of as monolingual are, rather, marked by both diglossia and bilingualism.” At the same time, however, Fishman (1967: 32) continued by claiming that diglossia and bilingualism are only given “if their several registers [...] are viewed as separate varieties or languages.” This, again, raises the question of how distant these separate varieties or languages have to be and how to measure the degree of *Abstand*. As already mentioned briefly above, some “northern and southern dialects of German, which are hardly mutually intelligible are not considered separate languages”, whereas “Swedish, Danish and Norwegian are considered different languages, even though mutual intelligibility is very high” (Henriksen & van der Auwera, 2002: 3).

As a consequence of the taxonomical problem, there is also a judicial issue which arises in South Tyrol. Officially and politically Standard German is the ‘mother tongue’ of Germanic-speaking South Tyroleans (see section 2.1 in *Chapter 2*). If ‘mother tongue’ (L1) is defined as the language acquired at home, then it cannot be maintained that Standard German is South Tyroleans’ L1. Inappropriately, the diglossic relationship between the Germanic-speaking community is completely disregarded in Article 1 of the *Gruber-Degasperi-Agreement* (see section 2.1.1 in *Chapter 2*). In other words, the South Tyrolean variety is entirely ignored within the administrative system and consequently within the educational system as well. Politically, for instance, on the language affiliation declaration as well as on other surveys, the only options to choose from are either the ‘Italian’, ‘German’ or ‘Ladin’

language group (see Baur, 2000). Educationally, this has an impact on the curriculum, too. Since Standard German is the main instruction language within German-speaking schools (Saxalber-Tetter & Lanthaler, 2012), children and pupils are addressed and taught only in Standard German. Furthermore, due to the fact that these children are not considered to be German learners, they often do not receive any special instructions which help them learning the language and to fill the knowledge gap between the South Tyrolean variety and Standard German. Exceptions are publications published more than 30 years ago (Egger, 1982c; Saxalber-Tetter, 1985), as well as training material which has been published very recently (Hofer, 2013²¹; Gurschler & Tscholl, 2015²²). I shall return to these publications in *Chapter 4* and *Chapter 5*.

At this point the following question arises: What is the extent of this knowledge gap between the South Tyrolean variety and Standard German? I will address this in the following section along with examples showing that there are lexical, phonological, and grammatical differences between Standard German and the South Tyrolean variety which have been examined in the (South Tyrolean) literature so far.

3.1.4. Ferguson's rubrics applied to South Tyrol (Part II)

In the following subsections I am discussing Ferguson's remaining three rubrics – lexicon (section 3.1.4.1), phonology (section 3.1.4.2), and grammar (section 3.1.4.3) – and I will show how they apply to the South Tyrolean case.

3.1.4.1. Lexicon

It is generally assumed that due to their relatedness the lexicon in Standard German and the South Tyrolean variety is somewhat shared. As far as I am aware of, however, no empirical study has shown what the (percentage) numbers are, in other words how many South Tyrolean lexical items are actually cognates of Standard German items. Thus, in order to get a better idea of what is meant when it is said that the lexicon in Standard German and the South Tyrolean variety is somewhat shared, I have counted the number of lexical items (nouns) found in Moser (2015), a dictionary about South Tyrolean varieties. For this calculation a

²¹ The training material can be downloaded under the following link (accessed 16 October 2015): <http://www.eurac.edu/en/research/projects/Pages/projectdetails.aspx?pid=15398>

²² The training material can be downloaded under the following link (accessed 25 November 2015): <http://www.bildung.suedtirol.it/referate/migration/unterrichtsmaterialien/>

random page was chosen in Moser (2015: 148-168, letter ‘K’, $n=52$ ²³). I then divided the number of nouns into the number of words that were cognates of the Standard German words and in the number of non-cognates. The DUDEN (2010; the dictionary of the German language) served as a reference book, as in some cases I was not sure whether the expression was used outside South Tyrol too. The result showed that out of 52 selected nouns, 42 nouns were cognates (80.8%), and 10 were non-cognates (19.2%). Despite their shared origin, therefore, these percentage numbers show that there are indeed lexical differences between South Tyrolean and Standard German, revealing that there are variations and differences in pronunciation, use, and meaning (e.g., Hinderling, 1984; Ammon, 2001; Lanthaler, 2012k). Similar linguistic conditions can also be found in Switzerland and the Arabic world. Although Standard German (H) and *Schwyzertütsch* (L) are historically related, Sieber and Sitta (1986) admit that there is also a certain degree of linguistic distance between the two varieties. In the case of the Arabic world, it can be observed that even though Standard Modern Arabic (H) and Spoken Arabic (L) are related, Ibrahim claimed that both are “reflecting the typical organization of L2 in a separate lexicon” (2009a: 100)²⁴.

Therefore, returning to the acquisition of South Tyrolean, it can be assumed that unfamiliar vocabulary has to be actively learned throughout the process of becoming literate in Standard German, not only because of the new lexical items but also due to the phonological differences between the two varieties. Hence, it is not surprising that syntactical, morphological or lexical properties of the South Tyrolean variety are transferred subconsciously into Standard German, a phenomenon known as *interlingual interferences* (Riehl, 2001). In this context, interferences – or language *transfer* (Weinreich, 1953) – refers to the inappropriate use of linguistic features of either Italian or the South Tyrolean variety when speaking or writing in Standard German. Traditionally, transfer has often been regarded as a negative occurrence in learning a second language. Nevertheless, Matras (2009: 74) recently pointed out that “as long as they [transfer and interference] do not result in incomprehensibility [...], one might instead view them as *enabling* factors that allow language users to create bridges among different subsets within their overall repertoire of linguistic forms, and to use these bridges to sustain communication.” Therefore, if they are

²³ It should be noted that items which are very characteristic for South Tyrol, local food, local traditions, and working tools were not taken into consideration for this calculation, as they are very specific to the South Tyrolean area and its context. Obviously, if I would have also included those items in the calculation of cognates and non-cognates, the percentage number of non-cognates would have been much higher. Nonetheless, since I was not familiar with certain expressions either (as for instance working tools for farmers or very traditional local food), the outcome may have been misleading and not representative.

²⁴ This conclusion is also supported by a semantic priming study, conducted by Ibrahim and Aharon-Peretz (2005).

viewed as enabling, transfer and interference are not a problem. Within the South Tyrolean context, however, it is not seen this way. Being not a cognitive problem, there is a sociolinguistic issue because a South Tyrolean speaker is viewed as a L1 German speaker, or – in other words – a bilingual individual is treated as a monolingual individual. The inappropriate usage of linguistic features of the South Tyrolean variety when speaking or writing in Standard German (interlingual interferences or language transfer) has often been observed in studies conducted among South Tyrolean pupils or high-school graduates (e.g., Schwienbacher, 1997: 125-128; Riehl, 2001; Beck & Dahl, 2006; see the project ‘KOMMA’ at the Competence Centre for Language Studies at the Free University of Bolzano). Within the educational system these interferences from the South Tyrolean variety are often not viewed as something positive, as it is expected that pupils function as L1 German speakers, for example when writing an essay or in an oral examination. As a result of this sociolinguistic problem, and as already mentioned in section 2.3.3.6 in *Chapter 2*, South Tyroleans were – and are still nowadays – often viewed as *bad German speakers* (Ciccolone, 2010a). As it is crucial for the reader to get a better understanding of the spoken and written lexicon used by South Tyroleans, I shall expand on this topic a bit more.

3.1.4.1.1. Standard German and South Tyrolean

In South Tyrol, numerous studies have already examined and still continue to collect interferences from South Tyrolean or Italian when speaking or writing in Standard German. A study conducted among elementary school children in Val d’Ultimo/Ultental (a valley in South Tyrol) examined grammatical structures of Standard German (Schwienbacher, 1997: 125-128). Preschool children were shown 30 Standard German sentences and they had to insert the right preposition into each one. Schwienbacher summarized that these children showed interferences from their native language when inserting the Standard German preposition (for a similar study, see also Egger, 1979). More recent examples are reported below (examples 1-5 are extracted from Riehl, 2001: 258-260; see also Giacomozzi, 1982), showing that South Tyrolean speakers process Standard German via their knowledge of their native language. The South Tyrolean variety elements are underlined, the equivalent Standard German forms are in brackets.

- (1) [...] diese Traube aufzuklauben. (instead of ‚aufzuheben‘)
‘[...] to pick up this grape’.

- (2) [...] da der Aufprall doch etwas fest war. (instead of ‚stark‘)
 ‘[...] since the collision was heavy’.
- (3) Links hebt die böse Königin [...] den vergifteten Apfel in einer Hand. (instead of
 ‚hält‘)
 ‘On the left side the evil queen raises the poisoned apple’.
- (4) [...] bis es knackst. (instead of *klick*)
 ‘[...] until it makes a *klick*’.
- (5) Bis der fertige Kaffee in die Kanne geronnen ist. (instead of ‚gelaufen‘)
 ‘Until the coffee is poured into the pot’.

The phenomenon that the L2 is processed through speakers’ L1 has often been observed among second language learners, at least during the initial stages of the language learning process (Weinreich, 1953; see also Durgunoglu & Öney, 2000) (for L2 studies, see Russian–English: Pavlenko & Jarvis, 2002; French–English: Walter, 2004). Weinreich (1953) argued that familiarity with complex expressions in one’s native language often serves as a basis when learning another language. Therefore, if we keep Weinreich words in mind, it should certainly not be surprising that young as well as adult South Tyrolean speakers process Standard German through their native language.

3.1.4.1.2. Standard Italian and ‘Südtirolismen’

During the period from 1990 until 2005, several written South Tyrolean documents (newspapers, magazines, books, and novels) were collected, analysed, and evaluated. In her publication, Abfalterer (2007) discussed 621 lemmas used in South Tyrol which have been defined as *Südtirolismen*. There have been identified *primary Südtirolismen*, *secondary Südtirolismen*, and unspecific lemmas:

- 303 written words are *primary Südtirolismen* (expressions used in South Tyrol only), such as ‘*Kondominium*’ (‘apartment building’), ‘*Marende*’ (‘snack’), or ‘*Barist*’ (‘barkeeper’),
- 251 are *secondary Südtirolismen* (overlapping with another German variety used either in Austria, Switzerland, or Germany),
- and 69 are unspecific lemmas (expressions which are problematic to categorize) (for more detailed information see Abfalterer, 2007: 167-232; see also *Variante Wörterbuch des Deutschen*, Ammon et al., 2004).

Primary Südtirolismen are (almost) incomprehensible for a non-South Tyrolean speaker. They can be divided into:

- interferences from Italian (constitute 27% of the *primary Südtirolismen*), such as ‘*Hydrauliker*’ (‘hydraulic engineer’),
- borrowings from Italian (such as ‘*Carabinieri*’ or ‘*INAIL*’), or
- other *Südtirolismen* which are specific to the South Tyrolean region, such as ‘*Waalweg*’²⁵ or ‘*Leps*’ (alcohol) (for more examples see also Brambilla et al., 2013).

As can be seen above, *Südtirolismen* and lexical influences from Standard Italian do not exclude each other, but they overlap. Lexical borrowings/influences and loan-translations from Italian into the South Tyrolean system are observable on different levels of speech (see Moser & Putzer, 1980; Moser, 1982b; Lanthaler, 2012e). One reason for this was the political situation, since several names for state, school, legal, and social institutions did not (yet) exist in the German-speaking countries immediately following South Tyrol’s annexation by Italy (Abfalterer, 2007; Voltmer et al., 2007). It was, for instance, necessary at the lexical level to transfer Italian law and administrative terms into Standard German (Anstein & Glaznieks, 2011). In fact, nowadays various Italian words are omnipresent in the everyday spoken local variety and their Standard German equivalents are (almost) never used, as presented in Table 3.2.

	Standard German	South Tyrolean
identity card	<i>Personalausweis</i>	<i>Identitätskarte</i>
police headquarters	<i>Polizeipräsidium</i>	<i>Quästur</i>
truck driver	<i>LKW-Fahrer</i>	<i>Kamionist</i>
substitution	<i>Stellvertretung</i>	<i>Supplenz</i>

Table 3.2. Examples demonstrating lexical interferences. Extracted from Riedmann (1979: 172-173).

For further reading on how Italian has influenced the South Tyrolean language system, see Riedmann (1979) and Dal Negro (2011) for lexical influences; see Anstein (2007: 21) and Abel et al. (2009: 11) for syntagmatic calques; and see Riedmann (1979: 166-168, 176-177) for semantic influences.

²⁵ In South Tyrol small streams were constructed to irrigate the orchards. *Waalweg* is the small path next to these streams.

3.1.4.2. Phonology

Several studies have shown that phonological elements which are absent in a child's native language constitute an additional challenge for beginning readers who learn to read in the L2 (Hebrew and English: Wade-Wooley & Geva, 2000; Cantonese and English: Wang and Geva, 2003; Spoken Arabic and Standard Arabic: Feitelson et al., 1993; Saiegh-Haddad, 2003, 2004, 2011). Thus, the "linguistic disparity between the oral language of children and the written language does not support the natural development of reading" (Saiegh-Haddad, 2004: 496), and it demonstrates the complexity in learning to read in a phonologically distant language/variety (see Wade-Wooley & Geva, 2000; Saiegh-Haddad, 2003; Wang & Geva, 2003). Saiegh-Haddad (2004: 507) argued that "children acquiring reading in a language that is phonologically distant from their oral language, as in reading in a bilingual context, in a standard dialect, and in a diglossic context, are required to construct mental representations for a set of novel phonological structures." A study conducted by Saiegh-Haddad (2004) examined the influence of the phonemic and lexical differences between Modern Standard Arabic (H) and Spoken Arabic (L) among native Arabic-speaking kindergarten and school children in the north of Israel. She tested their phonemic awareness of vernacular phonemes in Standard Arabic against standard phonemes. Saiegh-Haddad concluded that kindergarten children had significantly more difficulty analysing/isolating Modern Standard Arabic phonemes than Spoken Arabic phonemes and accordingly their recognition was poorer in standard phonemes than in spoken phonemes. On the basis of these results, Saiegh-Haddad et al. (2011: 312) claimed that "the effect of the linguistic distance between Standard and Spoken Arabic on phonological processing is a key process in the acquisition of reading", since these children need to construct mental representations for a set of new phonological structures which might also create additional challenges for beginning readers (Saiegh-Haddad, 2004).

I shall now give some examples of how the South Tyrolean variety differs from Standard German at the phonetic and phonological level (extracted from Wiesinger, 1990; see also Schwienbacher, 1997):

- The monophthong [u:] in Standard German is the equivalent [uø], such as in 'Bruder' ('brother') [South Tyrolean: bruødø] (Wiesinger, 1990: 444).
- Examples with *ie*, *u* und *ü* in Standard German ('lieb', 'gut', 'Füße') ('cute', 'good', 'feet') correspond to a diphthong [liøb], [guøt], [viøʃ] (Wiesinger, 1990: 447).

- Examples with *eu* in Standard German (*'neu'*, *'Feuer'*) ('new', 'fire') correspond to the diphthong *ui* [nui], [vuir] (Wiesinger, 1990: 448).
- Words with *ei* in Standard German (*'breit'*, *'heißen'*, *'Leiter'*) ('broad', 'to be called', 'ladder') have been turned from [ai] to [ɔɐ]²⁶, such as [brɔɐd], [hɔɐsn], [lɔɐtɐ] (Wiesinger, 1990: 450).
- Words in *-ee* and *-o* in Standard German use diphthongs in the South Tyrolean variety, such as *'Schnee'*, *'See'*, *'böse'* and *'Ostern'* ('snow', 'lake', 'bad', 'Easter') are [ʃnɛɐ], [zɛɐ], [pɛɐz], [ɔɐʃtɔɐn] (examples are adapted from Wiesinger, 1990: 457).
- The *-e* ending in unstressed final syllables in Standard German has disappeared, such as *'Affe'*, *'Hase'*, *'Auge'* ('monkey', 'rabbit', 'ox') are [ɔf], [ho:z], [oks] in the South Tyrolean variety (Wiesinger, 1990: 453).
- The palatalization of /s/ before /p, t, k/, as for instance the Standard German *sp* is pronounced as [ʃp], such as *'Respekt'* ('respect') [reʃpɛkt] (Wiesinger, 1990: 453-454; Voltmer et al., 2007: 224-225).
- In several words the final consonants *-b* and *-g* have disappeared, such as *'Bube'*, *'genug'* in Standard German ('boy', 'enough') and [buɐ], [genuɐ] in the South Tyrolean variety (Wiesinger, 1990: 454).
- The plosive [d] is inserted between [n] and [l], such as the diminutive of *'Mann'* ('man') becomes [mandl], the diminutive of *'Stand'* ('market stall') becomes [ʃtandl], or *'Hühnchen'* ('chicken') becomes [hiandl] (Wiesinger, 1990: 454).
- As shown by Wiesinger (1990: 458), the South Tyrolean variety distinguishes between [kx, k, g]: examples are [pukxn], [rukŋ], [pekx], [sogŋ], *'bücken'*, *'Rücken'*, *'Bäcker'* and *'sagen'* in Standard German ('to bend', 'back', 'baker', 'to say') (examples are adapted from Wiesinger, 1990: 458).

For more detailed examples of differences between South Tyrolean and Standard German, see Riedman (1979: 171) for phonetic influences from Italian; and see Riedmann (1979: 161-162), Riehl (1994), and Russ (2005: 60) for phonological (and morphological) influences from Italian.

Even though these are just some examples from the literature, they show some of the systematic differences between the two varieties and thus give some indication as to the linguistic adjustment that South Tyrolean children need to make when learning to read and

²⁶ There are, however, some exceptions, such as *'Fleisch'*, *'Geist'*, *'rein'* ('meat', 'holy spirit', 'pure') (Wiesinger, 1990: 451).

write in Standard German. The findings from the Arabic diglossic context (e.g., Saiegh-Haddad, 2004; Ibrahim, 2009a) and the South Tyrolean context (e.g., Schwienbacher, 1997; Riehl, 2001) emphasise how children's linguistic development shows traits typical of L2 learning. Indeed, young children growing up in a diglossic situation undergo (at least some) L2 learning processes, as argued by Lanthaler too (2012j). This, again, is contrary to the socio-political assumption present in South Tyrol, namely that the children are simply being schooled in their 'mother tongue'. Furthermore, that a dialect–standard–situation is a specific form of multilingualism has already been pointed out by others (e.g., Wandruszka, 1981; Berthele, 2008).

3.1.4.3. Grammar

The grammatical structure is “one of the most striking differences between H and L in the defining languages”, since “H has grammatical categories not present in L and has an inflectional system of nouns and verbs which is much reduced or totally absent” (Ferguson, 2007: 39). It is certainly the case that the South Tyrolean variety is grammatically different from Standard German. One problem for both L2 German learners as well as for South Tyrolean speakers is case marking (nominative, accusative, dative, and genitive). As argued by Egger (1994a), South Tyrolean children have problems with this grammatical structure simply because Standard German diverges from their variety acquired at home. Examples concerning the singular, plural, and case distinctions/marking can be found in Wiesinger (1990: 454), in Egger (1994a: 130-131), Vesco (2011), and in Lanthaler (2012f). Giacomozzi (1982) also presented several grammatical features which differ between Standard German and the South Tyrolean variety, such as grammatical gender, case marking, plural, declination of adjectives, personal pronouns, and prepositions. Other features of the South Tyrolean grammar that differ from Standard German are, for instance:

- Instead of using the simple past as a narrative tense (*'er sang'*, *'er lachte'*), the present perfect is used (*'er hat gesungen'*, *'er hat gelacht'*) ('he has sung', 'he has laughed') (Wiesinger, 1990: 449; see also Giacomozzi, 1982).
- The 2nd person plural in Standard German is either *'ihr'* (nominative plural) or *'euch'* (accusative or dative plural), which is different from the South Tyrolean form *'enk'*. Moreover, in South Tyrolean the 2nd person plural always ends in –s [ez gepts] (*'ihr gebt'*) ('you give') (Rowley, 2011; Wiesinger, 1990: 451).

- Very little research has been conducted on the syntax of South Tyrolean. One difference that has received some attention is the use of reinforcing demonstratives, as shown by Wiesinger (1990: 455).

As it is not the main aim of this dissertation to name and list all the lexical, phonological, and grammatical differences between Standard German and the South Tyrolean variety, I have presented just some examples with corresponding literature suggestions for further reading.

3.2. INTERIM SUMMARY

Language classification is not as easy to determine as one might assume. In this chapter, I have shown that there are still difficulties in providing an adequate and satisfying definition of what constitutes a ‘language’ and what is characterized as a ‘variety’ or ‘dialect’. Importantly, throughout the current chapter, one can see that research has not yet produced a definite and generally accepted theory of the concept diglossia itself either. As summarized very clearly by Hudson (2002: 1), “a coherent and generally accepted theory of diglossia remains to be formulated.” Some aspects, such as functional distribution and the concept of prestige, have been discussed, widely criticised or do not apply to some diglossic situations anymore (Berthele, 2004: 114-119; Weinreich, 2011). Moreover, of great importance is a fact Hudson (2002) has repeatedly pointed out, namely how difficult it is to differentiate between a diglossic and a bilingual speech community.

Up until now I have not only questioned certain definitions given in the literature, but I have also explained in *Chapter 2* that people in South Tyrol are regularly assumed to be German speakers (Article 19 of the *Statuto Speciale*, and Article 1 of the *Gruber-Degasperi-Agreement* 1946, see also Peterlini, 2000: 195-197). However, as we have seen in the current chapter, there are systematic differences of a lexical, phonological, and grammatical nature between the variety spoken at home (South Tyrolean variety) and the variety spoken at school (Standard German). Due to these differences, South Tyrolean language acquisition research has shown that children learning Standard German have problems similar to those children learning Standard German as L2 (e.g., case marking, grammatical gender, and prepositions). As claimed by Weinreich (1953), adult L2 learners process their second language via their native language. If the second language diverges from learners’ native language – and it is clearly the case that the South Tyrolean variety diverges from Standard German – why should a South Tyrolean child not behave similarly to an L2 learner when learning Standard German?

3.3. RATIONALE AND OUTLINE OF THE CURRENT RESEARCH

Although genetically related languages often facilitate communication among their speakers (see Gooskens, 2007a), it is rarely assumed that precisely because Danish, Swedish and Norwegian are related languages, children are not faced with learning new linguistic entities. The South Tyrolean variety and Standard German are also genetically related, the crucial difference, however, is the simple fact that Standard German is categorized as a language by *Abstand* and *Ausbau* whereas the South Tyrolean variety is viewed as a ‘dialect’ of Standard German. That communication between a speaker from Germany and South Tyrol is not always possible when both individuals use Standard German and the local South Tyrolean variety respectively (as native speaker of the South Tyrolean variety, I have experienced this myself), however, is rarely of importance. Linguistic similarities, therefore, link many varieties together, although such similarities do not necessarily negate the reality of significant linguistic *Abstand* between the two varieties in question.

At this point, I would like to mention that very often the term ‘dialect’ refers to quite different realities, either characterizing a local spoken variety – such as in Great Britain or within the English language system (e.g., Yorkshire, Leeds, Bristol, see König, 2002), or being a linguistic variety – as it is the case for the so-called Italian or German ‘dialects’ – some of which do not belong to the same sub-family as (Standard) Italian or German. Hence, the term dialect itself is ambiguous: it is ambiguous in its definition as well as being used by different people differently. Moreover, as a general rule it can be said that the term ‘dialect’ is socially loaded or socially stigmatized (West, 2000). Therefore, throughout this dissertation and whenever possible, the term ‘variety’ shall be used instead of the term ‘dialect’.

As presented so far in *Chapter 2* and *Chapter 3*, I have demonstrated that officialdom considers South Tyrolean children as German L1 learners and speakers. As I have already tentatively argued in section 3.1 of this chapter, children growing up in South Tyrol cannot be described as monolingual or L1 German, as they are exposed to more than one *Abstand* language from early on, before the age of three. In the literature, age three (early childhood) is often taken as a clear borderline to distinguish between monolingual or bilingual acquisition (Meisel, 2004; Matras, 2009).

Secondly, I have shown that the two varieties (Standard German and South Tyrolean) differ systematically. In this context, the following questions can arise within the acquisitional process: What is the degree of intelligibility between Standard German and South Tyrolean? What psycholinguistic gap do these young children underlie (e.g., due to lexical and phonological differences)? How about the mental processes involved in German language

learning at this young age? At this early stage, does a South Tyrolean child need to overcome the same barriers and developmental processes as a L2 or bilingual child in order to be a fully competent speaker? What gap do South Tyrolean children have to cover when learning Standard German? Linguistic gaps, often referred to in translation studies (e.g., James, 2002; Cvilikaite, 2006; Wu, 2008; Baral, 2015), occur when there are differences between the target language and the source language. Such differences can be classified as a phonological gap (different phonotactics or different sound inventories, when a sound available in the target language is not present in the source language), or a lexical or morphological gap (if a word or morpheme in one language is not available or does not have a direct equivalent in the other language) (Cvilikaite, 2006; Baral, 2015). As presented in the sections 3.1.4.1-3.1.4.3 of this chapter, there are lexical, phonological, and grammatical differences between Standard German and the South Tyrolean variety. As a result of labelling the linguistic South Tyrolean situation as an example of diglossia or in-diglossia (see section 2.2 in *Chapter 2*), the degree of *Abstand* is potentially underestimated or even hidden by this categorization. Diglossia and in-diglossia assume that there are two closely genetically related varieties (H and L) in a certain relationship. So far, however, no definition clearly states how close or how far apart they can/should be in order to qualify as ‘bilingualism without diglossia’ or as ‘bilingualism with diglossia’. If there is indeed enough *Abstand* between the two related varieties, the language process of small children is actually quite similar to a bilingual or L2 learning process, as shown for instance by numerous studies conducted in the Arabic-speaking world (e.g., Eviatar & Ibrahim, 2000; Ibrahim & Aharon-Peretz, 2005). Although Standard Modern Arabic (H) and Spoken Arabic (L) are related, Ibrahim and Aharon-Peretz (2005), and Ibrahim (2009a) reported that the H and L variety retain the status of two separate languages in the speaker’s cognitive system. Furthermore, Eviatar and Ibrahim (2000) compared Arabic-speaking children who had been exposed to both Standard Modern Arabic (H) and Spoken Arabic (L) to Russian–Hebrew bilinguals and to Hebrew monolinguals. They found that Arabic-speaking children’s results imitated those of the Russian–Hebrew bilinguals – thus providing evidence of their bilingual status – and differed from those of the Hebrew monolinguals. These results show that the degree of *Abstand* that exists between Standard Modern Arabic (H) and Spoken Arabic (L) results in behavioural patterns typical of bilingualism. This also holds for metalinguistic skills, which are affected among Arabic-speaking children in the same manner as reported for children who grow up with two different languages by any account, such as Russian–Hebrew bilinguals (Eviatar & Ibrahim, 2000). In a psycholinguistic sense, therefore, a child acquiring two varieties in a diglossic relationship

needs to undergo some acquisitional processes typical of ‘accepted’ bilingual or L2 learning. For instance, Standard Modern Arabic–Spoken Arabic bilinguals achieve lower scores on vocabulary tests compared to monolinguals, but the former achieve higher scores on language arbitrariness tests and on phonological awareness tests (for Arabic diglossia see Eviatar & Ibrahim, 2000).

In the diglossic South Tyrolean case, a young child is indeed exposed to Standard German to a limited extent (via books, radio or television), but has not yet been exposed to it in a systematic way (school). Therefore, these children first store and develop the phonological and lexical representations specific to the South Tyrolean variety, since everyday communication is conducted in this variety at home as well as outside home. Later, more specifically at school, these children need to learn the different structures between Standard German and their native language, thus being faced with new linguistic entities (e.g., lexical items, grammar) (e.g., Grosjean & Li, 2013). Nonetheless, in their early acquisition a young South Tyrolean child is treated as a monolingual L1 German native speaker. This means not only that L1-type performance is assumed, but also that in preschool and especially in school s/he is addressed in Standard German only, a variety that requires at least partly different representations in order to be successfully processed (how different these representations might be shall be examined in *Chapter 4*). The degree of *Abstand*, therefore, suggests that the South Tyrolean child has some linguistic gaps that s/he has to fill when s/he begins formally learning Standard German.

3.3.1. Focus of this dissertation

The focus of this dissertation is the misleading assumption (and its consequences) of being defined as monolingual rather than bilingual on the basis of mostly socio-linguistic considerations. In the case of the Italian province South Tyrol, I shall tentatively argue that a child growing up with the South Tyrolean variety is not L1 German (see *Chapter 4*), and in *Chapter 5* I am empirically demonstrating what the potential effects of that misleading assumption might be.

One reason for arguing that a South Tyrolean child is not L1 German is that s/he actually hears and experiences more than one language when growing up. In fact, already before the age of three, a South Tyrolean child is exposed to more than one language, hearing both Standard German and Italian besides his/her native language South Tyrolean.

Furthermore, there is an issue with the existing definitions of ‘language’, ‘dialect’, and ‘bilingualism’, and the lack of an adequate criterion for distinguishing these concepts. The

questions which arise in this context, therefore, examine how close should two varieties be in order to be defined as ‘dialects’, and how far apart should they be in order to be defined as ‘languages’. While these issues may be of little interest from a socio-linguistic perspective, I will argue that they are crucial in the case of bilingualism and bilingual education. South Tyrolean, for instance, is often subsumed to be a ‘German dialect’ without considering the actual degree of intelligibility between Standard German and the South Tyrolean variety.

3.3.2. Structure of this dissertation

At the beginning of this chapter, I have raised the question: How can we determine and measure the degree of divergence between closely related varieties? In answering this question, I suggested in section 3.1.2 that the intelligibility criterion – i.e. the differences in the linguistic systems of language A and B are so great that the speaker of language A has difficulties in understanding the speaker of language B – as a potential measurement can lead to an answer. I will investigate the intelligibility of Standard German and South Tyrolean in *Chapter 4*, and I will demonstrate that South Tyroleans are possible bilinguals (South Tyrolean variety–Standard German). I will show that the degree of intelligibility can reveal the cognitive efforts a South Tyrolean child has to face while learning Standard German.

As shall be demonstrated in *Chapter 5*, young South Tyroleans have a lot in common with L2 learners. *Chapter 5* investigates whether the degree of intelligibility examined in *Chapter 4*, has an impact on early language development by addressing receptive language skills among 3- (3;0-3;11) and 4- (4;0-4;11) year old preschoolers growing up in South Tyrol compared to their same-aged monolingual German peers. Results will confirm that South Tyrolean-speaking children show similar developmental processes as L2 or bilingual children do and that the linguistic gap between Standard German and the South Tyrolean variety does have a significant impact on their performance. As argued by Ender, Li and Straßl (2007), the co-existence of different varieties in a community represents a particular challenge for language learners, since the daily input only partially corresponds to the aim of L2 learning.

3.3.3. Research questions

The main aim of this dissertation is twofold.

First of all, I am interested in determining the degree of intelligibility between Standard German and the South Tyrolean variety. If it turns out that there is a certain degree of unintelligibility between the two – i.e. there is a linguistic gap that the children need to overcome – then the question arises as to how much or little South Tyrolean children are

likely to understand Standard German when being addressed in Standard German within educational establishments.

As we have seen so far, there is a complementary distribution between Standard German as the H language (more formal domains) and South Tyrolean as the L language (informal domains). This is also known as *diglossic attitude* (Wei et al., 2002). Therefore, I am interested in the impact of this diglossic attitude, and I am interested in the educational impact of treating South Tyrolean children as L1 German learners.

The research questions for this dissertation are therefore as follows:

1. What is the intelligibility level of the South Tyrolean variety to Standard German listeners?
2. How do South Tyrolean-speaking preschool children perform on a standardized German assessment test? How do they compare with their age-matched German peers?
3. Which type or types of exposure positively affect acquisition of Standard German and to what extent? Do some types of input have more impact than others?

Chapter 4 and *Chapter 5* present and discuss results obtained in the two empirical studies. Finally, an overall summary and conclusion is provided at the end of this dissertation (*Chapter 6*).

CHAPTER FOUR

Measuring intelligibility between Standard German and the South Tyrolean variety

The previous two chapters have introduced and reviewed some of the key issues of this dissertation, as well as providing a general overview of the language situation in South Tyrol. The fact that Standard German and the South Tyrolean variety are both Germanic varieties often subsumed under the same *Ausbau* language, however, does not exclude that they differ to a certain extent (i.e. lexicon, phonology, convention of usage), as presented and discussed extensively in *Chapter 2* and *Chapter 3*.

One way to empirically measure intelligibility between Standard German and the South Tyrolean variety is functional testing of intelligibility rates. The main reason for choosing this method will be explained in section 4.2.1.1. Results will then show whether intelligibility has an impact on early language development in preschool age in South Tyrol (see *Chapter 5*).

4.1. THEORETICAL BACKGROUND OF THE STUDY

I shall first provide some background knowledge about the theoretical background of the current empirical study (section 4.1) as well as presenting previous intelligibility studies (section 4.1.1). Section 4.1.2 explains why German listeners were tested without testing South Tyroleans too. Section 4.1.3 discusses the purpose of the intelligibility study conducted in this chapter. The research question shall be presented in section 4.1.3.1.

Although Fishman's model (see Figure 3.1 in *Chapter 3*) pointed out that both diglossia and bilingualism can occur within a speech community, this is often overlooked when talking about the phenomenon diglossia. To equate diglossia with monolingualism, however, can have momentous consequences for (1) speakers' linguistic behaviour, such as whether a variety is transmitted to the next generation or not (inequality of status), (2) speakers' linguistic development, such as the feeling that the native language (in this case the L variety) is inferior to the standard (H) variety, and (3) to the speakers' linguistic assessment, which

impacts educational establishments. Regarding this latter point, linguistic assessment, there is a difference whether the teacher and educator recognise that the child is monolingual, bilingual, or multilingual. For instance, a Spanish child attending a Portuguese school and therefore being addressed in Portuguese shows certain characteristics, such as smaller vocabulary knowledge in Portuguese, or being less accurate in Portuguese standardized tests compared to their Portuguese L1 monolingual peers (e.g., Fernández et al., 1992; Umbel et al., 1992; Patterson & Pearson, 2004; Paradis, 2005; Paradis et al., 2008; Allman, 2005). Whether a child in South Tyrol, whose native language is the South Tyrolean variety, attending a German-speaking school and being addressed in Standard German, behaves like the Spanish–Portuguese bilingual child (e.g., smaller vocabulary knowledge) when learning Standard German, however, is an open question which has not yet or rarely been addressed in the literature. South Tyrolean children’s language acquisition patterns might be similar or dissimilar to those of the L1 German monolingual learners. In this dissertation I argue that both, the Spanish and the South Tyrolean child, have to learn a new lexicon, grammar, and phonology in Portuguese and Standard German respectively. The difference, however, is that the Spanish–Portuguese bilingual child is treated as a bilingual learner, since Spanish and Portuguese are ‘accepted’ separate languages, due to political, geographical, historical, and cultural reasons – thus representing a situation of ‘bilingualism without diglossia’. The actual South Tyrolean child’s native language, however, is neither explicitly referred to in officialdom (see Article 1 clause ‘a’ of the *Gruber-Degasperi-Agreement* in section 2.1.1) nor in the literature (e.g., Voltmer et al., 2007; Vettori et al., 2012). In the literature, for instance, it is stated that “children are educated in their mother tongue” (Vettori et al., 2012: 438) by “teachers whose mother-tongue is the language of tuition” (Voltmer et al., 2007: 273), namely Standard German and Italian respectively. Decisions about both language policy and language planning have an important impact on all social contexts (Cooper, 1989), and especially language-in-education has “a direct impact on individuals within the society” (Kaplan & Baldauf, 1997: 122). Therefore, the assumption that South Tyrolean children are L1 German speakers entails some implications for educational institutions. First of all, Standard German is taught as an L1, regardless of the difficulties and differences a South Tyrolean child has to face while learning Standard German (e.g., lexicon, grammar, phonology, see section 3.1.4 in *Chapter 3*). Secondly, as regulated by the policy and confirmed by empirical studies, Standard German is the main language of instruction between teacher-pupil interactions within German-speaking schools. Already more than 30 years ago Saxalber-Tetter (1982) examined language usage of teachers in their classrooms. According to primary school teachers’

responses, 23.1% claimed that they always used Standard German, 61.6% said that they speak Standard German most of the times, and 15.3% said to use *Umgangssprache*. Importantly, no one reported to use the South Tyrolean variety when interacting with their pupils. According to a recent investigation conducted in 2014 (ASTAT, 2015: 152; and as shown in section 2.3 in *Chapter 2*), Standard German is still nowadays used most of the times when interacting with teachers of the Germanic-speaking language group (45.3%), while 17.3% of the respondents claim to use the South Tyrolean variety. Nonetheless, in the report (ASTAT, 2015) it is not specified in which situations those 17% actually use the South Tyrolean variety, implying that we do not exactly know whether South Tyrolean is spoken during lessons, after lessons, or in a private pupil-teacher interaction.

The main aim of this chapter is to examine the intelligibility level of the South Tyrolean variety to Standard German listeners. Therefore, in the current chapter the intelligibility criterion was applied. From a socio-political perspective, a case of potential trilingualism (South Tyrolean variety–German–Italian) is assumed *a priori* to be bilingualism (German–Italian). Regardless of the fact that Standard German and the South Tyrolean variety are related and usually subsumed under a single *Ausbau* language for sociolinguistic purposes, the following study shall determine the degree of intelligibility between the two related varieties – in order to see whether one can consider them separate languages from a psycholinguistic perspective (see also Tamburelli, 2014 on this point). Once the degree of intelligibility has been determined, I am further investigating how much work young South Tyrolean children have to do while learning Standard German as well as how much effort is being ignored by assuming that they are L1 German learners (see *Chapter 5*). In other words, I am examining the linguistic gap between Standard German and the South Tyrolean variety. Therefore, the next chapter shall then examine whether the intelligibility level has an impact on South Tyrolean preschool children’s linguistic performance and early language learning process in Standard German, and ultimately, what the extent of such impact might be.

4.1.1. Measuring intelligibility

Intelligibility, identified as “the extent to which the native speaker understands the intended message” (Derwing & Munro, 1997: 2), has often been used for two purposes: (1) in order to distinguish the two concepts ‘language’ and ‘dialect’ (Wolff, 1959; Siegel, 2010), and (2) in order to determine the degree of *Abstand* between dialects of the same language or between closely related languages (Wolff, 1959). The absence of an appropriate method to measure

intelligibility has been the reason why it has mainly been neglected in the past. Recently, a large number of tests and new methods have been developed and the amount of research dedicated to speech intelligibility increased dramatically over the past few years. Various studies have examined intelligibility amongst national majority languages, but also of smaller varieties. Studies comprised languages and varieties, such as Spanish and Portuguese (Jensen, 1989); Frisian and Afrikaans for Dutch speakers (van Bezooijen & Gooskens, 2005); Scandinavian languages (Gooskens, 2006, 2007a; Moberg et al., 2007; Gooskens et al., 2008); several Chinese dialects (Tang & van Heuven, 2007, 2009); German varieties spoken before 1933 and Standard German (Veith, 1982); German and Low German for Dutch speakers (Gooskens et al., 2011); Lombard and Italian (Tamburelli, 2014); and North and West Frisian (Swarte & Hilton, 2013). Other research focused also on the intelligibility of L2 speech (e.g., Munro & Derwing, 1995; Derwing & Munro, 1997; Munro et al., 2006).

The overall aim behind the investigation of intelligibility between varieties differs across studies, ranging from language planning or policy, to language contact phenomena, to L2 language teaching, and L2 language learning. Moreover, intelligibility testing has been very important in the areas of audiology, foreign language testing, L2 teaching, speech technology, and several other studies investigated the relationship among accentedness, perceived comprehensibility and intelligibility (e.g., Munro & Derwing, 1995; Derwing & Munro, 1997; Munro et al., 2006). Therefore, a wide range of techniques were used in previous studies (multiple-choice question, transcription, picture-pointing task, word translation task, true/false question, or summarization), focusing on the comprehension of either written or spoken language.

According to Tang and van Heuven (2015), there are two ways in order to measure the degree of intelligibility between languages or varieties. On the one hand, there is *functional testing*, which tests how well speaker A ‘actually understands’ speaker B, and vice versa. On the other hand, the *perception experiment* asks the listeners to rate the difference between variety B and their own variety A on a continuous scale, also known as ‘perceived linguistic distance’ or ‘opinion test’ (Gooskens & Heeringa, 2004; Tang & van Heuven, 2007; Beijering et al., 2008). As shown by Tang and van Heuven (2009), the sentence test (functional testing) is more efficient than the opinion test (perception experiment). The opinion test, moreover, is completely subjective and it is unclear whether respondents are able to make judgments without being influenced by non-linguistic factors (e.g., attitudes, geographical knowledge of the variety in question), which might determine a person’s judgements towards the test language (Beijering et al., 2008). In this sense, positive attitudes might encourage the listener

that s/he tries to understand the variety in question; or because of negative attitudes the listener might judge the variety in question as more divergent from his/her own variety.

In the current study, therefore, it was decided to test actual speech comprehension by using a sentence test (or functional experiment). Section 4.2.1 provides a more detailed description of the sentence test used in the current empirical study.

As stated by Wei (2007: 9), “mutual intelligibility is not really a relationship between linguistic varieties, but between people, since it is they, and not the linguistic varieties, that understand one another.” He further claimed that the degree of mutual intelligibility is influenced by both the “amount of overlap between the linguistic items in the two varieties” and on “the perceptions of the people concerned”, as for example how much does speaker A want to understand speaker B, or how much experience does speaker A have had of the variety B? It is to these extra-linguistic variables that we turn now.

4.1.1.1. Extra-linguistic factors

In previous research intelligibility scores have often been justified by extra-linguistic factors, such as attitudes towards the closely related variety, and amount of contact with the variety in question²⁷. Positive attitudes towards a variety (due to stereotypical ideas about the target language) have been assumed to encourage trying to understand the variety in question. Negative attitudes, on the other hand, have been assumed to discourage the listener from making an effort (Wolff, 1959; van Bezooijen, 1994). Although it has been claimed in earlier research that listeners’ attitude is correlated to the intelligibility rate of the target variety, in experimental settings this relationship has often been weak and difficult to demonstrate (Gooskens, 2006, 2007b; van Bezooijen & Gooskens, 2007; Schüppert et al., 2015). As the potential effect – if any – is unclear, information on attitudes and contact towards South Tyrol and its variety are included and discussed in the current study. This has been done in order to control for the potential impact attitudes and contact might have on the intelligibility rate.

The questionnaire included three attitude related questions towards the South Tyrolean variety. Since German listeners should have had little or no previous contact with the South Tyrolean variety in order to be included in the study, two more questions asked about familiarity and contact with South Tyrol and its inhabitants. The results will therefore provide an indication of the degree of understanding involved when German listeners process the

²⁷ More recently, linguistic factors, such as phonetic and/or lexical differences (see Gooskens 2007a; Moberg et al., 2007) were found to play an important role.

spoken South Tyrolean variety (at the first encounter). Section 4.3.2 presents an overview of the background questionnaire.

4.1.2. Testing intelligibility

In order to see the gap between South Tyrolean and Standard German, functional testing would need to be carried out on monolingual South Tyrolean speakers in order to establish how much Standard German is intelligible to them. This, however, is not possible, since intelligibility is not equal in both directions: South Tyroleans are familiar with Standard German from an early age (through reading activities or watching television), they are addressed in Standard German when attending preschool, and start German language learning at primary school, thus at the age of 6. Hence, as I would be unable to find South Tyrolean adults who have never been in contact with or learned Standard German, the closest alternative is to test the reverse, namely how much South Tyrolean is intelligible to adult Standard German speakers. In doing so, we can estimate the level of difficulty involved in the reverse situation, namely when a South Tyrolean speaking child is first addressed in Standard German. However, intelligibility has been claimed to be *asymmetric*, which raises an issue with the idea that testing the reverse is in any way informative, i.e. that testing South Tyrolean on German speakers gives us insight into what it would be like to test Standard German on South Tyrolean speakers. A discussion of asymmetry in intelligibility research is therefore in order.

4.1.2.1. (A)symmetry in intelligibility

As claimed by Wolff (1959: 36), “linguistic (phonemic, morphemic, lexical) similarity between two dialects does not seem to guarantee the possibility of interlingual communication; similarly, the existence of interlingual communication is not necessarily an indication of the linguistic similarity between two such dialects.” In other words, intelligibility is not automatically and necessarily symmetrical as speaker A/community A may understand speaker B/community B better than speaker B understands speaker A. Research has shown that Danes understand Swedes much better than the other way around (Gooskens, 2007a, Moberg et al., 2007; Gooskens et al., 2010; Gooskens & van Bezooijen, 2013), German is understood easier by Dutchmen than Dutch by Germans (Gooskens et al., 2015), and this asymmetry has also been observed between other language pairs, such as Spanish and Portuguese (Jensen, 1989), Czech and Slovak (Budovicová, 1987). Various assumptions and explanations for this asymmetry between some language pairs can be found

in the literature, such as positive attitudes, higher motivation to understand the other language, one variety seems to be more prestigious than the other variety, the amount of contact or the degree of experience (i.e., familiarity) – either in its written or spoken form – or linguistic characteristics (such as pronunciation, speech rate, orthography) (Wolff, 1959; Gooskens et al., 2010; Gooskens & van Bezooijen, 2013; Gooskens et al., 2015). As highlighted by Hammarström (2008), asymmetry – i.e. speaker A understands speaker B but it is non-reciprocally – happens mainly (if not at all) because speaker A has learnt or has been exposed to B. Returning to the South Tyrolean context, usually German speakers are rarely – if at all – exposed to South Tyrolean speakers whereas South Tyrolean people are familiar with Standard German from very early on (see *Chapter 2*).

Bearing in mind that intelligibility has been claimed to be asymmetric, it raises the issue whether testing the reverse, i.e. testing how much South Tyrolean is intelligible to German speakers, is possible and reliable. Empirical evidence, however, has shown that Germanic varieties tend to be quite symmetric, which means that testing the reverse can indeed provide a good indication. Very recently, for instance, Gooskens et al. (2015) demonstrated that intelligibility of Dutch stimuli to German listeners was 42%, whereas intelligibility of German stimuli to Dutch listeners was 50%. Gooskens and van Bezooijen (2013) found that Danish pupils translated 57% of Swedish words correctly. Swedish pupils, on the other hand, translated 45% of the Danish words correctly. For this reason, testing how intelligible South Tyrolean is to Standard German speakers can arguably be quite informative and provide us with a rather accurate estimate of the reverse situation, namely how intelligible Standard German is to South Tyrolean speakers.

4.1.2.1.1. Reasons for testing the reverse

At this point, in order to understand the idea of testing the reverse, I shall disambiguate the term *intelligibility*.

On the one hand, while talking about intelligibility, we have the case that ‘variety A’ is so closely related to ‘variety B’ that knowing ‘variety A’ enables understanding ‘variety B’ (Hammarström, 2008). Well-known examples representing this case are speakers of the Scandinavian languages (Danish, Swedish, and Norwegian) who use their own native language when interacting with their neighbours (e.g., Braunmüller, 2002).

On the other hand, intelligibility also happens if ‘speaker X’, who is a speaker of ‘variety C’, understands ‘variety D’ just because ‘speaker X’ has learned ‘variety D’ several

years ago at school (Hammarström, 2008). So, even in this latter case, we talk about intelligibility but it can be said that both linguistic situations differ from each other.

In the South Tyrolean case, we have two Germanic varieties which are related to each other. However, whether their relatedness helps Standard German speakers in understanding the South Tyrolean variety shall be examined in the empirical study conducted in this chapter.

So, testing the reverse has been done for several reasons. First of all, it is important to highlight that I do not reject the role of asymmetry between Standard German and the South Tyrolean variety. In the current case, intelligibility is definitely not equal in both directions, as asymmetry depends on several factors mentioned above, such as listeners' degree of exposure, linguistic features, and willingness of understanding the other language. Thus, it is undisputable that listeners' degree of exposure is unequally distributed among the German and South Tyrolean speakers: all adult South Tyrolean speakers are competent Standard German speakers as they learn the language at school (although the degree of active linguistic competence may vary from person to person). This, however, is not the case for the German speakers. Secondly, therefore, in testing German speakers who have rarely or never heard the South Tyrolean variety demonstrates whether they face any difficulties with the receptive understanding (listening) of South Tyrolean – albeit the two varieties are genetically related. If German listeners do face difficulties, this will then give us an indication of what a young South Tyrolean child is faced with while being addressed in Standard German for the first time. As already explained previously, South Tyrolean children are socialized in a variety which is similar to Standard German. Nonetheless, as stated by Kramer (1981), no child who speaks a Tyrolean dialect would understand Standard German if s/he has not got used to it²⁸ – in other words, experienced a linguistic learning process. Kramer (1981) further claimed that the child, while being exposed to Standard German, may understand this linguistic form, however, its native language is still that far away that a difficult learning process is necessary in order to actively control its Standard German knowledge. Therefore, it should not be assumed that knowing South Tyrolean enables its young learners to understand Standard German without any troubles as we do not assume a priori that knowing Standard German implies unproblematic understanding of South Tyrolean either. I am therefore using the term *intelligibility* in the first sense explained above. Finally, the fact that Germanic varieties tend to be quite symmetric (see Gooskens & van Bezooijen, 2013; Gooskens et al., 2015) buttresses the concept of intelligibility, since Germans' degree of intelligibility will provide

²⁸ At this point it should be noted that Kramer (1981) did not provide any evidence on which (empirical) studies he based this statement.

us with a good indication of how intelligible Standard German is for young South Tyrolean speakers.

So, testing the reverse – thus testing German listeners and see how much South Tyrolean they understand – will give us an indication of intelligibility (in the first sense described above) of Standard German to South Tyrolean speakers.

4.1.3. Purpose of this study

The more there is mutual intelligibility, the less two speakers have difficulties in communicating with each other since the varieties are structurally close to each other. Genetically related languages often facilitate understanding and in the case of (very) closely related languages, the speaker of one language is able to communicate with the speaker of the other language in his/her own native language, as for instance speakers of Danes, Swedes, and Norwegians (see Braunmüller, 2002), or Dutch and German speakers (see Ten Thije & Zeevaert, 2007; Beerkens, 2010).

The main purpose of this investigation is to examine intelligibility between Standard German and the South Tyrolean variety. I am interested in measuring the degree of intelligibility between the two varieties in order to challenge the notion of ‘monolingualism’ within a diglossic framework. I am specifically interested in how many languages a South Tyrolean child is dealing with and I am interested in establishing the linguistic gap children have to cover once they enter an educational establishment (see *Chapter 5*). As discussed in the previous chapter, linguistic gaps occur when there are lexical, phonological or morphological differences between the target language and the source language. While this is accepted for children growing up with two related *Ausbau* languages such as Dutch and German, it is often ignored within a diglossic context. Before attending preschool (age 3 or 4) and school (age 6), South Tyrolean children are almost exclusively addressed in the South Tyrolean variety. This changes as soon as they enter preschool and school since it is regulated that Standard German is the language of daily usage within these educational institutions (see *Chapter 2*). So, once we know the degree of intelligibility between the two varieties, we can examine the impact the intelligibility gap might have on these children’s language performance (examined in *Chapter 5*).

4.1.3.1. Research question

For the purposes of this research it was decided to focus on spoken language comprehension only, as my overall aim is to gain insights into the impact that *in-diglossia* or *inner*

multilingualism (for a definition see *Chapter 2*) has on preschool children's performance. In current chapter the overall aim was to examine the intelligibility level of the South Tyrolean variety to Standard German listeners, and thus indirectly determine the linguistic gap young South Tyroleans have to cover at their early stages of education. From preschool onwards educators and teachers are obligated to address their young children and pupils in Standard German (see section 2.1.1 in *Chapter 2*). This means that South Tyrolean preschoolers are already confronted with Standard German receptive language skills (listening) from an early age.

Therefore, in order to keep the test situations as consistent as possible, both empirical studies conducted in this dissertation (*Chapter 4* and *Chapter 5*) investigated receptive language skills – in other words the ability to comprehend a certain variety or language. *Chapter 4* investigates how intelligible South Tyrolean is for German listeners, while *Chapter 5* investigates South Tyrolean preschoolers' receptive German language skills.

The research question posed in the current study is as follows:

1. What is the intelligibility level of the South Tyrolean variety to Standard German listeners?

The results obtained through the sentence test will then give as an indication about the degree of intelligibility between Standard German and South Tyrolean.

4.2. METHODOLOGY

This chapter is organized into six sections. Section 4.2 discusses the methodology of the current study by presenting the stimulus material (section 4.2.1) and the preparation of the recording (section 4.2.2). Section 4.3 explains the online experiment in more detail, by describing the design of the online study (section 4.3.1), the background questionnaire (section 4.3.2), and the sentence task (section 4.3.3). Subsequently, I present the participants in section 4.4, listeners' foreign language competences (section 4.4.2.1), as well as contact, familiarity, and attitudes (section 4.4.2.2). The results of this study are then presented in section 4.5, followed by an extensive discussion and evaluation of the significance of these findings in section 4.6. Finally, section 4.7 provides a brief conclusion of this chapter and pinpoints areas and directions for future research as well as limitations of the current study (section 4.7.1).

Ethics statement

Participants gave written informed consent. This study has received ethical approval from Bangor University Research Ethics Committee.

4.2.1. Stimulus material

The degree of intelligibility between Standard German and the South Tyrolean variety was measured by using a sentence test – the so-called ‘SPIN’ test (‘Speech Perception in Noise’) – originally developed for English by Kalikow, Stevens and Elliott (1977). More recently, this sentence test has also been used by Tang (2009), Wang (2007), Tang and van Heuven (2009), and Tamburelli (2014) in measuring intelligibility across related varieties.

The method used for the current study is known as *functional testing* or *test the informant* (Tang & van Heuven, 2009), which tests how well speaker A ‘actually understands’ speaker B. In the test, the participant is required to listen to a number of short spoken sentences and has to write down only the final word. In the present study, the listener hears the sentence in South Tyrolean and has to translate the final word in Standard German.

The original SPIN test comprises 200 high-predictability sentences. High-predictability items help the listener in identifying the word by its syntactic, semantic and prosodic cues, as well as by acoustic characteristics itself (Kalikow et al., 1977). Sentences were selected when they ended in final nouns once they had been translated into the South Tyrolean variety (as in the original English version). As presented in the example below, it can be seen that the meaning of the final word is highly predictable from the context (see also Wang, 2007):

The watchdog gave a warning growl.

As shown in the given example, recognition/predictability of the target word (in the example above it is the underlined word ‘growl’) is closely related to the general understanding of the context. Even if the listener failed to understand the target word, s/he might still be able to identify the target word as long as s/he understood the preceding context. Therefore, this test does not focus on the intelligibility of single nouns, but rather on the overall intelligibility of the target sentences.

A completed list of the 20 sentences used in the current study can be found in Appendix A4 (sentences are in English). Appendix A5 provides an overview of the 18 stimuli sentences in Standard German (orthographic and phonetic transcription), and in South Tyrolean (phonetic transcription).

4.2.1.1. Reasons for choosing the SPIN sentence test

Out of all the different methods and techniques (multiple-choice question, picture selection, true/false question, translating single words, or summarization), the SPIN sentence-intelligibility test (Kalikow et al., 1977) was concluded to be particularly appropriate for investigating the degree of intelligibility between Standard German and the South Tyrolean variety. This method has been chosen because of three reasons. First of all, the short sentences minimise problems of memory (Gooskens, 2013). It has been claimed in the literature that translating involves far more abilities (i.e., memory) than intelligibility only (see for instance, Gooskens et al., 2008; Gooskens, 2013). In the present intelligibility test the 20 sentences comprised between four and seven words (with a mean of 5.75 words) in order to ensure that potential differences in short-term memory would not influence the results (Gooskens, 2013). Secondly, a sentence-intelligibility test has shown to be a more precise measure of intelligibility across related languages than a semantic categorization task (Tang & van Heuven, 2009), or an isolated word-recognition task (Miller et al., 1951; Tang & van Heuven, 2009), and more efficient than an opinion test (Tang & van Heuven, 2009). As argued by Tang and van Heuven (2009), the sentence test has greater ecological validity than the semantic categorization task or the word-intelligibility test. In the semantic categorization task, single words have to be categorized as a member of different semantic categories, such animal, fruit, or body parts. In natural speech, however, isolated words are the exception, since listeners are used to hearing words in a context. According to Valentini-Botinhao and Wester (2014: 2063), the SPIN test “is a more realistic task than, for instance, semantically unpredictable sentences.” Finally, the chosen SPIN sentences allowed keeping the stimuli as consistent as possible: short sentences, with a final noun at the end of a sentence.

One might question whether 18 sentences (with relatively simple grammar) used in the current empirical study represent the whole linguistic situation adequately, or whether more sentences would have provided a more satisfying picture. At this point it should be noted, however, that even such a small number as 18 sentences can indeed provide accurate results. Very recently, Girbau (2016) used 20 Spanish non-words while testing Spanish-speaking elementary school children with and without Specific Language Impairment (SLI), demonstrating that the non-word repetition task proved to be an accurate clinical marker for diagnosing SLI in children. Dollaghan and Campbell (1998) used 16 non-words as a screening measure for identifying language impairment in children. In testing Spanish-English speaking children, Gutiérrez-Clellen and Simon-Cerejido had a list of 20 Spanish non-words and they used Dollaghan and Campbell’s (1998) list of English non-words. A list

of 20 non-words has also been used in testing deaf children by Dillon et al. (2004), and by Casserly and Pisoni (2013). Casserly and Pisoni (2013) findings' showed that children's performance on a non-word repetition task strongly correlated with their language abilities: namely word recognition, sentence perception, speech intelligibility by keywords, and reading ability improved over time. It can be seen that even though the studies mentioned above had also a restricted number of stimuli (between 16 and 20), they have been consistently and systematically successful in determining accuracy to the point that they are trusted as clinical markers.

4.2.2. Stimulus preparation and preparing the recording

The 20 sentences used in the present study were selected as follows. Out of the 52 translated sentences²⁹, 25 were chosen randomly and recorded onto a digital voice dictaphone (H1 Handy Recorder 200M). As studies have shown that female voices tend to be more intelligible than male voices (Bradlow et al., 1996), a female native speaker of the South Tyrolean variety was chosen. The speaker grew up in Lana (10 km from the city Merano³⁰ and 25 km from the capital Bolzano) and was 23 years old at the time of recording. In the current investigation the variety spoken in Lana has been chosen as representative for the whole language area.

The speaker was recorded multiple times whereby the recordings were made in a quiet setting (in a home) to ensure the absence of background noise as much as possible. Next, I selected the best and most natural sentence recordings which were as similar as possible to natural speech. In order to be as reliable as possible, the 25 sentences were played to two native speakers of South Tyrol. Consequently, one sentence was excluded since the context was not readily understandable according to one listener. Finally, 20 sentences (2 practice items and 18 test sentences) were selected from those which obtained 100 per cent responses by both listeners (Appendix A4).

A pilot study was undertaken in March 2013 in Bangor. The pre-test was conducted among five German speakers (average age 22.4 years) to ensure that the questions in the questionnaire were clear and unambiguous and that the selected items were suitable.

Ultimately, two sound files were produced with the Audacity programme: one with the 18 sentences in a randomised order and another one which contained the same 18 sentences

²⁹ The sentences were translated from English into the South Tyrolean variety by the author.

³⁰ It is important to mention that Merano lies in the Etschtal/Val d'Adige, which stretches from Merano to Bolzano. People who originally come from smaller towns or villages in the mountains are perceived by other South Tyroleans of having a stronger accent/regional marker than those living in the Etschtal/Val d'Adige.

but in the reverse order in order to control for potential sequence effects (tale effect). The listeners were randomly assigned to one of the two files.

4.3. EXPERIMENT

Section 4.3.1 describes how the internet-based test was prepared, before presenting the questionnaire and the task in section 4.3.2 and 4.3.3 respectively. A questionnaire was used in order to gather information regarding the participants' first language, place of origin, and foreign language knowledge. This information is very important as it determines whether a listener's understanding of the target words is because of familiarity or due to specific linguistic features of the South Tyrolean variety (e.g., phonological factors).

4.3.1. Design: Online survey

An internet-based experiment was conducted and ran from May 14th to September 30th 2013. There were mainly two reasons for conducting the survey online³¹. Firstly, the ability to reach and assess a huge number of individuals in geographical distant locations (in my case Germany), which may save time for the researcher (Wright, 2005). Secondly, the interaction between me (a native speaker of the South Tyrolean variety) and the German participants might influence their answers in such way that they might give desirable answers, which would compromise the validity of this study.

The questionnaire and the sentence task were produced with the help of the online tool *Lime Service Survey*³², which can be used for free. Internet-based experiments were applied earlier by several other researchers in different disciplines (e.g., Fricker et al., 2005; Kürschner et al., 2008; Gooskens & Kürschner, 2009; Beerkens, 2010; Gooskens et al., 2011; Gooskens & van Bezooijen, 2013) and institutions (Language Research System of the University of Groningen and the University of Erlangen-Nürnberg³³).

In spite of the extensive pre-testing in order to ensure that the questions and the programme itself work properly, unfortunately not all technical problems could be avoided, as acknowledged in section 4.4.2. Moreover, although they were advised to wear headphones, I cannot guarantee that all the participants followed the instruction.

³¹ For further information regarding online survey research, see Fricker and Schonlau (2002), and Wright (2005).

³² See <http://www.limesurvey.org/>, accessed 13 May 2013.

³³ <http://www.let.rug.nl/lrs/client/index/>, accessed 13 May 2013.

4.3.2. Background questionnaire

Once the participant opened the link to the survey, s/he was asked to complete a consent form before filling in the background questionnaire. The introduction, the consent form and the questionnaire (Appendix A3) were provided in Standard German in order to avoid that responses may be inaccurate or incomplete because of low English proficiency. The questionnaire, which was a variation of the one used by Tamburelli (2014), contained questions related to age, gender, place of residence, place of study, language usage at home, knowledge of other languages, language contact, and language attitude. Since all questions were relevant to the study, the respondent had to answer each question and s/he was not able to skip one. However, there was no time limit and s/he could answer the questions at his/her own pace. Overall, it took the participant between 10 and 15 minutes to complete the whole study.

The answers provided to these questions were used in order to select the participants, which had to be L1 German, and spoke no Low-German dialect (*Plattdeutsch*) or any other related dialect, such as Bavarian spoken in Austria or Bavaria (southern Germany) (for more details regarding the participants, see section 4.4).

4.3.3. Task

A detailed description instructed the listener that after hearing a sentence, s/he had to write down the Standard German equivalent/translation (in Standard German orthography) of the final word (or target word) in the given space (see Figure 4.1). In contrast to the background questionnaire, in the actual sentence test the listener was allowed to leave the space for the target word empty if s/he did not understand the South Tyrolean word or was not able to provide a translation. The listener could move on to the next sentence by pressing the button 'Next'. There was no time limit and the participant would decide when s/he was ready to hear the next sentence.

The actual intelligibility experiment, which consisted of 2 practice items and 18 test stimuli, started immediately after the background questionnaire. Once the participant pressed the start button, there was a beep, followed by a 2.0 second pause, and then s/he would hear the first sentence in South Tyrolean (several other studies used a pre-stimulus interval/a tone cue in their experiments, such as Kroll et al., 2000; Winkler et al., 1999; Thierry & Wu, 2007; Gooskens et al., 2008; Wu & Thierry, 2010; Gooskens & Heeringa, 2014). Afterwards, each sentence was preceded by a beep and a 2.0 second pause. Once the test was done, all answers

were saved by LimeService. The results are easily accessible, and can be downloaded from LimeService at any time.

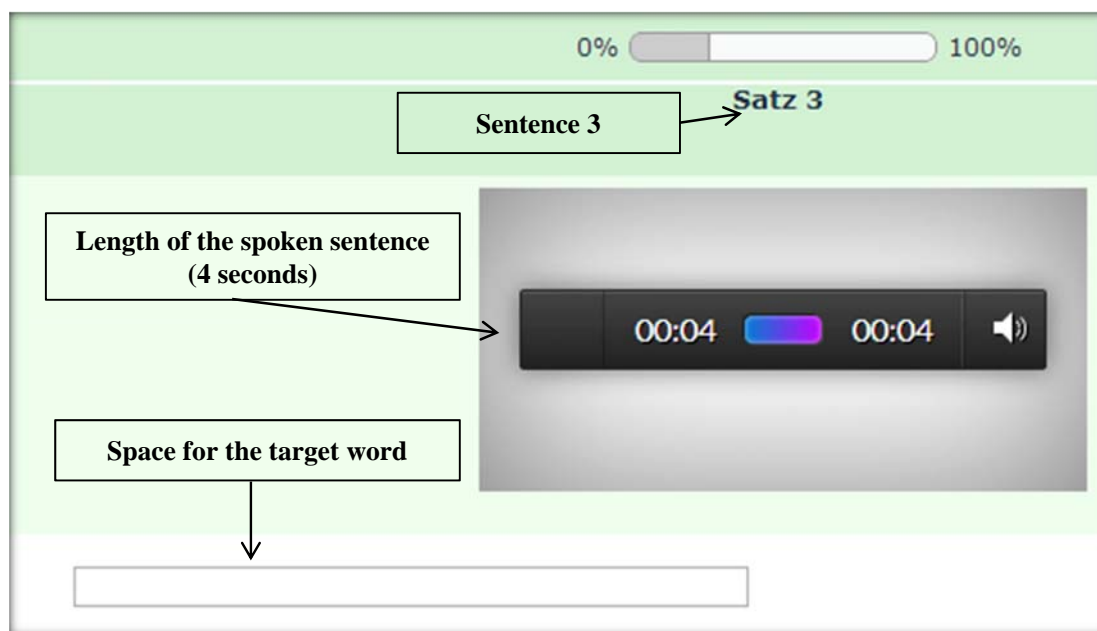


Figure 4.1. Example (sentence 3) presented to the listener.

It is well known that within the context of sentence intelligibility earlier recognition of a word simplifies the identification of the same word (e.g., Morton, 1969; Cutler & van Donselaar, 2001). In order to prevent such priming effects, each sentence was presented only once to the listener. The percentage of target words correctly translated by the listener represents the degree of intelligibility. In other words, the higher the number of correctly translated target words, the higher is the intelligibility of the South Tyrolean variety to German listeners.

4.4. PARTICIPANTS

Based on the answers of the questionnaire, the following participants were included in the final analyses: (i) L1 German speaker, and (ii) spoke no Low-German dialect (*Plattdeutsch*³⁴) or another related dialect such as Bavarian spoken in Austria or Bavaria (Gass & Varonis,

³⁴ *Plattdeutsch* (Low-German dialect) used to be an independent language. Nowadays, however, it has lost autonomy and is regarded as heteronomous with respect to German (Trudgill, 1992, 2002). Nevertheless, *Plattdeutsch* has achieved official recognition and was included in the list of regional languages (Rowley, 2011). For an overview on the full range of Germanic languages, see Harbert (2007).

1984; Derwing & Munro, 1997; Gooskens, 2007a; Gooskens et al., 2011). Neither age nor education boundaries were set for the selection of the participants.

People who came from Bavaria (southeast of Germany) or Austria were not included since their varieties are part of the same dialect continuum (see Wiesinger, 1990; Ammon, 2001), i.e. this means that they easily understand each other. People who spoke L varieties, such as *Plattdeutsch* spoken mainly in North Germany, were not included in this study either. This was done because of the outcome found in Berthele (2008). Examining whether the knowledge of an L variety facilitates the receptive understanding of an unknown – but linguistically related – standard language (University students from Switzerland and Germany were tested in Dutch, Swedish, and Danish), Berthele (2008) concluded that there is a positive relationship between the knowledge and competences of an L variety ('dialect') and the comprehension of the unknown language (Dutch, Swedish, and Danish). Based on three tasks (word comprehension with and without context, and reading comprehension), Berthele (2008) showed that competent 'dialect–Standard German-speakers' scored significantly higher than those who did not speak or know an L variety ('Standard German speakers only').

4.4.1. Participants' recruitment

Potential participants were contacted through different methods.

Posters/flyers were prepared with sampling criteria and contact details and hung up on notice boards in the Bangor University buildings (Appendix A1). In spring-time 2013 an E-mail was sent to all undergraduate, postgraduate, and Erasmus students at Bangor University explaining the survey and sample criteria. A further E-mail was sent to all new Erasmus students at Bangor University in September 2013. In the appendices, the original German version (Appendix A3) and a translation into English are included (Appendix A2). Several notes were published on Bangor Discussion Forums. The Internet-based experiment also allowed publishing messages on Facebook (e.g., University of Manchester German society) and contacting numerous universities in Germany directly. Other participants were recruited by the concept of social networks, the so-called *friend of a friend approach* or *snowball sampling* (Milroy, 1980; Tagliamonte, 2006; Stockwell, 2007). This approach helps the researcher in being introduced to potential participants. Three students from Bangor University, which had German friends in Germany, were asked to forward the link of the online survey to some of their friends that they identified as potential participants. One could argue that the latter technique risks causing an unrepresentative sample since participants may have similar backgrounds. While this may be the case in principle, Table 4.1 below, shows a

balance between random sampling and the social network approach, which provides an adequate representation of the sample.

	<i>N</i>	'friend of a friend' approach	Facebook (German societies)	Universities in Germany	Bangor University
Were excluded	9	6	1	1	1
Took part in the study	26	6	6	12	2

Table 4.1. German participants' recruitment.

Each E-mail and message included the link to the questionnaire and details of the researcher. Once the receiver of the E-Mail showed interest in the study, s/he had to contact the researcher in order to obtain a personal/unique code number (password), which I assigned to everyone individually. This should assure that each survey was completed only once by the participant.

4.4.2. Descriptive statistics

A total of 26 Standard German listeners participated in the study. Nine more Germans participated but were excluded from the analyses for various reasons (see below).

Participants mean age was 24.92 years with a range of 19 to 35 years. At the time of testing they studied either in Germany or in other places in Europe, such as Manchester, Bangor or Linköping (Sweden). It was not possible to balance the group equally for gender and much more female (76.92%) than male listeners (23.07%) participated. In Table 4.2, details on the distribution of participants' gender and age are displayed. Male participants had a mean age of 27.33 years and female participants had a mean age of 24.2 years.

	Participants (<i>N</i>=26)	
	Gender	
<i>N</i>	6 male	20 female
Percentage	23.07%	76.92%
Mean age in years (SD)	27.33 (5.27)	24.2 (2.83)

Table 4.2. German participants' gender and age.

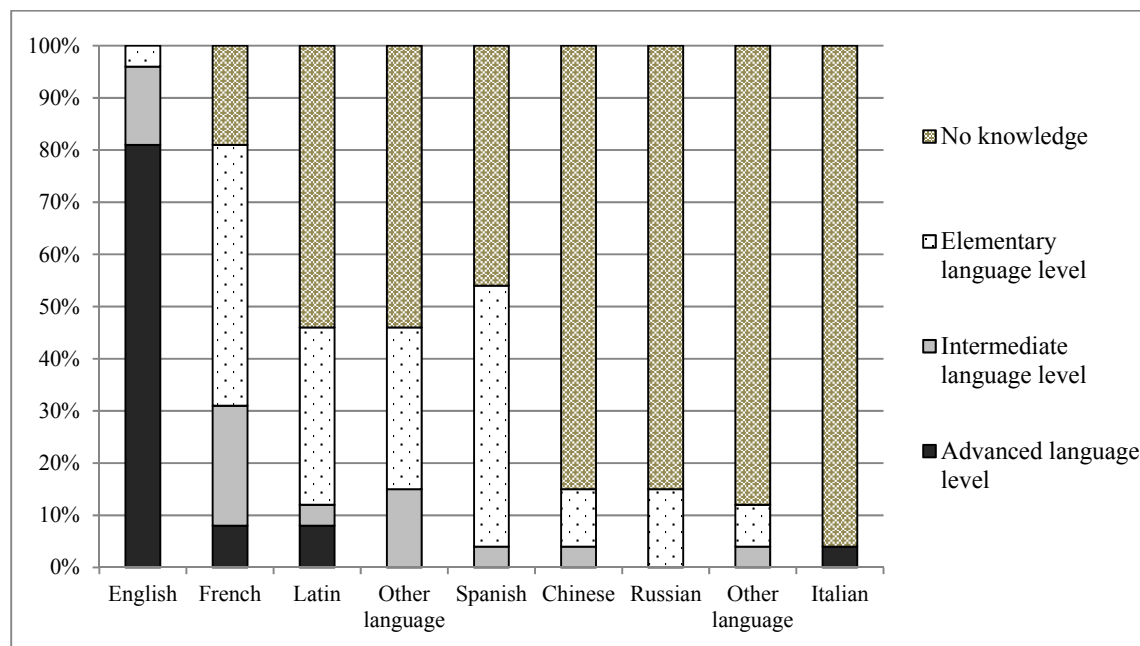
Nine additional participants (8 female and 1 male) took part in the study but were not included in the final sample because (1) they did not meet selection criteria (two participants were originally from Bavaria, one participant's native language was *Plattdeutsch*), (2) had

technical problems with the audio-part (one participant), and (3) for unknown reasons did not finish the task completely and abandoned the online survey earlier (five participants).

4.4.2.1. Foreign language proficiency

This section presents the results of participants' foreign language proficiency and their own estimations of the level of competence. Since any language knowledge (i.e., Latin, English) or foreign words might facilitate the understanding of some non-cognates (Gooskens, 2007a), participants were asked to report their foreign language knowledge and competence. A list of languages was presented in the form of a matrix: on the vertical axis the languages were listed ('English', 'French', 'Italian', 'Spanish', 'Chinese', 'Russian', 'Latin', and 'other language') and on the horizontal axis their language competence: 'no language competence'=1, 'elementary language level'=2, 'intermediate language level'=3, and 'advanced language level'=4.

Results show that, on average, each German participant 'knows' 1.7 foreign languages (for this calculation, only intermediate and advanced language levels were considered). Graph 4.1 gives an overall picture of participants' foreign language competences, showing that 80% of the listeners reported to have an advanced English language competence, while 15% reported to have an intermediate language level in English.



Graph 4.1. Foreign language competence with average self-estimated level.

Table 4.3 summarizes the mean and SD of participants' language proficiencies. Almost all participants reported having an advanced competence in English, their estimated competence was very high (M=3.769, SD= .514). French was the second most known language, whereby the estimated level is already lower (M=2.192, SD= .849). All other languages are estimated on a rather basic level.

Language	Mean (SD)	Language	Mean (SD)
English	3.769 (.514)	Chinese	1.192 (.491)
French	2.192 (.849)	Russian	1.153 (.367)
Latin	1.653 (.891)	Other language	1.153 (.464)
Other language	1.615 (.752)	Italian	1.115 (.588)
Spanish	1.576 (.577)		

Table 4.3. Foreign language competences (mean and SD) using a four-point rating scale: 'no language competence'=1, 'elementary language level'=2, 'intermediate language level'=3, and 'advanced language level'=4.

Whether there was a correlation between foreign language proficiency and intelligibility scores shall be investigated in section 4.5.2.

4.4.2.2. Extra-linguistic variables

It has been claimed that attitudes have an effect on the intelligibility of (related) languages: positive attitudes will encourage listeners to try to understand the language in question, whereas negative attitudes should discourage from making such an effort (Gooskens, 2006, 2007b). More recently, however, research has shown that a direct relationship between intelligibility scores and attitudes is difficult to demonstrate, that “participants with a positive attitude perform equally well as participants with a negative attitude”, and that attitudes are only marginally relevant (Schüppert & Gooskens, 2011: 135). Moreover, as already presented above, contact with the language in question – either in its spoken or written form – is also likely to improve the performance on the sentence test (e.g., Gooskens, 2006; Moberg et al., 2007).

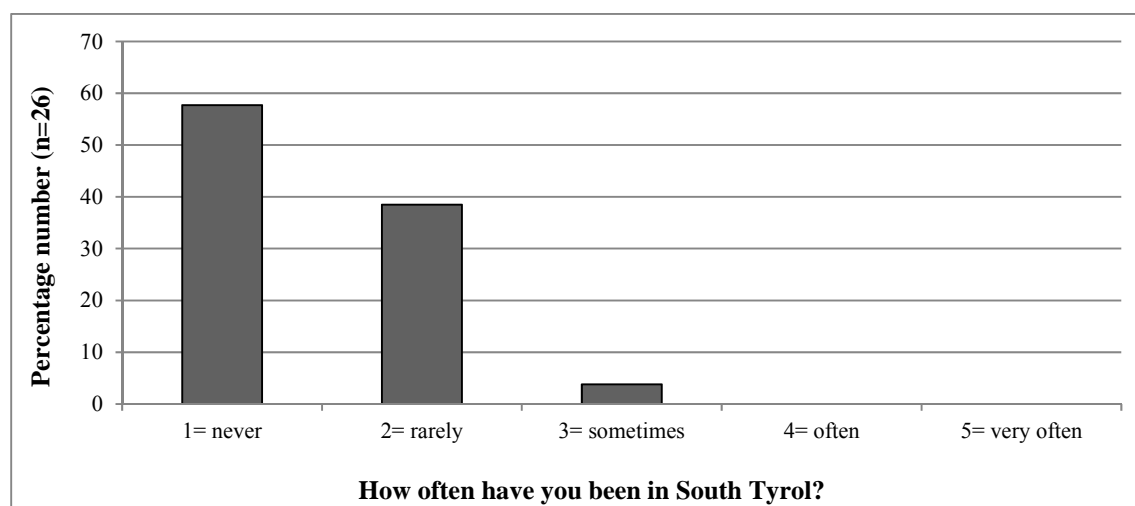
In order to control for these extra-linguistic variables, participants were asked about their contact with and language attitude towards South Tyrol and its variety. Besides South Tyrol and its variety, the listener was also asked to rate three more federal states (*Bundesländer*) from Germany and their varieties. The latter served as distractors.

I will be discussing extra-linguistic variables – contact, familiarity, and attitudes – separately in the following subsections before correlating them with the intelligibility scores in section 4.5.3.

4.4.2.2.1. Contact and familiarity

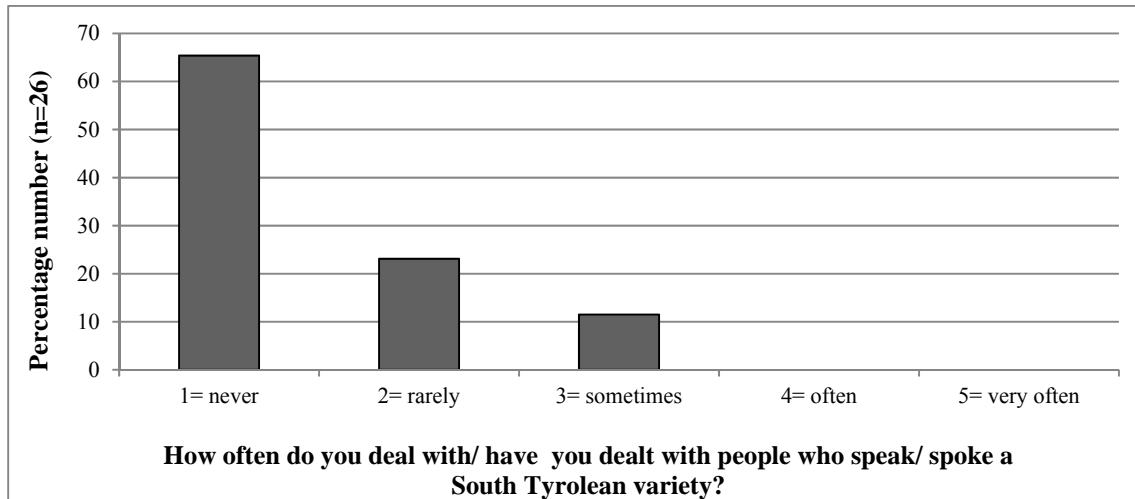
In reporting familiarity and language contact with the target area and its inhabitants, participants were asked to fill in a 5-point scale of how often they have been to South Tyrol. These categories have been labelled here as ‘never’=1, ‘rarely’=2, ‘sometimes’=3, ‘often’=4 and ‘very often’=5.

As shown in Graph 4.2, very few listeners have been to South Tyrol before conducting the online test: only one listener (3.8%, see *Participant 1* in Graph 4.7) was ‘sometimes’ in South Tyrol, the other participants have either rarely (38.5%) or never been in the target area (57.7%). At the time of data collection, no participant has been ‘often’ or ‘very often’ in South Tyrol.



Graph 4.2. Question 4: Contact.

Unsurprisingly, most participants have never dealt with people from South Tyrol and thus were unfamiliar with the South Tyrolean variety: only 11.5% had ‘sometimes’ contact with South Tyroleans (see *Participant 1, 9 and 11* in Graph 4.7), some listeners had rarely contact (23.1%), and most participants had no contact at all (65.4%), as shown in the Graph below.



Graph 4.3. Question 5: Familiarity.

As can be seen in Table 4.4, both mean scores (and SD) for question 4 and 5 are very low.

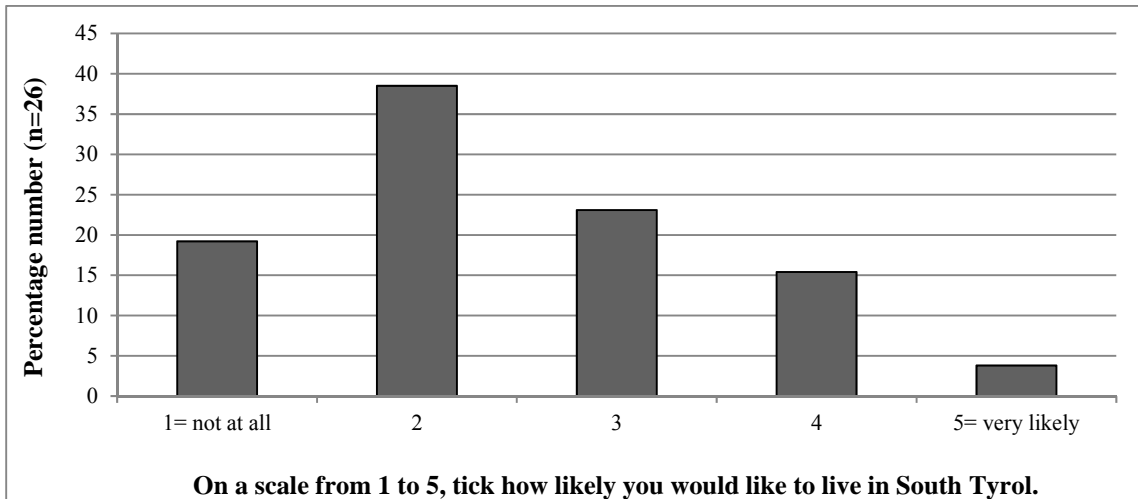
Question 4 and Question 5	Mean score (SD)	Range
Q4. How often have you been in South Tyrol? (1=never, 5=very often)	1.46 (.582)	1-3
Q5. How often do you deal with/ have dealt with people who speak/ spoke a South Tyrolean variety? (1=never, 5=very often)	1.46 (.692)	1-3

Table 4.4. Language contact with South Tyrol and its inhabitants.

4.4.2.2.2. Attitudes

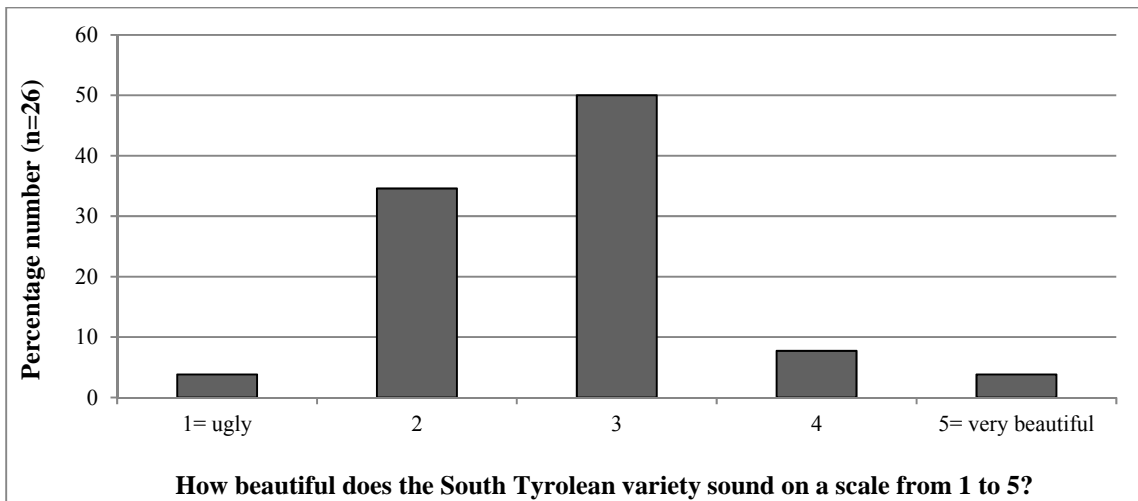
Participants were also asked three questions regarding language attitude towards the target area and its variety. Firstly, they had to indicate on a 5-point scale whether they would like to live in South Tyrol (Q6: 1='not at all', 5='very likely'). Secondly, they were asked to indicate how beautiful or ugly they thought the South Tyrolean variety was (Q7: 1='horrible', 5='very beautiful'). Thirdly, they were asked to agree or disagree on a 5-point scale whether they would like to speak the South Tyrolean variety (Q8: 1='strongly disagree', 5='strongly agree').

As summarized in Graph 4.4, 19.2% of the respondents claimed that they would not like to live in the area at all, 23% of the respondents lie in the middle range (category 3), and 19% are likely or very likely to live in the target area (category 4-5).



Graph 4.4. Question 6: Attitudes.

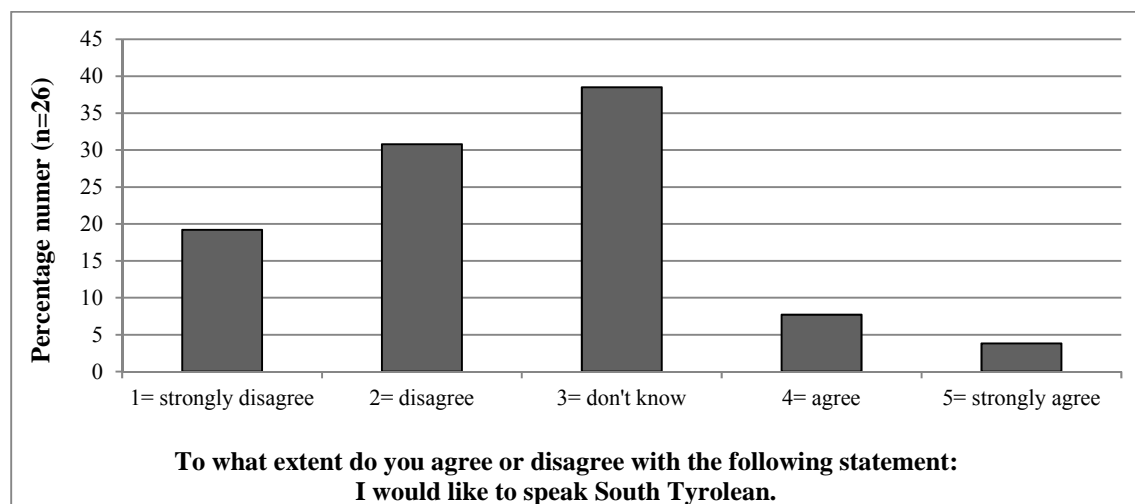
Graph 4.5 summarizes participants' respondents for question 7: Only one respondent classified the South Tyrolean variety as ugly (3.8%), whereas the majority labelled it in the middle range (50%, category 3), and 11.5% classified the variety as beautiful or very beautiful (category 4 and 5).



Graph 4.5. Question 7: Attitudes.

Question 8 asked them to agree or disagree on a 5-point scale whether they would like to speak the variety (Q8: 1='strongly disagree', 2='disagree', 3='don't know', 4='agree', 5='strongly agree'). According to the answers given in the questionnaire, and as shown in

Graph 4.6, 19.2% strongly disagreed, 30.8% disagreed, 38.5% don't know, 7.7% agreed, and most respondents (3.8%) were strongly agreed.



Graph 4.6. Question 8: Attitudes.

Table 4.5 presents the mean scores (and SD) for each attitude-related question separately from each other (Question 6, 7, and 8). Although there was quite a lot of variation across participants' answers (as demonstrated in the Graphs 4.4, 4.5, and 4.6), the mean scores for the three attitudinal questions were in the middle range.

Question 6, Question 7, and Question 8	Mean score (SD)	Range
Q6. On a scale from 1 to 5, tick how likely you would like to live in South Tyrol? (1=not at all, 5=very likely)	2.46 (1.104)	1-5
Q7. How beautiful does the South Tyrolean variety sound on a scale from 1 to 5? (1=ugly, 5=very beautiful)	2.73 (.827)	1-5
Q8. To what extent do you agree or disagree with the following statement: I would like to speak South Tyrolean. (1=strongly disagree, 5=strongly agree)	2.46 (1.029)	1-5

Table 4.5. Participants' attitudes towards South Tyrol and its variety.

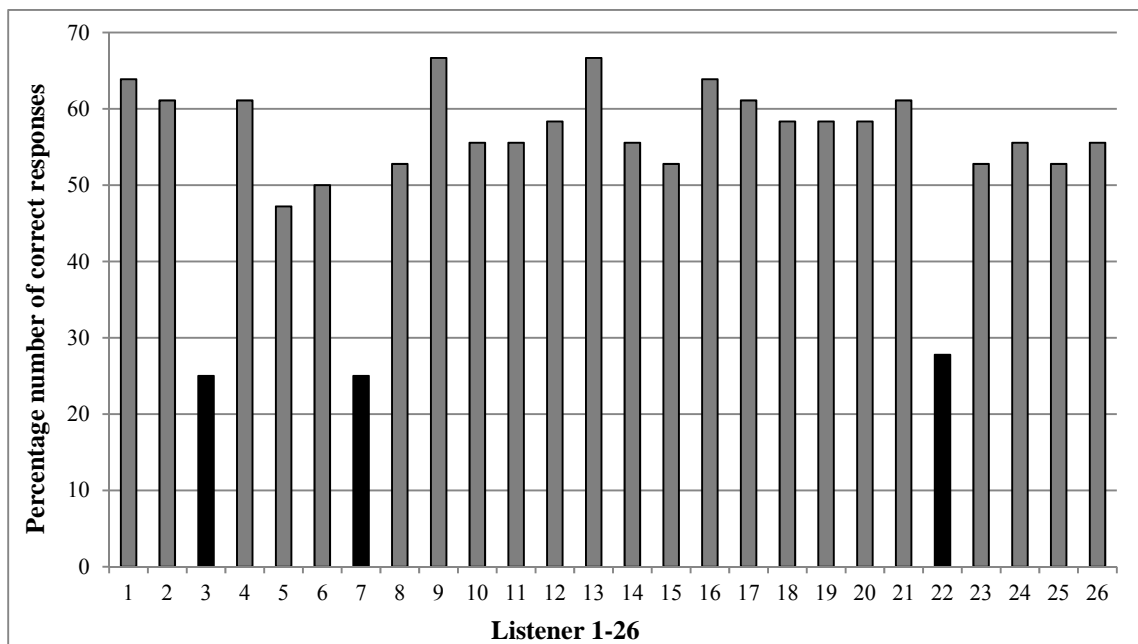
4.5. ANALYSES

In this section I shall present the overall intelligibility results (section 4.5.1), have a closer look at the intelligibility of the 18 individual target words (section 4.5.1.1), correlate intelligibility scores with listeners' foreign language proficiency (section 4.5.2) as well as listeners' responses to the five questions related to contact, familiarity, and attitudes (section 4.5.3).

4.5.1. Intelligibility score

For the intelligibility test, correct translation of each target word was scored 1 point, partly correct translations were scored 0.5 points, and incorrect translations (and blank responses) zero points. Partly correct translations were cases where the word was written in the singular form (e.g., ‘swamp’ [zompf]) instead of the plural form (e.g., ‘swamps’ [zymphn]). As argued by Gooskens (2013), it might be difficult for the researcher to decide whether a translated word should be counted as corrects or incorrect. With the purpose of avoiding this problem, I have consulted German dictionaries in order to guarantee that each target word was counted correctly.

Graph 4.7 provides the percent intelligibility scores for each participant. It can be seen that there are notably differences between participants with the lowest intelligibility scores (*Participant number 3, 7, and 22, coloured black in Graph 4.7*) who achieved less than 30%, and several others who exceeded 60% performance.



Graph 4.7. Percent intelligibility scores for each participant.

A maximum intelligibility score of 18 points was possible. The mean intelligibility score (and SD) for the SPIN test is presented in Table 4.6. The number of points was expressed as a percentage, which represents the intelligibility score between the two varieties. The mean was 9.827 (SD= 2.121) with a mean percentage score of 54.59% ($9.827/18= 0.5459$).

Participants	Mean score (SD)	Range
N= 26	9.827 (2.121)	4.5-12

Table 4.6. Participants' mean score (and SD) for the intelligibility sentence test.

Recalculating the intelligibility score without performances which are at least one standard deviation (SD=2.121, $n=23$) below the mean – thus excluding *Participant 3, 7 and 22* – returns a percentage score of 58.33%, as shown in Table 4.7. The same calculation was made as before. The recalculated score is 10.5 (SD= 1) with a percentage score of 58.33% ($10.5/18= 0.5833$).

Participants	Mean score (SD)	Range
N= 23	10.5 (1)	8.5-12

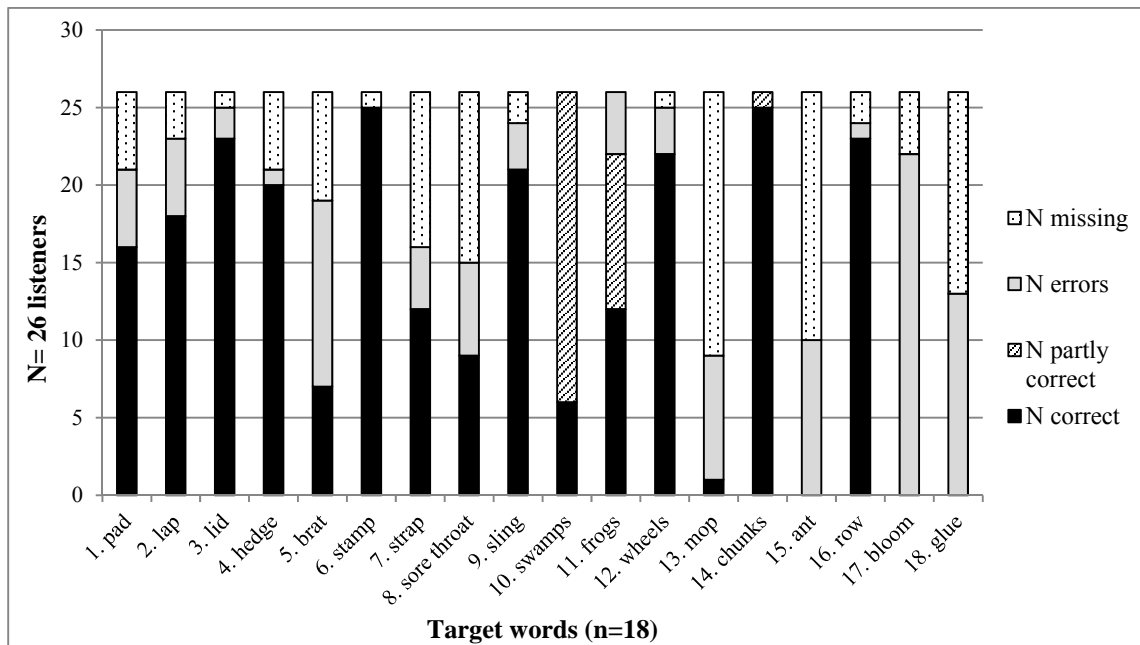
Table 4.7. Participants' mean score (and SD) for the intelligibility sentence test (*Participant 3, 7 and 22* are excluded).

Henceforth, when referring to the intelligibility rate, I shall report the latter percentage score, namely 58%.

4.5.1.1. Target words

Graph 4.8 summarizes intelligibility results for all 18 key words. In total, 21% were missing responses, 21.2% were incorrect responses, 6.6% were partly correct, and 51.3% were correct responses.

I shall now look at four random stimuli in more detail, in order to make Graph 4.8 more comprehensible. The target word ‘pad’, example 1 in Graph 4.8, was understood correctly 16 times (61.53%), incorrectly 5 times (19.23%), and 5 listeners (19.23%) did not provide a translation for it. The target word ‘stamp’, example 6, was understood correctly by 25 listeners (96.2%) and just one listener (3.8%) did not provide an answer. The target words ‘bloom’ and ‘glue’, example 17 and 18, were never understood correctly. 84.6% (22 listeners) wrote an incorrect Standard German word for ‘bloom’, and 15.4% (4 listeners) left the box blank. For the target word ‘glue’, 50% (13 listeners) left the box blank and 50% (13 listeners) translated the word incorrectly.



Graph 4.8. Intelligibility results for all 18 target words: stimulus word, number of correct responses, number of partly correct responses, number of erroneous responses, and number of missing responses.

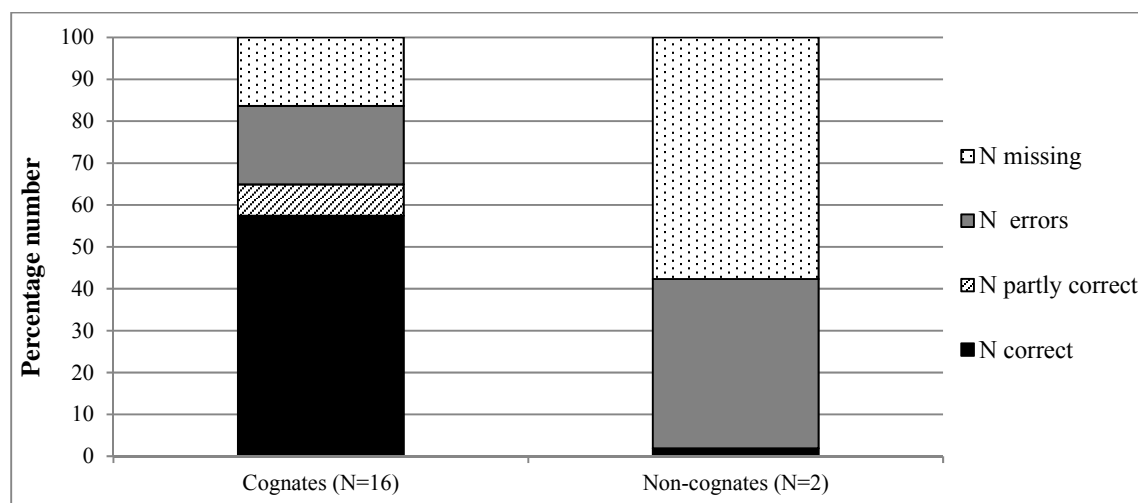
Overall, there were two target words with a percentage correct of 96 (target word number 6 and 14 in Graph 4.8), additional two words with a percentage correct of 88.46 (target word number 3 and 16), one with a percentage correct of 84.62 (target word number 12), and one with a percentage correct of 80.77 (target word number 9). The other twelve stimuli were understood correctly by less than 80% of the German listeners. Out of the eighteen stimuli, three target words (number 15, 17, and 18) were either translated incorrectly or were missing.

4.5.1.1.1. Cognates and non-cognates

Cognates are translation equivalents in different languages which either share a common ancestor or due to contact they have a history of borrowing (Roberts & Deslauriers, 1999; Schepens et al., 2013). According to Crystal (1997: 67), a *cognate* is a “*linguistic form* which is historically derived from the same source as another language/form.” So, cognates can historically and etymologically be related, which “explains why their [cognates] lexicons share phonological and semantic properties” (Carroll, 1992: 100), as for instance the English–German translations ‘*hotel*’–‘*Hotel*’. Some cognates are translation pairs/equivalents that can be phonologically, orthographically, and/or conceptually similar, but not necessarily due to historical factors.

Non-cognates are lexically different words, which do not overlap phonologically and orthographically, such as the English–German translations ‘chair’–‘Stuhl’ (see Costa et al., 2005; Schepens et al., 2013; Nakayama et al., 2014). Since intelligibility research has shown that a large number of cognates is a good predictor for intelligibility (e.g., van Bezooijen & Gooskens, 2005; Gooskens, 2006), I shall expand on the relationship between cognates and intelligibility score in more detail below.

Based on the calculation made in section 3.1.4.1 (*Chapter 3*), where a random letter from the alphabet has been chosen in Moser (2015: 148-168, letter ‘K’), I have shown that almost 81% of the selected South Tyrolean nouns were cognates of Standard German while 19% were non-cognates. In the present sentence test, 88.9% (16 target words) of the South Tyrolean target words were cognates of the Standard German words, while 11.1% (2 target words) were non-cognates of the Standard German words. The two non-cognates were ‘mop’ (‘*Wischmop*’: [vɪʃmɔp] as opposed to [hu:dɔr]), and ‘glue’ (‘*Kleber*’: [kle:bftɔf] as opposed to [pɪk]), and examples for cognates were for instance ‘pad’ (‘*Block*’: [blɔk] as opposed to [plɔk]), and ‘lap’ (‘*Schoß*’: [ʃo:s] as opposed to [ʃɔəs]). The complete list of cognates and non-cognates used in the current study can be found in Appendix A6. Without a priori knowledge and exposure to the variety, non-cognates are unintelligible to listeners. That is to say, non-cognates make comprehension difficult and can be an important indicator of intelligibility. Graph 4.9 subdivides listeners’ results by cognates ($N=16$), and non-cognates ($N=2$).



Graph 4.9. Participants’ responses subdivided in two groups: cognates and non-cognates.

As shown in Graph 4.9, most listeners translated the cognates correctly (57.45%), 7.45% were partly correct, 18.75% wrote a wrong translation, and 16.34% left the box blank. Unsurprisingly, non-cognates were the more difficult ones: 57.69% left the box blank, 40.38% of the translation was wrong, and only 1.92% got the right answer.

These findings are in line with previous research showing that lexical similarities between language pairs make comprehension indeed easier and can be seen as predictors of the degree of intelligibility (see Gooskens, 2006; Gooskens et al., 2008).

4.5.2. Intelligibility score and foreign language proficiency

In order to see whether there was a correlation between listeners' foreign language proficiency and the intelligibility scores obtained in the previous section, a Pearson correlation was conducted among listeners' mean language proficiency ('no language competence'=1, 'elementary language level'=2, 'intermediate language level'=3, and 'advanced language level'=4) and their mean intelligibility scores, resulting in a non-significant correlation of $r = .253$ ($p = .212$). Therefore, foreign language competence will not be discussed any further.

4.5.3. Intelligibility score and extra-linguistic variables

In this section I shall correlate extra-linguistic variables (contact, familiarity, and attitudes) with the mean intelligibility scores. As described in section 4.1.1.1, the amount of contact and familiarity with the variety in question might boost language comprehension, and negative attitudes towards the variety or the target area may discourage the listener from making an effort of listening to the recordings. Therefore, statements regarding these extra-linguistic variables were also included in the online-questionnaire. Unfortunately, I was not able to leave out subjects who had had some contact with South Tyrol and its inhabitants and those who had negative attitudes, as there would have been just four participants left (see *Participant number 6, 10, 21, and 26* in Graph 4.7). Therefore, the following calculations included all 26 participants.

In order to gauge the potential effect of attitude on intelligibility scores, the mean percentage score of correct answers was correlated with each extra-linguistic mean score (for language contact: Table 4.4; for language attitudes: Table 4.5) using the Pearson correlation coefficient. The correlation coefficients and the p -values are presented in Table 4.8.

Extra-linguistic variables	<i>r</i>	<i>p</i>
<i>Contact and familiarity</i>		
Q4. How often have you been in South Tyrol? (1=never, 5=very often)	.148	.469
Q5. Please tick how often you deal with/ have dealt with people who speak/ spoke a variety of South Tyrol. (1=never, 5=very often)	.042	.838
<i>Attitude</i>		
Q6. On a scale from 1 to 5, tick how likely you would like to live in South Tyrol? (1=not at all, 5=very likely)	.258	.204
Q7. How beautiful does the South Tyrolean variety sound on a scale from 1 to 5? (1=ugly, 5=very beautiful)	.178	.386
Q8. To what extent do you agree or disagree with the following statement: I would like to speak South Tyrolean. (1=strongly disagree, 5=strongly agree)	.249	.220

Table 4.8. Correlation between intelligibility scores and extra-linguistic variables.

A Pearson correlation analysis was conducted between listeners' intelligibility scores and contact and familiarity with South Tyrol and its inhabitants, resulting in a non-significant correlation of $r = .148$ ($p = .469$) for Question 4 (how often they have been to South Tyrol), and with the correlation coefficient of $r = .042$ ($p = .838$) for Question 5 (how often they have been in contact with South Tyroleans).

A further Pearson correlation analysis was conducted between listeners' intelligibility scores and attitudinal scores, resulting in a non-significant correlation of $r = .258$ ($p = .204$) for Question 6 (how much they would like to live in South Tyrol), with the correlation coefficient of $r = .178$ ($p = .386$) for Question 7 (participants' opinion about the South Tyrolean variety), and with $r = .249$ ($p = .220$) for Question 8 (if they would like to be able to speak the South Tyrolean variety).

Hence, in the current study I did not find evidence that intelligibility rates were negatively affected by extra-linguistic variables, such as language contact and linguistic attitudes. Similarly, in other experimental settings the relationship between non-linguistic factors (attitudes) and intelligibility scores have also been weak (Gooskens, 2006, 2007a; van Bezooijen & Gooskens, 2007; Schüppert & Gooskens, 2011), casting further doubt on the claim that there is a direct relationship between language attitudes and intelligibility scores in an experimental setting.

4.6. DISCUSSION

The purpose of the present investigation was to explore the intelligibility of the spoken South Tyrolean variety for Standard German speakers. The research question posed in the current study is as follows:

1. What is the intelligibility level of the South Tyrolean variety to Standard German listeners?

Even though Standard German – along with Italian and Ladin – is the official recognized language in South Tyrol, the South Tyrolean variety is mainly used in a wide range of communicative contexts. Except for a set of very restricted domains (see Table 2.1 in *Chapter 2*), South Tyroleans express themselves almost always in their local South Tyrolean variety. As described in the classical definition given by Ferguson in 1959, in an in-diglossic situation the languages in question are closely/genetically related, as for instance in the Arabic world, in Switzerland, or in South Tyrol. Relatedness, however, does not exclude potentially large degrees of *Abstand* between the varieties in question, i.e. vocabulary, phonology, morphology, syntax, grammar, semantics, and conventions of usage. In other words, a close genetic relationship between two languages or varieties does not automatically imply high intelligibility.

The current study, therefore, investigated the extent to which Standard German and the South Tyrolean variety are intelligible. In calculating the degree of intelligibility of the spoken South Tyrolean variety to Standard German speakers, the SPIN sentence test, originally developed by Kalikow et al. (1977), was used. The SPIN test was specifically developed to assess hearing impairment for speech (Kalikow et al., 1977). In the past, however, the sentence test has been applied for different disciplines and has been used for different purposes too; see for example Wang (2007), Tang and van Heuven (2009), and Tamburelli (2014). Wang's aim, for instance, was to test intelligibility of foreign-accented speech by examining mutual intelligibility between people who use English when interacting with each other but have a different native-language background (English, Chinese, and Dutch). This was done in order to determine how difficult it is for both listeners and speakers to understand each other when interaction takes place in English. Although Wang (2007) did not use the test in order to measure the degree of intelligibility between related varieties, Wang demonstrated that the SPIN sentence test can be applied for different purposes. In the study conducted by Tang and van Heuven (2009), 60 SPIN sentences were translated into Standard Mandarin and into 15 Chinese varieties. Listeners were instructed to listen to the sentences and write down the target word of each sentence³⁵. Their aim was to establish mutual intelligibility based on a selection of different Chinese varieties using functional tests. A

³⁵ It should be noted that I am only mentioning the results obtained in the sentence test, without reporting results of the word-intelligibility test (for further details, see Tang & van Heuven, 2009).

recent study conducted among Romance varieties in Italy also used the SPIN sentence task. Tamburelli (2014) examined the degree of intelligibility between Lombard and Italian, using 18 sentences translated from English into Lombard, and testing 31 Italian-speaking students from Tuscany. He found that the mean score was 7.96 (SD=1.077), with a mean percentage score of 44.3%, therefore concluding that the degree of *Abstand* between Italian and Lombard is considerable. Based on these results, Tamburelli (2014: 265) stated to institute “intelligibility as a sufficient criterion for regional language status”, thus – in his case – recognise “Lombard as a regional language of Italy.”

So far I have reported previous SPIN test results. I shall now present intelligibility results obtained through other methods than the SPIN test (e.g., Gooskens, 2007b; Kürschner, Gooskens & van Bezooijen, 2008; Gooskens & van Bezooijen, 2013; Gooskens et al., 2015). I am aware that I am comparing different results obtained through different tests. However, in reporting these results I would like to emphasise the importance of not overlooking linguistic features when we are talking about different languages and varieties, and I would like to show how intelligible certain *Ausbau* languages and how unintelligible certain *Abstand* languages can be. The languages included in the studies mentioned below were not in a diglossic relationship but are regarded as separate *Ausbau* languages. Gooskens et al. (2015), for instance, concluded that intelligibility of Dutch stimuli to German listeners was 41.9%, whereas intelligibility of German stimuli to Dutch listeners was 50.2%. In a spoken text, Gooskens (2007b) showed that between 55.1% and 50.8%³⁶ of the Danish participants gave correct answers to the Norwegian test. In a word intelligibility test, Kürschner, Gooskens and van Bezooijen (2008) found out that 61% of Swedish words were correctly identified by Danish participants. In a more recent study conducted among Swedes and Danes, Gooskens and van Bezooijen (2013) concluded that 57% of the Swedish words were translated correctly by the Danish secondary school pupils, while 45% of the Danish words were correctly translated by the Swedes.

So, how do we correlate the results mentioned above with the results obtained in this chapter? The first research question of this dissertation asked about the intelligibility level of the South Tyrolean variety to Standard German listeners. Results obtained in this chapter revealed that the South Tyrolean variety is intelligible at a level of 58% – at least as measured on this type of sentence intelligibility test (SPIN test). It should also be remembered that the mean percentage numbers of the intelligibility scores for each German listener were quite

³⁶ The percentage number varied depending on the town where the participants came from.

different (as shown in Graph 4.7): the overall mean score was 10.5 (SD=1), ranging from 8.5 to 12 points, or from 47% to 67% of correct responses.

If we take into account the intelligibility scores obtained in the studies mentioned above and compare them to the intelligibility degree obtained in this chapter – namely 58% – it reinforces what I have been trying to demonstrate and prove in this dissertation, namely that the problem lies in the clash between the socio-political stance and the linguistic reality. The socio-political stance refers to South Tyrol as a German–Italian bilingual region, while the actual linguistic reality clearly reflects a different picture. As can be seen, intelligibility among languages such as German and Dutch (41.9% and 50.2%), and Swedish and Danish (57% and 45%) are in a similar percentage range as the intelligibility score obtained in my study (58%). The degree of intelligibility between Italian and Lombard was 44%. Based on this rather low degree of intelligibility, Tamburelli (2014) suggested recognising Lombard as a regional language. In the intelligibility study conducted in this chapter, I am aiming at demonstrating that there is indeed a linguistic gap South Tyrolean children have to overcome when being exposed to Standard German in educational institutions, which I have now empirically demonstrated in this chapter.

In the following section I shall demonstrate how the present empirical study (conducted among adults) is relevant for the second empirical study which is going to test preschoolers, and how the outcome of the current study is also relevant for and connected to the phenomenon bilingualism and bilingual education.

4.6.1. Relevance of study 1 to study 2

It is well known in the literature that bilingual children and adults, in this context the term bilingual is referring to two separate languages – or in Fishman’s terms – ‘bilingualism without diglossia’, often tend to have smaller vocabulary knowledge in each of their two languages, bilingual children often lag behind their monolingual same age peers when being tested in receptive vocabulary knowledge (Ben Zeev, 1977a, 1977b; Fernández et al., 1992; Umbel et al., 1992; Patterson & Pearson, 2004; Allman, 2005), and bilinguals are generally less accurate on standardized tests than their monolingual peers (Paradis, 2005; Paradis et al., 2008; Chondrogianni & Marinis, 2011). Living with more than one language on a daily basis diminishes the frequency of exposure to a specific language which has an important impact on their performance on linguistic tasks (e.g., Grosjean, 2010; Engel de Abreu, 2011; Hoff et al., 2012), as it has been confirmed by several studies that (young) bilinguals’ knowledge is ‘distributed’ across two languages (Pearson & Fernández, 1994; Pearson et al., 1993; Pearson,

1998; Oller & Eilers, 2002; Oller & Pearson, 2002; Thordardottir et al., 2006; Oller et al., 2007). All this linguistic knowledge refers to ‘bilingualism without diglossia’, regarding languages such as Spanish–English (Fernández et al., 1992; Umbel et al., 1992; Allman, 2005; Oller et al., 2007), Turkish–English (Chondrogianni & Marinis, 2011), or French–English (Thordardottir et al., 2006).

Children and adults growing up in a context where ‘bilingualism and diglossia’ are present, however, are also in a similar situation during their acquisitional linguistic process. In the Arabic diglossic situation, for instance, Eviatar and Ibrahim (2000: 462) concluded “that exposure to literary Arabic may require the same intensive language analyses as are done for children who are exposed to two languages as different as Hebrew and Russian.” Similarly, research conducted by Ibrahim and Aharon-Peretz (2005) and Ibrahim (2009a) reported that spoken (L) and literary Arabic (H) retain the status of two separate languages in the speaker’s cognitive system. In showing that Arab children function as bilinguals, Eviatar and Ibrahim (2000) found that on the vocabulary test they performed similar to the Russian–Hebrew bilinguals, and both groups performed lower than Hebrew monolinguals. Similar to some of the accepted bilingual studies mentioned above (e.g., Fernández et al., 1992; Umbel et al., 1992; Patterson & Pearson, 2004), the results obtained in the diglossic context suggested that these children also tend to perform lower on certain language tests.

It can be seen from the studies mentioned above that research conducted in the context of ‘bilingualism without diglossia’ as well as research conducted in the context of ‘bilingualism and diglossia’ result in similar outcomes. One of the aims of this dissertation was to show whether there is an issue between the socio-political stance and the current linguistic reality present in South Tyrol – which would certainly impact educational establishments and consequently children’s early language learning experience. As shown with this study the assumption that South Tyrolean children are Standard German speakers and therefore they are being schooled in their ‘mother tongue’ is not only completely misleading but also empirically unjustified. Being schooled in someone’s ‘mother tongue’ means that the child is already very familiar with most linguistic aspects and language structures (i.e., phonology, vocabulary, grammar) of both the home and school language, even before his/her preschool period. In South Tyrol, this is certainly not the case, since the present empirical study has shown that there is indeed a linguistic gap between Standard German and the South Tyrolean variety. The acquisitional path between a German child and a South Tyrolean child differs as the former is exposed exclusively to Standard German at home as well as outside the home, and the latter is mainly exposed to the South Tyrolean variety at

home as well as outside the home, but hears some German occasionally (see section 2.3 in *Chapter 2*). However, whether the limited exposure to Standard German as well as the fact that they hear Standard German spoken by a South Tyrolean³⁷ (e.g., German spoken on the radio, books read to children), has an impact on South Tyrolean children's linguistic developmental process shall be examined in *Chapter 5*. Based on the intelligibility study, I have demonstrated that the intelligibility rate is around 60%, thus presuming that the mind of a South Tyrolean child might have an additional system which is indeed different to Standard German. This means that a child growing up in a diglossic situation faces more cognitive challenges than a child growing up in a monolingual (German) environment. The fact that South Tyrolean children are assumed to be L1 German learners, therefore, is not necessarily beneficial for their scholastic career and school achievements. That there is some kind of linguistic gap which has to be filled when South Tyrolean children are learning Standard German has already been recognized more than 20 years ago. Egger (1982c) and Saxalbertter (1994), for instance, addressed certain grammatical aspects which differ between Standard German and South Tyrolean. Very recently new training material has been published (see Hofer, 2013; Gurschler & Tscholl, 2015) in order to create greater language awareness among the young learners as well as helping pupils with an L1 Italian-speaking background or a migration background to give a better understanding of the spoken and written local varieties present in South Tyrol. Nonetheless, it should be noted that there is no guarantee that this training material is actively used in schools in South Tyrol, and as argued by Lanthaler (2012h), the South Tyrolean variety is still nowadays a rarely discussed topic in classrooms. Very often, therefore, the linguistic gaps between German and South Tyrolean have to be filled without the necessary (educational) support in primary schools. This leads to a further aim of the current dissertation, namely the attempt to investigate the impact of categorizing a language group as monolingual (German) rather than bilingual (South Tyrolean–German), and subsequently examining the consequences on young children's linguistic skills (*Chapter 5*). Since preschools are the first educational institutions where children are regularly addressed in Standard German, it was decided to test young preschoolers in their first, second and third year.

³⁷ According to Lanthaler (2001), it is very difficult to define the Standard German language spoken by South Tyroleans.

4.6.2. Interim summary

In this chapter I have tried to examine the degree of intelligibility between South Tyrolean and Standard German in order to show that South Tyrolean children should not be treated as L1 German learners. Based on the intelligibility test used in the first empirical study, I have shown that South Tyrolean is roughly intelligible to 60% by German speakers, implying that there is indeed a linguistic gap South Tyrolean children have to face in their early stages of language learning. Nonetheless, since the local and international government sustain that Standard German is people's 'mother tongue', South Tyrolean children's linguistic development is empirically unjustifiably treated as a monolingual rather than a bilingual development, which has several implications for educational establishments (I shall return to this point in *Chapter 5* and *Chapter 6*).

4.7. CONCLUSION

According to Chambers and Trudgill (1998: 4), "a 'language' is not a particularly linguistic notion at all." As extensively discussed in *Chapter 3*, an *Ausbau* language is seen as a separate language for various political, historical, geographical, cultural, and/or linguistic reasons, but it is still a social construct (see Kloss, 1967; Hinderling, 1984; Trudgill, 1992, 2002). Many minority varieties, however, have not undergone the process of *Ausbau-isation* (Fishman, 2008; Tamburelli, 2014). The South Tyrolean variety, often referred to as a 'dialect', is arranged in a diglossic relationship along with Standard German. The main aim of this chapter was to investigate the degree of intelligibility between the two genetically related varieties, namely South Tyrolean variety and Standard German.

I began this chapter by outlining previous studies which examined intelligibility of several languages and varieties (Jensen, 1989; Gooskens, 2006, 2007a; Gooskens & van Bezooijen, 2006; Gooskens et al., 2011; Moberg et al., 2007; Tang & van Heuven, 2007, 2009; Tamburelli, 2014). I then presented the experiment dealing with the question of how well the South Tyrolean variety is understood by L1 German listeners using the SPIN sentence test (Kalikow et al., 1977). Results demonstrated that the variety is only 58% intelligible to German speakers. I am concluding, therefore, that there is sufficient *Abstand* between Standard German and the South Tyrolean variety, in order to consider the latter variety as a separate language – at least on the linguistic level. From now on, whenever referring to the South Tyrolean's native language, the term (*South Tyrolean*) *Bavarian* will be used.

4.7.1. Limitations of the current study and future directions

In one of her recent articles, Gooskens (2013) correctly observed that we still do not have enough information about how to weigh all the different linguistic levels and dimensions (prosody, morphology, vocabulary, and syntax) in order to develop an adequate measurement which can predict and measure intelligibility. Nonetheless, even though no complete model of intelligibility exists yet, already numerous different studies have contributed to this field. The present research was not developed with the intention to give a full picture of the intelligibility degree between Standard German and South Tyrolean, but to provide the first attempt to determine the degree of intelligibility between the two related languages in question, namely Standard German and the South Tyrolean variety. Nonetheless, there are some limitations within the study.

Firstly, the intelligibility test was conducted online. Although in the past more and more research has been conducted online (online questionnaires, intelligibility tests), the negative aspect of this data collection method is that the researcher is not able to interact with the participant, s/he is not able to control for an adequate environment (quite room), and required equipment (headphones, good audio quality).

Secondly, even though I have tried to conduct the study with a homogenous German group, in this study no age or education boundaries were set for the selection of the participants. Variables such as age, educational background, occupation, or place of residence may have affected intelligibility rates. But because it has not been controlled for it, I am unable to deduce whether intelligibility scores have been affected or not. Future studies should also control for extra-linguistic variables (contact, familiarity, and attitudes).

Finally, the analyses presented in this empirical study is based on a limited number of sentences (18 sentences), consisting of 118 words in total, spoken by a female speaker of one specific area in South Tyrol. In future research, other linguistic measurements, such as more and different sentences or the use of different tasks (e.g., storytelling task), could investigate the intelligibility of the South Tyrolean variety in more detail. Although it was borne in mind to keep the speech as natural as possible, the relevant stimuli were read aloud, as opposed to spontaneous speech. Hence, future research should include spontaneous speech recording as well as less-spontaneous speech recording. For this study only one female South Tyrolean speaker was recorded, without considering all the other spoken varieties that would have formed a good representation of the dialectological and geographical diversity of the target area. Future studies, therefore, could include recording samples from speakers of different

South Tyrolean varieties, completing the picture of *South Tyrolean Bavarian–Standard German intelligibility* even further.

In the following chapter I shall examine the impact and the extent the linguistic gap examined in this chapter has on South Tyrolean children's early language comprehension and early linguistic performance in Standard German.

CHAPTER FIVE

Für die deutschsprachigen Kinder in Südtirol ist die „Hochsprache etwas sehr Fremdes und Abgehobenes [...], eine Kunstsprache, der man sich annähern, aber nie gerecht werden kann.“³⁸

(LANTHALER, 2012d: 198)

Receptive language comprehension

This chapter presents and discusses the second empirical study conducted in this dissertation. The chapter starts off with relevant background information regarding the current study (section 5.1), presenting also the purpose of this study (section 5.1.3). Subsequently I go on to describe the methods used (section 5.2), and introduce the two home language groups under investigation in section 5.3. Results are presented and analysed in section 5.4. In section 5.5 I move on to discuss these results in the light of the research questions, followed by a short conclusion with some questions and suggestions for further research (section 5.6).

5.1. THEORETICAL BACKGROUND OF THE STUDY

This dissertation aims at contributing to the existing ambiguous definitions of the phenomenon *bilingualism* and *bilingual speakers* presented and discussed in section 3.1 in *Chapter 3*. In the current chapter I am showing how important it is to define languages also linguistically (not just socially), since the failure of ignoring linguistically distant languages might have an impact on children and their early linguistic language learning process. As presented in section 3.1.4 (*Chapter 3*), the South Tyrolean lexicon differs from the variety spoken in Germany, as certain words and concepts exist only in South Tyrol and are almost incomprehensible for a non-South Tyrolean speaker (e.g., *Südtirolismen*; see Abfalterer,

³⁸ For the Germanic-speaking children in South Tyrol ‘Standard German is something foreign and detached [...], an artificial language, which can be approached but can never be mastered completely’ (my translation) (Lanthaler, 2012d: 198).

2007; Ammon et al., 2004; Lanthaler, 2012e; Brambilla et al., 2013). Moreover, the South Tyrolean variety differs from Standard German at the phonetic and phonological level (Wiesinger, 1990) as well as revealing different grammatical structures (Giacomozzi, 1982; Wiesinger, 1990; Egger, 1994a; Lanthaler, 2012f). In the previous chapter I have then explored and measured the degree of intelligibility between Standard German and South Tyrolean Bavarian. Although the two Germanic varieties are related, the outcome in *Chapter 4* has shown that South Tyrolean Bavarian is only 58% intelligible to German speakers from Germany. One can conclude by this relatively low percentage that there is a potentially substantial linguistic gap that South Tyrolean Bavarian-speaking children need to overcome in their early stages of education before they can be reasonably considered to be German speakers by teachers and educators. Since the dialect-standard continuum in South Tyrol has been subject to numerous studies, I shall report some of them in the following section in order to provide the reader with an overview of what has been done in the past.

5.1.1. Empirical research conducted in South Tyrol so far

To date, not much research has been carried out on the topic of early language learning within the diglossic context in preschools (and primary schools) in South Tyrol, and mainly older research has dealt with South Tyrolean Bavarian during German lessons at school (Egger, 1982b, 1982c; Saxalber-Tetter, 1985, 1994).

Although there exists dialect-oriented language teaching since the mid-80s (see for instance Saxalber-Tetter & Lanthaler, 2012), Lanthaler (2012d) claimed that the developed concepts have had a small impact so far. Generally speaking, educational development policy currently fails to address the challenges caused by in-diglossia, which means that South Tyrolean Bavarian is a rarely discussed topic in the classroom (Lanthaler, 2012h). This implies that (1) the differences (in features) between Standard German and South Tyrolean Bavarian are not pointed out specifically and that is why pupils often do not recognise the linguistic differences; and (2) even though interferences from South Tyrolean Bavarian into written or spoken German are very well researched (see for instance Egger, 1979; Schwienbacher, 1997; Riehl, 2001: 258-260), they are hardly addressed in school³⁹. Moreover, preschool teachers are not allowed to use South Tyrolean Bavarian when interacting with their pupils (anecdotal narratives, see Lanthaler, 2012h). This requirement is

³⁹ It should be noted, however, that this is currently changing and conferences and workshops are offered specifically for teachers and educators, for instance at the University of Innsbruck and at the EURAC (Bolzano), as well as recently published training materials for schools (Hofer, 2013; Gurschler & Tscholl, 2015) have become available.

independent of the location or situation, which means that South Tyrolean Bavarian is not allowed in class, during the break, and not even in a one-to-one pupil-teacher interview/communication. This also means that in the presence of a child, the language used in adult-teacher interaction should be Standard German (and not South Tyrolean Bavarian) (anecdotal narratives, see Lanthaler, 2012h). Strengthened by empirical studies (e.g., see Saxalber-Tetter, 1982; ASTAT, 2015), Lanthaler (2012h) questions however, how a child should be able to develop language awareness – i.e. the usage of the correct variety in each situation – if there is room for monolingualism only, namely Standard German. The consequences for such a linguistic behaviour can be momentous. The feeling that the child's native language (Bavarian) is inferior to the school language (Standard German) can be generated and linguistic competences already acquired might be suppressed instead of being activated (Lanthaler, 2012h). Hence, Egger (1982b), Saxalber-Tetter and Lanthaler (2012) appropriately suggested that South Tyrolean Bavarian should be recognized as the language spoken by these children, and the degree of *Abstand* between Standard German and South Tyrolean Bavarian should be discussed, identified, and reflected. Surprisingly, however, the point made by Egger (1982b), Saxalber-Tetter and Lanthaler (2012) is rarely addressed in schools, even though a small number of training material has been published. For instance, Egger (1982c) addressed some of the grammatical difficulties faced by young South Tyrolean children when learning Standard German. He also presents some exercises which could be completed during German lessons (focusing on prepositions); see also Saxalber-Tetter (1994). Another training material has been published quite recently for schools (see Hofer, 2013; Gurschler & Tscholl, 2015). Published by the European Academy of Bozen/Bolzano (EURAC), the material broaches the issue of the different local varieties spoken in South Tyrol as well as in Austria, Switzerland, and Bavaria (see Hofer, 2013). Gurschler and Tscholl (2015) have specifically designed South Tyrolean training material for pupils with an L1 Italian-speaking background or a migration background in order to give a better understanding of the spoken and written South Tyrolean varieties present in the area.

5.1.2. Relevance of study 1 to study 2

In this dissertation I have tried to demonstrate that the existing definitions of *bilingualism* given in the literature are not yet satisfying. It can even be claimed that certain definitions exclude a priori many situations in which young children grow up with more than one native language. Due to the fact that in many cases languages are defined on their *Ausbau*-criterion,

certain situations are not accepted or recognized as *bilingual* situations, which can have a real impact on young children's language development.

In this dissertation, therefore, I try to demonstrate that children growing up in a context where 'bilingualism and diglossia' are present are in a similar situation as children growing up in a context with 'bilingualism without diglossia'. This is based on the facts that (i) South Tyrolean Bavarian and Standard German show different linguistic features (see section 3.1.4 in *Chapter 3*), (ii) that Standard German is formally learned in school (section 2.3.3.2 in *Chapter 2*), (iii) that children have limited exposure to Standard German compared to their German peers in Germany, and (iv) that South Tyrolean Bavarian is only partly intelligible with Standard German listeners (*Chapter 4*). As established in *Chapter 4*, there is a linguistic gap between Standard German and South Tyrolean Bavarian, which young children have to overcome in their early stages of education. In a psycho-linguistic sense, therefore, these children are South Tyrolean Bavarian–German sequential bilinguals, who eventually learn Italian and English in primary school.

The aim of the current chapter, therefore, is to examine the impact that the relatively low degree of intelligibility between Standard German and South Tyrolean Bavarian has on South Tyrolean preschoolers' performance on a receptive task in Standard German. In the following subsection I shall explain the purpose of this second empirical study in more detail.

5.1.3. Purpose of this study

Preschools in South Tyrol are the first educational institutions in which children have to be addressed in Standard German. Therefore, in the following study I am comparing two groups of preschool children: On the one hand, infants acquiring Standard German as their native language. On the other hand, infants acquiring South Tyrolean Bavarian at home, but being exposed to Standard German from very early on. Importantly, as we have seen in *Chapter 2*, both groups are officially and politically considered as 'mother tongue speakers' of Standard German (see Article 1 of the *Gruber-Degasperi-Agreement*). As a consequence of this, South Tyrolean Bavarian-speaking children are taught through the medium of Standard German without taking into account that the first language they acquire at home, and thus their actual 'mother tongue', is only partially intelligible with Standard German. Effectively, the main issue is this latter point namely the *Ausbau*-centred perspective that – arguably unjustly – presumes that Standard German is South Tyroleans' native language.

The current study intends to present empirical evidence for the effort preschoolers have to face as a result of an educational system built around the notion that Standard German – a

language that is only 58% intelligible with their home language – is supposedly the children’s ‘mother tongue’. The intelligibility rate of the previous study clearly shows that children growing up in South Tyrol should not be assumed to be L1 German, implying that their linguistic development (in this case their development of Standard German within a particular diglossic background) differs to that of children growing up in a German monolingual environment. I shall expand on these aspects a bit more.

The first point, namely that South Tyrolean children should not be assumed to be L1 German, has empirically been supported by the intelligibility study (*Chapter 4*). The outcome of the study has shown that there is indeed a linguistic gap between Standard German and South Tyrolean Bavarian, suggesting that young South Tyrolean children have an additional system which is linguistically different to Standard German. Although being related, therefore, *Chapter 4* has supported the notion that Standard German and South Tyrolean Bavarian differ linguistically (see also section 3.1.4 of *Chapter 3*) – or, to use a more precise term – there is a degree of *Abstand* between the two. This chapter, therefore, shall examine the effect of this difference on children’s early language comprehension in Standard German.

The fact that there are two systems present in South Tyrol (Standard German and South Tyrolean Bavarian), leads to the second point, namely that South Tyrolean children’s development undoubtedly differs to that of children growing up in a monolingual German environment. In this dissertation I will attempt to demonstrate that a diglossic context involving two related *Abstand* languages, such as Standard German and South Tyrolean Bavarian, poses similar learning and comprehension issues as a second (L2) or bilingual language setting with two related languages that differ both by *Abstand* and *Ausbau*, as in the case of, for example, Spanish and Portuguese or German and Dutch. In all these linguistic cases, the learners receive less input than monolingual children, both in quantitative and qualitative terms (e.g., Pearson et al., 1997; Unsworth, 2013), which affects their language comprehension and language development. In L2, bilingual, and diglossic situations children’s proficiency and development in each language is strongly related to the amount of input (home and social settings) and the amount of exposure to each language, therefore also affecting the child’s linguistic development for instance in reading, writing, and vocabulary tests (Pearson et al., 1997; Abu-Rabia, 2000; Oller & Eilers, 2002; Patterson, 2002; Gathercole & Thomas, 2003; Gyger, 2005, 2007; De Houwer, 2007; Scheele et al., 2010; Thordardottir, 2011). Due to the diglossic attitude present in South Tyrol, i.e., the rigid socio-functional complementarity – a well-known characteristic of diglossia – children experience Standard German in restricted domains only (i.e., school, radio, television), receiving

therefore substantially less input compared to their German peers growing up in Germany. As for input quality, differences in language development exist among both monolingual and bilingual acquisition (such as socio-economic status, Hoff, 2006), or can either be specific to bilingual children (borrowing or code-mixing⁴⁰, Byers-Heinlein, 2013).

5.1.4. Research questions

Chapter 4 has established that the intelligibility rate between Standard German and South Tyrolean Bavarian is 58%. In the current study I am examining the impact this intelligibility rate has on young South Tyrolean children's educational performance in Standard German. Therefore, the core research question in this chapter is as follows:

2. How do South Tyrolean-speaking preschool children perform on a standardized German assessment test? How do they compare with their age-matched German peers?

This will be measured by using the German standardized test TROG-D (Fox, 2013). This gives us the opportunity to explore a small window in children's early development, with particular focus on comprehension of spoken Standard German – a language that is related to yet distant (*Abstand*) from their actual home language/native language.

At this point, however, a further issue has to be taken into consideration. As explained in *Chapter 4*, the intelligibility measurements presented in the previous study presumes zero exposure to the test language. In South Tyrol, however, even though South Tyrolean Bavarian is the main medium of communication, there is a continuum of German exposure, particularly in terms of passive exposure, which can vary among children, e.g., media exposure, parents reading to children from books, storytelling sessions in preschool, and occasionally hearing the language in their immediate environment (for instance from tourists). By evaluating how language development in this bi- and multilingual South Tyrolean setting is influenced by environmental factors, a second research question is addressed in this chapter:

3. Which type or types of exposure positively affect acquisition of Standard German and to what extent? Do some types of input have more impact than others?

⁴⁰ See Poplack, 1980; Myers-Scotton, 1992.

This latter research question can be addressed by looking at children's test scores and relate them to internal and external variables (e.g., socio-economic status, age, language input) which might potentially influence them⁴¹.

This chapter is organized into five sections. In section 5.2 I discuss the methodology of the current study by presenting the questionnaire (section 5.2.1), the receptive language test TROG-D (section 5.2.2), and the testing procedure in preschools (section 5.2.3) in more detail. Section 5.3 describes participating preschoolers, presenting the South Tyrolean Bavarian home language group (section 5.3.4) and the German home language group (section 5.3.5) separately. Section 5.3.6 then compares the two home language groups with each other. The results of this study are then presented in section 5.4, followed by an extensive discussion and evaluation of the significance of these findings in section 5.5. Finally, section 5.6 provides a brief conclusion of this chapter and pinpoints areas and directions for future research as well as limitations of the current study (section 5.6.1).

5.2. METHODOLOGY

Two different instruments were used in the current study: a parental questionnaire and the TROG-D (Fox, 2013). The following sections provide a more detailed description of the content of the questionnaire (section 5.2.1), section 5.2.2 presents the receptive language test used in this study in more detail, and section 5.2.3 describes the testing procedure in South Tyrolean and German preschools.

Ethics statement

The research has received ethical approval from Bangor University Research Ethics Committee. Parents participating in this study gave written informed consent.

5.2.1. Parental questionnaire

For each child a background questionnaire was completed by a parent. The following topics were included in the questionnaire (partly based on Gutiérrez-Clellen & Kreiter, 2003; De Houwer, 2007; Gathercole et al., 2008; Paradis, 2011a).

⁴¹ Some preliminary results are presented in Leonardi (2015, 2016 in press).

Personal details concerning the child were:

- name,
- date of birth,
- place of birth,
- gender, and
- town of residence.

All participants are identified through a participant number and remained anonymous to everybody else but the researcher.

Potential variables which might have an impact on children's language learning process were also included in the questionnaire and will be discussed in some details in sections 5.2.1.1-5.2.1.6. The following was asked:

- parent's native language (section 5.2.1.1),
- parental self-rated language skills in Standard German and Italian (asked only in South Tyrol) (section 5.2.1.1),
- language interaction/use among family members in the home⁴², e.g. language choice of parents speaking to the child, and language choice of the child when addressing parents, siblings, and other children (section 5.2.1.1),
- length of preschool attendance (section 5.2.1.1),
- parental level of education measured in highest degree awarded and the current occupation (socio-economic status) (section 5.2.1.2),
- birth order and siblings: number of siblings and age of older siblings (section 5.2.1.3),
- language exposure and input in the home (literacy activities and television) (section 5.2.1.4 and section 5.2.1.5), and
- parental language attitudes (asked only in South Tyrol) (section 5.2.1.6).

In both target areas, South Tyrol and Germany, the questionnaire was in Standard German. This is simply due to the fact that South Tyrolean Bavarian is primarily a spoken language. Parents were asked to complete the questionnaire at home and they had the opportunity to ask questions once they returned it to the researcher.

⁴² It should be noted that the questionnaire did not enquire information about language usage outside the home.

Due to linguistic and educational differences in Germany and South Tyrol, the questionnaires used differed slightly from each other (e.g., languages spoken, educational system). See Appendix B2 for the version used in South Tyrol and Appendix B4 for the version used in Germany (for the English translation see Appendix B1 and Appendix B3).

The following sections (5.2.1.1-5.2.1.6) provide detailed information regarding the topics listed above and explain why they have been integrated into the questionnaire.

5.2.1.1. Social environmental factors

In this section I give some background concerning language input and input factors.

While learning a language, the input plays a crucial role. As widely mentioned in the literature over the past decades, infants growing up with more than one language inevitably have to divide their time between these languages (e.g., Clark, 2009; Paradis, 2010). This means that the amount of input received by monolinguals and bilinguals differs (Gathercole & Hoff, 2007; Paradis & Grüter, 2014). Bilinguals have less exposure than their monolingual peers (e.g., Paradis & Genesee, 1996), and consequently they receive less input for each of their languages. Generally, this can also mean that bilinguals receive more language input in one language than in the other. This can mainly be found when one of the two languages in the community is more dominant than the other, which means that there is an asymmetry in use (Clark, 2009). There is evidence from the bilingual literature that there is a relationship between the amount of input in each language and exposure a child receives in his/her languages and faster rates of development, such as vocabulary knowledge and grammatical proficiency (see Spanish–English: Pearson et al., 1997; Gathercole, 2002a, 2002b; Place & Hoff, 2011; English–Spanish and English–Welsh: Gathercole, 2007; Welsh–English: Gathercole & Thomas, 2003, 2009; French–English: Nicoladis et al., 2007; Paradis, 2009, 2010; Thordardottir, 2011; see also Paradis, 2011a; Byers-Heinlein, 2013; Unsworth, 2013).

Due to the restricted situations where Standard German is used, language input in South Tyrol is very limited and consequently there are few opportunities to hear and use Standard German (except for educational institutions).

Quantity-oriented factors, on the one hand, consist of amount of exposure and input received by an individual at home and at school (Paradis, 2011a). It is well known that “L2 proficiency develops as a function of more exposure” (Armon-Lotem et al., 2014: 79), as demonstrated in many other studies (e.g., Pearson, 2007; Paradis, 2011a; Chondrogianni & Marinis, 2011). Therefore, an environmental factor which may have an important impact on

language development in South Tyrol (as well as in Germany) is length of preschool attendance. As already mentioned in *Chapter 2*, Standard German is the language of instruction in German-speaking preschools and schools in South Tyrol. Hence, performance differences among young children might be due to additional months of Standard German instructions in preschools. Studies conducted in Switzerland⁴³, for instance, have shown that the consequent usage of Standard German in preschools improved children's speaking, writing (orthography, breadth of vocabulary), and reading comprehension in German (e.g., Gyger, 2005, 2007; Landert, 2007). In the current study, preschool attendance was calculated by subtracting the time when the child started preschool from the child's age at time of testing. The range of preschool attendance was categorized as: (a) 0-2 months, (b) 3-10 months, and (c) 11-25 months. Reasons for this specific cut-off point were the following: Firstly, Wode and Girotto (2008) claimed that after 6 weeks of preschool attendance in a language which is not the child's native language, daily routines can already be managed in the new language. Therefore, the first group comprised children up to two months in preschool (group A). Secondly, ten months was used as a cut-off point because it is the duration of one preschool year in South Tyrol. Usually, preschool starts at the beginning of September and finishes mid-June (group B). The latter group (group C) comprised those with more than one preschool year, thus children with the longest preschool attendance.

On the other hand, quality-oriented input factors (Paradis, 2011a) can be split up into several different determinants, such as parental language fluency, parents' level of education, the socio-economic status, and the amount of literacy activities (e.g., De Houwer, 2007; Golberg et al., 2008; Paradis, 2011a). The type of quality may depend on several factors, such as the relationship between the child and the input-provider (parent, sibling, or preschool teacher), modality (written vs. spoken), variety (standard vs. non-standard), but also the proficiency level of the input-giver (whether it is a native or non-native language) (Unsworth, 2011; van Leeuwen, 2013). Especially the latter point, the quality of input, seems of particular importance if it is non-native input. The type of input a South Tyrolean child receives consists of Standard German (and/or *Umgangssprache*, see section 2.3.3.1.1 in *Chapter 2*) from non-native Standard German speakers, independently of whether the child is exposed to the variety spoken by his/her parents, in preschool, or by school teachers. Hence, one might think that being exposed to non-native input or parental low L2 proficiency might negatively influence children's language learning process and development. Paradis (2011a: 231) argued

⁴³ It has only started in 2000 that Switzerland has promoted projects which introduced Standard German in preschools (Landert, 2007).

that the “use of the L2 at home, by non-proficient speakers, might not be particularly helpful for L2 development and could potentially increase the risk of L1 decline and loss.” Furthermore, Place and Hoff (2011: 1847) suggested that “nonnative speech is less supportive of language acquisition than native speech” (see also Hammer et al., 2009). Even though input from native speakers is more beneficial than from non-native speakers, other studies have shown that if non-native input received by children is of a sufficiently high quality, negative effects on linguistic development decrease (van Leeuwen, 2013). As suggested by van Leeuwen (2013: 69) an “input from relatively proficient non-native speakers is in turn more valuable than input from speakers with very low levels of proficiency.”

Therefore, in order to understand South Tyrolean parents’ language proficiency, in the questionnaire used in South Tyrol mothers and fathers were asked to rate their fluency in Standard German and Italian using a 5-point scale (based on Unsworth, 2011): ‘fluent’, ‘quite fluent’, ‘somewhat fluent’, ‘limited fluency’, and ‘virtually no fluency’. In order to avoid ambiguity and misinterpretations related to language competence, the questionnaire provided a short explanation of all four competence degrees (based on Unsworth, 2011: 4):

- Fluent: Can carry out any kind of conversation in almost any situation.
- Quite fluent: Can carry out some extended conversations.
- Somewhat fluent: Can carry out simple conversations.
- Limited fluency: Can only use basic words and expressions.

Admittedly, this method provides estimation only rather than a direct measurement and may reflect social expectations rather than the actual situation. Besides, self-assessing and self-rating questions can be overestimated or underestimated by the respondent (unconsciously or consciously) (Baker, 2011). In the case of language competence, this might depend on language prestige (for instance, if one language enjoys higher prestige than the other one), and on attitudes towards the language and its community. I am also aware that levels of language proficiency and competence vary across contexts and situations. Nevertheless, there are studies indicating that parental and preschool teacher reports are reliable sources for gaining language profiles and measurements of language usage/behaviour (e.g., Marchman et al., 2004; Rodriguez et al., 2009). Moreover, self-assessment in bilingual communities/areas might be particularly reliable because in such areas more attention is given to language proficiency. People from bilingual communities obtain sufficient feedback and are in contact

with speakers of the other language group in order to be able to evaluate their own language skills (e.g., Lieberman, 1970: 18-19; Egger, 1985: 61).

5.2.1.2. Parental educational level

In this study, parental educational level was measured in terms of the highest school degree awarded. Previous studies revealed that maternal speech/language input as well as maternal education is a significant predictor for child language development, especially for vocabulary size (e.g., Hoff-Ginsberg, 1991, 1998; Hoff, 2003). These outcomes were found in monolinguals (Snow et al., 1976; Hoff, 2003, 2006; Hoff & Tian, 2005) as well as in bilingual and L2 children (Oller & Eilers, 2002; Golberg et al., 2008; Paradis, 2009; Blom et al., 2010; Dixon, 2011). Furthermore, research provides a clear relation between the socio-economic status (e.g., educational level, income or parental occupation), children's early language skills, and the language input received in the home context (e.g., child-directed speech, book reading time, interactions with parents and siblings). Hoff-Ginsberg (1998) and more recently Hoff and Tian (2005), for instance, found that maternal speech differed even among mothers with high socio-economic status and mid socio-economic status (SES), which consequently had an effect on their children's early language development due to their learning experiences, e.g. richer vocabulary for high-SES children since their mothers used larger productive vocabularies. Paradis (2011a) examined children's lexical and morphological proficiency of early English L2 children in Canada. In testing receptive vocabulary proficiency, she found that those children whose mother had higher education levels had significantly higher Peabody Picture Vocabulary Test (PPVT, Dunn & Dunn, 1997) standard scores than those children whose mother had lower levels of education. Very recently Fernald, Marchman and Weisleder (2013) found that even by the age of 18 months English-learning children from higher-SES families had significantly higher vocabulary scores than their same-aged peers from lower-SES families.

Overall, research has shown that children from high SES families (and therefore more educated parents) not only get more language input (Hart & Risley, 1995), but the quality of child-directed speech also differs from children from low-SES families (Hart & Risley, 1999; Hoff, 2003; 2006). Children have different language-learning experiences: the former receive input which is most effective for language learning (i.e., richer vocabulary, more questions), which in turn is related to vocabulary comprehension and production (Hoff & Naigles, 2002; Hoff, 2003; Rowe, 2008). SES-related differences in input were found in L1 acquisition (Hoff-Ginsberg, 1991; Hart & Risley, 1995; Weizman & Snow, 2001; Hoff, 2003; Rowe,

2008; Weisleder & Fernald, 2013) as well as in L2 acquisition (Cobo-Lewis et al., 2002; Oller & Eilers, 2002; De Houwer, 2007; Paradis, 2009; Duursma et al., 2007).

5.2.1.3. Birth order and siblings

One established outcome is that the presence or absence of a sibling within the family, thus sibling status or birth order, plays a significant role in the child's language development and language experience (e.g., Jones & Adamson, 1987; Hoff, 2006; for an overview see Ortiz, 2009). However, although the language environment for first- and later-borns differs, the effect of birth order is not always straightforward. There are a range of conflicting results within the existing research.

On the one hand, research has shown that first-borns develop language faster than later-borns and are reported to be more advanced in vocabulary and grammar (Jones & Adamson, 1987; Pine, 1995; Hoff-Ginsberg, 1998). Two reasons have been proposed to explain this: Firstly, the amount of directly addressed speech that the child receives from the parent is supposedly greater than for later borns. This one-to-one attention declines with family size since adults presumably have to divide their attention between their children (Jones & Adamson, 1987). Secondly, siblings' talk might not be equivalent to adults' talk as source of language input, as input from siblings is structurally less complex and is constructed from a smaller vocabulary than adults (Hoff-Ginsberg & Krueger, 1991; Cutting & Dunn, 1999).

On the other hand, even though later-borns might receive less speech input from adults, their language input derives from different sources, such as adult language and older siblings, which means that speech is more varied (Goldfield & Reznick, 1990). Recent studies suggest that older siblings make an important contribution to younger siblings' language learning experience in guiding their development: older siblings can be seen as a valuable source of language input, as an important resource for language learning, as well as promoting their younger siblings' cognitive development (Oshima-Takane et al., 1996; Brody, 2004; Maynard, 2004; Bridges & Hoff, 2014). This positive influence on the development of their younger siblings' language can be observed in monolingual homes but is probably more important in bilingual homes where the home and school language differs. In bilingual homes, for instance, first-borns invite friends who speak the school or majority language. As noted by Baker (2007), the language of play might switch to the school/majority language. Consequently, later-borns experience from early on more exposure to the school/majority language compared to their older siblings.

Therefore, based on the literature of bilingual homes (e.g., Bridges & Hoff, 2014), one can expect that for the South Tyrolean context the presence of older siblings in the household may have a positive effect on later-borns: participants with older siblings may be more advanced in German language development, since older siblings provide a source that would not be available otherwise. That the existing research on siblings' status and young children's language development, however, does not combine to one simple picture has also been confirmed by my investigations, which are discussed in section 5.5.2.3.

5.2.1.4. Home literacy activities

A number of studies have demonstrated that reading experience has a positive influence on children's linguistic development, i.e. word acquisition, literacy skills, and passive voice production (Böhme-Dürr, 2001; Bertschi-Kaufmann, 2007; von Lehmden et al., 2013). Bilingual research has shown that young children's expressive vocabulary growth in each language is positively related to their reading experiences (see Patterson, 2002; see Artiles & Ortiz, 2002 for English and Spanish). In the Arabic world, studies have revealed that regular reading familiarized preschool children with Modern Standard Arabic (MSA). Early exposure to MSA enhanced children's reading comprehension abilities, listening comprehension, and other oral linguistic abilities (Iraqi, 1990; Feitelson et al., 1993; Jaquier, 1995; Ayari, 1996; Abu-Rabia, 2000). In Switzerland, Jaquier (1995) concluded that daily reading of Standard German books in preschools had an exceedingly positive influence on preschoolers early language learning in German (see also Gyger, 2005, 2007; Landert, 2007).

Thus, based on these results, the South Tyrolean child's linguistic development in German might benefit from the frequent exposure to and familiarization with German at home, as for instance German vocabulary size might grow on the basis of literacy activities. Hence, the questionnaire used for the current study asked parents about the language and frequency of children's language experiences with books. Question 4 elicited information about literacy practices and asked how many times parents read to their children per week. Parents marked the frequency of the child's activity on a 5-point scale: 'never', 'once a week', '2-5 times a week', 'more than five times a week', and 'I don't know'. Moreover, South Tyrolean parents were also asked to list in which language(s) they read to their child/children (Question 5): South Tyrolean Bavarian, Standard German, Italian, or other language(s). Results are presented in section 5.4.1.6 and discussed in section 5.5.2.5.

5.2.1.5. Television viewing

Nowadays, watching television is a common source of language input/exposure for many children (Close, 2004; for an overall review regarding watching television and language development see Hoff, 2006). Research dealing with early language development and language learning through media consumption, however, has produced controversial results: television viewing appears to be either promoting or hindering, depending on several reasons.

Krashen's (1982) own children watched a Spanish programme for years. Except for a basic ability to count and recognize a few Spanish words, he concluded that television would not be adequate in beginning stages. More recently, Patterson (2002) investigated whether young bilingual children's frequency of television viewing was related to their vocabulary size in Spanish and English. Her results suggested that the two were not related significantly.

On the other hand, there are indications that age-appropriate television and educational television (programmes with an educational or narrative content, i.e., *Sesame Street* and *Barney*) have positive effects on lexical development and expression in early years (Rice & Woodsmall, 1988; Rice et al., 1990; Naigles & Mayeux, 2001; Uchikoshi, 2006; Six, 2008), but maybe not on syntax learning (Naigles & Mayeux, 2001). Age-appropriate television or educational television programmes imply that there are certain language features which make the content more understandable to the child, such as simpler speech, and repetitions of target words or phrases (Uchikoshi, 2006). These repetitions and reinforcements are essential for young children to enhance their vocabulary size (Uchikoshi, 2006). Moreover, research suggests that watching television improves knowledge of storytelling and narrative, receptive as well as expressive vocabulary knowledge (St Peter et al., 1989; Naigles & Mayeux, 2001; Close, 2004; Dixon, 2011). Overall, high-quality educational television can improve several aspects of language development for two and five-year-old children (Close, 2004). This, in turn, is influenced by different variables, such as the child's age, his/her pre-existing cognitive development and language ability, the quality of the programme content, TV language listened to, and opportunities for interaction with adults (Patterson, 2002; Close, 2004; Dixon, 2011). The situation might be different for watching programmes which are not specifically meant for young children, such as soap series and talk-shows, since they are barely understandable to them. If children are exposed to many unfamiliar words, language learning and vocabulary development are more effective when adults are co-viewing and provide explicit definitions and explanations of unfamiliar words (Rice & Woodsmall, 1988; Naigles & Mayeux, 2001; Patterson, 2002). While watching television, however, social interactions with adults might diminish. In verbal interactions (i.e., parent-child book reading) children are

integrated in activities which can be seen as more effective sources of language input than isolated television viewing (Hoff, 2006). As argued by Krashen (1982), it is important that the language is directed at the child as well as being made comprehensible to the child.

Yet, no study has considered the relationship between Standard German television programmes and receptive and expressive language – or language input and output in South Tyrolean’s children development. The following question shall be asked: ‘How many hours a day does your child watch television?’ Answers could be chosen on a 6-point scale: ‘none’, ‘less than one hour per day’, ‘one hour per day’, ‘2-5 hours per day’⁴⁴, ‘more than 5 hours per day’ and ‘I don’t know’. Again, parents were also asked about the language they normally hear on TV when watching television. Whether TV viewing in Standard German is favourable for South Tyrolean children’s linguistic development is explored in section 5.4.1.5 and discussed in section 5.5.2.5.

5.2.1.6. Attitudes

Already several decades ago, Carroll (1967) emphasized the importance of a favourable home environment (parental attitudes) for students’ foreign language performance. As claimed by others, such as Spolsky (1969), Lambert (1977), Gardner (1985), Baker (1995), and more recently by Pearson (2007), parents influence children’s attitude, motivation, and (consciously or unconsciously) also their language development – in the sense that they either support (positive attitude) or inhibit the development (negative attitude). As recently argued by Pearson (2007: 401), positive attitudes “can *add value* to the language and accelerate its use”, while negative attitudes “will *subtract value*, which will lead to less enthusiasm for using the language.” However, not only parents’ attitudes are of importance. Siblings’ positive attitudes could also accelerate Standard German use and thus proficiency within a minority community. The importance of language attitude within a minority community has already been discussed in *Chapter 2* in section 2.3.3.6. Research has shown that the Germanic-speaking community in South Tyrol does have positive attitudes towards Standard German (Sitta, 1994), and that overall they evaluate their German language skills positively (ASTAT, 2006, 2015). Therefore, in order to investigate South Tyrolean parents’ language attitudes towards Standard German, which in turn might have an impact on their children’s language proficiency as mentioned above, the following five attitudinal statements were included in the

⁴⁴ Literature reports that children aged three to six watch 2.5 hours television per day (Huston et al., 1990).

questionnaire (and four categories: ‘strongly agree’, ‘agree’, ‘disagree’, and ‘strongly disagree’):

Statement 1: The early contact with German poses a danger to the local Bavarian language.

Statement 2: Instead of German, Bavarian should be the language spoken to the children in preschools.

Statement 3: German language learning creates a challenge for my child.

Statement 4: For the future of my child, it is important that s/he already learns German in preschool.

Statement 5: My child has problems in understanding German.

Results shall be presented in section 5.3.4.6.

5.2.2. TROG and TROG-D: Test for Reception of Grammar

I am aware that comparing monolinguals and bilinguals is questionable (Grosjean, 1992) and has often been unfavourable for bilingual speakers, i.e. bilinguals are less proficient than monolinguals. Furthermore, it has been claimed extensively in the literature that it is inappropriate and unreliable to assess bilingual children using a standardized test for monolinguals (Grosjean, 1992; Abudarham, 1997; Paradis, 2011b). Although it has been stated by Pearson (1998: 347) that there do not exist standardized instruments which provide “an adequate picture of normal bilingual development”, in the past numerous studies have used (and still use) standardized tests (of lexical knowledge, grammar, narrative skills) when comparing bilinguals with (age-matched) monolinguals (e.g., Spanish–English: Fantini, 1985; Pearson et al., 1993; Hammer et al., 2009; German–English: Saunders, 1982; Gibraltarian Yanito Spanish–English: Abudarham, 1997; diversity of L1 backgrounds–English: Golberg et al., 2008). When studying bilinguals, moreover, it has often been claimed that both languages must be considered (Abudarham, 1997; Paradis, 2005, 2010; Thordardottir et al., 2006) in order to obtain a more complete picture of the bilingual’s linguistic development and abilities. That the present study did not allow testing South Tyrolean preschoolers in both Standard German and South Tyrolean is attributed to the fact that the TROG does not yet exist in South Tyrolean Bavarian. Moreover, the overall aim of this dissertation was to contribute in defining the phenomenon *bilingualism* and who accounts for a *bilingual* speaker, demonstrating the importance of defining languages linguistically and not just socially.

Therefore, the fact that South Tyrolean children are wrongly assumed to be L1 German speakers justifies the usage of the TROG-D.

In the following, I shall provide a brief overview of the standardized TROG and TROG-D test before presenting the testing procedure in preschools (section 5.2.3).

The TROG was designed for speech and language therapists, researchers, and teachers in order to assess the understanding of grammatical structures/contrasts in a specific language. In the present study, preschoolers were tested on the German version of the *Test for the Reception of Grammar*, shortly the TROG-D (Fox, 2013), which was originally developed in English (Bishop, 1983, 1989, 2003). The test is designed for children aged 3;0-10;11. The advantage of an off-line sentence comprehension task is that it can be used with a wide range of population, and it can easily be assessed across different age groups and social groups (Marinis, 2010). Moreover, in such forced choice tasks the results are easy to code and easy to understand numerically (Schmitt & Miller, 2010). As a standardised test for the reception of grammar, the TROG (English version) and the TROG-D (German version) are widely used by researchers to assess comprehension in children with (receptive) language impairments and speech deficits or in order to see whether preschoolers and children are developing typically (e.g., Cohen et al., 2000; Montgomery, 2000; Archibald & Gathercole, 2006; Sauerland & Yatsushiro, 2012; Ebbels et al., 2014). I shall report some studies below.

TROG

The English version of the TROG has been used to assess comprehension in children with receptive language impairments (Ebbels et al., 2014) as well as with bilingual children. Gondo et al. (2012) tested English grammatical comprehension among Japanese–English bilingual children with autism, and Chondrogianni and Marinis (2011) examined successive bilingual Turkish–English children. Poarch and Van Hell (2012a; 2012b) used the TROG test in order to assess children’s language proficiency in German (TROG-D) and in English (TROG-2; see Bishop, 2003). In their experiments, they tested German monolingual children, L2 learners of English, bilinguals (German–English), and trilinguals which were exposed to German, English and a third language. The TROG results reflected participants’ language proficiencies in German and English and allowed comparing all the different groups with each other.

TROG-D

Previous studies used the German version, the TROG-D, for a range of different purposes. Von Lehmden et al. (2013) assessed the passive verb constructions in Standard German preschoolers. Sauerland and Yatsushiro (2012) compared German children who attended primary school (*allgemeine Grundschule*) with children who attended a *Förderschule* (focusing on children with language impairment). Knoll et al. (2012), for instance, used the TROG-D test among German preschool children in order to assess normal language development. Low scores on the test allowed them to exclude some of the children. These children, then, were not included in their final sample for the fMRI experiment. Ullrich et al. (2014) used a combination of several methods (amongst others also the TROG-D) in order to examine language skills among children in preschools and schools in Germany. Their longitudinal study examined children, who had previously been diagnosed with language impairment or delay, and attended a preschool and school with integrated speech therapy treatment and pedagogical support. The main aim was to investigate whether a combination of speech therapy and pedagogical support experienced in preschool and primary school would improve children's academic performance. The TROG-D was also used among children growing up bilingual, for instance for assessing language acquisition (focusing especially on the plural form) among monolingual German and bilingual Turkish–German children (aged 5 to 8) (Rinker et al., 2011). Bartl-Pokorny et al. (2012) used a combination of several methods (amongst others also the TROG-D) for testing three Spanish–German bilingual siblings.

5.2.2.1. Reasons for using this specific test

The use of the TROG-D, a standardized assessment test, allows for comparison of the South Tyrolean Bavarian-speaking sample group with their monolingual German peers. The test has specifically been developed for the German language (Fox, 2013), and is consequently ideal to assess the Germanic-speaking language group in South Tyrol: (most) test items are clearly identifiable, and basic vocabularies are used. A wide range of grammatical constructions are tested in the TROG-D – such as nouns, verbs, adjectives, 2 to 3 element sentences, negation, prepositions, perfect tense, plurals, passive, relative clauses, personal pronouns, and so on – its difficulty increasing as the test proceeds (see Appendix B7). In the past, the TROG-D has been used for different purposes, such as screening for normal language development (Knoll et al., 2012; Schipke et al., 2012), or children's language proficiency in German (Poarch & van Hell, 2012a, 2012b).

There were three main reasons for using a receptive language task, thus evaluating children's receptive lexical and grammatical skills in Standard German. Firstly, a listening task was chosen as it is a good method to predict children's ability in understanding spoken Standard German addressed to them (e.g., Feitelson et al., 1993). Besides, reading skills are developed in primary school and not yet in preschool. Secondly, it is widely agreed that comprehension/receptive acquisition precedes productive skills (spoken and written) in many domains of linguistic development (Steinberg, 1995; Russ, 2005; Wode & Girotto, 2008; Eisenbeiss, 2010; Sachse et al., 2010). In monolingual and bilingual children word comprehension is fairly ahead of word production (De Houwer, 2009). Thirdly, it has also been claimed that receptive tests can be controlled more strongly than production tests (Häcki Buhofer & Burger, 1998).

At this point it is important to highlight again that all participating children were tested in Standard German⁴⁵ only, using a test which is normed for German monolinguals, as claimed by Fox (2013). Besides, as has extensively been claimed in the literature, testing bilinguals just in one of their two languages needs to be handled with caution (Paradis, 2005, 2010; Thordardottir et al., 2006). Nonetheless, the aim of the current study was precisely to show whether there is a clear issue of being disadvantaged specifically because what is demonstrably a case of trilingualism (South Tyrolean Bavarian–German–Italian) is denied from a socio-political (and subsequently from an educational) perspective and is assumed to be bilingualism (German–Italian).

5.2.2.2. Structure of the TROG-D

This section provides a brief explanation of how the TROG-D is structured.

All 84 items are arranged in blocks of four sentences (21 blocks), containing the same grammatical construct (each with three distractors differing in terms of word order or grammatical inflections), arranged in increasing levels of difficulty. Each correct block is scored as one point, for a maximum total of 21 points. The sentence-picture matching task involves presenting the child with four pictures while the experimenter utters a word or sentence.

The test starts with passive vocabulary or single words, as shown in Table 5.1 (example sentences A1-A4). From block D, the test continues with sentences (3-9 words per sentence),

⁴⁵ Section 5.2.3 provides a clearer picture of what kind of Standard German has been spoken to the children in the experimental settings.

as shown in the Table below (example sentences J1-J4). Appendix B5 shows the corresponding pictures used in the TROG-D for the example sentences A1-A4 and for J1-J4.

English translation	German stimuli	Sentence	
Shoe	Schuh	A1	Block A
Bird	Vogel	A2	
Comb	Kamm	A3	
Apple	Apfel	A4	
The pen is above the flower.	Der Stift ist über der Blume.	J1	Block J
The comb is under the spoon.	Der Kamm ist unter dem Löffel.	J2	
The bird flies above the tree.	Der Vogel fliegt über den Baum.	J3	
The dog walks under the table.	Der Hund läuft unter den Tisch.	J4	

Table 5.1. Block A and J: German stimuli extracted from the TROG-D (Fox, 2013).

Before starting, I presented the booklet to the child and provided the following instruction: “*I am showing you a book with many pictures. I am telling you what I am looking for and I need your help by pointing at the right picture. Look at these four pictures, show me... ‘shoe’.*”

The child had a few seconds to look at the pictures and the task was to show which picture best matches that word (or sentence) (see Appendix B5). All children received the same instruction. The testing started with one practice item (block 1, sentence A). I waited for the child’s answer and noted it down in the record form provided in the TROG-D (Appendix B7). The record form in Appendix B6 summarized the child’s information (name, gender, date of birth, and age), the date of testing, and the scores were entered again for each block.

5.2.2.2.1. Scoring

The child is considered to have passed the whole block if all four items are answered correctly. If the child is unwilling to give an answer, the item in the block is counted as incorrect. If three or more items are answered incorrectly, Fox (2013) suggested that the child has difficulties with this specific target structure and is thus considered to have failed the whole block. If the child failed five successive blocks, the test ended.

Regardless of the answer provided, in the present study the child was always given a positive response and was awarded with a sticker.

5.2.3. Testing procedure and setting in preschools

Preschool children were tested individually in a relatively quiet room at their preschool during regular preschool hours. Each testing session lasted approximately 5-25 minutes⁴⁶ per child. Afterwards each child received a sticker as reward.

As a native speaker of the local South Tyrolean variety, I conducted the test in South Tyrol myself. The test was performed in Standard German. Together with the child, we sat around a small table (Figure 5.1). The testing session was slightly different in Germany. In Wendeburg a German speaker⁴⁷ from the target area was recruited to read out the sentences (Figure 5.2). This was to ensure that the German stimuli were produced in the variety the child was most familiar with. In other words, in South Tyrol the stimuli were read in Standard German by a local South Tyrolean, whereas in Germany they were read by a Standard German speaker. In Wendeburg, therefore, while the German speaker read aloud the sentences, I sat next to him and completed the provided record forms (Appendix B6 and B7).

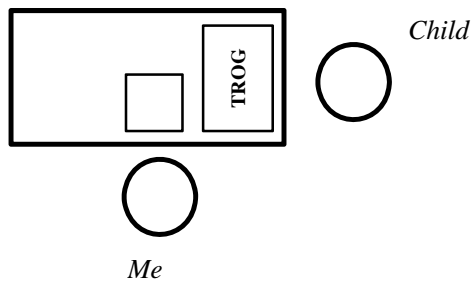


Figure 5.1. Setting in the South Tyrolean preschool.

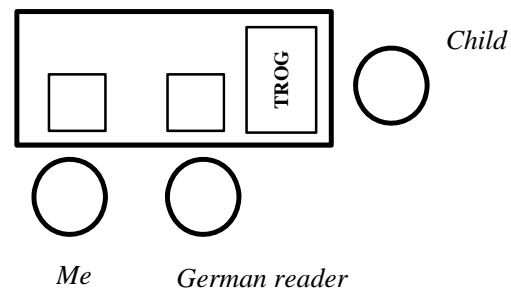


Figure 5.2. Setting in the German preschool.

At this point I would also like to mention that some non-linguistic variables might have influenced performance and results of preschool children. These variables are: the child's personality (outgoing or introvert), willingness to participate, and rapport with the researcher. Regarding the latter issue, an effort was made to make the child feel as comfortable as possible. In some cases, I spent some time in the preschools and made myself known to the child in question before starting with the actual test. On rare occasions when the child did not feel at ease, a familiar person (the preschool teacher) accompanied the child in order to make him/her feel more comfortable. Occasionally, therefore, a preschool teacher accompanied the

⁴⁶ The reason for such a large difference was that in some cases the test had to be finished quite early, e.g. due to the stop criterion suggested by Fox (2013), while other children managed to score quite high and therefore the overall test took longer. Moreover, when testing small children one has to consider that some are very talkative and enjoy telling the researcher stories about pictures they see in the booklet.

⁴⁷ He was paid 30€ for assisting.

child and sat quietly next to him/her while s/he was performing the task. It should be noted that this happened for each testing session in one specific preschool in Lana (South Tyrol) as the head of preschool specifically requested it. Except for encouraging comments, the preschool teacher did not say anything during the testing session.

Despite the attempt to make each single child feel as comfortable as possible, one male South Tyrolean Bavarian-speaking child and one male German-speaking child did not want to participate at all and were therefore excluded from the study. The number of how many children were included or excluded from the final analyses shall be summarized in section 5.3.4 for the Bavarian home language group and in section 5.3.5 for the German home language group.

5.3. PARTICIPANTS

5.3.1. Geographical target area

Before presenting the South Tyrolean Bavarian and German home language group, I shall explain why the following specific target areas have been chosen in South Tyrol and Germany.

5.3.1.1. South Tyrol: Lana and Tschermers/Cermes

The aim was to test South Tyrolean Bavarian-speaking children whose parents were both L1 South Tyrolean Bavarian speakers. On purpose no bigger South Tyrolean city was chosen for the current study. Based on two reasons, in the focus of interest were either towns or villages.

First of all, it has been shown that language usage among rural and urban areas differs. Although the following study has been conducted in South Tyrol more than 30 years ago, results might still be similar today. Saxalber-Tetter (1982) found that language usage among people living in rural areas and in cities differed: the former using L varieties more often within the family (84% reported to use L varieties and 12.3% reported to use *Umgangssprache*), whereas in the cities Bolzano and Bressanone 60% reported to use L varieties and 27% reported to use *Umgangssprache* within the family (Saxalber-Tetter, 1982) (see also Saxalber-Tetter & Lanthaler, 2012).

Secondly, on the basis of the language group distribution, towns were chosen where the number of the Germanic-language group exceeded 90%. This was done in order to avoid influences from the Italian language group as well as potential further variables due to exposure to Italian (e.g., depending on the neighbourhood the child might receive a considerable amount of Italian input outside the home).

Hence, in South Tyrol the town Lana and the village Cermes/Tscherms were selected. In 2011, Lana had a total population of 11,343 inhabitants: almost 92% belonged to the Germanic-language group and almost 8% to the Italian language group (ASTAT, 2012b, 2012c). Due to the fact that not enough participants could be found in Lana, participation was extended to the next small village. Tscherms/Cermes, a small village very close to Lana, had a total population of 1,441 inhabitants in 2011. Almost 95% declared to belong to the Germanic-language group and almost 5% to the Italian language group (ASTAT, 2012b, 2012c).

5.3.1.2. Germany: Wendeburg

In Germany the town Wendeburg was chosen. Wendeburg lies between Hanover (58 km) and Brunswick (15 km) in Southern Lower Saxony. In March 2014, Wendeburg had a total population of 10,697 inhabitants⁴⁸ (data collection took place in February 2014).

For the purpose of this study it was important to find an area where Standard German is people's native language. Hence, Southern Lower Saxony was chosen for several reasons found in the literature. Eichhoff (2000: 83) argued that the knowledge and usage of L varieties is more widespread in the south of Germany, such as Bavaria, Saarland, Rhineland-Palatinate, and Southern Baden-Württemberg. On the other hand, the weakest distribution of L varieties can be found in the centre regions of Germany, such as Southern Lower Saxony, Nordrhein-Westfalen, and Southern Brandenburg (see also West, 2000: 193-208 on this behalf), indirectly suggesting that inhabitants of these areas speak mainly (a regional variety of) Standard German. Moreover, as further argued by Langer and Davies (2005: 7), for many languages "it is not individuals or institutions who have symbolic linguistic status but rather particular geographical areas (Tuscany, Hanover, Île de France, Oxford)." In other words, in Italy the variety spoken in Tuscany has become Standard Italian (e.g., Maiden, 2013), in England it is the language spoken in Oxford, and in Germany it is the language spoken around the area of Hanover, the area selected for the current study (see also Mattheier, 1982: 134).

Summing up, it was decided to concentrate on the Southern Lower Saxony area in order to ensure a homogeneous L1 Standard German background of the control group. Finally, Wendeburg (10,697 inhabitants) was chosen as the number of inhabitants coincided more or less with the number of inhabitants of Lana (11,343 inhabitants).

⁴⁸ http://www.wendeburg.de/p/dlhome.asp?artikel_id=&liste=202&tmpl_typ=Liste&lp=1000&L=0&area=100, accessed 12 May 2014.

In order to control as much as possible for the comparability of the two home language groups, the participant selection process was set a priori and the following criteria were applied: (1) both parents had to be native speakers of South Tyrolean Bavarian or Standard German respectively, (2) children were born in South Tyrol or Germany respectively, and (3) there was no history of language impairment (according to parents' and/or educators' assessment).

5.3.2. Participant selection

South Tyrolean children usually start preschool around the age of 3 (at the latest at the age of 4). As already mentioned extensively in *Chapter 2*, German-speaking preschools (besides schools) are institutions where Standard German is officially the language of instruction. In other words, it is the first time when young South Tyrolean children are specifically requested to be addressed in Standard German by their educators. Therefore, 3;0-4;11 year old preschoolers were intentionally targeted for the purpose of the present study, as one of the aims of this dissertation is to investigate the psycho-linguistic gap children have to overcome when learning Standard German. Moreover, a small pilot study conducted in July and August 2013 among eight South Tyrolean Bavarian-speaking children (five female and three male) between the age of three and six confirmed that 3-year old South Tyroleans were able to do the TROG-D test.

5.3.3. Participant recruitment

The headmasters of all preschools in Lana and Cermes were personally contacted to ask whether they were interested in participating in the study. All preschools showed their interest and a parent-teacher conference at the end of August and at the beginning of September 2013 offered a good opportunity to present the study and approach interested parents. Parents received a short written information sheet about the project and were informed about the method, procedure, and goals. Moreover, they also received a consent form and the questionnaire (see Appendix B1 and B2). These were handed-in prior to the testing. Officially, preschool started on the 5th of September 2013 in South Tyrol. In order to ensure that children settled down well, data collection started on the 18th of September 2013 in Lana, and on the 12th of November 2013 in Cermes. Overall, data collection lasted until March 2014.

Recruiting was slightly different in Germany. Due to the geographical distance (Italy–Germany), a letter was sent to several preschools in Wendeburg after being selected as

potential target area. All contacted preschools in Wendeburg were then personally called a few days later (October and November 2013). In the meantime, preschools advertised the study and educators approached potential families before data collection took place in February 2014. Once starting data collection in Wendeburg, I approached further parents personally. Again, information sheet, content form, and the questionnaire were distributed among parents and were handed-in before the testing started (see Appendix B3 and B4).

After having presented the areas where data collection took place and having explained why children at the age of three and four were tested, I shall now describe the Bavarian home language group (section 5.3.4) separately from the German home language group (section 5.3.5).

5.3.4. Descriptive statistics: Bavarian home language group

Although a total of 65 children were initially recruited in South Tyrol, the actual number of participants dropped to 54 for different reasons. Any child whose home language was not the local South Tyrolean Bavarian was excluded from the study. Although it was explained beforehand that only Bavarian-speaking children could take part in the study, three parents completed the questionnaire revealing that at least one parent had a different native language than South Tyrolean Bavarian (Standard German, Italian, and Slovak respectively). If, for instance, a parent claimed to have Italian as native language, this child was either not tested or removed from the final analyses, as it is possible that the child had been raised primarily in Italian. Also excluded from the initial sample were six participants (2 female and 4 male) because, as confirmed by preschool teachers, they showed language impairments. Besides those six children, children had no language impairment and all tested preschool children were developing normally. A further male child was removed from the final analyses because he got distracted very quickly while he was doing the task. The researcher decided that his results were not reliable. A further boy was very shy and did not show any reaction and willingness to collaborate after the task had been explained to him.

A total of 54 typically developing South Tyrolean Bavarian-speaking children, 24 female (44.4%) and 30 male (55.6%), participated in the study. All participating children were born in South Tyrol and lived either in Lana or Cermes where they went to preschool. Only one family lived in a neighbouring village, however, as the parents worked in Lana their child was allowed to attend preschool in Lana and therefore was included in the study.

At the time of testing, the children had a mean age of 3;84 years (46.18 months, SD=7.39). Length of preschool attendance was calculated by subtracting the time when the child started preschool from the age at time of testing. At the time of testing, children had received an average of 7.39 months' exposure (SD=6.34) to German in the context of preschool, the range was 2 weeks to 22 months⁴⁹. This means that some children had just started preschool, whereas others were already almost 2 years in preschool.

Since further statistical analyses will be conducted among the 3-year olds and the 4-year olds separately (see section 5.4.1), in the following the group shall be divided into two age groups, presenting the mean age at the time of testing, the mean age when starting preschool, and the length of preschool attendance for 3;0-3;11 and 4;0-4;11 year olds separately.

The younger age group, the 3-year olds (53.7%), had a mean age of 3;36 years (40.38 months, SD=3.73) when they were tested and entered preschool at the mean age of 3;06 years (36.75 months, SD=3.63). At the time of testing, these children's mean length of preschool attendance was 3 months (SD=4).

The older group, the 4-year olds (46.3%), had a mean age of 4;41 years (52.92 months, SD=4.06) when they were tested and started preschool at the mean age of 3;22 years (38.68 months, SD=5.42). At time of testing their mean length of preschool attendance was 12 months (SD=5). Table 5.2 provides a summary.

	Age at testing (months)		Age at starting preschool (months)		Length of preschool attendance (months)	
	Mean (SD)	Range	Mean (SD)	Range	Mean (SD)	Range
3;0-3;11 (n=29)	40.38 (3.73)	36-47	36.75 (3.63)	30-43	3 (4)	0-13
4;0-4;11 (n=25)	52.92 (4.06)	48-59	38.68 (5.42)	31-47	12 (5)	2-22
TOT. (n=54)	46.18 (7.39)	36-59	37.65 (4.60)	30-47	7 (6)	0-22

Table 5.2. Bavarian home language group: Demographic characteristics divided by age group.

5.3.4.1. Parents' proficiency in German and Italian

In the questionnaire used in South Tyrol mothers and fathers were asked to rate their fluency in Standard German and Italian using a 0-5 point rating scale: 'fluent'=4, 'quite fluent'=3, 'somewhat fluent'=2, 'limited fluency'=1, and 'virtually no fluency'=0. Parents' self-rated language proficiency in Standard German and Italian is reported separately from each other.

⁴⁹ In South Tyrol children attend preschool for 5 hours (from 7.30am to 12.30am) up to 7 hours (from 7.30am to 2.30pm) per day, Monday till Friday.

German

A majority of mothers and fathers reported to be ‘fluent’ in Standard German (76.9%), while only 23.1% stated to be ‘quite fluent’. The mean response for German was 3.78 (SD= .420, range 3-4) for mothers, and 3.76 (SD= .432, range 3-4) for fathers, suggesting that both parents’ as a group were highly fluent in German, as summarized in Table 5.3.

Italian

On average, it can be seen that Italian language proficiency varied more than German language competence. Most mothers stated to be ‘quite fluent’ in Italian (70.4%), 16.7% were ‘fluent’, and 9.3% said they were ‘somewhat fluent’. Only two mothers categorized themselves as having ‘limited fluency’ in Italian (3.7%). Similarly, most fathers were ‘quite fluent’ (48.1%) in Italian, 40.7% were ‘fluent’, 9.3% were ‘somewhat fluent’, and only one father stated to have a ‘limited fluency’ in Italian (1.9%). Language fluency and competence in Italian was rated a bit lower than German proficiency: mothers reported a mean response of 3.00 (SD= .644, range 1-4), and fathers a mean of 3.28 (SD= .712, range 1-4). Again, both estimations are very similar.

Table 5.3 summarizes parents’ self-rated language competences in Standard German and Italian. A 0-5 point rating scale was used: ‘fluent’=4, ‘quite fluent’=3, ‘somewhat fluent’=2, ‘limited fluency’=1, and ‘virtually no fluency’=0.

Self-rated proficiency in Standard German and Italian				
	<i>Mother (n= 54)</i>		<i>Father (n= 54)</i>	
	<i>Mean (SD)</i>	<i>Range</i>	<i>Mean (SD)</i>	<i>Range</i>
Proficiency in German	3.78 (.420)	3-4	3.76 (.432)	3-4
Proficiency in Italian	3.00 (.644)	1-4	3.28 (.712)	1-4

Table 5.3. Bavarian home language group: Mothers’ and fathers’ self-rated fluency in German and Italian.

5.3.4.1.1. Proficiency differences in German and Italian

The fact that Bavarian-speaking South Tyroleans rate their language proficiency higher in German than in Italian is not surprising. Reasons for this behaviour/evaluation found among the Germanic-speaking population in South Tyrol have extensively been discussed in other

studies (e.g., Egger, 2001a; Abel, 2007; Ciccolone, 2010b; Leonardi, 2011; Abel et al., 2012a). Due to the heterogeneous geographical distribution of the two language groups, there is (almost) no natural/direct contact with speakers of the other language group (Voltmer et al., 2007; Abel et al., 2012a). The Bavarian-speaking community is mainly concentrated in villages, towns, and in the valleys (>90%), while the Italian-speaking community is sufficiently numerous in the capital Bolzano (74%) and in several communes in the Bassa Atesina/Unterland (near the Italian province Trentino) (Voltmer et al., 2007). This distribution also has numerous impacts on L2 proficiency and performance, language attitudes, and language learning motivation. Hence, most Bavarian South Tyroleans are not *balanced bilinguals* and their linguistic repertoire includes *some knowledge* of Italian, defined in the literature as *unbalanced bilingualism* (e.g., Putzer, 1997; Riehl, 2001; Vettori, 2005; ASTAT, 2006; Paladino et al., 2006).

5.3.4.2. Languages spoken at home

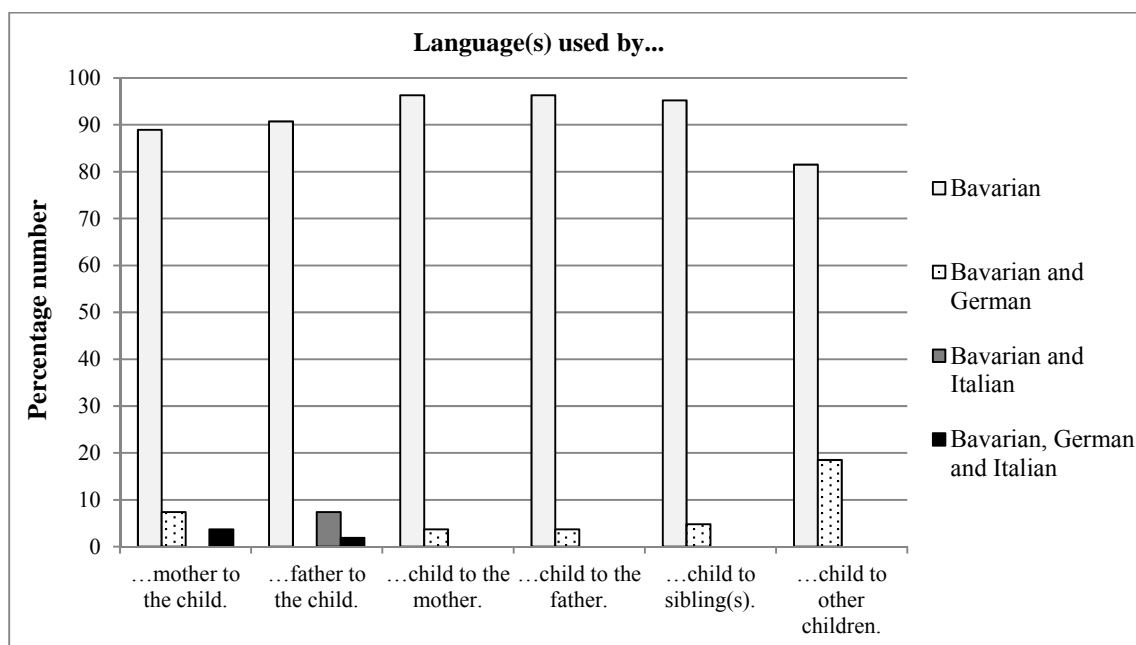
In the parental questionnaire parents were asked to estimate the frequency of speaking Standard German and Italian at home ('never'=0%, 'occasionally'=25%, 'often'=50%, 'very often'=75%, and 'always'=100%). This percentage number was then transformed into a five-point scale for further statistical analyses (0%=0, 25%=1, 50%=2, 75%=3, 100%=4). Although overall Standard German proficiency was rated very high among parents (see above), the mean proportion of German spoken at home was 0.44 (SD= .538), and for Italian 0.24 (SD= .473), indicating very low usage of both languages within the immediate family. A recent study conducted among 1,514 South Tyroleans showed similar results (ASTAT, 2015). Almost 90% of the South Tyrolean Bavarian-speaking parents reported to use South Tyrolean Bavarian in their daily communication, only 2.6% reported to use Standard German, and 3.5% reported to use Italian.

In the current study parents were also asked to report on the use of languages from each household member to the child in question, and the use of languages from the child to each family member. Table 5.4 provides an overview of the percentage numbers.

Language(s) used by...	N	Bavarian	Bavarian and German	Bavarian and Italian	Bavarian, German and Italian
...mother to the child.	54	88.9%	7.4%	0	3.7%
...father to the child.	54	90.7%	0	7.4%	1.9%
...child to the mother.	54	96.3%	3.7%	0	0
...child to the father.	54	96.3%	3.7%	0	0
...child to sibling(s).	42 ⁵⁰	95.2%	4.8%	0	0
...child to other children.	54	81.5%	18.5%	0	0

Table 5.4. Bavarian home language group: Language usage within the family.

For a better visualisation, Graph 5.1 shows the same percentage numbers presented in Table 5.4 in a Graph.



Graph 5.1. Bavarian home language group: Language usage within the family.

As clearly visualised in Graph 5.1, South Tyrolean Bavarian is reported to be the variety spoken most of the times within the immediate family (mother, father, and siblings). Interestingly, it can be seen from the percentage numbers that even though children do not necessarily hear Standard German from their parents, there seems to be enough experience in preschool, from older siblings, or the media in order to actively use the language when talking/playing with other children. Almost 20% of the parents reported that their child uses

⁵⁰ Twelve children were only-children and were excluded from this calculation.

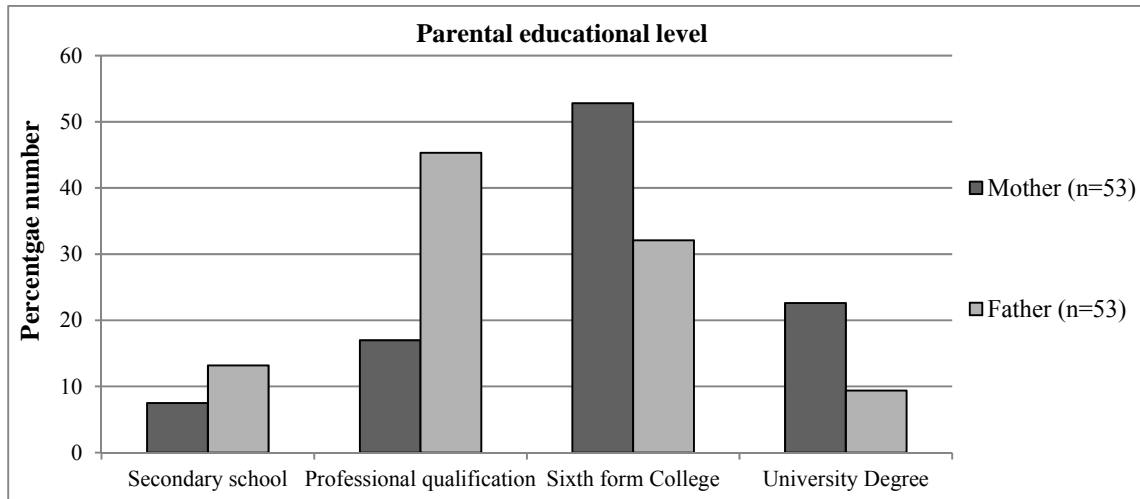
South Tyrolean Bavarian as well as German when talking and playing with other children, almost 5% were reported to speak the two languages when addressing their siblings, and almost 4% were reported to use South Tyrolean Bavarian and German when addressing both their mother and father. On the other hand, only 7% of the mothers reported that they use South Tyrolean Bavarian and Standard German when talking to their child⁵¹.

As already observed by Saxalber-Tetter (1982) and Egger (1994a), South Tyrolean parents often tend to use an intermediate variety closer to Standard German when addressing their children. Based on the literature on parent-child linguistic behaviour (see section 2.3.3.2.1 in *Chapter 2*), one could have expected that *Umgangssprache* or Standard German is used more often within the immediate family. That this was not the case, as only 7.4% of the mothers reported to use both South Tyrolean Bavarian and Standard German when interacting with their child, might have two reasons: (1) South Tyrolean mothers are not always aware that they speak Standard German to their child (or that they use a few Standard German lexical items), and (2) Standard German spoken at home might not be perceived as the Standard German language spoken by native speakers in Germany.

5.3.4.3. Parental educational level

All adults had at least eight years of education (primary and secondary education). Nobody's education was below secondary education (or compulsory school), and none had no education at all. At the time of testing, all fathers were employed, and mothers were either employed (93%) or homemakers (7%). Most mothers (52%) had a Sixth form college degree ('Matura' in Italy), while most fathers (44%) had a professional qualification (e.g., craftsmen, hairdresser, painter). Parental educational levels are summarized in Graph 5.2.

⁵¹ Personal experience implies that this percentage number (7%) is an underestimation and should be much higher. More research is needed to precisely understand the mechanism between parental language mixing (South Tyrolean Bavarian and Standard German) and child's linguistic development.



Graph 5.2. Bavarian home language group: Parents' employment. Years of education were missing for 1 father and 1 mother and were not included when calculating the percentage number.

In calculating the percentage numbers and the educational mean (and SD), parents were grouped in the following two categories (Table 5.5):

- 1= Lower SES (Secondary school or Professional qualification), and
- 2= Higher SES (Post-secondary diplomas or degrees, such as Sixth form college or University degree).

SES	Education	Mother		Father	
		N	%	N	%
Lower SES	Secondary school or Professional qualification	13	24.5	31	58.5
Higher SES	Post-secondary diplomas or University degrees	40	75.5	22	41.5
Education (mean, SD)		1.56 (1.52)		1.22 (1.50)	

Table 5.5. Bavarian home language group: Parental education. There was 1 missing answer for maternal education and 1 missing answer for paternal education. They were not included when calculating the percentage number.

Overall, as shown in Table 5.5, mothers had an educational mean of 1.56 (SD=1.52), and fathers had an educational mean of 1.22 (SD=1.50).

According to ASTAT (2013: 206), in 2012 almost 37% of the South Tyrolean population had a secondary school degree and almost 58% had a Sixth form college degree or University degree. On average women have a higher education (Sixth form college degree or University degree) than men, 53% and 63% respectively, as reflected in this study too. The

unemployment rate was at 4.1% in 2012 in South Tyrol (Italy had a higher unemployment rate: 10.7%).

5.3.4.4. Birth order and siblings

The South Tyrolean sample consists of 12 only-children (22.2%), 17 first-borns (31.5%), and 25 later-borns (46.3%). Participants' characteristics are displayed in Table 5.6. The average number of children in each family ranged from 1 to 4 with a mean of 1.96 children (including also the child participating in the study).

Variables	Bavarian home language group (n= 54)
Only-child	12 (22.2%)
First-born child ⁵²	17 (31.5%)
Later-born child	25 (46.3%)
Mean number of older siblings	.55 (SD= .066)
Mean age of older siblings (years)	7.97 (SD= 2.311)

Table 5.6. Bavarian home language group: Siblings' status.

Participants' younger siblings were not considered in this study. The average number of older siblings for the Bavarian home language group is 0.55 (range 0-2), and the average age of older siblings is 7.97 years⁵³ (ranging from age 4 to age 15), indicating that the average of preschoolers' siblings attended primary school. In the current study older siblings seem to have an impact on participant's performance, which is discussed in section 5.5.2.3 in more detail.

5.3.4.5. Television input and literacy activities

I shall first summarize results obtained from the questionnaire regarding children's daily television input before presenting how often parents reported to read to their children.

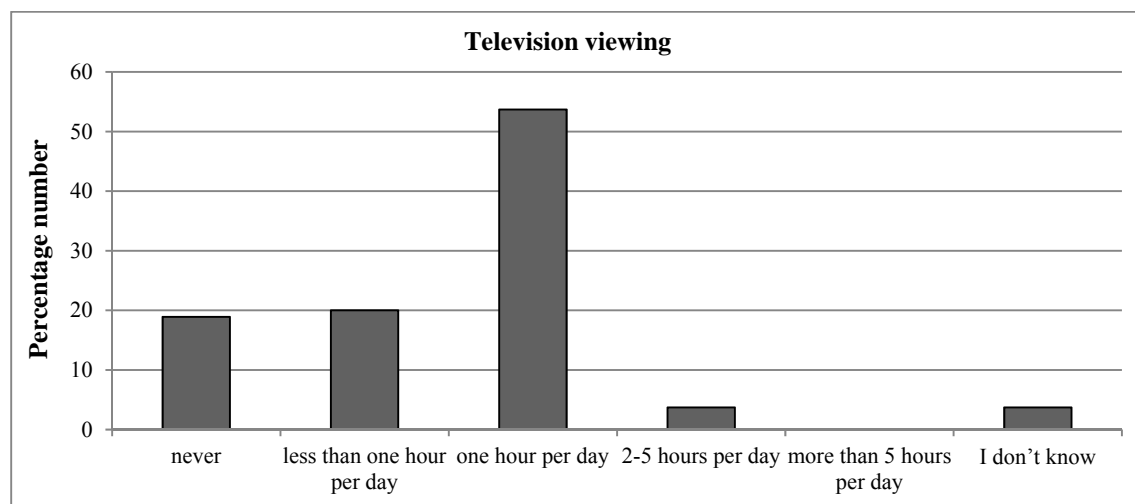
Television input

South Tyrolean parents reported that most children (53.7%) watch at least 1 hour of television per day, 20% watch less than 1 hour per day, and only two children (3.7%) watch between 2-5 hours per day. Almost 20% were reported to watch no television at all and in two cases

⁵² Twins were counted as first-born (see also Stolarova et al., 2014).

⁵³ Hoff-Ginsberg and Krueger (1991) found out that even though mothers provide the most supportive interactions to their children between the age of 1.5 and 3, seven to eight-year old children produced significantly higher levels of support than did 4- to 5-year-old children.

(3.7%) the parent did not know how much television was watched per day. Nobody stated that their child watched more than 5 hours' television per day, as shown in Graph 5.3.



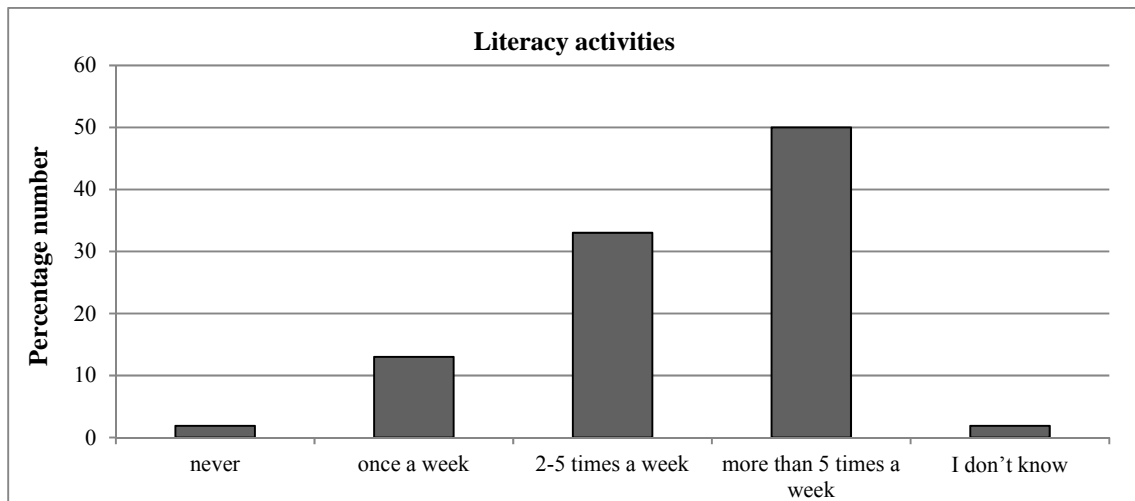
Graph 5.3. Bavarian home language group: Television viewing.

In the majority of cases only Standard German television was watched (68.18%)⁵⁴. It is not surprising that South Tyrolean Bavarian television is not watched at all, as there are no child television programmes in South Tyrolean Bavarian. It is possible to hear South Tyrolean Bavarian on TV or on radio, for instance when local people are interviewed (Ciccolone & Franceschini, 2015), but in this case it comprises programmes for adults only (newscast). 27.27% reported that their children watched Italian and German television/movies, and for two children (4.54%) it was reported that they watched only Italian television.

Literacy activities

From the answers provided in the questionnaire, half of the parents reported to read more than five times a week (50%), 33% reported to read 2-5 times a week, and 13% reported to read once a week. One parent did not read anything at all (1.9%), and another parent did not know how often the child was read to (1.9%). Percentage numbers are summarized in Graph 5.4.

⁵⁴ Those children who did not watch any television at all were not included in this calculation ($n=44$).



Graph 5.4. Bavarian home language group: Literacy activities.

Most of the time books were read only in Standard German (71.7%), 15% were read in both German and Italian, 11.3% were read in German and South Tyrolean Bavarian, and one parent (1.8%) reported that they read in German, Italian and South Tyrolean Bavarian to the child⁵⁵. As described in *Chapter 2* some children's books (e.g., *Asterix* volumes, Heidegger 2002, 2003, 2006, 2014) have recently been translated into South Tyrolean Bavarian and therefore give parents the opportunity to read aloud in South Tyrolean Bavarian. However, reading books in South Tyrolean Bavarian is not a widespread option, as most books have only recently been written or translated.

5.3.4.6. Attitudes

These were the five questions asked in the parental questionnaire:

Statement 1: The early contact with German poses a danger to the local Bavarian language.

Statement 2: Instead of German, Bavarian should be the language spoken to the children in preschools.

Statement 3: German language learning creates a challenge for my child.

Statement 4: For the future of my child, it is important that s/he already learns German in preschool.

Statement 5: My child has problems in understanding German.

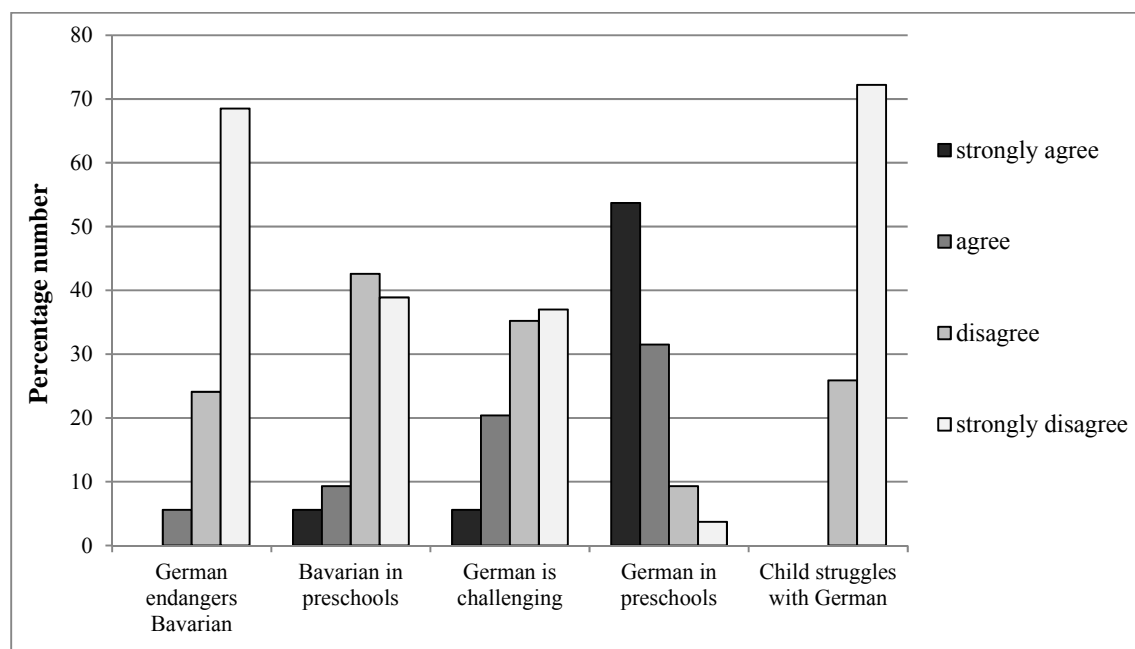
⁵⁵ The child whose parent did not know how often it was read a book was excluded from this calculation ($n=53$).

Statement 1 to 5 asked parents to agree or disagree on a 4-point scale (1='strongly agree', 2='agree', 3='disagree', 4='strongly disagree'). Table 5.7 summarizes parents' mean values (and SD). Overall, the attitudinal results obtained in the questionnaire are quite positive.

Statement 1-5	Mean value (SD)
1: German endangers Bavarian (1='strongly agree', 4='strongly disagree')	3.41 (1.817)
2: Bavarian in preschools (1='strongly agree', 4='strongly disagree')	2.74 (2.466)
3: German is challenging (1='strongly agree', 4='strongly disagree')	2.83 (1.871)
4: German in preschools (1='strongly agree', 4='strongly disagree')	1.43 (1.655)
5: Child struggles with German (1='strongly agree', 4='strongly disagree')	3.50 (1.788)

Table 5.7. Bavarian home language group: Parental attitudinal statements and mean values.

Graph 5.5 summarizes the percentage numbers provided in the questionnaires.



Graph 5.5. Bavarian home language group: Attitudinal statements. Missing answers are excluded.

According to the percentage numbers obtained from the questionnaires, only 26% of the South Tyrolean parents claim that German language learning creates a challenge for their child, the majority disagrees with it (74%, statement 3).

Moreover, all parents think that their children do not have any problems in understanding German (statement 5).

Preschools are educational institutions where Standard German is the language of ‘instruction’, which means that Standard German is already introduced by educators and teachers in the pre-school period. According to the answers given in the questionnaire, 85% do not think that South Tyrolean Bavarian should be spoken in preschools instead of German (statement 2). German is not only important for those who grow up in a household where the local language is spoken, but also for Italian-speaking infants and children with immigrant backgrounds that do not understand the local Bavarian variety yet (Egger, 2007).

Egger (2007) claimed, for instance, that the intensive exposure to Standard German is perceived as a positive opportunity for children’s future – supported by almost all parents who agree that early German language learning is important for the future of their child (87%, statement 4). In other words, Standard German is being perceived as a key skill in the area of education. Similar positive attitudes towards Standard German have also been found in Switzerland (Bachmann & Fenigstein-Sigg, 2004; Lanbert, 2007). Bachmann and Fenigstein-Sigg (2004) compared children who visited a Standard German-speaking preschool (*Hochdeutsch-Kindergarten*) with children who visited a *Mundart-Kindergarten* (where only Swiss German is spoken). They argued that attending a Standard German-speaking preschool favoured and supported children’s positive attitudes towards Standard German. Moreover, Bachmann and Fenigstein-Sigg (2004: 21) also reported that these children talked without fear of errors, meaning that they showed a high ‘risk-tolerance’, and were linguistically more productive (the input is qualitatively and quantitatively richer) than children from a *Mundart-Kindergarten*.

Finally, in my study only 6% of the parents think that the early contact with Standard German poses a danger to the local Bavarian variety (statement 1). The majority, almost 94%, disagrees with it. This is in line with previous research (e.g., Sieber & Sitta, 1986; Egger, 1994a, 2001b). In the South Tyrolean literature (Egger, 1994a), contact with Standard German is often viewed as enrichment as well as a matter of course.

On average, these results show that South Tyrolean parents have very positive attitudes towards Standard German and they do not perceive the diglossic situation as problematic. Standard German and South Tyrolean Bavarian are not experienced in a competitive relationship. As one of the official languages as well as serving as a language of public education, Standard German enjoys considerable *overt prestige* (for an explanation see section 2.3.3.6 in *Chapter 2*). Moreover, through the code-switching between Standard German and South Tyrolean Bavarian, there is also *covert prestige*, since nobody seems to be

concerned when South Tyrolean Bavarian and German are mixed up by a child or by an adult (e.g., Egger, 1994a). As already discussed in section 2.3.3.2.1 in *Chapter 2*, it is not unusual that parents use single German utterances or phrases when addressing their small children. Thus, it is not surprising that children adopt this linguistic behaviour and use German utterances instead of South Tyrolean Bavarian, or mix the two codes. Language contact between South Tyrolean Bavarian and Italian, on the other hand, is often perceived as more problematic for the development of a child’s identity. Contemporarily, people in South Tyrol still mention disadvantages before considering cognitive, social, and psychological advantages of learning Italian. This reaction is often attributed to the historical occurrences that took place in South Tyrol during the Fascism regime (see Baur et al., 2009).

5.3.5. Descriptive statistics: German home language group

Even though a total of 51 children were initially sampled in Germany, seven participants were excluded from the final analyses for various reasons. One male child was removed from the final analyses as he turned out to be German–Spanish bilingual. Children who regularly spoke more than one language at home did not proceed to the testing phase, to make sure that all participants had a high native competence in Standard German. Moreover, five children could not take part in the study as they were ill at the time of testing (2 male and 3 female). One male child (3;8 years) was not willing to take part and therefore could not be tested at all.

A total of 44 age-matched typically developing German monolingual children, 19 female (43.2%) and 25 male (56.8%), participated in the study. All children were born in Germany and were residents of Wendeburg. At time of testing, the children were 4;02 years old (mean age=48.25 months, SD=6.23), and they started preschool at the age of 2.97 years (35.75 months, SD= 2.20). When being tested, the average length of time in preschool⁵⁶ was 1;04 year (12.48 months, SD=6.96), the range was 3 weeks to 25 months. Table 5.8 provides a summary.

	Age at testing (months)		Age at starting preschool (months)		Length of preschool attendance (months)	
	Mean (SD)	Range	Mean (SD)	Range	Mean (SD)	Range
3;0-3;11 (n= 20)	42.55 (3.63)	36-47	36.3 (1.69)	32-40	6.25 (4.16)	0-11
4;0-4;11 (n= 24)	52.95 (3.44)	48-59	35.3 (2.49)	29-41	17.66 (3.98)	12-25
TOT. (n= 44)	48.25 (6.23)	36-59	35.75 (2.20)	29-41	12.48 (6.96)	0-25

Table 5.8. German home language group: Demographic characteristic divided by age group.

⁵⁶ In Wendeburg children go to preschool either for 4 hours (from 8am to 12am), for 6 hours (from 8am to 2pm) or for 9 hours (from 8am to 5pm) per day, Monday till Friday.

In the following I am presenting the mean age and the length of preschool attendance for 3- and 4-year olds separately.

Three-year olds (45.5%) had a mean age of 3;54 years (42.55 months, SD=3.63) when they were tested and entered preschool at the mean age of 3;02 years (36.3 months, SD=1.69). At time of testing, these children's mean length of preschool attendance was 6.25 months (SD=4.16).

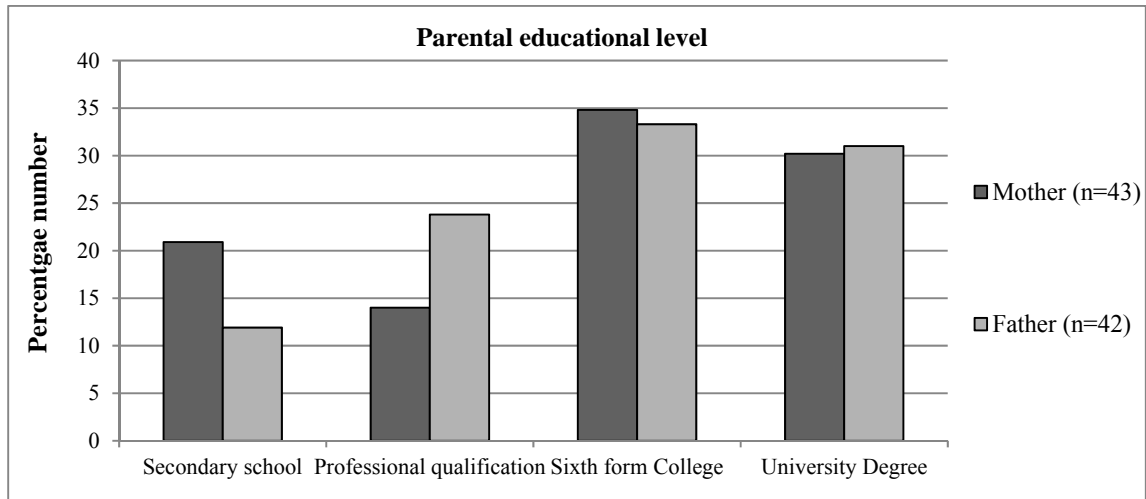
Four-year olds (54.5%) had a mean age of 4;41 years (52.95 months, SD=3.44) when they were tested and started preschool at the mean age of 2;94 years (35.3 months, SD=2.49). At time of testing their mean length of preschool attendance was 1;47 year (17.66 months, SD=3.98).

5.3.5.1. Languages spoken at home

Parents were asked to estimate the frequency of how often the child in question used Standard German or a dialect ('never', 'occasionally', 'often', 'very often', and 'always') within the household (family members) and with other children. Without exception all parents reported that Standard German was used in all instances given in the questionnaire: during mother-child interaction, father-child interaction, child-mother interaction, child-father interaction, and in interaction with siblings and other children.

5.3.5.2. Parental educational level

In the questionnaire parents had to tick the highest qualification/degree they had attained, defined here as parental educational level. In Wendeburg nobody had lower than secondary education or had no education at all. The majority of the mothers were working, whereby out of 44 only three were homemakers at the time of testing. All fathers were employed. Most mothers and fathers had a Sixth form college degree ('Abitur' in Germany), 34.8% and 33.3% respectively. Mothers had a slightly higher educational level compared to fathers, as presented below.



Graph 5.6. German home language group: Parents' employment. Years of education were missing for 2 fathers and 1 mother and were not included when calculating the percentage number.

As shown in Table 5.9, participating parents were divided into the following two groups, based on their educational qualification:

- 1= Lower SES (Secondary school or Professional qualification), and
- 2= Higher SES (Post-secondary diplomas or degrees, such as Sixth form college or University degree).

SES	Education	Mother		Father	
		N	%	N	%
Lower SES	Secondary school or Professional qualification	15	34.9	15	35.7
Higher SES	Post-secondary diplomas or University degrees	28	65.1	27	64.3
Education (mean, SD)		1.41 (1.67)		1.16 (2.29)	

Table 5.9. German home language group: Parental education. There was 1 missing answer for maternal education and 2 missing answers for paternal education, they were not included when calculating the percentage number.

As shown in Table 5.9, mothers had an educational mean of 1.41 (SD=1.67), and fathers had an educational mean of 1.16 (SD=2.29).

5.3.5.3. Birth order and siblings

The German-speaking sample contains 9 first-borns (20.5%), 15 only-children (34%) and 20 later-borns (45.5%). The average number of children in each family ranged from 1 to 4 with a

mean of 1.79 children (including also the child participating in the study). Table 5.10 provides a summary.

	German home language group (n= 44)
Only-child	15 (34.1%)
First-born child ⁵⁷	9 (20.5%)
Later-born child	20 (45.5%)
Mean number of older siblings	.590 (SD= .787)
Mean age of older siblings (years)	8.461 (SD= 3.289)

Table 5.10. German home language group: Siblings' status.

The average number of older siblings for the German-speaking group was 0.59 (SD= .787; range 0-3), and the average age of older siblings was 8.46 years (SD=3.289; age range 5-15 years).

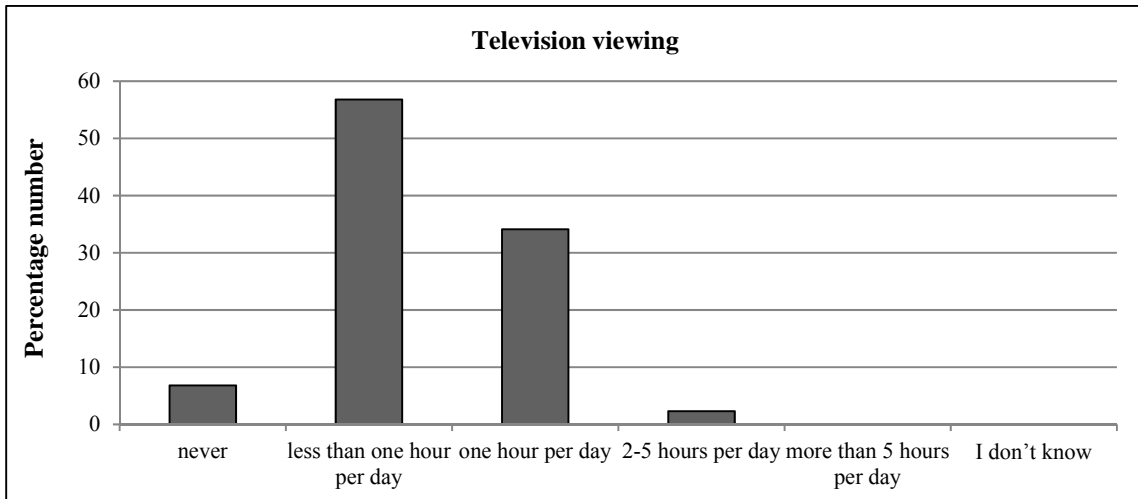
5.3.5.4. Television input and literacy activities

I shall first summarize results obtained from the questionnaire regarding German children's daily television input before presenting how often parents reported to read to their children.

Television input

The questionnaire elicited information about the language and frequency of children's experience with television/movies and books. Results showed that children at this age did not watch much German television, similar to the Bavarian-speaking group. Most children were reported to watch less than one hour per day (56.8%), 34.1% watched one hour per day, and 2.3% watched between 2 and 5 hours per day. 6.8% were reported to watch no television at all. Nobody stated that their child watched more than 5 hours of television per day. Percentage numbers are summarized in Graph 5.7. German television programmes were watched only.

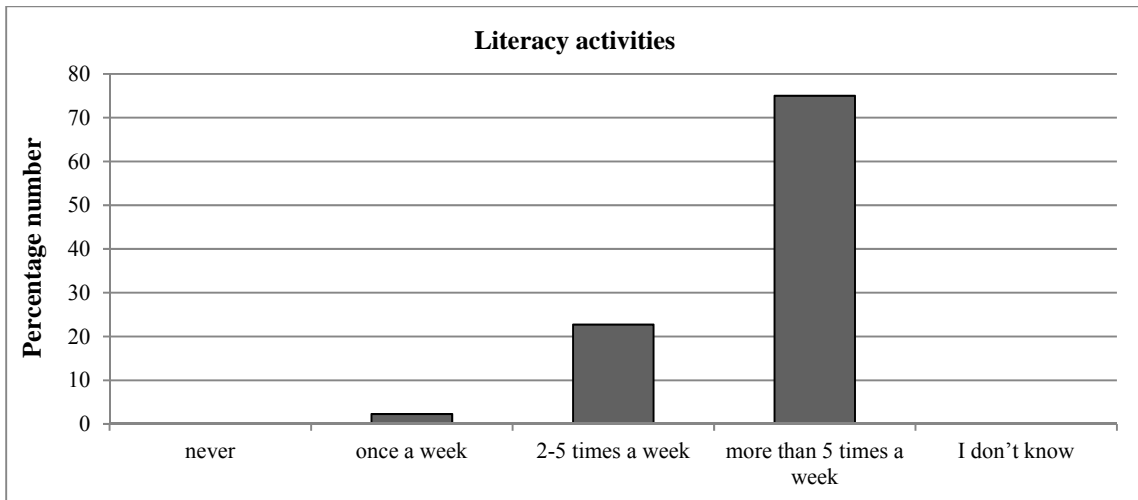
⁵⁷ Including one pair of first-born twins, both girls were counted as first-born.



Graph 5.7. German home language group: Television viewing.

Literacy activities

While 22.7% reported to read 2-5 times a week, most parents (75%) reported to read even more than 5 times a week. Percentage numbers are summarized in Graph 5.8. Almost all parents reported to read only in Standard German to their children (97.7%), whereby one parent reported to read in Standard German and English (2.3%).



Graph 5.8. German home language group: Literacy activities.

5.3.6. German and Bavarian home language group comparison

This section compares the experimental group with the control group. The Kolmogorov-Smirnov test showed that the TROG-D scores were normally distributed for the German (D(44)=.115, $p=.168$), and the Bavarian home language group (D(54)=.119, $p=.054$).

As can be seen in Table 5.11, there were more South Tyrolean Bavarian-speaking children (54 children; 55.1%) than German-speaking children (44 children; 44.9%), and overall more male than female preschoolers participated in the study. In both home language groups there were more first-borns or only-children than later-borns.

	German home language group	Bavarian home language group
Total number of children	44	54
Gender (male/female)	25/19	30/24
First-born or only-child/ later-born	24/20	29/25
Children in the family (including the participant) (mean, SD)	1.79 (.73)	1.96 (.67)

Table 5.11. German and Bavarian home language group: Participants characteristics.

Age, paternal educational level, birth order, preschool attendance

The two home language groups were compared for age at testing, parental educational level (socio-economic status), birth order, and preschool attendance, as summarized in Table 5.12.

	German home language group	Bavarian home language group	Group comparison		
			t	df	p
Age at testing (in months)	48.23 (6.29)	46.19 (7.39)	1.452	96	> .05
Highest maternal educational level (mean, SD ⁵⁸)	1.41 (1.67)	1.56 (1.52)	-.452	96	> .05
Highest paternal educational level (mean, SD ⁵⁹)	1.16 (2.29)	1.22 (1.50)	-.164	96	> .05
First-born or only-child/ later-born (mean, SD ⁶⁰)	1.45 (.504)	1.46 (.503)	-.082	96	> .05
Preschool attendance (in months) (mean, SD)	12.48 (6.97)	7.39 (6.34)	3.778	96	< .001***

Table 5.12. German and Bavarian home language group: Group comparison. *= significant at the .001 level.**

⁵⁸ Highest school degree obtained: 1=Secondary school or Professional qualification, and 2=Post-secondary diplomas or degrees.

⁵⁹ Highest school degree obtained: 1=Secondary school or Professional qualification, and 2=Post-secondary diplomas or degrees.

⁶⁰ Birth order: 1=First-born or only-child, and 2=Later-born (child has at least 1 older sibling).

There was no significant difference between the German and Bavarian home language group for age at testing, parental educational level, and birth order. There was, however, a significant difference for preschool attendance. I shall reproduce the relevant statistics below.

On average, German-speaking children were 2.04 months older than their South Tyrolean Bavarian-speaking peers. The former had a mean age 48.23 months when being tested, and the latter had a mean age of 46.19 months. There was, however, no significant difference for age ($t(96)= 1.452, p= .150$).

Overall, the socio-economics (parental educational level) in South Tyrol and Germany were similar. Both target areas were rural areas, and at least one parent was educated beyond the secondary school level. 75.5%⁶¹ of the South Tyrolean mothers and 41.5% of the South Tyrolean fathers had a College or University degree, while 65.1% of the German mothers and 64.3% of the German fathers had at least a College or University degree (post-secondary diploma). The mean for South Tyrolean mothers was 1.56 (SD=1.52) and the mean for South Tyrolean fathers was 1.22 (SD=1.50). The mean for German mothers was 1.41 (SD=1.67) and the mean for German fathers was 1.16 (SD=2.29). The mean for maternal educational level ($t(96)= -.452, p= .652$) and paternal educational level ($t(96)= -1.64, p= .870$) among the Bavarian and German home language group were not significantly different.

The German group included 24 first-borns or only-children, and 20 later borns. The South Tyrolean group included 29 first-borns or only-children, and 25 later borns. There was also no significant difference ($D(96)= -.082, p= .935$) between participants' birth order among the German and Bavarian home language group. The average age of older siblings was 8.46 years (SD=3.28) in Germany and 7.97 years (SD=2.31) in South Tyrol.

There was only one statistically significant difference between the two home language groups. At the time of testing, German-speaking participants have been attending preschool for a longer period (12.48 months) than the South Tyrolean Bavarian-speaking group (7.39 months), on average 5.09 months longer, revealing a significant difference between the two groups ($t(96)= 3.778, p< .001$). Therefore, further statistical calculations will be made in section 5.4.1.4.1 and length of preschool attendance will be matched among the two home language groups.

⁶¹ Missing answers were not included in this percentage number.

Television input and literacy activities

I shall now compare television viewing and reading activities among the two home language groups.

As summarized in Table 5.13 children at this age do not watch much television: while for most German-speaking children it was reported to watch less than one hour per day (57%), South Tyrolean parents reported that most children (54%) watch at least one hour per day.

	Television viewing	
	German home language group	Bavarian home language group
never	6.8%	18.9%
less than one hour per day	56.8%	20%
one hour per day	34.1%	53.7%
2-5 hours per day	2.3%	3.7%
more than 5 hours per day	0%	0%
I don't know	0%	3.7%

Table 5.13. German and Bavarian home language group: Television viewing.

As shown in Table 5.14, German parents read more books to their child than South Tyrolean Bavarian-speaking parents: while in Germany 75% of the parents stated to read more than 5 times a week, it was 50% in South Tyrol.

	Literacy activities	
	German home language group	Bavarian home language group
never	0%	1.9%
Once a week	2.2%	13%
2-5 times a week	22.8%	33%
more than 5 times a week	75%	50%
I don't know	0%	1.9%

Table 5.14. German and Bavarian home language group: Literacy activities.

After having described and compared the two home language groups with each other, I shall now present and analyse preschoolers' mean raw scores achieved on the TROG-D.

5.4. ANALYSES

Section 5.4.1 reviews findings by presenting children's results obtained on the TROG-D. Results obtained among the German and Bavarian home language group are listed separately from each other.

Section 5.4.2 correlates the TROG-D results with internal and external factors. Section 5.4.2.1 examines the relationship between German-speaking preschoolers' performance and internal and external variables. Section 5.4.2.2 investigates the relationship between Bavarian-speaking preschoolers' performance and internal and external variables.

5.4.1. Internal and external factors

I shall begin by presenting the mean raw score for both language backgrounds (German and Bavarian), and age groups (3;0-3;11 and 4;0-4;11) separately (section 5.4.1.1). Subsequently, sections 5.4.1.2-5.4.1.8 will look at the following properties in more detail:

- parental educational level (section 5.4.1.2),
- birth order and siblings (section 5.4.1.3),
- preschool attendance (section 5.4.1.4),
- television input (section 5.4.1.5),
- literacy activities (section 5.4.1.6),
- Bavarian home language group: parents' language proficiency in German (section 5.4.1.7), and
- Bavarian home language group: attitudes (section 5.4.1.8).

From section 5.4.1.1 to 5.4.1.6 analyses were done on both home language groups. Section 5.4.1.7 and 5.4.1.8 present findings which were obtained just among the Bavarian home language group.

5.4.1.1. Language background and Age group

The result of the TROG-D test for both home language groups are given below in Table 5.15. The table displays the means and the standard deviations (SD) for both Bavarian- and German-speaking children's raw and standard scores in relation to age (3;0-3;11 and 4;0-4;11). All subsequent analyses were performed on the mean raw scores.

As shown below, the 4-year old German-speaking children achieved the highest mean raw score (M=8.83), followed by the 3-year old German-speaking preschoolers (M=7.25),

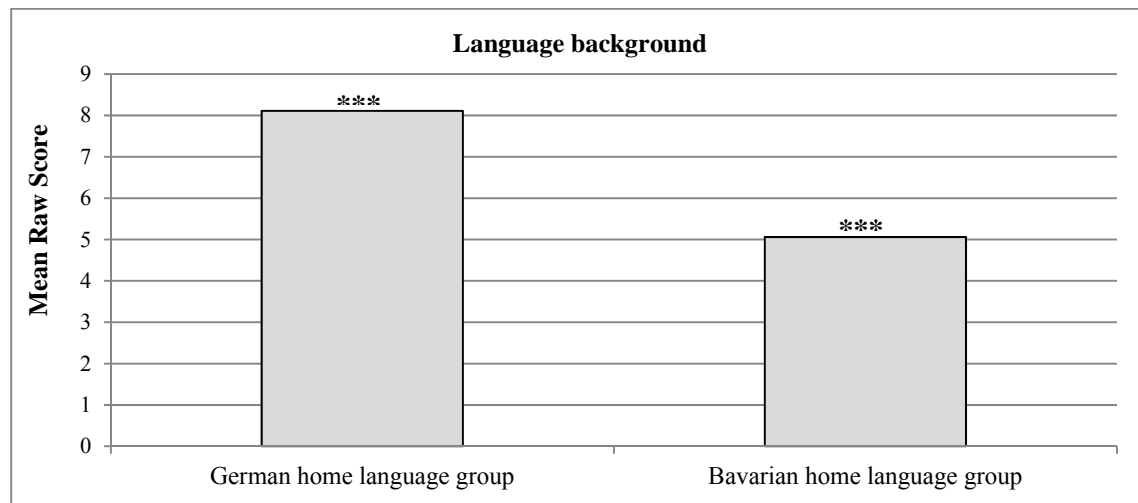
who still scored higher than the 4-year old (M=6.48) and the 3-year old South Tyrolean Bavarian-speaking children (M=3.83).

Age group	German home language group			Bavarian home language group		
	N	Mean Raw Score	SD	N	Mean Raw Score	SD
3;0-3;11	20	7.25	3.86	29	3.83	2.08
4;0-4;11	24	8.83	2.98	25	6.48	2.72
Tot.	44	8.11	3.46	54	5.06	2.72

Table 5.15. German and Bavarian home language group: Mean TROG-D Standard Scores (in terms of number of blocks passed), and Standard Deviation (SD) for both age groups of children.

Language background

An Independent-samples t-test showed that the distributions of the two groups differed significantly ($t(80.721) = 4.771$, $p < .001$ two-tailed), with German-speaking children performing significantly better than the South Tyrolean Bavarian-speaking group, as shown in Graph 5.9.

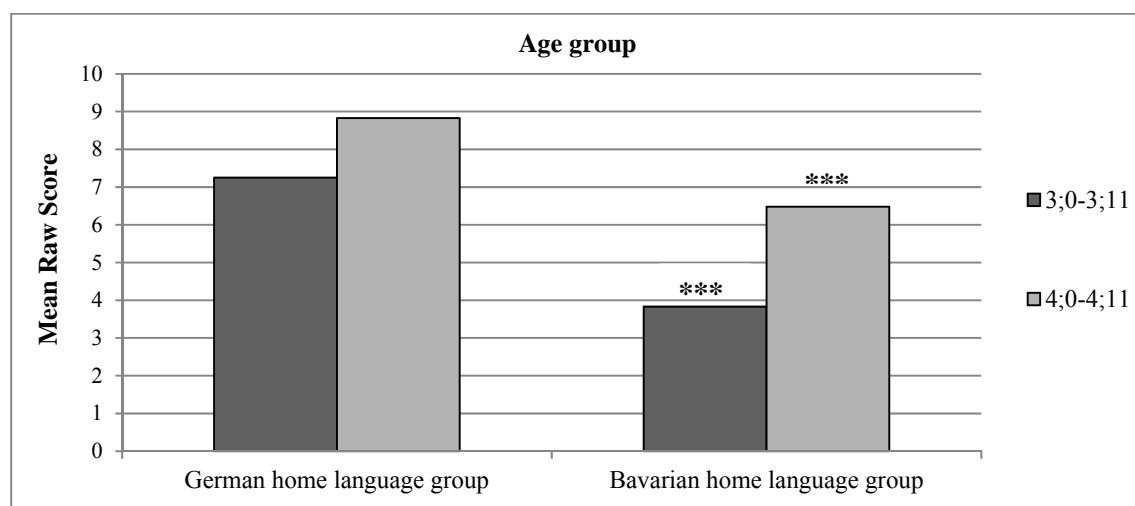


Graph 5.9. German and Bavarian home language group: Mean TROG-D Standard Scores for both home language groups of children. *= significant at the .001 level.**

Age group

An Independent-samples t-test revealed a significant effect of age in South Tyrol ($t(52) = -4.044$, $p < .001$ two-tailed), with 4-year olds achieving significantly higher scores than 3-year

olds. There was no significant difference for age among the German-speaking group ($t(48) = -1.532, p = .133$ two-tailed), as shown in Graph 5.10.



Graph 5.10. German and Bavarian home language group: Mean TROG-D Standard Scores for both age groups of children. *= significant at the .001 level.**

In the following sections (5.4.1.2-5.4.1.8) we will be looking at specific properties.

5.4.1.2. Parental educational level

Parents' educational level was divided into two groups: (1) Secondary diplomas or vocational school qualification, and (2) Post-secondary diplomas or degrees.

Preschoolers' performances were compared using an Independent-samples t-test for both home language groups. Table 5.16 presents German-speaking children's mean test score (and SD) split up by maternal and paternal education. Overall, it can be seen that most mothers (65%) and most fathers (64%) had a post-secondary diploma or University degree.

SES	Education	German home language group					
		Mother (n= 43)			Father (n= 42)		
		N	Mean	SD	N	Mean	SD
Lower SES	Secondary diplomas or vocational school	15	6.53	2.696	15	7.13	3.701
Higher SES	Post-secondary diplomas or degrees	28	8.79	3.552	27	8.67	3.113

Table 5.16. German home language group: Mean TROG-D Standard Scores (and SD) for parental educational background. Missing answers are excluded from the analysis.

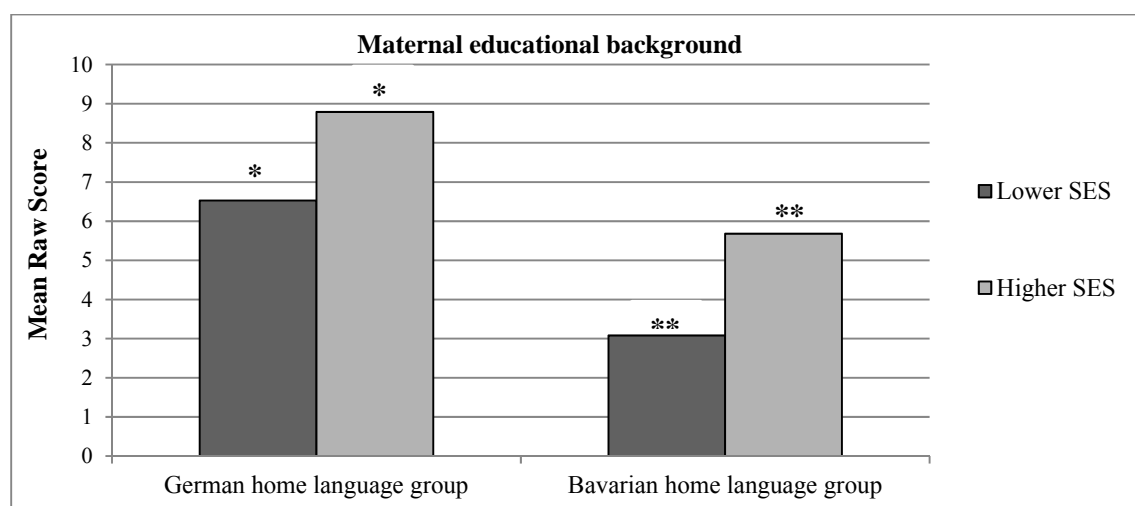
Table 5.17 presents South Tyrolean children’s mean test score (and SD) divided over maternal and paternal education. As shown in the Table below, most mothers had a post-secondary diploma or University degree (75%), while most fathers had a secondary diploma or vocational school qualification (58%).

SES	Education	Bavarian home language group					
		Mother (n= 53)			Father (n= 53)		
		N	Mean	SD	N	Mean	SD
Lower SES	Secondary diplomas or vocational school	13	3.08	1.706	31	4.84	2.721
Higher SES	Post-secondary diplomas or degrees	40	5.68	2.740	22	5.45	2.790

Table 5.17. Bavarian home language group: Mean TROG-D Standard Scores (and SD) for parental educational background.

Maternal educational background

An Independent-samples t-test showed that there was a significant difference in the test scores depending on whether mothers had a secondary diploma/vocational school education (lower SES) or a post-secondary diploma (higher SES). Overall, children’s test scores were significantly higher when their mothers had a higher education. This was found in Germany ($t(41)= -2.143, p < .05$) as well as in South Tyrol ($t(51)= -3.210, p < .01$), as presented in Graph 5.11.



Graph 5.11. German and Bavarian home language group: Mean TROG-D Standard Scores for maternal educational background. *= significant at the .05 level, and **= significant at the .01 level.

Paternal educational background

In both target areas, in Germany ($t(40) = -1.430, p = .161$) and in South Tyrol ($t(51) = -.803, p = .425$), the Independent-samples t-test showed that there was no significant difference in children's scores based on paternal educational background.

5.4.1.3. Birth order and siblings

Birth order categorization consists of two groups: (1) first-borns and only-children, and (2) children with at least one older sibling. This was done because first-born children, similar to only-children, are temporarily only-children and for a certain amount of time they experience greater one-to-one interaction with an adult than later borns do.

Table 5.18 summarizes German-speaking children's mean test score. German first-borns and only-children achieved the highest mean test score ($M = 8.67$), and German children with older siblings scored lowest ($M = 7.45$). An Independent-samples t-test showed that the difference between these two groups was not statistically significant ($t(42) = 1.164, p = .251$).

	German home language group			
	<i>N</i>	<i>%</i>	<i>Mean Score</i>	<i>SD</i>
First-born/only-child	24	54.5	8.67	3.435
Child has at least 1 older sibling	20	45.5	7.45	3.471

Table 5.18. German home language group: Mean TROG-D Standard Scores (and SD) and siblings' status.

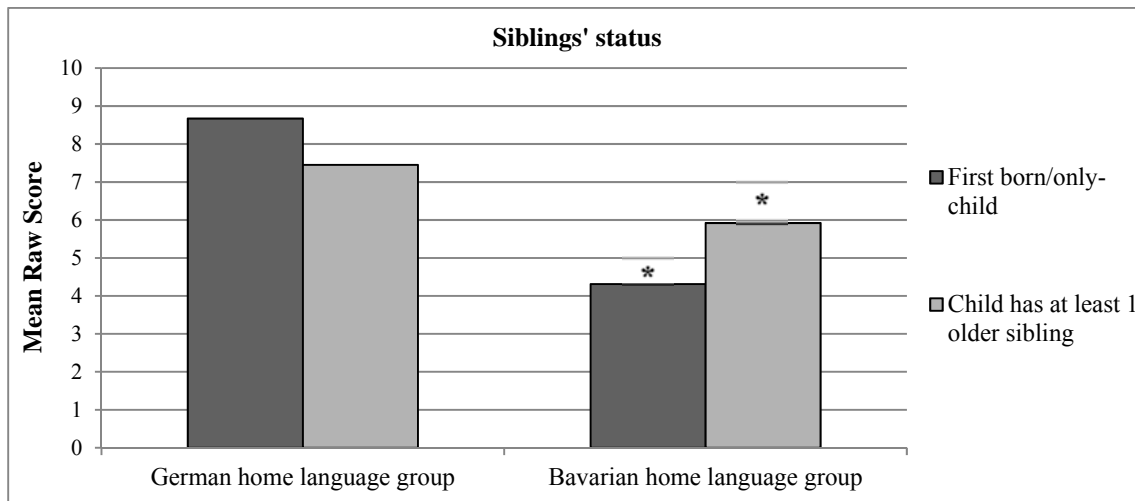
Table 5.19 summarizes Bavarian children's mean test score.

	Bavarian home language group			
	<i>N</i>	<i>%</i>	<i>Mean Score</i>	<i>SD</i>
First-born/only-child	29	53.7	4.31	2.377
Child has at least 1 older sibling	25	46.3	5.92	2.900

Table 5.19. Bavarian home language group: Mean TROG-D Standard Scores (and SD) and siblings' status.

In South Tyrol children with older siblings scored 1.61 points higher than first-borns and only-children. An Independent-samples t-test was performed showing that children who had older siblings ($M = 5.92$) scored significantly higher than first-borns/only-children ($M = 4.31$), ($t(52) = -2.241, p < .05$).

Graph 5.12 visualizes the results obtained above.



Graph 5.12. German and Bavarian home language group: Mean TROG-D Standard Scores and siblings' status. *= significant at the .05 level.

5.4.1.4. Preschool attendance

In both home language groups children who had been in preschool for more than 11 months achieved the highest mean raw score (group C), followed by those who had been between 3 and 10 months (group B). Those preschoolers with the shortest length of preschool attendance (less than 2 months, group A) achieved the lowest mean raw score. Table 5.20 provides a summary of the two home language groups and their mean test scores (and SD).

		German home language group			Bavarian home language group		
		<i>N</i>	<i>Mean Score</i>	<i>SD</i>	<i>N</i>	<i>Mean Score</i>	<i>SD</i>
Group A	0-2 months	6	4.67	3.077	19	3.74	2.306
Group B	3-10 months	12	8.25	3.415	11	4.18	1.722
Group C	11-25 months	26	8.85	3.196	24	6.50	2.782

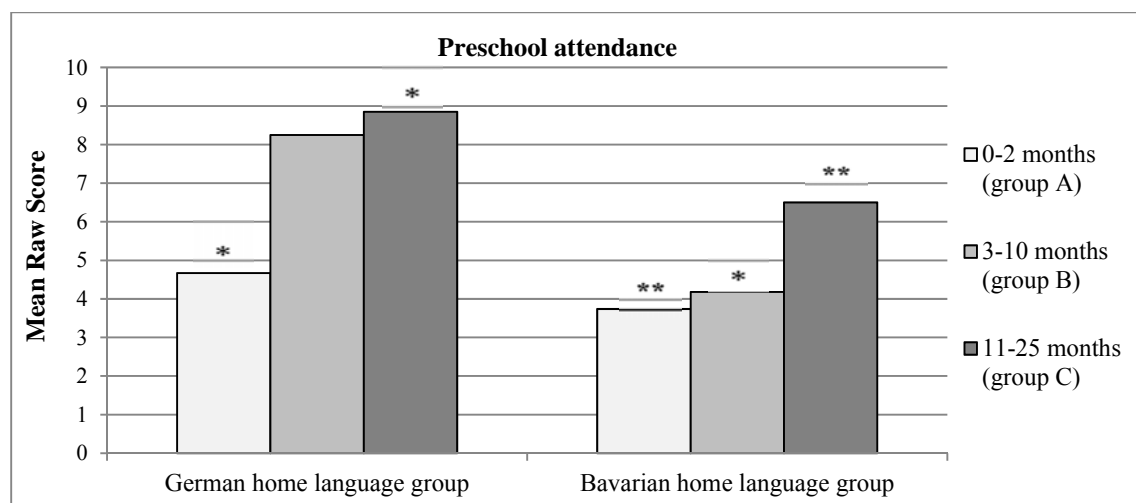
Table 5.20. German and Bavarian home language group: Mean TROG-D Standard Scores and preschool attendance.

Two separate one-way ANOVAs were conducted to compare the effect of length of preschool attendance on children's test scores, along with post-hoc comparisons using a Gabriel's pairwise test.

Among the German-speaking group results showed that there was a significant difference between the groups, $F(2, 41)=4.065, p < .05$. Gabriel's pairwise test procedure was used as Post hoc test since sample sizes were different (see Table 5.21). Gabriel's procedure indicated that the mean test score for the group with the longest preschool attendance (11-25

months, group C) scored significantly higher ($p < .05$) than the group with the lowest preschool attendance (0-2 months, group A), as shown in Graph 5.13.

In South Tyrol results showed that there was also a significant difference between the three groups, $F(2, 51)=7.693$, $p < .01$). Post-hoc-comparisons using the Gabriel's procedure indicated that children with the longest preschool attendance scored significantly higher than children with the lowest preschool attendance (group A, $p < .01$), and they scored also significantly higher than those children who had been between 3 and 10 months at preschool at the time of testing (group B, $p < .05$).



Graph 5.13. German and Bavarian home language group: Mean TROG-D Standard Scores and preschool attendance. *= significant at the .05 level, and **= significant at the .01 level.

5.4.1.4.1. Selection of participants: Matching the groups

As discussed in section 5.3.6, there was one statistically significant difference between the two home language groups: the German home language group has been attending preschool for a longer period than the Bavarian home language group. In this subsection, therefore, further statistical calculations have been made, namely length of preschool attendance has been matched among the two home language groups.

German-speaking participants who had been to preschool for 18 months or more ($n=11$) were excluded in order to ensure that length of preschool attendance was matched among the two home language groups. Table 5.21 summarizes the number of German children who had been to preschool for 0-2 months, 3-10 months, and 11-17 months, and their mean scores (and SD), showing that group C included less participants ($n=15$) compared to Table 5.20.

		German home language group		
		<i>N</i>	<i>Mean Score</i>	<i>SD</i>
Group A	0-2 months	6	4.67	3.077
Group B	3-10 months	12	8.25	3.415
Group C	11-17 months	15	8.73	3.575

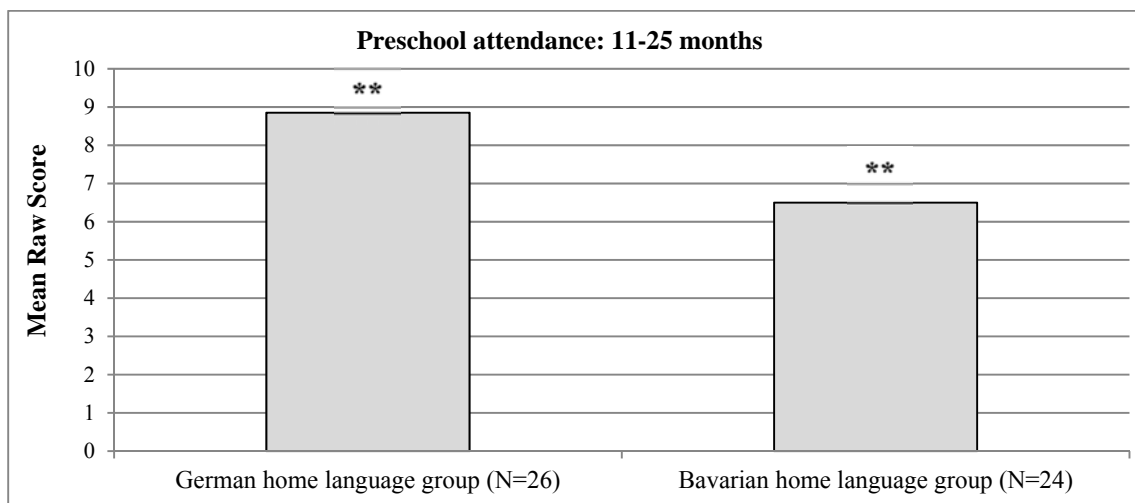
Table 5.21. German home language group: Mean TROG-D Standard Scores and preschool attendance.

A one-way ANOVA was conducted among the German-speaking group (see Table 5.21, group C, $n=15$), along with post-hoc comparison using a Gabriel's pairwise test. Results showed that there was no significant difference between the three groups, $F(2, 30)=3.148, p=.057$.

5.4.1.4.2. Comparison between children who attended preschool for 11 months or more (group C)

Further statistical analyses were performed in order to identify whether there was also a significant difference between the South Tyrolean Bavarian-speaking children with the longest preschool attendance (11-25 months) in comparison with their German-speaking peers.

At the time of testing, 24 South Tyrolean Bavarian-speaking children (44%) had been to preschool for more than one preschool year or more, they had a mean test score of 6.50 ($SD=2.782$). In Germany 26 children (59%) had attended preschool for 11 months or more, they had a mean test score of 8.85 ($SD=3.196$).



Graph 5.14. German and Bavarian home language group: Mean TROG-D Standard Scores and preschool attendance for children who attended one preschool year or more (group C). **= significant at the .01 level.

The Independent-samples t-test showed that there is a significant difference between the two groups and their performance on the TROG-D. Even after having attended preschool for more than one year, South Tyrolean Bavarian-speaking children scored still significantly lower ($t(48) = 2.758, p < .01$) than their German peers, as shown in Graph 5.14.

5.4.1.4.3. Bavarian home language: Preschool attendance and Age

Preschool attendance and age are not independent from each other. South Tyrolean Bavarian-speaking children started attending preschool with a mean age of 3;1 years. At the time of testing, they had a mean age of 3;8 years.

A Spearman's correlation showed that age at time of testing (in months) was strongly, positively correlated to preschool attendance (in months), which was statistically significant, $r_s = .777, p$ (one-tailed) $< .001$. This means that, as age increases, length of preschool increases. Whether there is a correlation between age, length of preschool, and preschoolers' test scores will be examined in section 5.4.2.2.

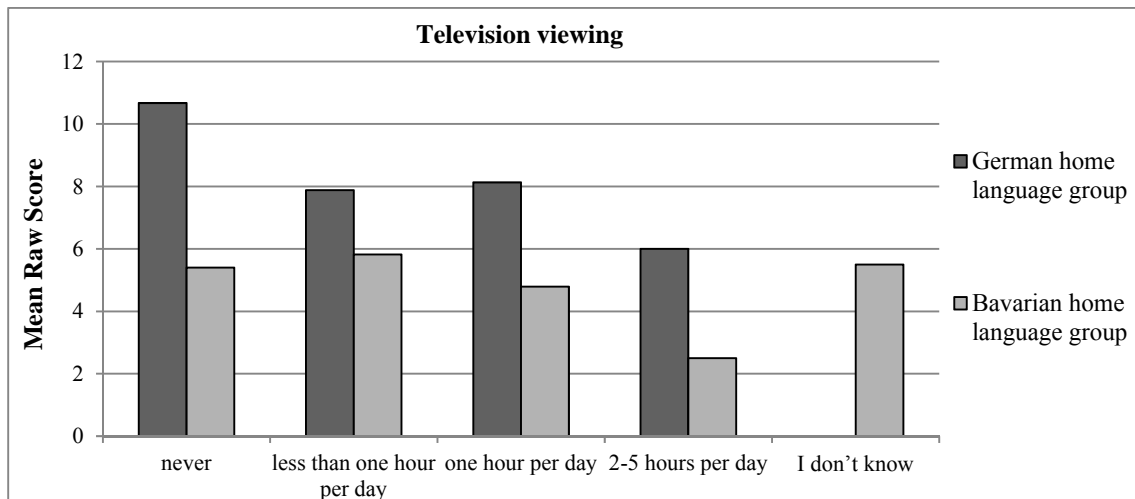
5.4.1.5. Television input

In the following television input will be analysed among the German and Bavarian home language group separately. Table 5.22 and Graph 5.16 show preschoolers' test scores (and SD) correlated to their television input. Correlations were then calculated to determine the relationship between children's test scores and television input.

	German home language group			Bavarian home language group		
	<i>N</i>	<i>Mean Score</i>	<i>SD</i>	<i>N</i>	<i>Mean Score</i>	<i>SD</i>
never	3	10.67	1.155	10	5.40	3.340
less than one hour per day	25	7.88	3.528	11	5.82	3.157
one hour per day	15	8.13	3.681	29	4.79	2.440
2-5 hours per day	1	6.00	-	2	2.50	.707
I don't know	0	-	-	2	5.50	2.121

Table 5.22. German and Bavarian home language group: Mean TROG-D Standard Scores and watching television.

Graph 5.15 visualises television input of both home language groups separately from each other.



Graph 5.15. German and Bavarian home language group: Mean TROG-D Standard Scores and watching television.

German home language group

As shown in Table 5.22, three German-speaking children did not have any television input at all, just one child watched between 2-5 hours per day, and the others ($n=40$) watched more or less than one hour per day. Results show that German-speaking children who watched less than one hour per day ($M=7.88$, $SD=3.52$) or at least one hour per day ($M=8.13$, $SD=3.68$) performed quite similar.

A linear regression analysis was run to determine the relationship between watching television and children's performance. There was a positive, not statistically significant correlation between the variables ($r= .122$, $n= 44$, $p= .431$).

Bavarian home language group

In South Tyrol, most children watched one hour per day ($n=29$), 11 children watched less than one hour per day, and 10 children did not have any television input at all. Results show that children scored similar if they did not watch any TV programmes at all ($M=5.40$, $SD=3.34$) or if they watched less than one hour per day ($M=5.82$, $SD=3.15$), followed by those children who watched one hour per day ($M=4.79$, $SD=2.44$).

A linear regression analysis was run to determine the relationship between the variables. There was a positive correlation between the two variables which was not statistically significant ($r= .114$, $n=54$, $p= .412$).

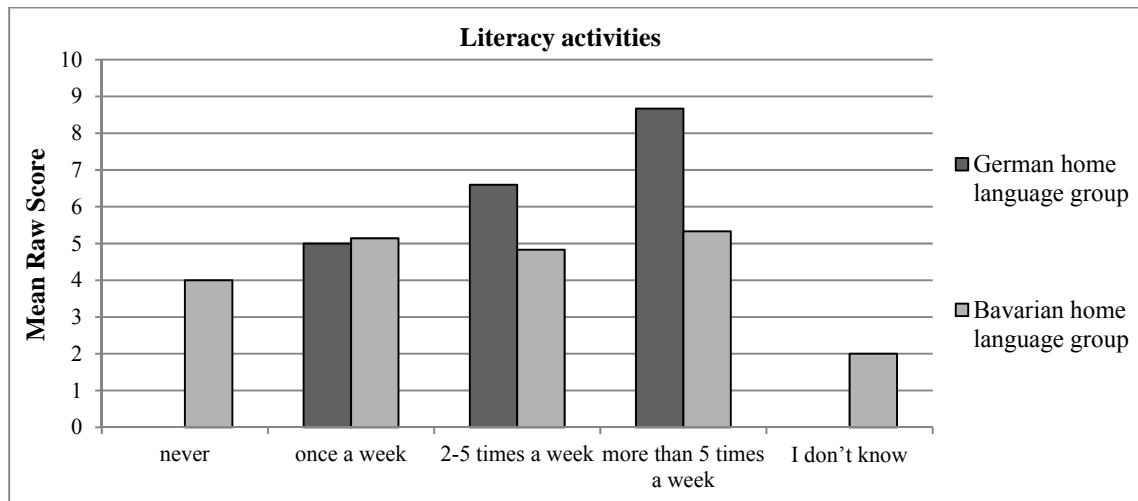
5.4.1.6. Literacy activities

Table 5.23 summarizes children’s mean test scores (and SD) related to literacy activities. Correlations were then calculated to determine the relationship between children’s test scores and early literacy input.

	German home language group			Bavarian home language group		
	<i>N</i>	<i>Mean Score</i>	<i>SD</i>	<i>N</i>	<i>Mean Score</i>	<i>SD</i>
never	0	-	-	1	4.00	-
once a week	1	5.00	-	7	5.14	2.854
2-5 times a week	10	6.60	2.633	18	4.83	2.771
more than 5 times a week	33	8.67	3.585	27	5.33	2.787
I don’t know	0	-	-	1	2.00	-

Table 5.23. German and Bavarian home language group: Mean TROG-D Standard Scores and literacy activities.

Graph 5.16 visualises how often German- and Bavarian-speaking parents reported that it was read to their child/children.



Graph 5.16. German and Bavarian home language group: Mean TROG-D Standard Scores and literacy activities.

Again, test scores of both home language groups are presented separately from each other.

German home language group

As shown in Table 5.23, most German parents reported to read more than 5 times a week to their children ($n=33$), and ten parents reported to read 2-5 times a week. German children whose parents read more than 5 times a week had a mean test score of 8.67 ($SD=3.58$), and children whose parents reported to read 2-5 times a week had a mean test score of 6.60 ($SD=2.63$).

A linear regression analysis was run to determine the relationship between children's test scores and how often parents' read to them. There was a positive relationship between the variables, which was almost statistically significant ($r= .287$, $n=44$, $p= .059$), marginally indicating that as the amount of reading to the child increases, his/her score also increases.

Bavarian home language group

Within the South Tyrolean group, children scored similarly to each other, independently of whether children were read aloud to more than 5 times a week ($M=5.33$, $SD=2.78$), once a week ($M=5.14$, $SD=2.85$), or 2-5 times a week ($M=4.83$, $SD=2.77$), as shown in Table 5.23.

A linear regression analysis was run to determine the relationship between children's test scores and reading books. There was a very weak relationship between the two variables which means that the variables were not strongly correlated ($r= .025$, $n=54$, $p= .859$).

5.4.1.7. Bavarian home language group: Parents' language proficiency in German

South Tyrolean children's scores were divided into two groups, according to their mothers' and fathers' self-rated fluency level in Standard German and Italian, which was either 'quite fluent' or 'fluent'. Numbers and statistical analyses (children's mean test score and SD) are summarized in Table 5.24.

	Mother fluency in German		Father fluency in German	
	<i>quite fluent</i>	<i>fluent</i>	<i>quite fluent</i>	<i>fluent</i>
<i>N</i>	12 (22.2%)	42 (77.8%)	13 (24.1%)	41 (75.9%)
Mean raw score (SD)	4.42 (2.466)	5.24 (2.801)	5.00 (1.958)	5.07 (2.953)

Table 5.24. Bavarian home language group: Mean TROG-D Standard Scores and parents' language fluency.

Mother's fluency in German

As shown in Table 5.24, most mothers' (77.8%) reported to be fluent in Standard German, and 22.2% mothers' reported to be quite fluent. According to their fluency level, children's mean test scores were divided into the two groups. A Kolmogorov-Smirnov test indicated that the data for the category 'fluent' was not normally distributed ($D(42)=.155$, $p<.05$). Therefore, a non-parametric test was used. Results showed that the two groups ('quite fluent' and 'fluent') did not differ significantly (Mann-Whitney $U= 218.000$, $Z= -.713$, $p= .476$ two-tailed).

Father's fluency in German

In total, 75.9% fathers' reported to be fluent in Standard German, and 24.1% fathers' reported to be quite fluent. Data for father's fluency in German was normally distributed. An Independent t-test showed that there was no significant difference between the two groups ('quite fluent' and 'fluent') ($t(52)= -.083$, $p= .934$).

Statistical analysis shows that mother's and father's fluency level did not impact on the child's test score. This means that the group to which the mother and the father belonged ('quite fluent' or 'fluent') did not give rise to a statistically significant difference in children's scores.

5.4.1.8. Bavarian home language group: Attitudes

A linear regression analysis was conducted between Bavarian-speaking children's TROG-D test scores and parental attitudinal answers (see Table 5.25 for correlations).

	Linear regression		
	<i>R</i>	<i>R Square</i>	<i>p</i>
Statement 1: German endangers Bavarian.	.220	.048	.110
Statement 2: Bavarian in preschools.	.081	.007	.562
Statement 3: German is challenging.	.153	.024	.268
Statement 4: German in preschools.	.022	.000	.874
Statement 5: Child struggles with German.	.195	.038	.157

Table 5.25. Bavarian home language group: Correlation between Bavarian-speaking children's Mean TROG-D Standard Scores and parental attitudinal answers.

As shown above, the relationship of the Pearson Correlation Coefficients (R) are weak with a positive relationship. The ANOVA shows that the results are not statistically significant. Therefore, attitudes will not be discussed any further.

5.4.2. Correlations with internal and external factors

This section presents preschoolers' test scores in correlation with internal and external variables. I shall first present the German home language group (section 5.4.2.1) before moving on to the Bavarian home language group (section 5.4.2.2).

5.4.2.1. German home language group: Correlations with internal and external factors

The following analyses aimed at examine the relationship between German children's performance score and the following factors: age at testing, preschool attendance, siblings' status, maternal educational background, literacy activities, and watching television. A linear regression analysis was conducted across all variables (see Table 5.26 for correlations).

	<i>N</i>	Linear regression		
		<i>R</i>	<i>R Square</i>	<i>p</i>
Age at testing (in months)	44	.308	.095	.042*
Maternal educational level	44	.120	.014	.436
Paternal educational level	44	.050	.003	.745
Sibling status	44	.177	.031	.251
Preschool attendance (in months)	44	.346	.120	.021*
Literacy activities	44	.287	.082	.059
Television input	44	.122	.015	.431

Table 5.26. German home language group: Correlations between different variables and German-speaking children's Mean TROG-D Standard Scores. *= significant at the .05 level.

Two significant correlations were found between the variables: age at testing ($R= .308$), and preschool attendance ($R= .346$) were positively correlated with children's TROG-D test scores, p (one-tailed) $< .05$. As demonstrated in Table 5.26, maternal and paternal educational background, siblings' status, literacy activities, and watching television did not show any significant relationship with children's test scores.

5.4.2.2. Bavarian home language group: Correlations with internal and external factors

Linear regression analyses were also conducted among the Bavarian home language group (see Table 5.27 for correlations).

	<i>N</i>	Linear regression		
		<i>R</i>	<i>R Square</i>	<i>p</i>
Age at testing (in months)	54	.536	.287	.000029***
Father's proficiency in German	54	.012	.000	.934
Maternal educational level	54	.069	.005	.618
Paternal educational level	54	.135	.018	.330
Sibling status	54	.297	.088	.029*
Preschool attendance (in months)	54	.442	.196	.001**
Literacy activities	54	.025	.001	.859
Television input	54	.114	.013	.412

Table 5.27. Bavarian home language group: Correlations between different variables and Bavarian-speaking children's Mean TROG-D Standard Scores. *= significant at the .05 level, **= significant at the .01 level, and ***= significant at the .001 level.

As mother's fluency in German was not normally distributed, a Spearman's correlation coefficient was used. Results are reported below.

	<i>N</i>	Spearman's rho	
		<i>r_s</i>	<i>p</i>
Mother fluency in German	54	.098	.241

Table 5.28. Bavarian home language group: Correlation between mother's fluency in German and Bavarian-speaking children's Mean TROG-D Standard Scores.

Three significant correlations were found between the variables: age at testing ($R = .536$), preschool attendance ($R = .442$), and sibling status ($R = .297$) were positively correlated with children's test scores, p (one-tailed) $< .05$. This means that the higher the age of the children at the time of testing, and the longer they had been to the German preschool (more input), the better they performed. Results also show that older siblings in the household lead to higher TROG-D test scores. As demonstrated in Table 5.27 and 5.28, parents' proficiency in German, maternal and paternal educational background, literacy activities, and watching television did not show any significant relationship with children's test scores.

Summing up, it can be said that the following two variables had a significant impact on both German and Bavarian preschoolers' test scores: age at testing, and preschool attendance. One further variable was significant among the Bavarian home language group: sibling status.

5.5. DISCUSSION

The present study investigated how South Tyrolean preschoolers perform on the standardized test TROG-D. As shown in section 5.3.6, the two home language groups are very similar to

each other in terms of age at the time of testing, parental educational level, birth order, age of older siblings within the family, television input, and literacy activities. Despite all these similarities, however, results show that there are significant differences among the two home language groups.

In the following sections I will identify the two research questions of this study in separate sections. Section 5.5.1 will be answering the second research question of this dissertation. Section 5.5.2 will be answering the third research question.

5.5.1. Preschoolers' receptive test scores

As demonstrated in *Chapter 4*, there is considerable *Abstand* between Standard German and South Tyrolean Bavarian. In the current study I have examined the impact this has on young South Tyrolean children's performance in Standard German. Hence, the second research question of this dissertation asked:

2. How do South Tyrolean-speaking preschool children perform on a standardized German assessment test? How do they compare with their age-matched German peers?

The outcome obtained in this chapter has supported and strengthened the link between the two empirical studies conducted in this dissertation: One cannot overlook the fact that there is indeed a link between the degree of intelligibility (*Chapter 4*) and South Tyrolean children's receptive German language performance (*Chapter 5*). On the one hand, in *Chapter 4* I have shown that German listeners understand roughly 60% of the South Tyrolean sentences. In the current chapter, on the other hand, I have empirically demonstrated that South Tyrolean preschoolers have statistically lower TROG-D test scores compared to typically developing same-aged German-speaking children. On average, the South Tyrolean Bavarian-speaking group scored three points below the German-speaking control group. The fact that South Tyrolean Bavarian is completely disregarded by the political and – more importantly – the educational establishment has therefore an impact on the child's early linguistic and academic development. Thus, assuming that young South Tyrolean children are L1 German learners or L1 German speakers is empirically unfounded, because at this early stage (age 3;0-4;11) their overall receptive knowledge of Standard German is significantly undeveloped compared to their same-aged German peers.

I have started this dissertation by tentatively arguing that young South Tyrolean children are Bavarian–German bilinguals, and I have then given empirical evidence in *Chapter 4* and *Chapter 5* to buttress this viewpoint: in a psycho-linguistic sense these young South Tyrolean children are indeed Bavarian–German bilinguals who still have to develop knowledge of (new) grammar, phonology, and vocabulary in Standard German before they can be considered speakers of Standard German. From a psycholinguistic perspective – and thus the mental processes involved in Standard German language learning – the linguistic situation is comparable to that of a child who learns two ‘accepted’ separate yet related languages. ‘Accepted’ bilingual acquisition is meant as the situation where the two languages differ by *Abstand* and *Ausbau*, e.g. German and Dutch, Italian and Spanish. Once we accept this, my results are consistent with existing studies on bilingual acquisition. Likewise, Engel de Abreu (2011) demonstrated that Luxembourgish monolingual children performed significantly better than their bilingual peers⁶², such as Luxembourgish–French bilinguals, in the domain of vocabulary and syntax (using the Luxembourgish version of the TROG-2; Bishop, 2003). Additionally, my results are in line with other studies comparing L2 or bilingual children to monolingual speakers demonstrating that the former group is less accurate on standardized assessment tests than their monolingual peers (Oller & Eilers, 2002; Paradis et al., 2008; Chondrogianni & Marinis, 2011).

Furthermore, the fact that South Tyrolean Bavarian is often excluded by the educational establishment has an impact on the children’s educational development. Children who attend school in a language which differs from their home language, such as a Spanish-speaking child attending an Italian school, are treated as someone from a different linguistic background and therefore they usually receive appropriate educational support, such as specialized instructions and educational programmes specifically for L2 learners. These instructions contain components for lesson planning and evaluation, such as preparation, comprehensible input, explicit instruction (e.g., in grammar), strategies, review or assessment (for an overview, see Dixon et al., 2012: 38). Among many other conditions, such well-designed educational programmes have shown to provide an optimal environment for L2 learners (Dixon et al., 2012). In Scotland, for instance, Gaelic-medium education is provided and Gaelic education, Gaelic teacher training or preparations for curriculum support materials are offered (Rogers & McLeod, 2006). In Wales there is a wide range of institutional support for the development of bilingual Welsh–English education. For example, in order to teach

⁶² Bilingual children had one parent who spoke Luxembourgish as L1 and another parent whose native language was Italian, German, Dutch, French, Spanish, Portuguese or Czech (Engel de Abreu, 2011).

Welsh as a L2 by monolingual English teachers, different materials are at their disposal: a bilingual teacher handbook, audio tapes, reading books, or television programmes usable in the classroom (Baker, 1993). Moving on to educational research dealing with linguistically (closely) related languages (e.g., Frisian–Dutch), it can be seen that much has been done in the past decades in order to support the different languages present in an area or country. For instance, in the case of Frisian several projects and activities aimed at the development of teaching materials for preschools, primary and secondary schools (for Frisian native speakers and for L2 learners), the promotion of writing and reading of children’s books in Frisian, as well as the establishment of primary schools with a trilingual Dutch–Frisian–English school model (for a historic and overall overview of the Frisian language in the Netherlands, see Mercator European Research Centre on Multilingualism and Language Learning, 2007; see also Hagen, 1989; Gorter & van der Meer, 2009). In South Tyrol, however, it is assumed that home and school language do not differ for these children, which means that educational steps which facilitate the transition between the child’s home language (South Tyrolean Bavarian) and school language (Standard German) do not (or rarely) happen, thus arguing that the South Tyrolean system lacks scaffolding. At this point I shall expand on this a bit more in order to understand this train of thought.

5.5.1.1. Scaffolding and bilingual education

Scaffolding is tutorial behaviour which is supportive, collaborative, and interactive (Wood, 1988; Walqui, 2007). Scaffolding, originally defined by Bruner (1983: 60), is “a process of ‘setting up’ the situation to make the child’s entry easy and successful and then gradually pulling back and handing the role to the child as he becomes skilled enough to manage it.” More recently it has been claimed that it “is a special kind of help that assists learners in moving toward new skills, concepts, or levels of understanding” (Gibbons, 2015: 16). In monolingual as well as in L2 or bilingual learning settings, this means that the teacher supports each learner at some point. For those pupils who have to complete a task which is not in their native language, the teacher might provide a scaffold, for instance while writing a text, the teacher might provide certain connectives for starting each section (Gibbons, 2015). The outcome, thus the written text, is similar for all pupils. The nature and the amount of scaffolding provided by the teacher, however, is different (Gibbons, 2015).

Different to the situation present in educational establishments in South Tyrol, in dual-language programmes⁶³ (or more broadly *bilingual education programmes*) educators and teachers take into consideration children's developmental needs, structure the language and deliver instructions appropriately (Torres-Guzmán, 2007). In L2 instruction, moreover, pedagogical focus usually lies on the comprehension of the input as well as communicative practice through teacher corrections (Nizegorodcew, 2007). Based on the literature about bilingual or L2 learners (bilingual and L2 learning settings vs. monolingual settings, children's linguistic development and assessment in their L1 and L2; see for example Winsler et al., 1999; Patterson, 2002; García & Baker, 2007; Gathercole et al., 2008), it clearly emerges that the South Tyrolean curriculum should be approached differently, i.e. by appropriately considering the true linguistic repertoire of the young South Tyrolean learners. South Tyrolean children need certain strategies which help them in identifying the existing differences, as well as building upon the knowledge they already have. Educators and teachers, therefore, should consider the specific linguistic situation present in South Tyrol and consequently also the particular school context (including pupils' needs and requirements), since South Tyrolean pupils do not start to learn Standard German from scratch, but to a certain extent they are already familiar with the language and, as argued by Egger (1994a, 2001b) and Lanthaler (2012g), learners have to *relearn* and *build up* on existing knowledge. Therefore, and similar to teachers of heritage speakers⁶⁴ (Freeman, 2007), South Tyrolean teachers and educators should understand young pupils' linguistic expertise as resources which they can build on, without considering children's expertise in their native language as deficits, e.g., language transfer and interference (Matras, 2009). Hence, for young South Tyrolean learners, it is important to recognize that Standard German should not be taken for granted as preschoolers' and pupils' native language, but has to be learned and more importantly taught by teachers and educators who are aware of this fact. A positive approach going in the direction of language awareness is the recently published training material about

⁶³ The goal of the *dual-language programme* (for a definition see Freeman, 2007) is to “develop competent bilinguals who can manage and manipulate two languages and their complexities in a variety of domains” (Torres-Guzmán, 2007: 54).

⁶⁴ Originally, heritage language refers to the minority language of immigrants within the United States (Bhatia & Ritchie, 2013). Valdés (2000: 1) defined heritage speakers as “individuals raised in homes where a language other than English is spoken and who are to some degree bilingual in English and the heritage language.” The difference between the term heritage language and foreign language is that the former refers to a language which has been learned at home (L1) or has some connection to the family (e.g., 2nd or 3rd generation immigrants). A foreign language, on the other hand, is a language which is not present in the community (Cummins, 2005). Thus, some heritage speakers use the minority language (e.g., Spanish, Chinese, Romanian, Polish) outside the household, and others do not, which consequently can lead to non-competent speakers, or lowest-proficiency speakers (see Polinsky & Kagan, 2007; Kagan & Dillon, 2008; Montrul, 2008; Bhatia & Ritchie, 2013).

South Tyrol and its spoken varieties, see Hofer (2013), and Gurschler and Tscholl (2015). Hofer (2013) broaches the issue of the different local varieties spoken in South Tyrol as well as in Austria, Switzerland, and Bavaria (Germany), by asking the pupils to complete exercises as well as presenting and describing the varieties spoken in these areas in more detail. Gurschler and Tscholl (2015) published training material specifically aimed for pupils with a linguistic background other than South Tyrolean Bavarian, such as L1 Italian-speaking pupils and pupils with migration background.

5.5.2. Internal and external factors

Although South Tyrolean Bavarian is the main medium of communication in South Tyrol, there is a continuum of German exposure, particularly in terms of passive exposure, which can vary among children, e.g., media exposure, parents reading to children from books, storytelling sessions in preschool, and occasionally hearing the language in their immediate environment (for instance from tourists). In this section, therefore, I will be discussing the third research question of this dissertation:

3. Which type or types of exposure positively affect the acquisition of Standard German and to what extent? Do some types of input have more impact than others?

As presented in section 5.4.1, several internal and external factors (age, maternal educational level, siblings, and length of preschool attendance) were significant predictors of South Tyrolean children's test scores. In the following sections my results shall be associated with the findings examined and reported in the literature. Factors which had an impact on children's test scores were age (see section 5.5.2.1), maternal educational level (see section 5.5.2.2), birth order and siblings (section 5.5.2.3), and preschool attendance (5.5.2.4). Moreover, some factors which does not seem to be good predictors for children's test scores shall also be discussed, such as television input and literacy activities (section 5.5.2.5), South Tyrolean proficiency in Standard German and usage at home (section 5.5.2.6).

5.5.2.1. Age

The two age groups (3;0-3;11 and 4;0-4;11) have been analysed separately from each other. This was done in order to see whether there was a difference among the younger (3;0-3;11 years) and the older preschoolers (4;0-4;11 years). Results obtained in section 5.4.1.1 showed

that there was a significant difference among the Bavarian home language group, with 4-year olds achieving significantly higher test scores than 3-year olds. No difference was found among the German home language group. The difference between the two age groups demonstrates that Bavarian children's German language skills improve significantly from their 3rd to their 4th year of life. Whether this is related to the fact that they attended a German-speaking preschool shall be discussed in section 5.5.2.4.1.

5.5.2.2. Maternal educational level

Previous studies have found a significant correlation between maternal education and their children's language development (Hart & Risley, 1995; Hoff-Ginsberg, 1998; Oller & Eilers, 2002; Hoff & Tian, 2005; Hoff, 2006; Golberg et al., 2008; Paradis, 2009, 2011a; Blom et al., 2010; Dixon, 2011). Mother's education has shown to be an indicator of maternal language input (qualitative and quantitative), and the amount of interaction at home has been demonstrated to relate to the child's vocabulary comprehension and production. For instance, mothers from higher SES use richer vocabulary, and ask more questions (Hart & Risley, 1995; Hoff, 2003; 2006; Rowe, 2008).

In the current study, results were in line with the studies mentioned above showing that mothers who had a post-secondary education (higher SES) had children that performed more accurately and had higher TROG-D raw scores than children of mothers who had a secondary diploma or vocational school qualification (lower SES). This was found among the German and Bavarian home language group.

5.5.2.3. Birth order and siblings

As already discussed previously, in the literature the relationship between birth order and siblings' status and the young child's linguistic development is not always straightforward. On the one hand, there are studies which have shown that only-children have an advantage in language development because the directed speech that the child receives from the parent or mature speaker is greater than for later-borns. This one-to-one interaction is a positive predictor of the child's development. Moreover, it has been claimed that the input from siblings is structurally less complex and they use smaller vocabularies than adults (Hoff-Ginsberg & Krueger, 1991; Hoff, 2006). Therefore, they provide less effective input. On the other hand, there is plenty of evidence that older siblings have a positive influence on the development of younger siblings' language process in early ages (Hoff-Ginsberg & Krueger, 1991; Oshima-Takane et al., 1996; Brody, 2004; Maynard, 2004).

In the current study I found that birth order impacts the score in the Bavarian home language group but not in the German home language group. Specifically, my results show that Bavarian-speaking preschoolers with school-aged siblings (mean age was 7.97⁶⁵ years) performed better than Bavarian-speaking children with no older siblings. Unlike the Bavarian home language group, German preschoolers get regular German input from their family members as well as from their everyday social environment (e.g., other family members, friends, neighbours). Although previous research has demonstrated that one-to-one interaction with parents or adults is an optimal source for language development and input for young children, e.g., engaging the child in interaction, highly repetitive, more questions are usually asked by parents than by siblings (Snow, 1977; Hoff-Ginsberg, 1986, 1990), in the current study parental child-directed speech addressed at the Bavarian child does not seem to be sufficient for their understanding in Standard German. Sibling or no sibling – and thus a greater amount of German input available within the household – has had a rather positive influence on Bavarian-speaking children’s language comprehension in Standard German.

These results raise the question why birth order and siblings have an effect on South Tyrolean Bavarian-speaking children but not on German-speaking children. The explanation may lie in the two language systems themselves, since there is *Abstand* between Standard German and South Tyrolean Bavarian, as empirically demonstrated in *Chapter 4*. While there is little or no linguistic difference between the home and school language in Germany (except for potential differences of register and minor regional differences), for South Tyrolean children home and school language differ. As examined in the previous chapter, German listeners understood roughly 60% of South Tyrolean Bavarian. The present findings, therefore, are in line with previous studies demonstrating that older siblings are a valuable source of language input to young developing children in bilingual homes. Bridges and Hoff (2008), for instance, showed that in the case of children who grow up with a minority language at home, older siblings provide a significant source of the majority or community language. These findings are consistent with other findings (Pearson, 2007; Bridges & Hoff, 2014; Hoff et al., 2014), demonstrating that older siblings serve as a source of language-advancing input.

⁶⁵ Hoff-Ginsberg and Krueger (1991) demonstrate that at the age of 7 and 8 children do provide supportive interactions to their younger siblings.

5.5.2.4. Preschool attendance

Preschoolers were assigned to the following three groups, depending on how long they had been attending preschool at the time of testing: (a) 0-2 months, (b) 3-10 months, and (c) 11-25 months. In both home language groups' children's performances improved significantly with more exposure to the German-speaking preschool. In Germany, preschoolers with the longest preschool attendance (eleven months and more), performed significantly better compared to the group who had attended preschool for two months or less. In South Tyrol, there was a significant difference between all three groups: preschoolers with the longest preschool attendance (eleven months and more, group C) performed better than those children who had attended preschool for two months or less (group A), and the former group performed also better than those preschoolers who had been between 3 and 10 months at preschool at the time of testing (group B). This indicates that better performance on the TROG-D develops along with lengthier preschool attendance, and implies that young children benefit from their experience with Standard German in preschools. Obviously, children with the longest preschool attendance were older and therefore also cognitively more developed than those who had been to preschool for two months or less at the time of testing, therefore it does not seem surprising that those with the longest preschool attendance performed best. However, results show that children's experience with Standard German seems even more important in South Tyrol than in Germany, since there was also a difference between South Tyrolean Bavarian-speaking children with the longest preschool attendance and those who had attended preschool between 3 and 10 months at the time of testing.

Two further statistical analyses were performed in section 5.4.1.4.1 and in section 5.4.1.4.2. In section 5.4.1.4.1 length of preschool attendance has been matched among the German and Bavarian home language group, as this was the only statistical significant difference between the two groups (see section 5.3.6): German-speaking participants have been attending preschool for a longer period (12.48 months) than the South Tyrolean Bavarian-speaking group (7.39 months), on average 5.09 months longer. Reducing the participants among the German home language group, thus excluding children who had been to preschool for 18 months or more ($n=11$), allowed to match the two home language groups. The new results obtained from the German home language group showed that there was no significant difference, thus implying that length of preschool attendance did not have an impact on German-speaking children's test scores.

Section 5.4.1.4.2 then compared German-speaking children and South Tyrolean Bavarian-speaking children who had attended preschool for 11 months and more. Results

showed a significant difference between the two home language groups. This outcome, again, emphasises the gap between German and South Tyrolean Bavarian and demonstrates that even after attending a German-speaking South Tyrolean preschool for more than one preschool year, Bavarian-speaking children still score below their same-aged German-speaking peers.

5.5.2.4.1. Bavarian home language group: Correlation age and preschool

Results obtained in Table 5.27 in section 5.4.2.2 support what has been said so far. In Table 5.27 a strongly, positive correlation was found for age at testing and a moderately, positive correlation was found for preschool attendance. Both variables (age and preschool), therefore, impact South Tyrolean children's test scores.

These findings are in line with previous studies showing that attending preschool in another language than children's native language or attending bilingual preschools programmes helped decreasing the language gap between the two languages of bilingual children, e.g., expressive and receptive language abilities improved in both languages (e.g., for English and Spanish, see Rodríguez et al., 1995; Winsler et al., 1999). Hence, children who learn more than one language will catch up with their monolingual peers eventually (depending on input and exposure though).

5.5.2.5. Television input and literacy activities

In this section I will be discussing the results obtained in section 5.4.1.5 and 5.4.1.6.

As presented in section 5.4.1.5, there was no correlation between watching television and German- and Bavarian-speaking children's test scores. Taking into consideration that sources of native-speaker input (books, TV, friends) have a positive effect on the L2 development of children (Jia, 2003), one could hypothesize that Standard German television should have played a significant role in South Tyroleans performance, simply because input is provided by native speakers. As already discussed in section 5.2.1.5, however, research dealing with language learning through media consumption itself has produced controversial results, showing that it can be promoting as well as hindering. There is a further potential weakness which concerns the overall questionnaire used in this study. As shown by Close (2004), high-quality educational television and age-appropriate television can improve several aspects of language development for 2- and 5-year old children. Age-appropriate television or educational television programmes imply that there are certain language features which make the content more understandable to the child, such as simpler speech, and repetitions of target

words or phrases (Uchikoshi, 2006). The questionnaire used in the current study, however, did not contain questions regarding the specific programmes watched by the child, i.e. cartoons, educational television, or talk-shows. Therefore, no statement can be made on the quality of television viewing. Furthermore, it has been claimed that the opportunity of interacting with adults while watching television is helpful for children's development as the former can provide explicit definitions and explanations of unfamiliar words (Rice & Woodsmall, 1988; Naigles & Mayeux, 2001; Patterson, 2002). The questionnaire, however, did not ask whether parents were present when their child watched television in order to explain unfamiliar words or phrases.

I shall now discuss results regarding literacy activities. Previous studies have shown that reading experiences have a positive influence on children's linguistic development (Böhme-Dürr, 2001; Bertschi-Kaufmann, 2007; von Lehmden et al., 2013). Moreover, children's early language development benefits when they are exposed to reading in a language that is not their L1 (Iraqi, 1990; Feitelson et al., 1993; Jaquier, 1995; Ayari, 1996; Abu-Rabia, 2000). As presented in section 5.4.1.6, there was an almost statistically significant relationship among the German-speaking group, indicating that as the amount of reading to the child increases, his/her score also increases. There was, however, no correlation between reading activities and South Tyrolean Bavarian-speaking children's test scores. Although research has shown that reading in a language which is not the child's native language is beneficial for his/her language development, this claim has not been supported by my study. In other words, regular familiarization with the German language through reading did not appear to have an effect on South Tyrolean Bavarian-speaking children's performance. In the following, I shall try to give some explanations for this finding. In South Tyrol, books were read by South Tyroleans, thus by non-native German speakers. One might think that being exposed to non-native input might negatively influence children's language learning process or being less supportive, as claimed by Paradis (2011a), and Place and Hoff (2011). Nonetheless, several studies have shown that if non-native input is of a sufficiently high quality, negative effects on children's linguistic development decrease (van Leeuwen, 2013). Most parents in my study reported to be fluent in Standard German, suggesting that the input South Tyrolean children received might have been supportive for their linguistic development. In theory there was a solid basis for South Tyrolean Bavarian-speaking children, and the following aspects should have had a positive impact on preschoolers' performance: (i) most parents (76.9%) reported to be fluent in Standard German, (ii) parents reported to read a lot to their children (33.3% reported to read 2-5 times a week, and 50% reported to read more than 5 times a week), and (iii) most

books were read in Standard German (71.7%). Hence, it can just be speculated why reading seem to have had no effect on South Tyrolean Bavarian-speaking children's performance. By nature, some of the measures used in the questionnaire have less subjectivity, i.e. the number of siblings within a family, while others have more room for subjective statements, i.e. reading activities within the family. Therefore, the answers provided by the parent might not always reflect the actual reality and might have been biased because of social desirability, e.g. parents might have answered incorrectly based on their idea of adequate media consumption or adequate reading expectations. These findings show that the importance of reading to children is still unexplored in South Tyrol and seems to be a topic for further research.

5.5.2.6. Bavarian home language: Proficiency in German and usage at home

In the current study there was no significant effect of mothers' proficiency in German and preschoolers' performance on the TROG-D. This result is consistent with results by Golberg et al. (2008), Chondrogianni and Marinis (2011), and Paradis (2011a) who assessed English L2 children and found that mothers' fluency in their L2 (English) did not have an enhancing effect on their children's development. Nonetheless, it should be noted that mothers' L2 language proficiency was rated differently in the current study and in the three studies mentioned above. While mothers' self-rated fluency in the L2 was rather low on average and therefore did not enhance children's L2 learning (Golberg et al., 2008; Chondrogianni & Marinis, 2011; Paradis, 2011a), in the current study mothers' self-rated fluency in Standard German was rather high, 3.78 on average on a 0-4 scale. Previous research has shown that input from a native speaker is more supportive and helpful for the child's linguistic development than input from a non-native speaker (Place & Hoff, 2011; Hoff et al., 2014). The fact that in the current study South Tyrolean mothers had a high rated proficiency in German might be the reason why no effect was found on their children's performance on the TROG-D. Children's test scores might have been different if there had been a greater variability among parents' language competences. At this point it should also be stressed out that although adults seem to be very self-confident in using Standard German as well as demonstrating positive attitudes towards Standard German, they nonetheless mainly use South Tyrolean Bavarian at home (the usage of spoken German input was 0.44, range 0-4). As discussed in *Chapter 2*, it is common in diglossic situations that adult speakers do not use the 'High language' very often, except for formal purposes, writing, and reading. Similarly, studies conducted among heritage speakers or L2 learners, for example, have shown that although parents valued English (their L2) highly, they supplied more input in Spanish (their

L1) and therefore their children learned the latter language better than the former (e.g., Oller & Eilers, 2002; Pearson, 2007).

5.5.3. Interim summary

It can be concluded from the present empirical study that it is certainly inaccurate to assume that South Tyrolean children are L1 German speakers, and thus mistakenly assuming that they are being schooled in their ‘mother tongue’. In the current study, I have tried to interpret the percentage number examined in the previous chapter. The fact that only 60% of South Tyrolean Bavarian is understood by German listeners has firstly shown that there is a certain degree of unintelligibility between the two varieties, and secondly that this indeed leads to statistically significant lower TROG-D scores among South Tyrolean preschoolers compared to typically developing same-aged German peers. In a psycho-linguistic sense, I have demonstrated in this dissertation that a case of trilingualism (South Tyrolean Bavarian–German–Italian) is misleadingly assumed to be bilingualism (German–Italian), thus also underestimating South Tyrolean children’s linguistic language skills.

5.6. CONCLUSION

The aim of the empirical study conducted in this chapter was to highlight the consequences for children who are argued to acquire a language (Standard German) which is relatively different, yet socio-politically combined, with their native language South Tyrolean Bavarian. In this chapter I have tried to answer the following research questions:

2. How do South Tyrolean-speaking preschool children perform on a standardized German assessment test? How do they compare with their age-matched German peers?
3. Which type or types of exposure positively affect acquisition of Standard German and to what extent? Do some types of input have more impact than others?

By answering these research questions, it can be seen that the relatively low degree of intelligibility between Standard German and South Tyrolean Bavarian (58%) does have an impact on South Tyrolean preschool children’s receptive language skills in Standard German. My findings demonstrate that the monolingual German-speaking group performed significantly better than the South Tyrolean Bavarian-speaking group on the TROG-D.

In order to be able to answer the last research question of this dissertation, several properties were investigated separately in correlation with children's test scores. Various factors strengthened the point that the identified *Abstand* present between Standard German and South Tyrolean Bavarian has an impact on Bavarian-speaking children's performance:

- South Tyrolean parents do not use Standard German very often (0.44 on a range of 0-4) within the family. The input these children receive in South Tyrolean Bavarian, however, does not help them in having a better understanding of or a better performance in Standard German either.
- Even though parental child-directed speech in Standard German is reported to be very low, results demonstrated that the presence of a school-aged sibling offered preschoolers the opportunity of hearing German within the household. An older sibling attending school brings the school language into the family which consequently enhances preschoolers' German language comprehension.
- Results showed that South Tyrolean Bavarian-speaking children who had attended preschool for one preschool year or more still performed lower than their German-speaking peers. This strengthens the fact that even after one year in preschool the gap between Standard German and South Tyrolean Bavarian still impacts South Tyrolean children's test scores.

If we look at the types of exposure that positively affect Standard German language learning and development in South Tyrol, results obtained in this chapter show that preschool children's development of general grammatical abilities can be predicted by age, length of preschool attendance, and higher maternal education – producing a complex pattern that contributes to children's linguistic development. Apart from input provided by institutions, such as preschool or school, my findings show that (German) language learning success can also be achieved if there is intensive and structural varied linguistic input, such as older siblings.

At the beginning of this chapter I have questioned the assumption that South Tyrolean children are being schooled in their 'mother tongue'. That this statement is completely misleading has empirically been demonstrated in this chapter. Nonetheless, South Tyrolean

Bavarian is still nowadays often excluded from the educational school context⁶⁶. As stated by Lanthaler (2012h), successful language teaching only happens when South Tyrolean pupils experience that their native language is valued, that home and school language are equal, and that already acquired linguistic competences in their home language are respected and supported within educational institutions.

Therefore, the core issue is not to claim or advise South Tyrolean parents to address their children in Standard German. South Tyrolean Bavarian is people's native language, the variety in which socialization takes place, it is perceived as a very prestigious variety – that's why it is still nowadays the most used code in and outside the home⁶⁷. Reasons for the statement that I would not advise parents to start speaking Standard German to their children are provided in the literature. On the one hand, research emphasises the development and support of children's native language. It is well known that minority children growing up in a community where a different language is spoken from their home language (e.g., heritage speakers, for a definition see footnote 64 in section 5.5.1.1) should receive the opportunity in developing their L1, which in turn is important for successful L2 learning (e.g., Cummins, 1984; Collier, 1987, 1989). For instance, in the case of Spanish-speaking children in the United States, Allman (2005: 68) argued that "it is absolutely essential that the Spanish language skills [...] are supported and further developed in and outside the home." If this is not the case, Allman (2005) further claimed that it is likely that these children show problems in language development in Spanish and English as well as being at the risk for future cognitive and academic difficulties. On the other hand, it is a well-established finding in bilingual and L2 research (i) that bilingual or L2 children often lag behind their monolingual peers, and (ii) that they may transfer their skills from one language into another language. I shall explain these two issues in more detail. First of all, due to various reasons (e.g., less input) young bilinguals might simply not yet reach the monolingual norm – thus the range of what is usually regarded as the norm – in one or in both of their languages (Allmann, 2005). Nonetheless, research has shown that bilingual children catch up with their monolingual peers eventually and that the discrepancy often disappears during elementary school (Genesee & Nicoladis, 1995; Meisel, 2006). Secondly, as mentioned above and as shown in previous research, children can transfer their skills from one language into another language (see Durgunoglu & Öney, 2000; Bialystok, 2002; Allmann, 2005). This means that South Tyrolean

⁶⁶ Exceptions are the following training material books, as for instance Egger (1982c), Saxalber-Tetter (1994), Hofer (2013), and Gurschler and Tscholl (2015).

⁶⁷ In the case of the Italian province of Lombardy, for instance, Lombard has been replaced by Italian, implying the linguistic and cultural loss of the minority language among younger generations.

children's ability to transfer their developed skills from South Tyrolean Bavarian to Standard German is likely to support their development in the latter. However, in order to ensure positive influence (*facilitation*; see Butler & Hakuta, 2005), it is important to show South Tyrolean pupils certain strategies which help them in identifying structural properties and differences between their native language and Standard German, as well as building upon the knowledge they already have (Lanthaler, 2012h; see also Egger, 1982c). Moreover, over the past five decades research has shown that bilingual and L2 language acquisition is indeed advantageous (e.g., Allman, 2005; Akbulut, 2007), since (i) bilingual or L2 speakers have shown advantages over monolinguals, as for instance greater word awareness (Ben-Zeev, 1977a; Bialystok, 1986, 1988), and earlier metalinguistic awareness (Bialystok, 1997), (ii) bilinguals have a higher vocabulary knowledge (Allman, 2005), and (iii) learning more than one language is associated with cognitive advantages (Bialystok, 2007).

South Tyrolean children can certainly profit from all these findings established in previous bilingual and L2 research. Moreover, as already demonstrated in other bilingual studies (see for instance Gathercole et al., 2008; Hoff et al, 2012), it can be expected that South Tyrolean Bavarian-speaking children who grow up with German are also likely to catch up when getting older.

5.6.1. Limitations of the current study and future directions

There are some limitations in the present investigation.

First of all, the measures of language input were based on parental questionnaires only. As already mentioned previously, answers might have been biased because of socially acceptable tendencies (i.e., inaccuracies in rating the frequencies of media consumption or literacy activities). Moreover, the quality and quantity of maternal language input in child-mother conversations, an aspect which has been demonstrated to be an important issue in bilingual studies, has not been able to be examined in more detail due to methodological restrictions (a parental interview or a semi-questionnaire⁶⁸ would allow gathering more information). Similar methodological restrictions also prevented measurement of the quality and quantity of preschool teacher-child interactions in the classrooms.

Secondly, comparing monolingual and bilingual performance on language tests is not always as straightforward as it appears. It is important to highlight that the children examined in this chapter were tested in Standard German only, using a test which is normed for German

⁶⁸ Asking open-ended and closed-ended questions.

monolinguals, as claimed by Fox (2013). Since I am arguing that South Tyrolean children share linguistic behaviours with bilinguals, testing these children just in one of their two languages (instead of both languages) needs to be handled with caution, as has extensively been claimed in the literature (Abudarham, 1997; Paradis, 2005, 2010; Thordardottir et al., 2006). It is well-known that bilinguals have distributed knowledge, i.e. they have knowledge in one language which they do not have (yet) in the other language, and vice versa (Oller & Pearson, 2002; Oller, 2005). Hence, when testing a South Tyrolean Bavarian-speaking child with a German standardized test, it is not clear how many errors the child would not have made if the test was administered in South Tyrolean Bavarian. To my knowledge, however, the TROG test does not yet exist in South Tyrolean Bavarian. Most importantly, for the purpose of this dissertation – namely investigating the psycho-linguistic gap young South Tyrolean children have to overcome when learning Standard German – a translation of the TROG-D (Standard German) into South Tyrolean Bavarian has not been considered to be relevant. At this point it is also important to mention that the test results were just used to describe South Tyrolean children's development in Standard German compared to their German peers, and they were not employed for diagnostic purposes.

As a consequence of the outcomes attained, it seems that further questions appear and more research is needed in this area in order to find out more about the process of early language learning in preschoolers where both inner and outer multilingualism are present. Hence, I am concluding this chapter by making some suggestions for future research.

As a longitudinal and cross-sectional design further investigations could investigate and address how older South Tyrolean Bavarian-speaking children perform on receptive and productive tasks, on grammar and narrative tasks as well as observing their performance at different points in their development. Results obtained by different tests would offer a snapshot of children's linguistic development at different intervals and (1) reveal whether and when South Tyrolean children/pupils will eventually approach or 'catch up' the level of Standard German monolingual performance, and (2) will show how long it takes to fill in the 40% gap identified in *Chapter 4*. Therefore, follow-up studies with either older preschool children or primary school children will definitely shed more light on their developmental processes of both South Tyrolean Bavarian and Standard German.

CHAPTER SIX

“Es ist kein erstrebenswertes Ziel, in einer Welt der Dialekte ohne Dialekt zu leben.”⁶⁹

(LANTHALER, 2012h: 434)

Conclusion

In this final chapter I will review and summarize the principal findings of this dissertation as well as remind the reader of the importance to question and disambiguate certain terms and phenomena. This is important because, as I have tried to show in this dissertation, inaccurate definitions can have an impact on both language learning processes and language teaching methods.

6.1. ORIGINALITY AND IMPORTANCE OF MY RESEARCH

In the title of this dissertation I have asked whether we should talk about bilingualism or trilingualism when referring to the Germanic-speaking community in South Tyrol, a region in north-eastern Italy. In order to be able to answer this question, I have tried to demonstrate that there should be made a distinction between social and linguistic views: Socio-politically, South Tyrol is an official Italian–German–Ladin trilingual region. Linguistically, however, there can be identified four varieties present in the area: Italian, German, Ladin, and South Tyrolean Bavarian. Three out of these four are officially recognised languages, namely Italian, German, and Ladin. South Tyrolean Bavarian, however, is commonly referred to as a ‘dialect’ and not as a distinct language. That this definition and categorization has linguistic as well as educational consequences for children growing up in this area has been the focus of this dissertation. Therefore, the main aim of this dissertation is to show that the problem lies in the clash between the socio-political stance and the linguistic reality.

⁶⁹ ‘Living in a world of dialects without one’s own dialect is not a desirable goal’ (my translation) (Lanthaler, 2012h: 434). It should be noted that this translation is slightly different than the original in terms of literal words, but I think it more appropriately conveys the original message.

Very often ‘languages’ have been defined from a purely socio-political perspective, whereupon Kloss’ (1967) *Ausbau* perspective is preferred over *Abstand*. Although an *Ausbau* language is primarily seen as a social construct (due to political, historical, cultural, and/or linguistic reasons), an *Abstand* language, i.e. the degree of *Abstand*, is often irrelevant, downgraded, or even neglected – as recently pointed out by Tamburelli (2014). Based on two examples, namely the Romance and Germanic continuum, Tamburelli shows that several centuries ago two varieties – nowadays known as Italian and Dutch – obtained the status of ‘languages’ through a socio-political process. Through this process the degree of *Abstand* between Romance varieties, i.e. structural aspects and linguistic properties between what is nowadays known as Standard Italian and other Italian varieties, however, was completely ignored. Similarly, having been socially subordinate to Standard German, South Tyrolean Bavarian has not undergone the process of *Ausbau-isation* (Fishman, 2008) either. Relying solely or mostly on *Ausbau* when classifying bi- and multilingual situations, however, can lead to potentially serious educational issues. Well-established findings identified in bilingual or L2 literature (e.g., Aronin & Hufeisen, 2009) have rarely been taken into consideration in the South Tyrolean educational context. It is known, for instance, that the co-existence of different varieties in a community represents a particular challenge for language learners, since the daily input only partially corresponds to the aim of L2 learning (Ender et al., 2007; see also Arabic diglossia and Switzerland). Consequently, I am interested in the impact of the diglossic attitude – e.g. the complementary distribution between Standard German (more formal domains) and South Tyrolean Bavarian (informal domains) – and I am interested in the educational impact of treating South Tyrolean children as L1 German learners, which shall be discussed in more detail in section 6.2. It is also important to mention that the aim of this dissertation was not to find satisfying definitions of who is a bidialectal or a bilingual/trilingual speaker, or to re-define a diglossic or a bilingual/trilingual community, but rather to question and challenge the already existing definitions and notions. As shown in the literature, for instance, it seems that there are qualitatively similar performances among speakers who are dealing with more than one and more than two languages. Poarch and van Hell (2012a) have demonstrated that linguistic performances among bilinguals and trilinguals do not differ significantly. In testing monolinguals, L2 learners, bilinguals, and trilinguals, Poarch and van Hell (2012a) concluded that the latter two, namely bilinguals and trilinguals, showed similar performances in the sense that they did not differ significantly on the two tasks they were tested in. Therefore, they stated that “dealing with and negotiating among

three languages, instead of between two languages, on a daily basis does not suffice to enhance attentional control even more” (Poarch and van Hell, 2012a: 548).

The importance of this dissertation lies in the fact that we should not neglect the knowledge, the linguistic competences, but also the challenges that an individual is facing when growing up with more than one variety or language, independently whether these varieties or languages are genetically related or not. The focus of this dissertation, therefore, is the misleading assumption and its pedagogical consequences of being defined as a German–Italian bilingual speaker rather than a Bavarian–German–Italian trilingual speaker. As we have seen throughout this dissertation, the official definition is based mostly on socio-linguistic considerations rather than linguistic ones.

6.2. MAIN FINDINGS OF THIS DISSERTATION

Hardly any research has been done on very early language comprehension in the educational context of preschools in South Tyrol. This dissertation represents a step towards addressing this gap.

Depending on age of learning, intelligence, attitude, and personality, “the most striking fact about second-language learning, especially as compared with first-language learning, is the variability in outcomes” (August & Hakuta, 1997: 37), which means that bilingual or L2 linguistic development (such as lexical or grammatical development) is “a phenomenon which is in many ways unlike monolingual development” (Abudarham, 1997: 140). It is certainly the case that a child growing up in a bi- or multilingual family or community makes more mistakes than a monolingual child, especially at the early developmental stages. Nonetheless, mistakes are normal and even necessary when acquiring and learning a language, which can either be the native language, a second or foreign language (Mioni, 1990). It is well-known, for instance, that speaker’s L1 knowledge influences his/her L2, and linguistic behaviour that diverges from that of monolinguals (interference and transfer, or code-switching) is nowadays accepted as part of the speaker’s learning process (Poplack, 1980; Montrul, 2008; Bullock & Toribio, 2009; Gardner-Chloros, 2009; Matras, 2009; Grosjean, 2011). It can be argued, for example, that the Spanish-speaking child attending a Portuguese school will be treated as someone from a different linguistic background and consequently might also receive different (educational) support. Being addressed in Portuguese, the Spanish-speaking child shows certain characteristics, such as smaller vocabulary knowledge in Portuguese, or being less accurate in Portuguese standardized tests compared to their Portuguese L1 monolingual peers (see also Umbel et al., 1992; Cobo-Lewis

et al., 2002; Oller & Eilers, 2002; Patterson & Pearson, 2004; Allman, 2005; Paradis, 2005; Paradis et al., 2008). Moreover, as shown extensively in bilingual and L2 language literature, achievements in the other language are viewed positively and differences between bilingual or L2 children, pupils, adults and their monolingual peers are accepted and well researched (e.g., Krashen, 1981; Cobo-Lewis et al., 2002; Oller & Eilers, 2002; Gathercole & Thomas, 2009). Language awareness and linguistic sensitivity are specifically targeted in L2 or foreign language teaching (Lanthaler, 2012i). Hence, educational steps are undertaken in order to facilitate the transition between the child's native language/home language (L1) and the unknown language/school language (L2 or foreign language), which means that they are supported in their bilingual, L2 or foreign language learning process by special educators and teachers, or with further explanations or exercises (Torres-Guzmán, 2007; Nizegorodcew, 2007; Dixon et al., 2012). Consequently, this means that the existing linguistic gaps between, for instance, Spanish and Portuguese or German and Dutch, are generally accepted.

All these facts mentioned above, however, do not refer to situations in which the native language of the pupils is excluded from the political and educational establishments. This happens precisely because Kloss' (1967) *Ausbau* perspective is preferred over *Abstand* when defining 'language' and, consequently, 'bilingualism'. In this dissertation therefore I have tried to show that relying solely on a socio-political classification of 'language' has consequences for early language acquisition. I have demonstrated this on the basis of the linguistic situation present in South Tyrol. The question whether a child in South Tyrol, whose native language is South Tyrolean Bavarian, attending a German-speaking school and being addressed in Standard German, behaves like a Spanish–Portuguese bilingual child (e.g., interference and transfer, smaller vocabulary knowledge), has been the focus of *Chapter 5*. The answer to this question is: yes. A South Tyrolean Bavarian child shows certain characteristics which are more similar to a child learning more than one language from birth than to a monolingual child. By regarding and re-defining South Tyrolean children as young *South Tyrolean Bavarian–Standard German bilinguals*, we accept the fact that bilinguals or L2 learners often 'lag' behind monolinguals or are less accurate on standardized tests (Paradis, 2005; Marinis & Chondrogianni, 2010; Chondrogianni & Marinis, 2011). Moreover, there is plenty of evidence that bilingual children catch up eventually (e.g., Genesee & Nicoladis, 1995; Meisel, 2006). Previous studies (e.g., Paradis, 2011b) have shown that L2 children catch up in some linguistic domains faster than in others. For instance, L2 children catch up more easily in narratives, followed by lexicon, and with grammar as the last domain (Paradis, 2011b). Therefore, the fact that 3- and 4-year old South Tyrolean preschool children

lag behind their same-aged monolingual German peers can be seen as a normal language learning process. In the second empirical study of this dissertation I have shown that already from the 3rd to the 4th year of life South Tyrolean preschoolers improved significantly in their performance, thus supporting the notion that language learning is an ongoing process which is not static but dynamic. Therefore, rather than assuming that South Tyrolean children know Standard German as well as monolingual L1 German learners when entering preschool or school, it should be acknowledged and made clear that they are not L1 German speakers. The fact that this is often ignored in educational establishments is not necessarily helpful for their developmental process, since the educational steps which facilitate the transition between the child's home language (South Tyrolean Bavarian) and school language (Standard German) do not (or rarely) happen (scaffolding). It is important to recognize, therefore, that German should not be taken for granted as South Tyrolean preschoolers' and pupils' native language, but has to be learned and more importantly taught by teachers and educators who are aware of this fact. Furthermore, this means that the curriculum should be approached differently, namely with the knowledge that there is a degree of *Abstand* between Standard German and South Tyrolean Bavarian. Therefore, these young learners need certain strategies which help them in identifying these structural properties and differences, as well as building upon the knowledge they already have. That first-language training is indeed important for successful L2 language learning, has already extensively been reported in the literature (e.g., Cummins, 1984; Collier, 1987, 1989). Summing up, it is important to address South Tyrolean Bavarian within the educational context, value these children's native language, and thereby promoting pupils' language awareness, which is beneficial to the cognitive, social, and linguistic growth of the child.

With this final train of thought I am aiming at concluding this dissertation: do not assume that South Tyrolean children are L1 German speakers who therefore know the language as well as someone who grew up in Germany. Motivate this statement empirically, as I have done in *Chapter 4* and *Chapter 5*. It is important to understand the way Standard German is taught, learned, evaluated, and used in the South Tyrolean community and its everyday communication. Thus, once we understand all these facts, once we accept that there is a linguistic gap, and once we understand the consequences this gap has on children's receptive knowledge, keep in mind that these South Tyrolean children are schooled in a language which is different to their home language and therefore – most importantly – approach the future curriculum differently and change it to their required needs.

In this dissertation, therefore, I have tried to highlight the importance of someone's native language – even if we are not talking about an official recognized standardized language – which is as valuable as any other language, and which requires certain attention, especially within the educational context. Preschoolers are in their early language learning process, and just because they hear Standard German on a more or less regular basis (e.g., reading sessions, songs, television), I have shown with the intelligibility study (*Chapter 4*) and the TROG-D study (*Chapter 5*) that it is inadequate to assume that South Tyroleans' mother tongue is Standard German. Nonetheless, that at some point they will be competent speakers and users of Standard German – some to a better degree than others – remains indisputable.

Ultimately, and with this final sentence I am concluding this dissertation: I have shown that a case of bilingualism (German–Italian) is undeniably a case of trilingualism (South Tyrolean Bavarian–German–Italian) – thus proving that there is indeed a psycholinguistic gap South Tyrolean children have to overcome while learning Standard German – which is the most important finding of this dissertation.

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Appendix A1. *Sample letter of invitation.*

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(Code 03) <https://www.bangor.ac.uk/ar/main/regulations/home.htm>

Sample letter of invitation to participate in a research project

Dear all,

I'm a PhD student in Linguistics at Bangor University. For our project on "Languages and Dialects" we are currently looking for students from Germany (mother tongue: Standard German). Your participation in the project will provide useful information on this topic.

You will be asked to fill out a background questionnaire. You will also be asked to listen to a 2-minute audio recording and complete a short task. In total, it will take no longer than 15-20 minutes.

If you are interested and would like further information, then please don't hesitate to get in touch.

Kind regards,

Mara Leonardi

m.leonardi@bangor.ac.uk

Appendix A2. English Consent Form and Questionnaire.

The online-survey was conducted in German only. For the purpose of this dissertation the questionnaire has been translated into English. Note that the format looked differently online.

Introduction

Take part in a study about languages and dialects!

I am a PhD student at Bangor University. For our project we are looking for native German speakers. The online test is split in two parts: Firstly, you need to answer a few questions related to your linguistic habit. The second part consists of a 2-minute audio recording. Altogether it should not take longer than 15-20 minutes of your time.

We would like to remind you that all answers are going to be treated very confidential. If you would like information about the results, do not hesitate to get in touch with me. Mara Leonardi (E-Mail: m.leonardi@bangor.ac.uk)

Consent Form

I agree participating in the research project and understand that:

1. Participation is entirely voluntary.
2. The rights to anonymity and confidentiality will be respected.
3. I have the right to withdraw from the research at any point without any need to motivate my decision.
4. I agree to the archiving and analysis of the collected data and also to the representation and circulation within a scientific context (e.g., scientific publications/journals, meetings, conferences, and lectures).

The *Bangor University Human Ethics committee* has approved the study protocol and procedures.

Questionnaire

We would like to thank you by answering the following questions concerning „Languages and Dialects“. Please give your answers as precise as possible as only this will guarantee the success of the investigation. Thank you very much for your help!

1. Which other languages do you speak? Please indicate also your language level:

<i>Languages</i>	<i>none</i>	<i>elementary</i>	<i>intermediate</i>	<i>advanced</i>
English				
French				
Italian				
Spanish				
Chinese				
Russian				
Latin				
Other language				
Other language				

2. Which languages/dialects are spoken in your family? (Please tick one or more options).
- Standard German
 - Dialect/s: specify the dialect/s and the *Bundesland* (region) _____
 - Other languages: specify _____
3. Which languages/dialects have been spoken from your parents and grandparents during your childhood? (Please tick one or more options).
- Standard German
 - Dialect/s: specify the dialect/s and the *Bundesland* (region) _____
 - Other languages: specify _____

4. How often have you been in the following regions? Please tick the right answer.

	Never	Rarely	Sometimes	Often	Very often
a. Sachsen					
b. Berlin					
c. Südtirol					
d. Baden-Württemberg					

5. Please tick how often you deal with/ have dealt with people who speak/ spoke a dialect of the following regions in your presence.

	Never	Rarely	Sometimes	Often	Very often
a. Sachsen					
b. Berlin					
c. Südtirol					
d. Baden-Württemberg					

6. On a scale from 1 to 5, tick how likely you would like to live in the following regions.

	1 Not at all	2	3	4	5 Very likely
a. Sachsen					
b. Berlin					
c. Südtirol					
d. Baden-Württemberg					

7. How beautiful do the dialects of the following regions sound on a scale from 1 to 5?

	1 Ugly	2	3	4	5 Very beautiful
a. Sachsen					
b. Berlin					
c. Südtirol					
d. Baden-Württemberg					

8. To what extent do you agree or disagree with each of the following statements, please put an **X**.

Strongly disagree	Disagree	Don't know	Agree	Strongly agree
1	2	3	4	5

I would like to speak <i>Sächsisch</i> .	1	2	3	4	5
I would like to speak <i>Berlinerisch</i> .	1	2	3	4	5
I would like to speak <i>Südtirolerisch</i> .	1	2	3	4	5
I would like to speak <i>Schwäbisch</i> .	1	2	3	4	5

9. PERSONAL INFORMATION

Finally, please answer a few personal questions.

Age: _____

Gender: male / female

Place of residence and *Bundesland* (province): _____

Where do/ did you study/work? City and *Bundesland*: _____

Thank you very much - We really appreciate your help!

Appendix A3. German Consent Form and Questionnaire.

Einführung

Nimm Teil an einer Studie über Sprachen und Dialekte!

Ich bin eine PhD Studentin an der Universität Bangor (Wales). Für unser Projekt "Sprachen und Dialekte" sind wir auf der Suche nach Teilnehmern Deutscher Muttersprache. Der online-Test ist zweigeteilt: Zuerst Du wirst einen kurzen deutschsprachigen Fragebogen zu Deinen sprachlichen Gewohnheiten ausfüllen. Danach wirst du eine 2-minütige Audio-Aufnahme hören. Insgesamt wird es nicht länger als 15-20 Minuten Deiner Zeit beanspruchen.

Deine Daten werden anonym und mit Diskretion behandelt. Für weitere Fragen stehen wir Dir gerne zur Verfügung! Mara Leonardi (E-Mail: m.leonardi@bangor.ac.uk)

Einverständniserklärung

Ich stimme zu, dass ich an der Studie teilnehme und verstehe dass:

1. Die Teilnahme freiwillig ist.
2. Mein Recht auf Anonymität und Vertraulichkeit der Informationen respektiert wird.
3. Ich jederzeit die Studie abbrechen kann, ohne irgendwelche Gründe nennen zu müssen.
4. Ich der Archivierung und Analyse der gesammelten Daten zustimme. Des Weiteren bin ich mit der Veröffentlichung der Daten einverstanden (z.B. wissenschaftliche Publikationen, Konferenzen, Vorlesungen).

“Bangor University Human Ethics committee” hat der Studie und deren Ablauf zugestimmt.

Fragebogen

Betreffend einer Studie der Universität Bangor in Wales (GB), bitten wir Dich die unten angeführten Fragen zu Deinen sprachlichen Gewohnheiten zu beantworten. Um einen größeren Erfolg der Studie garantieren zu können, sollten Deine Antworten sehr präzise sein. Vielen Dank für Deine Mitarbeit!

1. Welche Fremdsprachen sprichst Du? Bitte kreuze auch das entsprechende Niveau an:

<i>Sprachen</i>	<i>keine Sprachkenntnisse</i>	<i>elementare Sprachverwendung</i>	<i>selbstständige Sprachverwendung</i>	<i>kompetente Sprachverwendung</i>
Englisch				
Französisch				
Italienisch				
Spanisch				
Chinesisch				
Russisch				
Latein				
Andere Sprache				
Andere Sprache				

2. Welche Sprachen/Dialekte werden in Deiner Familie gesprochen? (Bitte kreuze eine oder mehrere zutreffende Antworten an):

- Hochdeutsch
- Dialekt/e: spezifiziere den/die Dialekt/e **und** das Bundesland _____
- Sonstige Sprachen: spezifiziere _____

3. Welche Sprachen/Dialekte haben Deine Eltern und Großeltern während Deiner Kindheit gesprochen? (Kreuze eine oder mehrere zutreffende Antworten an):

- Hochdeutsch
- Dialekt/e: spezifiziere den/die Dialekt/e **und** das Bundesland _____
- Sonstige Sprachen: spezifiziere _____

4. Wie oft warst Du in den folgenden Regionen? Kreuze die zutreffende Antwort an.

	Nie	Sehr selten	Manchmal	Oft	Sehr oft
a. Sachsen					
b. Berlin					
c. Südtirol					
d. Baden-Württemberg					

5. Kreuze an mit welcher Regelmäßigkeit Du Personen siehst oder gesehen hast, die in Deiner Anwesenheit einen Dialekt der folgenden Regionen sprechen/gesprochen haben.

	Nie	Sehr selten	Manchmal	Oft	Sehr oft
a. Sachsen					
b. Berlin					
c. Südtirol					
d. Baden-Württemberg					

6. Auf einer Skala von 1 bis 5, kreuze an wie gerne Du in den folgenden Regionen leben möchtest:

	1 Überhaupt nicht gerne	2	3	4	5 Sehr gerne
a. Sachsen					
b. Berlin					
c. Südtirol					
d. Baden-Württemberg					

7. Auf einer Skala von 1 bis 5, kreuze an was Du von den Dialekten der folgenden Regionen denkst:

	1 Schrecklich	2	3	4	5 Sehr schön
a. Sachsen					
b. Berlin					
c. Südtirol					
d. Baden-Württemberg					

8. Drücke bei den folgenden Aussagen Deinen Grad der Zustimmung aus, indem Du ein **X** setzt.

Überhaupt nicht einverstanden	Wenig einverstanden	Weder noch	Ziemlich einverstanden	Vollkommen einverstanden
1	2	3	4	5

Ich würde gerne Sächsisch sprechen.	1	2	3	4	5
Ich würde gerne Berlinerisch sprechen.	1	2	3	4	5
Ich würde gerne Südtirolerisch sprechen.	1	2	3	4	5
Ich würde gerne Schwäbisch sprechen.	1	2	3	4	5

9. ANAGRAFISCHE DATEN

Alter: _____

Geschlecht: M / F

Herkunftsort **und** Bundesland: _____

Studienort/e und/oder Arbeitsplatz **und** Bundesland: _____

Vielen Dank für Deine Mitarbeit!

Appendix A4. *Original SPIN Sentences in English.*

Example sentence 1: Football is a dangerous sport.

Example sentence 2: A bear has a thick coat of fur.

1. Tear off some paper from the pad.
2. Hold the baby on your lap.
3. To open the jar, twist the lid.
4. Instead of a fence, plant a hedge.
5. A spoiled child is a brat.
6. Air mail requires a special stamp.
7. The sandal has a broken strap.
8. I've got a cold and a sore throat.
9. Keep your broken arm in a sling.
10. Crocodiles live in muddy swamps.
11. The pond was full of croaking frogs.
12. A bicycle has two wheels.
13. Wash the floor with a mop.
14. Cut the meat into small chunks.
15. A termite looks like an ant.
16. Our seats were in the second row.
17. All the flowers were in bloom.
18. It was stuck together with glue.

Appendix A5. List of 18 stimuli in Standard German and South Tyrolean Bavarian.

Ex. Nr.	Orthographic version	Phonetic transcription	
	<i>Standard German</i>	<i>Standard German</i>	<i>South Tyrolean Bavarian</i>
1	Reis einige Blätter vom Block ab.	[rais ainigə blətə fɔm blɔk ap]	[rais o a po:r platln fɔn plɔk]
2	Halte das Baby auf deinem Schoß.	[haltə das beibi auf dainəm ʃo:s]	[heps popələ af dain ʃəs]
3	Um das Glas zu öffnen, dreh den Deckel.	[ʊm das glas tsu œfnən, dre: den dɛkl]	[ums gla:sl autsutian, dra:n in dɛkl]
4	Anstelle eines Zauns, pflanze eine Hecke.	[aɪ̯stɛlə ainəs tsauns, pflantsə ainə hɛkə]	[ʃtɔttɪn tsaun, sets a heg]
5	Ein verwöhntes Kind ist eine Plage.	[ain fɛəvø:ntəs kɪnt ɪst ainə plɑ:gə]	[a fɔrve:nts kɪnt ɪʃ a plo:g]
6	Luftpost braucht eine eigene Briefmarke.	[lʊftpɔst brauxt einə aɪgənə bri:fmarkə]	[luftpɔʃt braux an aɪgənə briaufmark]
7	Die Sandale hat ein kaputtes Band/einen kaputten Riemen.	[di: zandalə hat ain kapɔtəs bant/ainən kapɔtən ri:mən]	[dɔ pɔʃ hət a hɪ:nɪgs pantl]
8	Ich bin erkältet und hab Halsschmerzen/Halsweh.	[ɪç bɪn ɛrkɛltət ʊnt ha:b halsʃmɛrtsən/ halsve:]	[ɪ pin fɔrkialt unt hɔn hɔlsvea]
9	Behalte deinen gebrochenen Arm in der Schlinge.	[bəhaltə dainən gɛbrɔxənən arm in dɛʒ ʃlɪŋə]	[kɔlt dain ɔrm in dɔ ʃlɪŋ]
10	Krokodile leben in trüben Sümpfen.	[krokodi:lə le:bən in try:bən zɪmpfn]	[krokodilə lebɪn in triabə simpfn]
11	Der Teich war voll mit quakenden Fröschen.	[dɛʒ tɛɪç va:ʒ fɔl mɪt kva:kəndən frœʃən]	[dɔ tɛɪx wo:r fol mɪt kua:kəndən frɛʃ]
12	Ein Fahrrad hat zwei Reifen.	[ain fa:r:at hat tsvai raifən]	[a ra:dl hət tsvɔə rœfn]
13	Wisch den Boden mit einem Putzlappen/ Wischmopp.	[vɪʃ de:n bɔ:dən mɪt ainəm pɔtslapən/ vɪʃmɔp]	[vɪʃ in poun mɪt an hu:dər]
14	Schneid das Fleisch in kleine Stücke/Stückchen.	[ʃnaɪd das flaiʃ in klainə ʃtykə/ ʃtykçən]	[ʃnaitʃ flaiʃ in kluanə ʃtikln]
15	Eine Termitte ähnelt einer Ameise.	[ainə tɛrmitɛ ɛ:nɔtl ainər a:maizə]	[a tɛrmit ʃaug aus vɪɛ an u:mɔəs]
16	Unsere Sitze waren in der zweiten Reihe.	[ʊnzərə zɪtsə va:rən in dɛʒ tsvaitn raiə]	[ɪnsrə sɪts vo:rɪn in dɔ tsvɔatn rai]
17	Alle Blumen waren in Blüte.	[alə blu:mən va:rən in bly:tə]	[ɔlə bluamən vo:rɪn in plua]
18	Zusammengeklebt war es mit Klebstoff.	[tsuzaməŋgɛkle:bt vaʒ ɛs mɪt kle:bʃtɔf]	[tsəmgepɪkt vo:rs mɪtn pɪk]

Appendix A6. List of keywords used in the experiment.

Ex. Nr.	Cognates/ Non-Cognates	Orthographic version		Phonetic transcription	
		English target word	German translation	Standard German	South Tyrolean Bavarian
1	Cognate	pad	Block	[blɔk]	[plɔk]
2	Cognate	lap	Schoß	[ʃo:s]	[ʃɔəs]
3	Cognate	lid	Deckel	[dɛkl]	[dɛkl]
4	Cognate	hedge	Hecke	[hɛkə]	[hɛg]
5	Cognate	brat	Plage	[pla:gə]	[plo:g]
6	Cognate	stamp	Briefmarke	[bri:fmarkə]	[briafmark]
7	Cognate	strap	Band/ Riemen	[bant], [ri:mən]	[pantl]
8	Cognate	sore throat	Halsschmerzen/ Halsweh	[halsʃmertsən], [halsve:]	[hɔlsvea]
9	Cognate	sling	Schlinge	[ʃliŋə]	[ʃliŋ]
10	Cognate	swamps	Sümpfen	[zympfən]	[simpl]
11	Cognate	frogs	Fröschen	[frɔʃən]	[freʃ]
12	Cognate	wheels	Reifen	[raifən]	[rɔəfn]
13	Non-Cognate	mop	Wischmopp	[pɔtslapən], [vɪʃmɔp]	[hu:dɔr]
14	Cognate	chunks	Stücke/ Stückchen	[ʃtykə], [ʃtykçən]	[ʃtikln]
15	Cognate	ant	Ameise	[a:maizə]	[u:mɔəs]
16	Cognate	row	Reihe	[raɪə]	[rai]
17	Cognate	bloom	Blüte	[bly:tə]	[plua]
18	Non-Cognate	glue	Kleber	[kle:bʃtɔf]	[pik]

Appendix B1. *English Consent Form and Questionnaire used in South Tyrol.*

The questionnaire was provided in German only, but has been translated into English for this dissertation.

Introduction

Thank you for answering the following questions. If you would like information about the results, do not hesitate to get in touch with the researcher at the following address: m.leonardi@bangor.ac.uk (Mara Leonardi). We will be more than happy to tell you more about the goals and results. We would like to remind you that all answers are going to be treated very confidential!

Parental Consent Form

I agree that my child/ my children _____ participates/ participate in the research project and understand that:

1. Participation is entirely voluntary.
2. The rights to anonymity and confidentiality will be respected.
3. I have the right to withdraw from the research at any point without any need to motivate my decision.
4. I agree to the archiving and analysis of the collected data and also to the representation and circulation within a scientific context (e.g., scientific publications/journals, meetings, conferences, and lectures).

The *Bangor University Human Ethics committee* has approved the study protocol and procedures.

Questionnaire

1. Languages used at home. Please tick one or more options.

Language(s) used...	Bavarian	German	Italian	Other language. Which?	n/a
...by mother to the child.					
...by father to the child.					
...by child to the mother.					
...by child to the father.					
...by child to other siblings.					
...by child to other children.					

2. Language proficiency: please tick your proficiency. The expressions (1)-(4) are explained in more detail under the table.

	Mother/Guardian #1			Father/Guardian #2		
	Bavarian	German	Italian	Bavarian	German	Italian
Native language						
Very fluent (1)						
Quite fluent (2)						
Somewhat fluent (3)						
Limited fluency (4)						
Virtually no fluency						

- (1) Can carry out any kind of conversation in almost any situation.
- (2) Can carry out some extended conversations.
- (3) Can carry out simple conversations.
- (4) Can only use basic words and expressions.

3. On the continuum, please calculate the percentage use of the following languages spoken at home on an average day. Please tick ONE option per column.

	Percentage				
	100% (<i>always</i>)	75% (<i>very often</i>)	50% (<i>often</i>)	25% (<i>occasionally</i>)	0% (<i>never</i>)
Bavarian					
German					
Italian					

4. How many times do you read to your child/children per week? Please tick ONE option.

- Never
- Once a week
- 2-5 times a week
- More than 5 times a week
- Don't know

5. In which language do you read to the child/children? Please tick ONE or MORE options.

- Bavarian
- German
- Italian
- Other language(s): which? _____

6. How many hours per day does your child/do your children watch TV or movies? Please tick ONE option.

- None
- Less than 1 hour per day
- One hour per day
- 2-5 hours per day
- More than 5 hours per day
- Don't know

7. In which language does your child/do your children watch TV? Please tick ONE or MORE options.

- Bavarian
- German
- Italian
- Other language(s): which? _____

8. Please tick whether you agree or disagree with the following statements.

	Strongly agree	Agree	Disagree	Strongly disagree
1. My child has problems in understanding German.				
2. Instead of German, Bavarian should be the variety spoken to the children in kindergartens.				
3. The early contact with German poses a danger to the local Bavarian variety.				
4. German language learning creates a challenge for my child.				
5. For the future of my child it is important that he/she already learns German in the kindergarten.				

In this section we ask you to give some (demographic) information about you and your child.

- City or town of residence _____
- Name of the child _____
- Date of birth _____
- Gender f m
- Place of birth _____
- Number of children within the family _____
- Does the child in question have older siblings? yes no
If **YES**, how old is the other sibling/are the siblings? _____
- Since when does your child attend the kindergarten? (month and year) _____
- Does your child have any language impairments? yes no

9. Level of education: Please tick the highest qualification of the child's mother and father.

Highest qualification	Mother of the child	Father of the child
Secondary School		
College		
University, Bachelor's degree		
University, Master's degree		
University, PhD		
Professional qualification		
None		

10. Occupation: Please write down the occupation of the child's mother and father.

- Occupation of the child's mother/guardian #1 _____
- Occupation of the child's father/guardian #2 _____

PARENT/GUARDIAN

Printed name *Signature* *Location and Date*

RESEARCHER

Mara Leonardi

Printed name *Signature* *Location and Date*

Appendix B2. German Consent Form and Questionnaire used in South Tyrol.

Einführung

Vielen Dank für die Teilnahme an der Studie. Wir möchten Sie daran erinnern, dass alle Informationen streng vertraulich behandelt werden! Falls Sie Informationen zu den Ergebnissen der Studie haben möchten, kontaktieren Sie bitte die Doktorandin Mara Leonardi unter der folgenden E-Mail Adresse: m.leonardi@bangor.ac.uk.

Einverständniserklärung der Eltern

Ich stimme zu, dass mein Kind/meine Kinder _____ an der Studie teilnehmen kann/können und verstehe dass,

1. Die Teilnahme freiwillig ist.
2. Mein Recht auf Anonymität und Vertraulichkeit der Informationen respektiert wird.
3. Ich jederzeit die Studie abbrechen kann, ohne irgendwelche Gründe nennen zu müssen.
4. Ich der Archivierung und Analyse der gesammelten Daten zustimme. Des Weiteren bin ich mit der Veröffentlichung der Daten einverstanden (z.B. wissenschaftliche Publikationen, Konferenzen, Vorlesungen).

Das "Bangor University Human Ethics committee" hat der Studie und deren Ablauf zugestimmt.

Fragebogen

1. Welche Sprache(n) wird/werden bei Ihnen zu Hause gesprochen? Mehrere Antwortmöglichkeiten pro Spalte möglich.

Sprache(n) verwendet...	Südt. Dialekt	Deutsch	Italienisch	Andere Sprache(n). Welche?	Nicht zutreffend
...von der Mutter zum Kind.					
...vom Vater zum Kind.					
...vom Kind zur Mutter.					
...vom Kind zum Vater.					
...unter den Geschwistern.					
...vom Kind zu anderen Kindern.					

2. Bitte kreuzen Sie an, wie gut Sie folgende Sprachen sprechen und setzen Sie **EIN X** pro Spalte. Die Ausdrücke (1)-(4) werden unter der Tabelle kurz erklärt.

	Mutter			Vater		
	Südt. Dialekt	Deutsch	Italienisch	Südt. Dialekt	Deutsch	Italienisch
Muttersprache						
Fließende Sprachkenntnisse (1)						
Gute Sprachkenntnisse (2)						
Schlechte Sprachkenntnisse (3)						
Sehr schlechte Sprachkenntnisse (4)						
Keine Sprachkenntnisse						

- (1) *In (fast) jeder Situation kann ich in dieser Sprache eine erfolgreiche Konversation führen.*
 (2) *Ich kann mich in dieser Sprache gut verständigen und unterhalten.*
 (3) *Ich kann in dieser Sprache eine einfache Unterhaltung führen.*
 (4) *Ich kann in dieser Sprache nur einfache Wörter und Ausdrücke verwenden.*

3. Bitte berechnen Sie wie oft Sie die folgenden Sprachen zu Hause an einem durchschnittlichen Tag sprechen und geben Sie den entsprechenden Prozentsatz an. Setzen Sie **EIN X** pro Spalte.

	Percentage				
	100% (<i>immer</i>)	75% (<i>sehr oft</i>)	50% (<i>oft</i>)	25% (<i>manchmal</i>)	0% (<i>nie</i>)
Südtiroler Dialekt					
Hochdeutsch					
Italienisch					

4. Wie oft wird Ihrem Kind/Ihren Kindern zu Hause ein Buch vorgelesen (pro Woche)? Bitte kreuzen Sie **EINE** Option an:

- Nie
- 1 Mal pro Woche
- 2-5 Mal pro Woche
- Öfters als 5 Mal pro Woche
- Ich weiß es nicht

5. In welcher Sprache wird Ihrem Kind/Ihren Kindern vorgelesen? Mehrere Antwortmöglichkeiten möglich:

- Südtiroler Dialekt
- Hochdeutsch
- Italienisch
- Andere Sprache(n): welche? _____

6. Wie viele Stunden schaut Ihr Kind/schauen Ihre Kinder am Tag fern? Bitte kreuzen Sie **EINE** Möglichkeit an.

- Nie
- Weniger als 1 Stunde am Tag
- 1 Stunde am Tag
- 2-5 Stunden am Tag
- Mehr als 5 Stunden am Tag
- Ich weiß es nicht

7. In welcher Sprache schaut Ihr Kind/schauen Ihre Kinder fern? Mehrere Antwortmöglichkeiten möglich.

- Südtiroler Dialekt
- Hochdeutsch
- Italienisch
- Andere Sprache(n): welche? _____

8. Kreuzen Sie an ob Sie den folgenden Aussagen zustimmen oder nicht. Bitte lesen Sie die Aussagen sorgfältig durch.

	Vollkommen einverstanden	Ziemlich einverstanden	Wenig einverstanden	Überhaupt nicht einverstanden
1. Der frühe Kontakt mit dem Hochdeutschen stellt für den Südtiroler Dialekt eine Gefahr dar.				
2. Anstelle des Hochdeutschen, sollte im Kindergarten immer im Südtiroler Dialekt mit den Kindern gesprochen werden.				
3. Der Spracherwerb des Hochdeutschen stellt für mein Kind eine Herausforderung dar.				
4. Für die Zukunft meines Kindes finde ich wichtig, dass es bereits im Kindergarten Hochdeutsch lernt.				
5. Mein Kind hat Schwierigkeiten Hochdeutsch zu verstehen.				

In diesem Abschnitt bitten wir Sie uns einige Informationen zu Ihnen und Ihrem Kind zu geben. Alle Informationen werden streng vertraulich behandelt!

- Wohnort der Familie _____
- Geburtsdatum des Kindes _____
- Geschlecht des Kindes w m
- Geburtsort _____
- Anzahl der Kinder in der Familie _____
- Hat das besagte Kind ältere Geschwister? ja nein
 Wenn JA, wie alt sind die Geschwister? _____
- Seit wann geht Ihr Kind in den Kindergarten (Monat und Jahr)? _____
- Hat Ihr irgendwelche Sprachverzögerungen oder Sprachstörungen? ja nein

9. Bitte kreuzen Sie den höchsten abgeschlossenen Bildungsgrad der Mutter und des Vaters an:

Abschluss	Mutter des Kindes	Vater des Kindes
Mittelschulabschluss		
Oberschulabschluss		
Bachelorabschluss		
Masterabschluss		
Forschungsdoktorat oder Doktoratsstudium		
Beruflicher Abschluss (z.B. Geselle, Meister)		
Kein Abschluss		

10. Bitte geben Sie den Beruf der Mutter und des Vaters an:

- Beruf der Mutter _____
- Beruf des Vaters _____

UNTERSCHRIFT EINES ELTERNTEILS/ ERZIEHUNGSBERECHTIGTEN

Druckschrift

Unterschrift

Ort und Datum

DOKTORANDIN

Mara Leonardi

Druckschrift

Unterschrift

Ort und Datum

Appendix B3. English Consent Form and Questionnaire used in Germany.

Introduction

Thank you for answering the following questions. If you would like information about the results, do not hesitate to get in touch with the researcher at the following address: m.leonardi@bangor.ac.uk (Mara Leonardi). We will be more than happy to tell you more about the goals and results. We would like to remind you that all answers are going to be treated very confidential!

Parental Consent Form

I agree that my child/ my children _____ participates/ participate in the research project and understand that:

1. Participation is entirely voluntary.
2. The rights to anonymity and confidentiality will be respected.
3. I have the right to withdraw from the research at any point without any need to motivate my decision.
4. I agree to the archiving and analysis of the collected data and also to the representation and circulation within a scientific context (e.g., scientific publications/journals, meetings, conferences, and lectures).

The “Bangor University Human Ethics committee” has approved the study protocol and procedures.

Questionnaire

1. Please tick mother’s and father’s native language.

Native language	Mother	Father
German		
German dialect. Which one?		

2. Languages used at home. Please tick one or more options.

Language(s) used...	German	Dialect. Which one?	n/a
...by mother to the child.			
...by father to the child.			
...by child to the mother.			
...by child to the father.			
...by child to other siblings.			
...by child to other children.			

3. On the continuum, please calculate the percentage use of the following languages spoken at home on an average day. Please tick ONE option per column, only specify with “other language(s)”.

	Percentage				
	100% (<i>always</i>)	75% (<i>very often</i>)	50% (<i>often</i>)	25% (<i>occasionally</i>)	0% (<i>never</i>)
German					
Dialect					

4. How many times do you read to your child/children per week? Please tick ONE option.

- Never
- Once a week
- 2-5 times a week
- More than 5 times a week
- Don't know

5. In which language do you read to the child/children? Please tick ONE or MORE options.

- German
- Other language(s): which? _____

6. How many hours a day does your child/do your children watch TV or movies? Please tick ONE option.

- None
- Less than 1 hour per day
- One hour per day
- 2-5 hours per day
- More than 5 hours per day
- Don't know

7. In which language does your child/do your children watch TV? Please tick ONE or MORE options.

- German
- Other language(s): which? _____

In this section we ask you to give some (demographic) information about you and your child.

- City or town of residence _____
- Name of the child _____
- Date of birth _____
- Gender f m
- Place of birth _____
- Number of children within the family _____
- Does the child in question have older siblings? yes no
If **YES**, how old is the other sibling/are the siblings? _____
- Since when does your child attend the kindergarten? (month and year) _____
- Has your child any language impairments? yes no

8. Level of education: Please tick the highest qualification of the child's mother and father.

Highest qualification	Mother of the child	Father of the child
Secondary School		
College		
University, Bachelor's degree		
University, Master's degree		
University, PhD		
Professional qualification		
None		

9. Occupation: Please write down the occupation of the child's mother and father.

- Occupation of the child's mother/guardian #1 _____
- Occupation of the child's father/guardian #2 _____

PARENT/GUARDIAN

Printed name *Signature* *Location and Date*

RESEARCHER

Mara Leonardi

Printed name *Signature* *Location and Date*

Appendix B4. German Consent Form and Questionnaire used in Germany.

Einführung

Vielen Dank für die Teilnahme an der Studie. Wir möchten Sie daran erinnern, dass alle Informationen streng vertraulich behandelt werden! Falls Sie Informationen zu den Ergebnissen der Studie haben möchten, kontaktieren Sie bitte die Doktorandin Mara Leonardi unter der folgenden E-Mail Adresse: m.leonardi@bangor.ac.uk.

Einverständniserklärung der Eltern

Ich stimme zu, dass mein Kind/meine Kinder _____ an der Studie teilnehmen kann/können und verstehe dass,

1. Die Teilnahme freiwillig ist.
2. Mein Recht auf Anonymität und Vertraulichkeit der Informationen respektiert wird.
3. Ich jederzeit die Studie abbrechen kann, ohne irgendwelche Gründe nennen zu müssen.
4. Ich der Archivierung und Analyse der gesammelten Daten zustimme. Des Weiteren bin ich mit der Veröffentlichung der Daten einverstanden (z.B. wissenschaftliche Publikationen, Konferenzen, Vorlesungen).

“Bangor University Human Ethics committee” hat der Studie und deren Ablauf zugestimmt.

Fragebogen

1. Bitte kreuzen Sie die Muttersprache der Mutter und des Vaters an.

Muttersprache	Mutter	Vater
Hochdeutsch		
Deutscher Dialekt. Welcher?		

2. Welche Sprache/welcher Dialekt wird bei Ihnen zu Hause gesprochen? Mehrere Antwortmöglichkeiten pro Spalte möglich.

Sprache/Dialekt verwendet...	Hochdeutsch	Dialekt. Welcher? ¹	Nicht zutreffend
... von der Mutter zum Kind.			
... vom Vater zum Kind.			
... vom Kind zur Mutter.			
... vom Kind zum Vater.			
... unter den Geschwistern.			
... vom Kind zu anderen Kindern.			

¹ Bitte nur ankreuzen, wenn der Dialekt regelmäßig gesprochen wird.

3. Wie oft wird Hochdeutsch/ Dialekt bei Ihnen zu Hause an einem durchschnittlichen Tag gesprochen? Geben Sie den entsprechenden Prozentsatz an, indem Sie **EIN X** pro Spalte setzen.

	Percentage				
	100% (<i>immer</i>)	75% (<i>sehr oft</i>)	50% (<i>oft</i>)	25% (<i>manchmal</i>)	0% (<i>nie</i>)
Hochdeutsch					
Dialekt					

4. Wie oft wird Ihrem Kind ein Buch zu Hause vorgelesen (pro Woche)? Bitte kreuzen Sie **EINE** Option an:

- Nie
- 1 Mal pro Woche
- 2-5 Mal pro Woche
- Öfters als 5 Mal pro Woche
- Ich weiß es nicht

5. In welcher Sprache wird Ihrem Kind vorgelesen? Mehrere Antwortmöglichkeiten möglich:

- Hochdeutsch
- Andere Sprache(n): welche? _____

6. Wie viele Stunden schaut Ihr Kind am Tag fern? Bitte kreuzen Sie **EINE** Möglichkeit an.

- Nie
- Weniger als 1 Stunde am Tag
- 1 Stunde am Tag
- 2-5 Stunden am Tag
- Mehr als 5 Stunden am Tag
- Ich weiß es nicht

7. In welcher Sprache schaut Ihr Kind fern? Mehrere Antwortmöglichkeiten möglich.

- Hochdeutsch
- Andere Sprache(n): welche? _____

In diesem Abschnitt bitten wir Sie uns einige Informationen zu Ihnen und Ihrem Kind zu geben. Alle Informationen werden streng vertraulich behandelt!

- Wohnort der Familie _____
- Geburtsdatum des Kindes _____
- Geburtsort _____
- Geschlecht des Kindes w m
- Anzahl der Kinder in der Familie _____
- Hat das besagte Kind ältere Geschwister? ja nein
Wenn **JA**, wie alt sind die Geschwister? _____
- Seit wann geht Ihr Kind in den Kindergarten (Monat und Jahr)? _____
- Hat Ihr Kind irgendwelche Sprachverzögerungen oder Sprachstörungen? ja nein

8. Bitte kreuzen Sie den höchsten abgeschlossenen Bildungsgrad der Mutter und des Vaters an:

Abschluss	Mutter	Vater
Beruflicher Abschluss (z.B. Friseur)		
Hauptschulabschluss		
Realschulabschluss		
Fachabitur		
Allgemeine Hochschulreife		
Bachelorabschluss		
Masterabschluss		
Forschungsdoktorat oder Doktoratsstudium		
Kein Abschluss		

9. Bitte geben Sie den Beruf der Mutter und des Vaters an:

- Beruf der Mutter _____
- Beruf des Vaters _____

UNTERSCHRIFT EINES ELTERNTEILS/ ERZIEHUNGSBERECHTIGTEN

Druckschrift *Unterschrift* *Ort und Datum*

DOKTORANDIN

Mara Leonardi

Druckschrift *Unterschrift* *Ort und Datum*

Appendix B5. Example sentences extracted from the TROG-D (Fox, 2013).

	Sentence	German stimuli	English translation
Block A	A1	Schuh	Shoe
	A2	Vogel	Bird
	A3	Kamm	Comb
	A4	Apfel	Apple


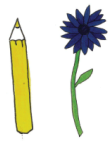


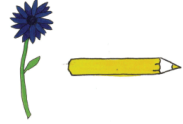




Block A

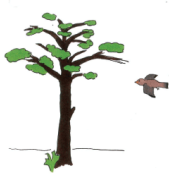

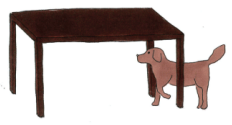






A1		A2	
<div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> 1 A1 2 </div>	<div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> 1 A2 2 </div>		
<div style="display: flex; justify-content: space-between; margin-top: 5px;"> 3 4 </div>	<div style="display: flex; justify-content: space-between; margin-top: 5px;"> 3 4 </div>		

A3		A4	
<div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> 1 A3 2 </div>	<div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> 1 A4 2 </div>		
<div style="display: flex; justify-content: space-between; margin-top: 5px;"> 3 4 </div>	<div style="display: flex; justify-content: space-between; margin-top: 5px;"> 3 4 </div>		

	Sentence	German stimuli	English translation
Block J	J1	Der Stift ist über der Blume.	The pen is above the flower.
	J2	Der Kamm ist unter dem Löffel.	The comb is under the spoon.
	J3	Der Vogel fliegt über den Baum.	The bird flies above the tree.
	J4	Der Hund läuft unter den Tisch.	The dog walks under the table.

Block J

J1		J2	
1	J1	2	J2
			
3		4	
			
			

J3		J4	
1	J3	2	J4
			
3		4	
			
			

Appendix B6. *Original Record Form (Fox, 2013): Summary.*

TROG-D

Test zur Überprüfung des Grammatikverständnisses

Protokollbogen

Name	Geburtsdatum	
Geschlecht M <input type="checkbox"/> W <input type="checkbox"/>	Testdatum	
Einsprachig <input type="checkbox"/> Mehrsprachig <input type="checkbox"/> Deutsch seit:	Alter	
Kommentar		

Quantitative Analyse			
		altersspezifischer	
		Rohwert	Prozentrang
Anzahl der Blöcke korrekt			

Anzahl der Wiederholungen	
Anzahl der Selbstkorrekturen	

Qualitative Analyse						
	Zielstruktur	Ergebnis*	Fehleranalyse pro Item			
			1	2	3	4
A	Substantive					
B	Verben					
C	Adjektive					
D	2-Element Sätze					
E	3-Element Sätze					
F	Negation					
G	Präpositionen „in“ und „auf“					
H	Perfekt					
I	Plural					
J	Präpositionen „über“ und „unter“					
K	Passiv					
L	Personalpronomen Nominativ					
M	Relativsatz					
N	Personalpronomen Akkusativ / Dativ					
O	Doppelobjektkonstruktion					
P	Subordination mit „während / nachdem“					
Q	Topikalisierung					
R	Disjunktive Konjunktion „weder – noch“					
S	Relativsatz (Pronomen im Akkusativ / Dativ)					
T	Koordination mit „und“					
U	Subordination mit „dass“					
Erreichter Gesamtpunktwert						

Appendix B7. Original Record Form (Fox, 2013): German stimuli.

TROG-D Test zur Überprüfung des Grammatikverständnisses Protokollbogen

A	1 Schuh 2 Vogel 3 Kamm 4 Apfel			1 2 3 2
B	1 trinken 2 pflücken 3 sitzen 4 laufen	2 1 3 4		4 1 2 3
C	1 groß 2 lang 3 rot 4 schwarz		2 3 1 4	4 3 1 2
D	1 Der Junge läuft 2 Der Hund sitzt 3 Die große Tasse 4 Der rote Ball	2 1 2 3		4 1 2 4
E	1 Der Mann isst den Apfel. 2 Das Mädchen pflückt die Blume. 3 Die Frau trägt die Tasche. 4 Der Junge schaut das Pferd an.		3 2 4 1	
F	1 Das Mädchen springt nicht. 2 Der Hund sitzt nicht. 3 Der Junge läuft nicht. 4 Der Hund trinkt nicht.		3 1 3 1	3 1 2 2
G	1 Das Messer ist auf dem Schuh. 2 Der Stift ist in der Kiste. 3 Der Stift ist auf dem Buch. 4 Die Tasse ist in der Kiste.	2 1 3 4		4 2 2 3
H	1 Das Mädchen hat ein Bild gemalt. 2 Der Junge hat die Blumen gepflückt. 3 Das Mädchen hat sich den Arm gebrochen. 4 Der Junge hat gegessen.		4 2 1 3	
I	1 Die Katzen schauen den Ball an. 2 Der Junge steht auf den Stühlen. 3 Die Jungen pflücken die Äpfel. 4 Das Mädchen lässt die Tassen fallen.	3 1 3 2		3 1 4 4
J	1 Der Stift ist über der Blume. 2 Der Kamm ist unter dem Löffel. 3 Der Vogel fliegt über den Baum. 4 Der Hund läuft unter den Tisch.		2 1 3 3	
K	1 Das Mädchen wird vom Pferd gejagt. 2 Der Elefant wird vom Jungen geschoben. 3 Das Pferd wird vom Mann gejagt. 4 Die Kuh wird vom Jungen geschoben.			
L	1 Sie pflückt die Blumen. 2 Sie schauen das Pferd an. 3 Er schiebt den Elefanten. 4 Sie lassen die Tassen fallen.			
M	1 Der Junge, der das Pferd jagt, ist dick. 2 Die Kuh, die den Hund jagt, ist schwarz. 3 Der Stift ist auf dem Buch, das gelb ist. 4 Das Mädchen jagt den Hund, der groß ist.	2 3 1 4		
N	1 Das Pferd schaut sie an. 2 Der Elefant trägt sie. 3 Sie gibt ihm einen Ball. 4 Er gibt ihr eine Tasse.		2 1 2 3	
O	1 Die Frau malt dem Jungen das Mädchen. 2 Der Mann gibt die Katze dem Hund. 3 Die Frau malt dem Mädchen den Jungen. 4 Der Mann gibt den Hund der Katze.			2 1 3 4
P	1 Während der Junge isst, liest er. 2 Während das Mädchen reitet, isst es einen Apfel. 3 Nachdem der Junge gegessen hat, liest er. 4 Nachdem das Mädchen geritten ist, isst es einen Apfel.			
Q	1 Den braunen Hund jagt das Pferd. 2 Den Elefanten schiebt das Mädchen. 3 Dem Mädchen gibt der Junge Blumen. 4 Dem Jungen gibt das Mädchen einen Apfel.			
R	1 Weder der Hund noch der Ball ist braun. 2 Der Stift ist weder lang noch rot. 3 Weder der Junge noch das Pferd rennt. 4 Der Junge hat weder Hut noch Schuhe.			1 4 2 2
S	1 Das Buch, auf dem der Stift ist, ist rot. 2 Der Hund, den die Kuh jagt, ist braun. 3 Die Tasse, in der die Kiste ist, ist gelb. 4 Der Junge, den der Hund jagt, ist groß.			
T	1 Der Junge schaut das Pferd an und steht. 2 Der Schuh ist auf dem Stift und ist blau. 3 Der Junge jagt das Mädchen und hat einen Hut. 4 Der Stern ist in dem Kreis und ist rot.			
U	1 Die Frau sieht, dass das Mädchen auf sie zeigt. 2 Der Junge sieht, dass die Frau sich sieht. 3 Die Frau sieht, dass das Mädchen auf sich zeigt. 4 Der Junge sieht, dass die Frau sie sieht.		4 3 4 1	1 1 4 4

REFERENCES

- Abel, A. (2007). Werkstattbericht über das Projekt 'Die Südtiroler SchülerInnen und die Zweitsprache: eine linguistische und sozialpsychologische Untersuchung' [Report about the project 'South Tyrolean pupils and second language: a linguistic and sociopsychological survey']. *Linguistik online*, 32 (3), pp. 3-14.
- Abel, A. (2009). Mehrsprachigkeit in Südtirol. Alles bleibt anders? [Multilingualism in South Tyrol. Everything remains different?] *Geographische Rundschau*, 61 (3), pp. 20-27.
- Abel, A., Anstein, S. & Petrakis, S. (2009). Die Initiative Korpus Südtirol [The initiative Corpus South Tyrol]. *Linguistik online*, 38 (2), pp. 5-12.
- Abel, A., Vettori, C. & Forer, D. (2012a). Learning the neighbour's language: The many challenges in achieving a real multilingual society. The case of second language acquisition in the minority-majority context of South Tyrol. *European Yearbook of Minority Issues*, 9 (1), pp. 271-303.
- Abel, A., Vettori, C. & Wisniewski, K. (2012b). *KOLIPSI. Gli studenti altoatesini e la seconda lingua: indagine linguistica e psicosociale. Die Südtiroler SchülerInnen und die Zweitsprache: eine linguistische und sozialpsychologische Untersuchung* [KOLIPSI. South Tyrolean pupils and second language: a linguistic and socialpsychological survey]. Volume 1-Band 1. Bozen: Europäische Akademie Bozen.
- Abel, A. & Aivars, G. (2015). Wo Sprachkompetenzforschung auf Varietätenlinguistik trifft: Empirische Befunde aus dem Varietäten-Lernerkorpus "KoKo" [Where language fluency research and variation sociolinguistics meet each other: empirical evidence from the variety-learner-corpus "KoKo"]. In A. Lenz, T. Ahlers & M. Glauninger (eds.), *Dimensionen des Deutschen in Österreich. Variation und Varietäten im sozialen Kontext*. (pp. 257-282). Frankfurt/Main: Peter Lang.
- Abfalterer, H. (2007). *Der Südtiroler Sonderwortschatz aus plurizentrischer Sicht. Lexikalisch-semantische Besonderheiten im Standarddeutsch Südtirols* [The South Tyrolean lexicon from a pluricentric view: lexical-semantical peculiarities in the South Tyrolean standard]. Innsbruck University Press: Innsbrucker Beiträge zur Kulturwissenschaft. Germanistische Reihe, Band 72.

- Abudarham, S. (1997). The tenability of comparing the receptive lexical proficiency of dual language learning children with standardised monoglot norms. *Educational Studies*, 23 (1), pp. 127-143.
- Abu-Rabia, S. (2000). Effects of exposure to literary Arabic on reading comprehension in a diglossic situation. *Reading and Writing: An Interdisciplinary Journal*, 13, pp. 147-157.
- Akbulut, Y. (2007). Bilingual acquisition and cognitive development in early childhood: Challenges to the research paradigm. *Elementary Education Online*, 6 (3), pp. 422-429.
- Alcock, A. (2000). From Tragedy to Triumph: The German Language in South Tyrol 1922-2000. In G. Hogan-Brun (ed.), *National Varieties of German outside Germany*. (pp. 161-194). Oxford, Bern, Bruxelles: Lang.
- Alcock, A. (2001). *The South Tyrol Autonomy: A short introduction*. University of Ulster, County Londonderry, Bozen/Bolzano, <http://www.geography.ryerson.ca/wayne/Geo773-F2013/South-Tyrol-Autonomy.pdf>, accessed 19 November 2015.
- Allman, B. (2005). Vocabulary size and accuracy of monolingual and bilingual preschool children. In K.M.J. Cohen (ed.), *ISB4: Proceedings of the 4th International Symposium on Bilingualism*. (pp. 58-77). Somerville, MA: Cascadilla Press.
- Ammon, U. (1986). Explikation der Begriffe 'Standardvarietät' und 'Standardsprache' auf normtheoretischer Grundlage [Explication of the terms 'standard variety' and 'standard language' on normtheoretical basis]. In G. Holtus & E. Radtke (eds.), *Sprachlicher Substandard*. (pp. 1-63). Tübingen: Niemeyer.
- Ammon, U. (1989). Towards a descriptive framework for the status/function (social position) of a language within a country. In U. Ammon (ed.), *Status and function of languages and language varieties*. (pp. 21-106). Berlin, New York: Walter de Gruyter.
- Ammon, U. (1994). Was ist ein deutscher Dialekt? Präzisierungsversuch einer Grundfrage der deutschen Dialektologie und der in ihr enthaltenen ungelösten Forschungsaufgaben [What is a German dialect? Attempt to specify a fundamental question of the German dialectology and its unsolved research tasks]. In K.J. Mattheier & P. Wiesinger (eds.), *Dialektologie des Deutschen. Forschungsstand und Entwicklungstendenzen*. (pp. 369-384). Tübingen: Max Niemeyer Verlag.

- Ammon, U. (1995). *Die deutsche Sprache in Deutschland, Österreich und der Schweiz. Das Problem der nationalen Varietäten* [The German language in Germany, Austria and Switzerland. The problem of the national varieties]. Berlin/New York.
- Ammon, U. (2001). Die Plurizentrität des Deutschen, oder: Wer sagt, was gutes Deutsch ist? [The pluricentricity of German, or: Who says what is good German?] In K. Egger & F. Lanthaler (eds.), *Die deutsche Sprache in Südtirol: Einheitssprache und regionale Vielfalt*. (pp. 11-26). Bozen, Wien: Folio Verlag.
- Ammon, U., Bickel, H., Ebner, J., Esterhammer, R., Gasser, M., Hofer, L., Kellermeier-Rehbein B., Löffler, H., Mangott, D., Moser, H., Schläpfer, R., Schloßmacher, M., Schmidlin, R. & Vallaster, G. (2004). *Variantenwörterbuch des Deutschen. Die Standardsprache in Österreich, der Schweiz und Deutschland sowie in Liechtenstein, Luxemburg, Ostbelgien und Südtirol* [German variety dictionary. The standard language in Austria, Switzerland and Germany as well as in Liechtenstein, Luxembourg, East-Belgium and South Tyrol]. Berlin: Walter de Gruyter.
- Anstein, S. (2007). Korpuslinguistische Fallstudien zum Südtiroler Standardschriftdeutsch - das Projekt "Korpus Südtirol" [Corpus-linguistic case studies regarding written South Tyrolean Standard German – the project "Corpus South Tyrol"]. *Linguistik online*, 32 (3), pp. 15-23.
- Anstein, S. & Glaznieks, A. (2011). Comparing Geographical and Learner Varieties on the Basis of Corpora. *Comparative Methods and Analysis in the Language Science. Proceedings of the 3rd edition of JéTou - April 2011, Toulouse, France*, pp. 179-188.
- Armon-Lotem, S., Joffe, S., Abutbul-Oz, H., Altman, C. & Walters, J. (2014). Language exposure, ethnolinguistic identity and attitudes in the acquisition of Hebrew as a second language among bilingual preschool children from Russian- and English-speaking backgrounds. In T.G. Paradis (ed.), *Input and experience in bilingual development*. (pp. 77-98). Amsterdam/Philadelphia: John Benjamins.
- Aronin, L. & Hufeisen, B. (2009). *The Exploration of Multilingualism. Development of research on L3, multilingualism and multiple language acquisition*. Amsterdam/Philadelphia: John Benjamins.
- Artiles, A. & Ortiz, A. (2002). *English Language Learners with Special Education Needs: Identification, Assessment and Instruction*. Center for Applied Linguistics and Delta Systems Co., Inc.

- ASTAT (2006). *Südtiroler Sprachbarometer 2004* [South Tyrolean language barometer 2004]. Bozen/Bolzano: Autonome Provinz Bozen-Südtirol Bozen/Provincia Autonoma di Bolzano-Alto Adige.
- ASTAT (2012a). *Bevölkerungsentwicklung. Andamento demografico* [Population development]. Bozen/Bolzano: Autonome Provinz Bozen-Südtirol Bozen/Provincia Autonoma di Bolzano-Alto Adige.
- ASTAT (2012b). *Censimento della popolazione 2011. Volkszählung 2011* [Population census 2011]. Bozen/Bolzano: Autonome Provinz Bozen-Südtirol Bozen/Provincia Autonoma di Bolzano-Alto Adige.
- ASTAT (2012c). *2013. Südtirol in Zahlen. Alto Adige in cifre* [2013. South Tyrol in numbers]. Bozen/Bolzano: Autonome Provinz Bozen-Südtirol Bozen/Provincia Autonoma di Bolzano-Alto Adige.
- ASTAT (2013). Erwerbstätigkeit. Lavoro [Occupation]. In ASTAT (ed.), *Statistisches Jahrbuch 2013/ Annuario statistico 2013*. (pp. 195-225). Bozen/Bolzano: Autonome Provinz Bozen-Südtirol Bozen/Provincia Autonoma di Bolzano-Alto Adige.
- ASTAT (2015). *Südtiroler Sprachbarometer. Sprachgebrauch und Sprachidentität in Südtirol 2014. Barometro linguistico dell'Alto Adige. Uso della lingua e identità linguistica in provincia di Bolzano 2014* [South Tyrolen language barometer. Language usage and language identity in South Tyrol 2014]. Bozen: Autonome Provinz Bozen-Südtirol Bozen/Provincia Autonoma di Bolzano-Alto Adige.
- August, D. & Hakuta, K. (1997). *Improving schooling for language-minority children: A research agenda*. Washington, DC: National Academy Press.
- Ayari, S. (1996). Diglossia and illiteracy in the Arab world. *Language, Culture and Curriculum*, pp. 243-252.
- Bachmann, T. & Fenigstein-Sigg, M. (2004). *Hochdeutsch-Kindergarten: die Chancen des Frühen Beginns: Bericht zur explorativen Studie "Hochdeutsch im Übergang zwischen Kindergarten und Primarschule"* [Standard German-preschool: the opportunity of starting early: report about the explorative study "Standard German between preschool and primary school"]. Pädagogische Hochschule Zürich: Departement Forschung und Entwicklung/Schwerpunkt "Sprachen lernen".
- Baetens Beardsmore, H. (1982). *Bilingualism: Basic principles*. Clevedon: Multilingual Matters.

- Baker, C. (1993). Bilingual education in Wales. In H.B. Beardsmore (ed.), *European models of bilingual education*. (pp. 7-29). Clevedon, Philadelphia, Adelaide: Multilingual Matters LTD.
- Baker, C. (1995). *Attitudes and Language*. Clevedon, Philadelphia, Adelaide: Multilingual Matters LTD.
- Baker, C. (2006). *Foundations of Bilingual Education and Bilingualism* (4th Edition). Clevedon: Multilingual Matters LTD.
- Baker, C. (2007). *A Parents' and Teachers' Guide to Bilingualism* (3rd Edition). Clevedon, Buffalo, Toronto: Multilingual Matters LTD.
- Baker, C. (2011). *Foundations of Bilingual Education and Bilingualism* (5th Edition). Clevedon: Multilingual Matters.
- Balboni, P.E. (1997). Ladino-Italian bilingual programs in Italy. In J. Cummins & D. Corson (eds.), *Encyclopedia of Language and Education, Volume 5, Bilingual Education*. (pp. 143-150). Dordrecht, Boston, London: Kluwer Academic Publishers.
- Baral, P. (2015). *Gaps in translation and compensating them: A linguistic perspective*, Blog.com: <http://pbaral2000.blog.com/gaps-in-translation-and-compensating-them-a-linguistic-perspective/#>, accessed 09 January 2015.
- Barbour, S. (1987). Dialects and the teaching of a standard language: Some West German work. *Language in Society*, 16 (2), pp. 227-244.
- Barbour, S. & Stevenson, P. (1990). *Variation in German. A critical approach to German sociolinguistics*. Cambridge, New York, Port Chester, Melbourne, Sydney: Cambridge University Press.
- Bartl-Pokorny, K., Theoharidou, C., Dreu, M., Vogrinec, G., Pokorny, F., Talisa, V.B., Feigl, G., Einspieler, C. & Marschik, P.B. (2012). Bilingualismus: eine Herausforderung für das sich entwickelnde Gehirn [Bilingualism: a challenge for the developing brain]. *Klin Neurophysiol*, 43, pp. 196-202.
- Baur, S. (2000). *Die Tücken der Nähe. Kommunikation und Kooperation in Mehrheits-/Minderheitssituationen. Kontextstudie am Beispiel Südtirol* [Communication and cooperation in majority/ minority situations. Context study using the example of South Tyrol]. Meran: Alpha und Beta Verlag.
- Baur, S., Mezzalana, G. & Pichler, W. (2009). *Die Sprache der Anderen. Aspekte der Sprachen- und Schulpolitik in Südtirol von 1945 bis heute* [The language of the others. Aspects of language and school politics in South Tyrol from 1945 until today]. Meran: Alpha und Beta Verlag.

- Beck, B. & Dahl, D. (2006). *Sprachliche Kompetenzen von Schülerinnen und Schülern der neunten Jahrgangsstufe in Deutsch. Zentrale Befunde der Studie Deutsch-Schülerleistungen-International in Südtirol* [Linguistic competences of pupils from the 9th grade in German. Central results of the study German-pupils performances-international in South Tyrol]. Frankfurt am Main: Deutsches Institut für Internationale Pädagogische Forschung.
- Beerkens, R. (2010). *Receptive multilingualism as a language mode in the Dutch-German border area*. Münster, New York, München, Berlin: Waxmann.
- Beijering, K, Gooskens, C. & Heeringa, W. (2008). Predicting intelligibility and perceived linguistic distance by means of the Levenshtein algorithm. *Linguistics in the Netherlands*, 25, pp. 13-24.
- Ben Zeev, S. (1977a). The influence of bilingualism on cognitive strategy and cognitive development. *Child Development*, 48, pp. 1009-1018.
- Ben Zeev, S. (1977b). The effects of Spanish-English bilingualism in children from less privileged neighborhoods on cognitive development and cognitive strategy. *Working Papers on Bilingualism*, 14, pp. 83-122.
- Berruto, G. (1987). Lingua, dialetto, diglossia, dilalia. In G. Holtus (ed.), *Romania et Slavia Adriatica. Festschrift für Žarko Muljačić*. (pp. 57-82). Hamburg: Buske.
- Berruto, G. (1989). On the typology of linguistic repertoires. In U. Ammon (ed.), *Status and function of languages and language varieties*. (pp. 552-569). Berlin, New York: Walter de Gruyter.
- Berthele, R. (2004). Vor lauter Linguisten die Sprache nicht mehr sehen. Diglossie und Ideologie in der deutschsprachigen Schweiz [Unable to see the language because of too many linguists. Diglossia and ideology in the German-speaking part of Switzerland]. In H. Christen (ed.), *Dialekt, Regiolekt und Standardsprache im sozialen und zeitlichen Raum*. (pp. 111-136). Wien: Edition Praesens. Verlag für Literatur- und Sprachwissenschaft Wien.
- Berthele, R. (2008). Dialekt-Standard Situation als embryonale Mehrsprachigkeit. Erkenntnisse zum interlingualen Potenzial des Provinzlerdaseins [Dialect-Standard situation as embryonic multilingualism]. In U. Ammon & K.J. Mattheier (eds.), *Sociolinguistica, International Yearbook of European Sociolinguistics*, 22, *Sociodialectology*. (pp. 87-107). Tübingen: Max Niemeyer Verlag.
- Bertschi-Kaufmann, A. (2007). Offene Formen der Leseförderung [Open shapes regarding the reading education program]. In A. Bertschi-Kaufmann (ed.), *Lesekompetenz*

- Leseleistung Leseförderung. Grundlagen, Modelle und Materialien.* (pp. 165-175).
Hannover: Kallmeyer, Klett.
- Bhatia, T.K. & Ritchie, W.C. (2013). *The Handbook of Bilingualism and Multilingualism* (2nd Edition). Chichester, West Sussex, UK; Malden, MA: Wiley-Blackwell.
- Bialystok, E. (1986). Children's concept of word. *Journal of Psycholinguistic Research*, 15 (1), pp. 13-32.
- Bialystok, E. (1988). Levels of bilingualism and levels of linguistic awareness. *Developmental Psychology*, 24 (4), pp. 560-567.
- Bialystok, E. (1997). Effects of bilingualism and biliteracy on children's emerging concepts of print. *Developmental Psychology*, 33, pp. 429-440.
- Bialystok, E. (2002). Acquisition of literacy in bilingual children: A framework for research. *Language Learning*, 52 (1), pp. 159-199.
- Bialystok, E. (2007). Language acquisition and bilingualism: Consequences for a multilingual society. *Applied Psycholinguistics*, 28, pp. 393-398.
- Bishop, D.V.M. (1983). *The test for reception of grammar*. Manchester University.
- Bishop, D.V.M. (1989). *The test for reception of grammar* (2nd Edition). Age and Cognitive Performance Research Centre, University of Manchester.
- Bishop, D.V.M. (2003). *The test for reception of grammar, Version 2 (TROG-2)*. London: Psychological Corporation.
- Blom, E., Paradis, J. & Sorenson Duncan, T. (2010). The acquisition of 3SG-s by L2 children: domain-general or domain-specific learning? *Poster presented at the "Child Language Seminar"*, City University London, UK.
- Bloomfield, L. (1933). *Language*. New York/London: Henry Holt and Company.
- Born, J. & Dickgießer, S. (1989). *Deutschsprachige Minderheiten. Ein Überblick über den Stand der Forschung für 27 Länder* [German-speaking minorities. An overview about the status of the research for 27 countries]. Mannheim: Institut für deutsche Sprache im Auftrag des Auswärtigen Amtes.
- Böhme-Dürr, K. (2001). Einfluß von Medien auf den Sprachlernprozeß [Influence of the media on the language learning process]. In H. Grimm (ed.), *Sprachentwicklung*. (pp. 433-459). Göttingen: Hogrefe.
- Bradlow, A., Torretta, G. & Pisoni, D. (1996). Intelligibility of normal speech I: Global and fine-grained acoustic-phonetic talker characteristics. *Speech Communication*, 20 (3-4), pp. 255-272.

- Brambilla, M., Gerdes, J. & Messina, C. (2013). *Diatopische Variation in der deutschen Rechtssprache (Forum für Fachsprachen-Forschung 113)* [Diatopic variation in the German legal language]. Berlin: Frank & Timme.
- Braunmüller, K. (2002). Semicommunication and accommodation: Observations from the linguistic situation in Scandinavia. *International Journal of Applied Linguistics*, 12 (1), pp. 1-23.
- Bridges, K. & Hoff, E. (2008). The role of siblings in the English language development of bilingual toddlers in the U.S. In H. Chan, E. Kapaia & H. Jacob (eds.), *A supplement to the proceedings of the 32nd Boston University conference on language development*. Boston University Conference on Language Development.
- Bridges, K. & Hoff, E. (2014). Older sibling influences in the language environment and language development of toddlers in bilingual homes. *Applied Psycholinguistics*, 35, pp. 225-241.
- Brody, G. (2004). Siblings' direct and indirect contributions to child development. *Current Directions in Psychological Science*, 13 (3), pp. 124-126.
- Bruner, J. (1983). *Child's talk*. New York: Norton.
- Budovicová, V. (1987). Literary languages in contact (A sociolinguistic approach to the relation between Slovak and Czech today). In J. Chloupek & J. Nekvapil (eds.), *Reader in Czech sociolinguistics*. (pp. 156-175). Amsterdam: John Benjamins.
- Bullock, B. & Toribio, A. (2009). *The Cambridge Handbook of Linguistic Code-switching*. Cambridge: Cambridge University Press.
- Butler, Y.G. & Hakuta, K. (2005) Bilingualism and Second Language Acquisition. In T.K. Bhatia & W.C. Ritchie (eds.), *The Handbook of Bilingualism*. (pp. 114-145). Blackwell Publishing.
- Byers-Heinlein, K. (2013). Parental language mixing: Its measurement and the relation of mixed input to young bilingual children's vocabulary size. *Bilingualism: Language and Cognition*, 16 (1), pp. 32-48.
- Cameron-Faulkner, T., Lieven, E. & Tomasello, M. (2003). A construction based analysis of child directed speech. *Cognitive Science*, 27, pp. 843-873.
- Carroll, J. (1967). Foreign language proficiency levels attained by language majors near graduation from college. *Foreign Language Annals*, 1 (2), pp. 131-151.
- Casserly, E.D. & Pisoni, D.B. (2013). Nonword repetition as a predictor of long-term speech and language skills in children with cochlear implants. *Otology & Neurotology*, 34 (3), pp. 460-470.

- Chondrogianni, V. & Marinis, T. (2011). Differential effects of internal and external factors on the development of vocabulary, tense morphology and morpho-syntax in successive bilingual children. *Linguistic Approaches to Bilingualism*, 1 (3), pp. 318-345.
- Christensen, E. (2014). *"Maindr seggs". Ein Buch über den Pfitscher Dialekt* ["Maindr seggs". A book about the Pfitsch dialect]. Kulturverein Kapinokn.
- Ciccolone, S. (2010a). Tutela delle lingue minoritarie come tutela del repertorio: riflessioni dal caso Sudtirolo [The protection of the minority languages as protection of the repertoire: reflections regarding the South Tyrolean case]. In G. Agresti & F. Bienkowski (eds.), *Les droits linguistiques: droit à la reconnaissance droit à la formation. Actes des deuxième Journées des droits linguistiques*. (pp. 159-168).
- Ciccolone, S. (2010b). *Lo standard tedesco in Alto Adige. L'orientamento alla norma dei tedescofoni sudtirolesi* [The Standard German in South Tyrol. The orientation to the norm of the German-speaking South Tyroleans]. Milano: LED. Edizioni Universitarie di Lettere Economia Diritto.
- Ciccolone, S. & Franceschini, R. (2015). Südtirol zwischen Ortsdialekten und Sprachkontakt – DIAGRAMM und KONTATTO [South Tyrol between local dialects and language contact – DIAGRAMM and KONTATTO]. In R. Kehrein, A. Lameli & S. Rabanus (eds.), *Regionale Variation des Deutschen. Projekte und Perspektiven*. (pp. 459-488). Berlin/Boston: De Gruyter Mouton.
- Clark, E. (2009). *First Language Acquisition* (2nd Edition). Cambridge: Cambridge University Press.
- Close, R. (2004). *National Literacy Trust. Television and language development in the early yerars. A review of the literature*. London: National Literacy Trust.
- Cobo-Lewis, A., Pearson, B., Eiler, R. & Umbel, V. (2002). Effects of bilingualism and bilingual educations on oral and written English skills: A multifactor study of standardized test outcomes. In D.O. Eilers (ed.), *Language and literacy in bilingual children*. (pp. 64-97). Clevedon: Multilingual Matters.
- Collier, V. (1987). Age and rate of acquisition of second language for academic purposes. *TESOL Quarterly*, 21, pp. 617-641.
- Collier, V. (1989). How long? A synthesis of research on academic achievement in a second language. *TESOL Quarterly*, 23, pp. 509-531.
- Cooper, R.L. (1989). *Language planning and social change*. Cambridge, England: Cambridge University Press.

- Cornelissen, G. (2004). Zum Regiolekt junger Leute im Rheinland [The regiolect of young people in the Rhineland]. In H. Christen (ed.), *Dialekt, Regiolekt und Standardsprache im sozialen und zeitlichen Raum*. (pp. 179-198). Wien: Edition Praesens. Verlag für Literatur- und Sprachwissenschaft.
- Costa, A., Santesteban, M. & Cano, A. (2005). On the facilitatory effects of cognate words in bilingual speech production. *Brain and Language*, 94, pp. 94-103.
- Crystal, D. (2010). *The Cambridge Encyclopedia of Language*. New York: Cambridge University Press.
- Cummins, J. (1984). *Bilingualism and special education: Issues in assessment and pedagogy*. Clevedon: Multilingual Matters.
- Cummins, J. (2005). A proposal for action: Strategies for recognizing heritage language competence as a learning resource within the mainstream classroom. *The Modern Language Journal*, 89 (4), pp. 585-592.
- Cutler, A. & van Donselaar, W. (2001). Voornaam is not (really) a homophone: Lexical prosody and lexical access in Dutch. *Language and Speech*, 44, pp. 171-195.
- Cutting, A. & Dunn, J. (1999). Theory of mind, emotion understanding, language, and family background: Individual differences and interrelations. *Child Development*, 70, pp. 853-865.
- Cvilikaite, J. (2006). Lexical gaps. Resolution by functionally complete units of translation. *Darbai ir Dienos*, 45, pp. 127-142.
- Dakwar, R. (2005). Children's attitude towards the diglossic situation in Arabic and its impact on learning. *Languages, Communities, and Education*, pp. 75-86.
- Dal Negro, S. (2005). Small languages and small language communities. *International Journal of the Sociology of Language*, 174, pp. 113-124.
- Dal Negro, S. (2008). Survival strategies of local languages in Italy. In U. Ammon & K.J. Mattheier (eds.), *Sociolinguistica, International Yearbook of European Sociolinguistics*, 22, *Sociodialectology*. (pp. 127-139). Tübingen: Max Niemeyer Verlag.
- Dal Negro, S. (2011). Tedesco di contatto in Italia [The German language of contact in Italy]. In E. Fazzini Giovannucci (ed.), *Il tedesco superiore. Tradizione scritta e varietà parlate*. (pp. 203-223). Alessandria: Edizioni dell'Orso.
- Daniel, E., Egger, K. & Lanthaler, F. (2001). Sprachnormautoritäten in Südtirol [Language norm authorities in South Tyrol]. In K. Egger & F. Lanthaler (eds.), *Die deutsche*

- Sprache in Südtirol. Einheitssprache und regionale Vielfalt.* (pp. 208-231). Bozen, Wien: Folio Verlag.
- De Houwer, A. (2003). Language variation and local elements in family discourse. *Language Variation and Change*, 15, pp. 329-349.
- De Houwer, A. (2007). Parental language input patterns and children's bilingual use. *Applied Psycholinguistics*, 28, pp. 411-424.
- De Houwer, A. (2009). *Bilingual First Language Acquisition*. Clevedon, UK: Multilingual Matters.
- De Houwer, A. (2010). Bilingual Language Acquisition. In Li Wei (ed.), *Bilingualism and multilingualism. Critical concepts in linguistics.* (pp. 266-301). London; New York: Routledge.
- Demetz, H. (2004). *Gsâgg unt d'rfrâgg in Flâtzpis Latzfonser Dialektwörterbuch* [The Latzfons dialect dictionary]. Brixen: Weger.
- Demetz, H. (2008). *Lexikon. Südtirolerisch-Deutsch. Ein Wörterbuch und Übersetzungshilfe für Fremde, Touristen und Zugereiste* [Lexicon. South Tyrolean-Standard German. A dictionary and translation tool for foreigners, tourists and newcomers] (3rd Edition). Edition Raetia.
- Derwing, T. & Munro, M.J. (1997). Accent, intelligibility, and comprehensibility. Evidence from four L1s. *Studies in Second Language Acquisition*, 19 (1), pp. 1-16.
- Dillon, C.M., Burkholder, R.A., Cleary, M. & Pisoni, D.B. (2004). Nonword repetition by children with cochlear implants: Accuracy ratings from normal-hearing listeners. *Journal of Speech, Language, and Hearing Research*, 47 (5), pp. 1103-1116.
- Dixon, L. (2011). The role of home and school factors in predicting English vocabulary among bilingual kindergarten children in Singapore. *Applied Psycholinguistics*, 32, pp. 141-168.
- Dixon, L., Zhao, J., Shin, J.-Y., Wu, S., Su, J.-H., Burgess-Brigham, R., Gezer, M.U., Snow, C. (2012). What we know about second language acquisition: A synthesis from four perspectives. *Review of Educational Research*, 82 (1), pp. 5-60.
- Dollaghan C. & Campbell T. (1998). Nonword repetition and child language impairment. *Journal of Speech and Hearing Research*, 41 (5), pp. 1136-1146.
- DUDEN (2010). *DUDEN. Die deutsche Rechtschreibung* [DUDEN. The German orthography] (25th Edition). Mannheim, Zürich: Dudenverlag.
- Dunn, L. & Dunn, L. (1997). *The Peabody picture vocabulary test* (3rd Edition). Circle Pines, MN: American Guidance Service.

- Duregger, J., Felderer, S. & Müller, J. (2009). *Teldra Dialektpüich. Mit Gschichtlan fan Toule auf Audio-CD* [Teldra dialect book]. Bozen: Edition Raetia.
- Durgunoglu, A. & Öney, B. (2000). Literacy development in two languages: Cognitive and sociocultural dimensions of cross-language transfer. *A research symposium on high standards in reading for students from diverse language groups: Research, practice & policy. Proceedings. April 19-20, 2000.* (pp. 78-99). Washington, DC, U.S.: Department of Education. Office of bilingual education and minority languages affairs (OBEMLA).
- Duursma, E., Romero-Contreras, S., Szuber, A., Proctor, P. & Snow, C. (2007). The role of home literacy and language environment on bilinguals' English and Spanish vocabulary development. *Applied Psycholinguistics*, 28, pp. 171-190.
- Ebbels, S., Maric, N., Murphy, A. & Turner, G. (2014). Improving comprehension in adolescents with severe receptive language impairments: a randomized control trial of intervention for coordinating conjunctions. *International Journal of Language & Communication Disorders*, 49 (1), pp. 30-48.
- Edmondson, W. & House, J. (2000). *Einführung in die Sprachlehrforschung* [Introduction to language teaching research] (2nd Edition). Tübingen und Basel: A. Francke Verlag.
- Egger, K. (1977). *Zweisprachigkeit in Südtirol: Probleme zweier Volksgruppen an der Sprachgrenze* [Bilingualism in South Tyrol: problems of two ethnical groups on the language border]. Bozen: Athesia.
- Egger, K. (1979). Morphologische und syntaktische Interferenzen an der deutsch-italienischen Sprachgrenze in Südtirol [Morphological and syntactical interferences on the German-Italian language border in South Tyrol]. In P.S. Ureland (ed.), *Standardsprache und Dialekte in mehrsprachigen Gebieten Europas. Symposium über Sprachkontakt in Europa 2.* (pp. 55-104). Tübingen: Niemeyer.
- Egger, K. (1982a). Mit Konflikten leben. Überlegungen zur Zweisprachigkeit in Südtirol [Living with conflicts. Reflections about bilingualism in South Tyrol]. In H. Moser (ed.), *Zur Situation des Deutschen in Südtirol. Sprachwissenschaftliche Beiträge zu den Fragen von Sprachnorm und Sprachkontakt.* (pp. 169-178). Innsbruck: Institut für Germanistik.
- Egger, K. (1982b). *Dialekt und Hochsprache in der Schule. Beiträge zum Deutschunterricht in Südtirol* [Dialect and Standard German in school. Contributions to the teaching of German in South Tyrol]. Bozen: Südtiroler Kulturinstitut und Arbeitskreis Südtiroler Mittelschullehrer.

- Egger, K. (1982c). Übungen zum Vermeiden dialektbedingter Fehler im Bereich der Präpositionen [Exercises to avoid mistakes deriving from the dialect in the domain prepositions]. In K. Egger (ed.), *Dialekt und Hochsprache in der Schule. Beiträge zum Deutschunterricht in Südtirol*. (pp. 111-127). Bozen: Südtiroler Kulturinstitut und Arbeitskreis Südtiroler Mittelschullehrer.
- Egger, K. (1985). *Zweisprachige Familien in Südtirol: Sprachgebrauch und Spracherziehung* [Bilingual families in South Tyrol: language usage and language education]. Innsbruck: Innsbrucker Beiträge zur Kulturwissenschaft. Germanistische Reihe Band 27.
- Egger, K. (1994a). *Die Sprachen unserer Kinder. Spracherwerb in einem mehrsprachigen Gebiet* [The language of our children. Language acquisition in a multilingual area]. Meran: Alpha und Beta Verlag.
- Egger, K. (1994b). Die Mehrsprachigkeit unserer Kinder [The multilingualism of our children]. In F. Lanthaler (ed.), *Dialekt und Mehrsprachigkeit. Beiträge eines internationalen Symposiums, Bozen 1993* (pp. 115-136). Meran: Alpha und Beta Verlag.
- Egger, K. (2001a). *Sprachlandschaft im Wandel: Südtirol auf dem Weg zur Mehrsprachigkeit. Soziolinguistische und psycholinguistische Aspekte der Ein- und Mehrsprachigkeit* [Linguistic landscape in development: South Tyrol on its way to multilingualism. Sociolinguistic and psycholinguistic aspects of mono- and multilingualism]. Bozen: Athesia.
- Egger, K. (2001b). *L'Alto Adige - Südtirol e le sue lingue. Una regione sulla strada del plurilinguismo* [South Tyrol and its languages. A region on its way to multilingualism]. Meran: Alpha und Beta Verlag.
- Egger, K. (2001c). Mehrsprachiges Südtirol: Planung von Ein- und Mehrsprachigkeit [Multilingual South Tyrol: planning of mono- and multilingualism]. In K. Egger & F. Lanthaler (eds.), *Die deutsche Sprache in Südtirol: Einheitssprache und regionale Vielfalt*. (pp. 232-250). Bozen, Wien: Folio Verlag.
- Egger, K. (2007). Sprachförderung im mehrsprachigen Gebiet [Language promotion in a multilingual area]. In Kindergarteninspektorat im Deutschen Schulamt (ed.), *WIR 1. Kindergarten in Südtirol. Sprache lebt*. (pp. 17-19). Bozen: Deutsches Schulamt.
- Eichhoff, J. (2000). Sterben die Dialekte aus? [Do dialects die out?] In K.M. Eichhoff-Cyrus & R. Hoberg (eds.), *Die deutsche Sprache zur Jahrtausendwende: Sprachkultur oder Sprachverfall?* (pp. 80-88). Mannheim: Dudenverlag.

- Eichinger, L. (2001a). Sprache und Sprachgebrauch im Süden Deutschlands [Language and language usage in the south of Germany]. In E. Knipf-Komlósi & N. Berend (eds.), *Regionale Standards. Sprachvariationen in den deutschsprachigen Ländern*. (pp. 61-94). Budapest-Pécs: Dialóg Campus Kiadó.
- Eichinger, L. (2001b). Die soziolinguistische Situation der deutschen Sprachgruppe in Südtirol [The sociolinguistic situation of the German-speaking language group in South Tyrol]. In K. Egger & F. Lanthaler (eds.), *Die deutsche Sprache in Südtirol: Einheitssprache und regionale Vielfalt*. (pp. 121-136). Bozen, Wien: Folio Verlag.
- Eichinger, L. (2002). South Tyrol: German and Italian in a changing world. *Journal of Multilingual and Multicultural Development*, 23 (1), pp. 137-149.
- Eisenbeiss, S. (2010). Production methods in language acquisition. In E. Blom & S. Unsworth (eds.), *Experimental Methods in Language Acquisition Research*. (pp. 11-34). Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Ender, A. & Kaiser, I. (2009). Zum Stellenwert von Dialekt und Standard im österreichischen und Schweizer Alltag – Ergebnisse einer Umfrage [The status of the dialect and the standard language in the Austrian and Swiss everyday life – Results from a survey]. *Zeitschrift für germanische Linguistik*, 37 (2), pp. 266-295.
- Ender, A., Li, W. & Straßl, K. (2007). Das Projekt "Deutsch als Zweitsprache in Dialektumgebung" [The project "German as second language in a dialectal environment"]. *Linguistik online*, 32 (3), pp. 25-36.
- Engel de Abreu, M. (2011). Working memory in multilingual children: Is there a bilingual effect? *Memory*, 19 (5), pp. 529-537.
- Ericson, M.A., Simpson, B.D. & McKinley, R.L. (2005). *Military speech communications over vocoders in tandem*. AFB, OH: Air Force Research Lab Wright-Patterson.
- Eviatar, Z. & Ibrahim, R. (2000). Bilingual is as bilingual does: metalinguistic abilities of Arabic-speaking children. *Applied Psycholinguistics*, 21, pp. 451-471.
- Fantini, A. (1985). *Language acquisition of a bilingual child: a sociolinguistic perspective (to age ten)*. Clevedon, Avon: Multilingual Matters.
- Feitelson, D., Goldstein, Z., Iraqi, J. & Share, D. L. (1993). Effects of listening to story reading on aspects of literacy acquisition in a diglossic situation. *Reading Research Quarterly*, 28, pp. 71-79.
- Fellman, J. (1975). On "diglossia". *Language Sciences*, 34, pp. 38-39.
- Ferguson, C. (1959). Diglossia. *Word*, 15, pp. 325-340.

- Ferguson, C. (1991). Epilogue: Diglossia revisited. *Southwest Journal of Linguistics*, 10 (1), pp. 214-234.
- Ferguson, C. (1996). Epilogue: Diglossia revisited. In A. Elgibali (ed.), *Understanding Arabic: Essays in Contemporary Arabic Linguistics in Honor of El-Said Badawi*. (pp. 49-67). Cairo: The American University of Cairo Press.
- Ferguson, C. (2007). Diglossia. In L. Wei (ed.), *The Bilingualism Reader* (2nd Edition). (pp. 33-46). London and New York: Routledge.
- Fernald, A., Marchman, V. & Weisleder, A. (2013). SES differences in language processing skill and vocabulary are evident at 18 months. *Developmental Science*, 16 (2), pp. 234-248.
- Fernández, M., Pearson, B., Umbel, V., Oller, D. & Molinet-Molina, M. (1992). Bilingual receptive vocabulary in Hispanic preschool children. *Hispanic Journal of the Behavioral Sciences*, 14, pp. 268-276.
- Fishman, J.A. (1967). Bilingualism with and without diglossia: diglossia with and without bilingualism. *Journal of Social Issues*, 23 (2), pp. 29-38.
- Fishman, J.A. (2007). Bilingualism with and without diglossia: diglossia with and without bilingualism. In L. Wei (ed.), *The Bilingualism Reader* (2nd Edition). (pp. 47-54). London; New York: Routledge.
- Fishman, J.A. (2008). Rethinking the Ausbau-Abstand dichotomy into a continuous and multivariate system. *International Journal of the Sociology of Language*, 191, pp. 17-26.
- Foulkes, P., Docherty, G. & Watt, D. (2005). Phonological variation in child-directed speech. *Language*, 81 (1), pp. 177-206.
- Fox, A. (2013). *TROG-D. Test zur Überprüfung des Grammatikverständnisses* [Test for reception of grammar] (6th Edition). Schulz-Kirchner Verlag.
- Francescato, G. (1986). Bilingualism and Diglossia in their mutual relationship. In J.A. Fishman, A. Tabouret-Keller, M. Clyne, B. Krishnamurti & M. Abdulaziz (eds.), *The Fergusonian Impact. In Honor of Charles A. Ferguson. Sociolinguistics and the Sociology of Language. Volume 2*. (pp. 395-401). Berlin; New York; Amsterdam: Mouton de Gruyter.
- Freeman, R. (2007). Reviewing the research on language education programs. In O. García & C. Baker (eds.), *Bilingual education: An introductory reader*. (pp. 3-18). Clevedon, Buffalo, Toronto: Multilingual Matters LTD.

- Fricker, R. & Schonlau, M. (2002). Advantages and disadvantages of Internet research surveys: Evidence from the literature. *Field Methods*, 14 (4), pp. 347-367.
- Fricker, S., Galesic, R., Tourangeau, T. & Yan, T. (2005). An experimental comparison of web and telephone surveys. *Public Opinion Quarterly*, 69, pp. 370-392.
- Fromkin, V., Hyams, N. & Rodman, R. (2011). *An introduction to language* (9th Edition). Australia, Canada, Mexico, Brazil, Singapore, Spain, United Kingdom, United States.: Wadsworth Cengage learning.
- García, O. & Baker, C. (2007). *Bilingual education. An introductory reader*. Clevedon, Buffalo, Toronto: Multilingual Matters LTD.
- Gardner, R. (1985). *Social psychology and second language learning. The role of attitudes and motivation*. London: Edward Arnold.
- Gardner-Chloros, P. (2009). *Code-switching*. Cambridge: Cambridge University Press.
- Garinther, G., Whitaker, L. & Peters, L. (1995). The effects of speech intelligibility on military performance. *Proceedings of the Symposium on Speech Communication Metrics and Human Performance*, pp. 72-82.
- Gass, S. & Varonis, E. (1984). The effect of familiarity on the comprehensibility of nonnative speech. *Language Learning*, 34, pp. 65-89.
- Gathercole, V. (2002a). Monolingual and bilingual acquisition: Learning different treatments of that-trace phenomena in English and Spanish. In D.K. Oller & R.E. Eilers (eds.), *Language and literacy in bilingual children*. (pp. 220-254). Clevedon: Multilingual Matters.
- Gathercole, V. (2002b). Grammatical gender in bilingual and monolingual children. In D.K. Oller & R.E. Eilers (eds.), *Language and Literacy in Bilingual Children*. (pp. 207-219). Clevedon: Multilingual Matters.
- Gathercole, V. (2007). Miami and North Wales, so far and yet so near: A Constructivist account of morpho-syntactic development in bilingual children. *International Journal of Bilingual Education and Bilingualism*, 10, pp. 224-247.
- Gathercole, V. & Hoff, E. (2007). Input and acquisition of language: three questions. In E. Hoff & M. Shatz (eds.), *Handbook of language development*. (pp. 107-127). Oxford: Blackwell.
- Gathercole, V. & Thomas, E. (2003). Minority language survival: Input factors influencing the acquisition of welsh. In J. Cohen, K.T. McAlister, K. Rolstad & J. MacSwan (eds.), *Proceedings of the 4th International Symposium on Bilingualism*. (pp. 852-874). Somerville MA: Cascadilla Press.

- Gathercole, V. & Thomas, E. (2009). Bilingual first-language development: Dominant language takeover, threatened minority language take-up. *Bilingualism: Language and Cognition*, 12 (2), pp. 213-238.
- Gathercole, V., Thomas, E. & Hughes, E. (2008). Designing a normed receptive vocabulary test for bilingual populations: A model from Welsh. *International Journal of Bilingual Education and Bilingualism*, 11 (6), pp. 678-720.
- Genesee, F. & Nicoladis, E. (1995). Language development in bilingual preschool children. In E. Garcia & B. McLaughlin (eds.), *Meeting the challenge of linguistic and cultural diversity in early childhood education*. (pp. 18-33). New York: Teachers College Press.
- Genesee, F., Boivin, I. & Nicoladis, E. (1996). Talking with strangers: A study of bilingual children's communicative competence. *Applied Psycholinguistics*, 17, pp. 427-442.
- Genetti, C. (2014). *How Languages Work: An Introduction to Language and Linguistics*. Cambridge: Cambridge University Press.
- Gensini, S. (2005). *Breve storia dell'educazione linguistica dall'unità a oggi. Con un'appendice di documenti d'epoca* [A short summary of the linguistic education from the unity to today. With an appendix of historical documents]. Roma: Carocci.
- Giacomozzi, L. (1982). Dialektbedingte Schwierigkeiten von Schülern aus dem Südtiroler Unterland. Ergebnisse einer Fehleranalyse [Dialect related difficulties faced by South Tyrolean pupils from the *Unterland/Bassa Atesina*. Results and error analysis]. In K. Egger (ed.), *Dialekt und Hochsprache in der Schule. Beiträge zum Deutschunterricht in Südtirol* (pp. 75-110). Bozen: Südtiroler Kulturinstitut und Arbeitskreis Südtiroler Mittelschullehrer.
- Gibbons, P. (2015). *Scaffolding language, scaffolding learning. Teaching English language learners in the mainstream classroom* (2nd Edition). Portsmouth, NH: Heinemann.
- Girbau, D. (2016). The non-word repetition task as a clinical marker of specific language impairment in Spanish-speaking children. *First Language*, pp. 1-20.
- Glaznieks, A. & Stemle, W. (2014). Challenges of building a cmc corpus for analyzing writer's style by age: The DiDi project. *Journal of Language Technology and Computational Linguistics*, 29 (2), pp. 31-57.
- Golberg, H., Paradis, J. & Crago, M. (2008). Lexical acquisition over time in minority L1 children learning English as L2. *Applied Psycholinguistics*, 29, pp. 41-65.
- Goldfield, B. & Reznick, J. (1990). Early lexical acquisition: rate, content, and the vocabulary spurt. *Journal of Child Language*, 17 (01), pp. 171-183.

- Gondo, K., Matsui, T., Yanagisawa, R., Li, H. & Oi, M. (2012). *Does being Japanese-English bilingual affect language development in children with autism?* INSAR. International Society for Autism Research.
- Gooskens, C. (2006). Linguistic and extra-linguistic predictors of Inter-Scandinavian intelligibility. In J. van de Weijer & B. Los (eds.), *Linguistics in the Netherlands*, 23. (pp. 101-113). Amsterdam: John Benjamins.
- Gooskens, C. (2007a). The contribution of linguistic factors to the intelligibility of closely related languages. *Journal of Multilingual and Multicultural Development*, 28 (6), pp. 445-467.
- Gooskens, C. (2007b). Contact, attitude and phonetic distance as predictors of inter-Scandinavian communication. In J.-M. Eloy & T. Ó Hifearnáin (eds.), *Near languages - Collateral languages. Actes du colloque international réuni à Limerick, du 16 au 18 juin 2005*, (pp. 99-109).
- Gooskens, C. (2013). Methods for measuring intelligibility of closely related language varieties. In R. Bayley, R. Cameron & C. Lucas (eds.), *Handbook of sociolinguistics*. (pp. 195-213). Oxford: Oxford University Press.
- Gooskens, C. & Heeringa, W. (2004). Perceptive evaluation of Levenshtein dialect distance measurements using Norwegian dialect data. *Language Variation and Change*, 16 (3), pp. 189-207.
- Gooskens, C & Heeringa, W. (2006). The relative contribution of pronunciation, lexical, and prosodic differences to the perceived distances between Norwegian dialects. *Literary and Linguistic Computing*. pp. 1-16.
- Gooskens, C. & Heeringa, W. (2014). The role of dialect exposure in receptive multilingualism. *Applied Linguistics Review*, 5 (1), pp. 247-271.
- Gooskens, C. & Kürschner, S. (2009). Cross-border intelligibility - on the intelligibility of Low German among speakers of Danish and Dutch. In A.N. Lenz, C. Gooskens & S. Reker (eds.), *Low Saxon dialects across borders - Niedersächsische Dialekte über Grenzen hinweg*. (pp. 273-295). Stuttgart: Steiner (Zeitschrift für Dialektologie und Linguistik - Beihefte 138).
- Gooskens, C. & van Bezooijen, R. (2006). Mutual comprehensibility of written Afrikaans and Dutch: Symmetrical or asymmetrical? *Literary and Linguistic Computing*, pp. 1-15.
- Gooskens, C. & van Bezooijen, R. (2013). Explaining Danish-Swedish asymmetric word intelligibility - A error analysis. In C. Gooskens, R. van Bezooijen (eds.), *Phonetics in Europe: Perception and Production*. (pp. 59-82). Frankfurt a.M.: Peter Lang.

- Gooskens, C., Heeringa, W. & Beijering, K. (2008). Phonetic and lexical predictors of intelligibility. *International Journal of Humanities and Art Computing*, 2 (1-2), pp. 63-81.
- Gooskens, C., Kürschner, S. & van Bezooijen, R. (2011). Intelligibility of Low and High German to speakers of Dutch. *Dialectologia*, Special Issue II, pp. 35-63.
- Gooskens, C., van Bezooijen, R. & Van Heuven, V. (2015). Mutual intelligibility of Dutch-German cognates by children: The devil is in the detail. *Linguistics*, 53 (2), pp. 255-283.
- Gooskens, C., van Heuven, V., van Bezooijen, R. & Pacilly, J. (2010). Is spoken Danish less intelligible than Swedish? *Speech Communication*, 52, pp. 1022-1037.
- Gorter, D. & van der Meer, C. (2008). Developments in bilingual Frisian-Dutch education in Friesland. *Aila Review*, 21, pp. 87-103.
- Grimm, H. (1982). Sprachentwicklung: Voraussetzungen, Phasen und theoretische Interpretationen [Language development: requirements, stages and theoretical interpretations]. In R. Oerter & L. Montada (eds.), *Entwicklungspsychologie. Ein Lehrbuch*. (pp. 506-566). München: Urban & Schwarzenberg.
- Grosjean, F. (1992). Another view of bilingualism. In R.J. Harris (ed.), *Cognitive processing in bilinguals*. (pp. 51-62). Amsterdam: Elsevier Science Publishers.
- Grosjean, F. (1989). Neurolinguists, beware! The bilingual is not two monolinguals in one person. *Brain and Language*, 36, pp. 3-15.
- Grosjean, F. (2010). *Bilingual: Life and reality*. Cambridge Mass: Harvard University Press.
- Grosjean, F. (2011). An attempt to isolate, and then differentiate, transfer and interference. *International Journal of Bilingualism*, 16 (1), pp. 11-21.
- Grosjean, F. & Li, P. (2013). *The Psycholinguistics of Bilingualism*. Malden, MA & Oxford: Wiley-Blackwell.
- Gruber, A. (2005). *Wörterbuch der Sarntaler Mundart* [Dictionary of the vernacular spoken in Sarntal/Sarentino]. Edition Raetia.
- Gumperz, J. (1961). Speech variation and the study of Indian civilization. *American Anthropologist*, 63, pp. 976-988.
- Gumperz, J. (1962). Types of linguistic communities. *Anthropological Linguistics*, 4 (1), pp. 28-40.
- Gurschler, M. & Tscholl, E. (2015). *DaZUgeHÖREN. Südtiroler Dialekt von Jugendlichen für Jugendliche. Arbeitsmaterialien zum Südtiroler Dialekt* [DaZUgeHÖREN. South

- Tyrolean dialect from adolescents for adolescents. Training material about the South Tyrolean dialect]. Bozen: Deutsches Bildungsressort.
- Gutiérrez-Clellen, V. & Simon-Cerejido, G. (2010). Using nonword repetition tasks for the identification of language impairment in Spanish-English speaking children: Does the language of assessment matter? *Learning Disabilities Research & Practice*, 25, pp. 48-58.
- Gutiérrez-Clellen, V. & Kreiter, J. (2003). Understanding child bilingual acquisition using parent and teacher reports. *Applied Psycholinguistics*, 24, pp. 267-288.
- Gyger, M. (2005). *Projekt Standardsprache im Kindergarten (PSS). Schlussbericht* [Project Standard German in preschool. Final report]. Basel: Rektorat Kindergärten Basel, Arbeitsgruppe Integration.
- Gyger, M. (2007). Hochdeutsch im Kindergarten [Standard German in preschool]. *Linguistik online*, 32 (3), pp. 37-48.
- Haas, W. (1998). Diglossie im historischen Wandel oder: Schweizerdeutsch auf dem Weg zur eigenen Sprache? [Diglossia in historical change or: Is Swiss German on the way to its own language?] In C. Russ (ed.), *Sprache Kultur Nation - Language Culture Nation*. (pp. 77-101). Papers from a conference held on 19 October 1996 at the Guildhall, York. Hull: 1998 (= New German Studies Text & Monographs 12).
- Haas, W. (2004). Die Sprachsituation der deutschen Schweiz und das Konzept der Diglossie [The language situation of German-speaking Switzerland and the concept of diglossia]. In H. Christen (ed.), *Dialekt, Regiolekt und Standardsprache im sozialen und zeitlichen Raum*. (pp. 81-110). Wien: Edition Praesens. Verlag für Literatur- und Sprachwissenschaft.
- Häcki Buhofer, A. & Burger, H. (1998). *Wie Deutschschweizer Kinder Hochdeutsch lernen: der ungesteuerte Erwerb des gesprochenen Hochdeutschen durch Deutschschweizer Kinder zwischen sechs und acht Jahren* [How German-speaking children from Switzerland learn Standard German: the uncontrolled acquisition of spoken Standard German among Swiss German-speaking children between six and eight years of age]. Stuttgart: Franz Steiner Verlag.
- Hagen, A. (1989). Dialect, Frisian and education in the Netherlands. In J. Cheshire, V. Edwards, H. Münstermann & B. Weltens (eds.), *Dialect and education*. (pp. 48-61). Clevedon, Philadelphia: Multilingual Matters LTD.
- Hägi, S. & Scharloth, J. (2005). Ist Standarddeutsch für Deutschschweizer eine Fremdsprache? Untersuchungen zu einem Topos des sprachreflexiven Diskurses [Is

- Standard German a foreign language for Swiss Germans?]. *Linguistik online*, 24 (3), pp. 19-47.
- Hakuta, K. (1986). *Mirror of language: The debate on bilingualism*. New York: Basic Books.
- Haller, H. & Lanthaler, F. (2004). *Passeirer Wörterbuch (Psairer Wërterpuach): Wörter, Ausdrücke, Beispiele. Über 8000 Passeirer Wörter von aa wass bis zwui mit der Übersetzung ins Hochdeutsche* [Dictionary from *Passeiertal/Val Passiria*: words, expressions and examples]. St. Martin in Passeier (BZ): Passeier.
- Hammarström, H. (2008). Counting languages in dialect continua using the criterion of mutual intelligibility. *Journal of Quantitative Linguistics*, 15, pp. 34-45.
- Hammer, C., Davison, M., Lawrence, F. & Miccio, A. (2009). The effect of maternal language on bilingual children's vocabulary and emergent literacy development during Head Start and kindergarten. *Scientific Studies of Reading*, 13 (2), pp. 99-121.
- Harbert, W. (2007). *The Germanic Languages*. Cambridge: Cambridge University Press.
- Hart, B. & Risley, T. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore, MD: Brookes.
- Hart, E. & Risley, T. (1999). *The social world of children learning to talk*. Baltimore, MD: Paul H. Brookes.
- Haugen, E. (1972). *The Ecology of Language*. Stanford, California: Stanford University Press.
- Heeringa, W. (2004). *Measuring dialect pronunciation differences using Levenshtein Distance*. Doctoral dissertation, University of Groningen.
- Heeringa, W. & Hinskens, F. (2015). Dialect change and its consequences for the Dutch dialect landscape. How much is due to the standard variety and how much is not? *Journal of Linguistic Geography*, 3 (01), pp. 20-33.
- Heidegger, G. (2002). *Asterix ba dr Naia (Asterix als Legionär)* [Asterix as a legionnaire]. Berlin: Egmont Ehapa.
- Heidegger, G. (2003). *Asterix isch kesslun (Asterix und der Kupferkessel)* [Asterix and the copper kettle]. Berlin: Egmont Ehapa.
- Heidegger, G. (2006). *Olls Lai Lolli (Das Geschenk Cäsars)* [Caesar's gift]. Berlin: Egmont Ehapa.
- Heidegger, G. (2014). *Willsch wettn? (Die Lorbeeren des Cäsars)* [The laurels of Caesar]. Berlin: Egmont Ehapa.
- Henriksen, C. & van der Auwera, J. (2002). The Germanic Languages. In E. König & J. Van der Auwera (eds.), *The Germanic Languages*. (pp. 1-18). London and New York: Routledge.

- Hinderling, R. (1984). Bairisch: Sprache oder Dialekt? [Bavarian: language or dialect?] In R. Harnisch (ed.), *Jahrbuch der Johann-Andreas-Schmeller-Gesellschaft 1983*. (pp. 47-64). Bayreuth: Sprach- und Literaturwissenschaftliche Fakultät.
- Hofer, S. (2013). *Deutsch ist nicht gleich Deutsch. Paese che vai, tedesco che trovi. Materialien für den Deutschunterricht in Südtirol* [German is not the same as German. Training materials for teaching German in South Tyrol]. Bozen/Bolzano: Europäische Akademie Bozen.
- Hoff, E. (2003). The specificity of environmental influence: Socioeconomic status affects early vocabulary development via maternal speech. *Child Development, 74*, pp. 1368-1378.
- Hoff, E. (2006). How social contexts support and shape language development. *Developmental Review, 26*, pp. 55-88.
- Hoff, E. & Naigles, L. (2002). How children use input to acquire a lexicon. *Child Development, 73*, pp. 418-433.
- Hoff, E. & Tian, R. (2005). Socioeconomic status and cultural influences on language. *Journal of Communication Disorders, 38*, pp. 271-278.
- Hoff, E., Core, C., Place, S., Rumiche, R., Senior, M. & Parra, M. (2012). Dual language exposure and early bilingual development. *Journal of Child Language, 39* (01), pp. 1-27.
- Hoff, E., Welsh, S., Place, S. & Ribot, K. (2014). Properties of dual language input that shape bilingual development and properties of environments that shape dual language input. In T. Grüter & J. Paradis (eds.), *Input and experience in bilingual development*. (pp. 119-140). Amsterdam/Philadelphia: John Benjamins.
- Hoff-Ginsberg, E. (1986). Function and structure in maternal speech: Their relation to the child's development of syntax. *Developmental Psychology, 22* (2), pp. 155-163.
- Hoff-Ginsberg, E. (1990). Maternal speech and the child's development of syntax: a further look. *Journal of Child Language, 17* (1), pp. 85-99.
- Hoff-Ginsberg, E. (1991). Mother-child conversation in different social classes and communicative settings. *Child Development, 62*, pp. 782-796.
- Hoff-Ginsberg, E. (1998). The relation of birth order and socioeconomic status to children's language experience and language development. *Applied Psycholinguistics, 19*, pp. 603-629.
- Hoff-Ginsberg, E. & Krueger, W. (1991). Older siblings as conversational partners. *Merill-Palmer Quarterly, 37*, pp. 465-482.

- Hoffmann, C. (1991). *An introduction to bilingualism*. London and New York: Longman.
- Holmes, J. (2008). *An Introduction to Sociolinguistics* (3rd Edition). Pearson: Longman.
- Horvath, B.M. & Vaughan, P. (1991). *Community languages: a handbook*. Clevedon, Philadelphia, Adelaide: Multilingual Matters LTD.
- Huber, J. (2013). *Sprachliche Variation in der SMS-Kommunikation. Eine empirische Untersuchung von deutschsprachigen Schreiberinnen und Schreibern in Südtirol* [Linguistic variation in SMS-communication. An empirical study from German-speaking writers in South Tyrol]. Free University of Bolzano.: Unpublished Bachelor Thesis.
- Hudson, A. (1992). Diglossia: A bibliographic review. *Language in Society*, 21, pp. 611-674.
- Hudson, A. (1994). Diglossia as a special case of register variation. In D. Biber & E. Finegan (eds.), *Sociolinguistic perspectives on register*. (pp. 294-314). New York, Oxford: Oxford University Press.
- Hudson, A. (2002). Outline of a theory of diglossia. *International Journal of the Sociology of Language*, 157, pp. 1-48.
- Huston, A., Wright, J., Rice, M., Kerkman, D. & St Peters, M. (1990). Development of television viewing patterns in early childhood: a longitudinal investigation. *Development Psychology*, 26 (3), pp. 409-420.
- Ibrahim, M. (1983). Linguistic distance and literacy in Arabic. *Journal of Pragmatics*, 7, pp. 507-515.
- Ibrahim, R. (2009a). The cognitive basis of diglossia in Arabic: Evidence from a repetition priming study within and between languages. *Psychology Research and Behavior Management*, pp. 93-105.
- Ibrahim, R. (2009b). Psycholinguistic challenges in processing the Arabic language. *International Journal of Psychology Research*, 4 (3/4), pp. 361-388.
- Ibrahim, R. & Aharon-Peretz, J. (2005). Is literary Arabic a second language for native Arab speakers? Evidence from a semantic priming study. *Journal of Psycholinguistic Research*, 34 (1), pp. 51-70.
- Iraqi, J. (1990). *Reading to Arabic-speaking kindergarten children compared to alternative enrichment activities as a means of improving listening comprehension and language skills*. Unpublished Master's Thesis. University of Haifa, Haifa, Israel.
- Jacob, K. (2001). *Understanding Speech Intelligibility and the Fire Alarm Code*. National Fire Protection Association Congress, 2001.

- James, K. (2002). Cultural implications for translation. *Translation Journal*, 6 (4), <http://translationjournal.net/journal/22delight.htm>, accessed 09 January 2015.
- Jancsi, B. (2008). South Tyrol: Linguistic Pluralism or Linguistic Parallelism? In G. Cholnoky (ed.), *Minorities Research*, 10. (pp. 149-182). Lucidus Kiadó.
- Jaquier, N. (1995). *Wie rezipieren Deutschschweizer Kinder im Vorschulalter standarddeutsche Werbespots* [How do Swiss German preschoolers receive Standard German commercials]. Lizentiatsarbeit Zürich (unpublished).
- Jensen, J. (1989). On the mutual intelligibility of Spanish and Portuguese. *Hispania*, 72 (4), pp. 848-852.
- Jia, G. (2003). The acquisition of the English plural morpheme by native Mandarin Chinese-speaking children. *Journal of Speech, Language, and Hearing Research*, 46, pp. 1297-1311.
- Jones, C.P. & Adamson, L. (1987). Language use in mother-child and mother-child-sibling interactions. *Child Development*, 58, pp. 356-366.
- Kagan, O. & Dillon, K. (2008). Issues in heritage language learning in the United States. *Encyclopedia of Language and Education*, pp. 1242-1255.
- Kalikow, D. N., Elliott, L. & Stevens, K. (1977). Development of a test of speech intelligibility in noise using sentence materials with controlled word predictability. *Journal of the Acoustical Society of America*, 61, pp. 1337-1351.
- Kaplan, R.B. & Baldauf, R.B.Jr. (1997). *Language Planning. From Practice to Theory*. Clevedon, Philadelphia, Toronto, Sydney, Johannesburg: Multilingual Matters LTD.
- Keller, R. (1982). Diglossia in German-speaking Switzerland. In W. Haas (ed.), *Standard languages: Spoken and written*. (pp. 70-93). Manchester: Manchester University Press.
- Kerswill, P. & Williams, A. (2000). Creating a New Town koine: Children and language change in Milton Keynes. *Language in Society*, 29, pp. 65-115.
- Khamis-Dakwar, R. & Froud, K. (2007). Lexical processing in two language varieties: an event-related brain potential study of Arabic native speakers. In M.A. Mughazy (ed.), *Perspectives on Arabic Linguistics XX*. (pp. 153-168). Amsterdam: John Benjamin.
- Kloss, H. (1966). Types of multilingual communities: a discussion of ten variables. *Sociological Inquiry*, 47 (Spring 66), pp. 135-147.
- Kloss, H. (1967). Abstand languages and Ausbau languages. *Anthropological linguistics*, pp. 29-41.

- Kloss, H. (1978). *Die Entwicklung neuer germanischer Kultursprachen seit 1800* [The development of new Germanic cultural languages since 1800] (2nd Edition). Düsseldorf: Pädagogischer Verlag Schwann.
- Kloss, H. (1987). Abstandsprache und Ausbausprache. In U. Ammon, N. Dittmar, K.J. Mattheier (eds.), *Sociolinguistics/Soziolinguistik. An international handbook of the science of language and society/Ein internationales Handbuch zur Wissenschaft von Sprache und Gesellschaft*. (pp. 302-308). Berlin/New York: de Gruyter.
- Knoll, L., Obleser, J., Schipke, C., Friederici, A. & Brauer, J. (2012). Left prefrontal cortex activation during sentence comprehension covaries with grammatical knowledge in children. *Neuro Image*, 62 (1), pp. 207-216.
- König, E. (2002). English. In E. König & J. van der Auwera (eds.), *The Germanic Languages*. (pp. 532-565). London and New York: Routledge.
- Köppe, R. & Meisel, J. (1995). Code-switching in bilingual first language acquisition. In L. Milroy & P. Muysken (eds.), *One speaker, two languages: Cross-disciplinary perspectives on code-switching*. (pp. 276-301). Cambridge, MA: Cambridge University Press.
- Kramer, J. (1981). *Deutsch und Italienisch in Südtirol (= Reihe Siegen 23. Beiträge zur Literatur- und Sprachwissenschaft, 23)* [German and Italian in South Tyrol]. Heidelberg: Carl Winter Universitätsverlag.
- Krashen, S. (1981). *Second language acquisition and second language learning*. Oxford: Pergamon Press.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon Press.
- Kremer, L. & Van Caeneghem, V. (2004). Zur Entwicklung von Dialektkompetenz und Dialektperformanz [The development of dialect competence and dialect performance]. In H. Christen (ed.), *Dialekt, Regiolekt und Standardsprache im sozialen und zeitlichen Raum*. (pp. 137-150). Wien: Edition Praesens. Verlag für Literatur- und Sprachwissenschaft.
- Kroll, J., Dijkstra, A., Janssen, N. & Schriefers, H. (2000). *Selecting the language in which to speak: Experiments on lexical access in bilingual production*. Paper presented at the 41st annual meeting of the Psychonomic Society, New Orleans, LA.
- Kühebacher, E. (1972). Zur Dialektgeographie des unteren Eisacktales [The dialect-geography of the *Eisacktal/ Valle Isarco*]. In *Der Schlern* 46. (pp. 436-444).

- Kühebacher, E. (1975). Eggental und Reggelberg dialektgeographisch betrachtet [Observing *Eggental/ Val d'Ega* dialectal-geographically]. In *Der Schlern* 49. (pp. 380-389).
- Kühebacher, E. (1977). Die Dialektgeographie des Sarntales [The dialect-geography of *Sarntal/ Sarentino*]. In *Der Schlern* 51. (pp. 228-445).
- Kühebacher, E. (1978). Zur Dialektgeographie des Ahrntales [The dialect-geography of *Ahrntal/ Valle Aurina*]. In *Der Schlern* 52. (pp. 428-448).
- Kürschner, S., Gooskens, C. & van Bezooijen, R. (2008). Linguistic determinants of the intelligibility of Swedish words among Danes. *International Journal of Humanities and Arts Computing* 2 (1-2), pp. 83-100.
- Lambert, W. (1977). Effects of bilingualism on the individual: Cognitive and sociocultural consequences. In P.A. Hornby (ed.), *Bilingualism: Psychological, social, and educational implications*. (pp. 15-28). New York: Academic Press.
- Landert, K. (2007). *Hochdeutsch im Kindergarten? Eine empirische Studie zum frühen Hochdeutscherwerb in der Deutschschweiz* [Standard German in preschool? An empirical study on early Standard German language acquisition in German-speaking Switzerland]. Bern: Peter Lang.
- Langer, N. & Davies, W. (2005). An introduction to linguistic purism. In N. Langer & W. Davies (eds.), *Linguistic Purism in the Germanic Languages*. (pp. 1-17). Berlin, New York: Walter de Gruyter.
- Lanthalder, F. (1974). Systemverändernde Tendenzen in der Mundart des Passeiertales am Beispiel einiger Verbformen [Changing tendencies in the vernacular used in *Passeiertal/ Val Passiria* with the example of some verb forms]. In: *Der Schlern* 48, pp. 469-474.
- Lanthalder, F. (1990). Dialekt und Zweisprachigkeit [Dialect and bilingualism]. In F. Lanthalder (ed.), *Mehr als eine Sprache*. (pp. 57-81). Meran.
- Lanthalder, F. (2001). Zwischenregister der deutschen Sprache in Südtirol [An intermediate register of the German language in South Tyrol]. In K. Egger & F. Lanthalder (eds.), *Die deutsche Sprache in Südtirol: Einheitssprache und regionale Vielfalt*. (pp. 137-152). Bozen, Wien: Folio Verlag.
- Lanthalder, F. (2006). Die Vielschichtigkeit des Deutschen in Südtirol – und wie wir damit umgehen [The multi-dimensionality of the German language in South Tyrol – and how we deal with it]. In A. Abel, M. Stuflesser & M. Putz (eds.), *Mehrsprachigkeit in Europa. Plurilinguismo in Europa. Multilingualism across Europe*. (pp. 371-380). Bozen/Bolzano: EURAC.

- Lanthaler, F. (2007). The German language in South Tyrol - some sociolinguistic aspects. In A. Abel, M. Stuflesser & L. Voltmer (eds.), *Aspects of multilingualism in European border regions: Insights and views from Alsace, Eastern Macedonia and Thrace, Lublin Voivodeship and South Tyrol*. (pp. 220-235). Bozen/Bolzano: European Academy.
- Lanthaler, F. (2012a). Systemverändernde Tendenzen in der Mundart des Passeiertales am Beispiel einiger Verbformen [Changing tendencies in the vernacular used in *Passeiertal/ Val Passiria* with the example of some verb forms]. In H. Drumbl & H. Sitta (eds.), *Franz Lanthaler. Texte zu Sprache und Schule in Südtirol (1974-2012)*. (pp. 13-24). Meran: Alpha und Beta Verlag.
- Lanthaler, F. (2012b). Innere und äußere Mehrsprachigkeit in Südtirol [Inner and outer multilingualism in South Tyrol]. In H. Drumbl & H. Sitta (eds.), *Franz Lanthaler. Texte zu Sprache und Schule in Südtirol (1974-2012)*. (pp. 139-164). Meran: Alpha und Beta Verlag.
- Lanthaler, F. (2012c). Zur Standardvariation des Deutschen am Beispiel Südtirol [Regarding the standard variation of German using the example of South Tyrol]. In H. Drumbl & H. Sitta (eds.), *Franz Lanthaler. Texte zu Sprache und Schule in Südtirol (1974-2012)*. (pp. 165-191). Meran: Alpha und Beta Verlag.
- Lanthaler, F. (2012d). Die Vielschichtigkeit des Deutschen in Südtirol – und wie wir damit umgehen [The multi-dimensionality of the German language in South Tyrol – and how we deal with it]. In H. Drumbl & H. Sitta (eds.), *Franz Lanthaler. Texte zu Sprache und Schule in Südtirol (1974-2012)*. (pp. 193-205). Meran: Alpha und Beta Verlag.
- Lanthaler, F. (2012e). Die deutsche Sprache in Südtirol – einige soziolinguistische Aspekte [The German language in South Tyrol – some sociolinguistic aspects]. In H. Drumbl & H. Sitta (eds.), *Franz Lanthaler. Texte zu Sprache und Schule in Südtirol (1974-2012)*. (pp. 207-234). Meran: Alpha und Beta Verlag.
- Lanthaler, F. (2012f). Zur Kasusmarkierung in den Südtiroler Dialekten [Case marking in South Tyrolean dialects]. In H. Drumbl & H. Sitta (eds.), *Franz Lanthaler. Texte zu Sprache und Schule in Südtirol (1974-2012)*. (pp. 261-277). Meran: Alpha und Beta Verlag.
- Lanthaler, F. (2012g). Einmal gelernt, zweimal gekonnt [Learned once, known twice]. In H. Drumbl & H. Sitta (eds.), *Franz Lanthaler. Texte zu Sprache und Schule in Südtirol (1974-2012)*. (pp. 379-388). Meran: Alpha und Beta Verlag.

- Lanthaler, F. (2012h). Dialekt in der Klasse oder: den Kindern ihre Sprache [Dialect in the classroom or: children their language]. In H. Drumbl & H. Sitta (eds.), *Franz Lanthaler. Texte zu Sprache und Schule in Südtirol (1974-2012)*. (pp. 425-436). Meran: Alpha und Beta Verlag.
- Lanthaler, F. (2012i). Sprache und Sachfächer [Language and school subjects]. In H. Drumbl & H. Sitta (eds.), *Franz Lanthaler. Texte zu Sprache und Schule in Südtirol (1974-2012)*. (pp. 371-377). Meran: Alpha und Beta Verlag.
- Lanthaler, F. (2012j). Wie kann man Kinder zur Hochsprache führen? [How do we guide children to Standard German?] In H. Drumbl & H. Sitta (eds.), *Franz Lanthaler. Texte zu Sprache und Schule in Südtirol (1974-2012)*. (pp. 437-456). Meran: Alpha und Beta Verlag.
- Lanthaler, F. (2012k). Sprachliches „Mi-Schmasch“. Zweisprachigkeit und die Deutsche Wehrmacht [Language mixing. Bilingualism and the German Armed Forces]. In H. Drumbl & H. Sitta (eds.), *Franz Lanthaler. Texte zu Sprache und Schule in Südtirol (1974-2012)*. (pp. 65-91). Meran: Alpha und Beta Verlag.
- Lanthaler, F. & Saxalber, A. (1995). Die deutsche Standardsprache in Südtirol [The German standard language in South Tyrol]. In R. Muhr, R. Schrod, P. Wiesinger (eds.), *Österreichisches Deutsch. Linguistische, sozialpsychologische und sprachpolitische Aspekte einer nationalen Variante des Deutschen*. (pp. 287-304). Wien: Holder-Pichler-Tempsky.
- Lantschner, E. (2008). History of the South Tyrol Conflict and its Settlement. In J. Woelk, F. Palermo & J. Marco (eds.), *Tolerance through law: self governance and group rights in South Tyrol*. (pp. 3-15.). European Academy Bozen/Bolzano: Martinus Nijhoff Publishers.
- Larch, A. & Unterholzner, A. (2004). *Sprechen Sie Südtirolerisch? Ein Sprachführer für Einheimische und Zugereiste* [Do you speak South Tyrolean? A language guide for locals and newcomers]. Ueberreuter.
- Lenz, A.N. (2003). Struktur und Dynamik des Substandards. Eine Studie zum Westmitteldeutschen (Wittlich/Eifel) [Structure and dynamic. A study on West Central German (Wittlich/Eifel)]. Philipps-Universität Marburg/Lahn. Franz Steiner Verlag.
- Leonardi, M.M.V. (2011). *Personal Perceptions of Bilingualism in Gwynedd and South Tyrol*. University of Bangor: Unpublished MA Dissertation.

- Leonardi, M.M.V. (2015). A case study of diglossia in South Tyrol: German language comprehension at pre-school age. *PARLAY Proceedings Series 1, Issue 2. York Papers in Linguistics*, pp. 64-74.
- Leonardi, M.M.V. (2016, in press). The impact of diglossia in early language development: A case study in South Tyrol. In A. Profanter (ed.), *Interkultureller Dialog, Band 6. Kulturen im Dialog IV. Viertes JungakademikerInnen-Forum in Südtirol / Culture in Dialogo. Quarto Forum per Neolaureati in Alto Adige / Cultures in Dialogue. Fourth Forum for Young Graduates in South Tyrol*. Frankfurt am Main: Peter Lang.
- Lieberson, S. (1970). *Language and Ethnic Relations in Canada*. New York: John Wiley.
- Löffler, H. (2005). Wieviel Variation verträgt die deutsche Standardsprache? Begriffserklärung: Standard und Gegenbegriffe [How much variance does the German standard language tolerate? Definition: standard and fundamental terms]. In L.M. Eichinger & W. Kallmeyer (eds.), *Standardvariation. Wie viel Variation verträgt die deutsche Sprache?* (pp. 7-27). Berlin, New York: Walter de Gruyter.
- Maamouri, M. (1998). "Language education and human development: Arabic diglossia and its impact on the quality of education in the Arab region". *The Mediterranean Development Forum*. Washington, DC: The World Bank.
- Macnamara, J. (1967). The bilingual's linguistic performance - A psychological overview. *Journal of Social Issues*, 23 (2), pp. 58-77.
- Maiden, M. (2013). *A linguistic history of Italian*. London & New York: Routledge.
- Marchman, V., Martinez-Sussman, C. & Dale, P. (2004). The language-specific nature of grammatical development: Evidence from bilingual language learners. *Developmental Science*, 7, pp. 212-224.
- Marinis, T. (2010). Using on-line processing methods in language acquisition research. In E. Blom & S. Unsworth (eds.), *Experimental methods in language acquisition research*. (pp. 139-162). Amsterdam, Philadelphia: John Benjamins Publishing Company.
- Marinis, T. & Chondrogianni, V. (2010). Production of tense marking in successive bilingual children: When do they converge with their monolingual peers? *International Journal of Speech-Language Pathology*, 12, pp. 19-28.
- Matras, Y. (2009). *Language Contact*. Cambridge: Cambridge University Press.
- Mattheier, K.J. (1982). Koexistenz und Variabilität in der Dialekt-Standard-Situation. Einige linguistische und dialektdidaktische Bemerkungen zur Diglossie an rheinischen Beispielen [Coexistence and variability in the dialect-standard-situation. Some linguistic and dialectdidactical remarks regarding diglossia on Rheinisch examples]. In

- K. Egger (ed.), *Dialekt und Hochsprache in der Schule. Beiträge zum Deutschunterricht in Südtirol*. (pp. 128-149). Bozen: Südtiroler Kulturinstitut und Arbeitskreis Südtiroler Mittelschullehrer.
- Maynard, A. (2004). Sibling interactions. In U.P. Gielen & J.R. Roopnarine (eds.), *Childhood and adolescence: Cross-cultural perspectives and applications*. (pp. 229-252). Westport, CT: Praeger.
- McLaughlin, B. (1978). *Second language acquisition in childhood*. Hillsdale, NJ: Lawrence Erlbaum.
- Meisel, J. (2001). The simultaneous acquisition of two first languages: Early differentiation and subsequent development of grammars. In J. Cenoz & F. Genesee (eds.), *Trends in Bilingual Acquisition*. (pp. 11-41). Amsterdam: John Benjamins.
- Meisel, J. M. (2004). The Bilingual Child. In T.K. Bhatia & W.C. Ritchie (eds.), *The Handbook of bilingualism*. (pp. 91-113). Blackwell Publishing.
- Meraner, R. (2013). Minderheitenschule hoch drei. Das Südtiroler Bildungswesen [The South Tyrolean education system]. *Erziehung und Unterricht*, 7-8, pp. 731-737.
- Mercator European Research Centre on Multilingualism and Language Learning (2007). *Frisian. The Frisian language in education in the Netherlands* (4th Edition). Fryske Akademy.
- Miller, G., Heise, G. & Lichten, W. (1951). The intelligibility of speech as a function of the context of the test materials. *Journal of Experimental Psychology*, 41, pp. 329-335.
- Milroy, L. (1980). *Language and social networks*. Oxford: Blackwell.
- Mioni, A. (1990). Bilinguismo intra- e intercomunitario in Alto Adige/Südtirol: considerazioni sociolinguistiche [Intra- and intercommunity bilingualism in South Tyrol: sociolinguistic remarks]. In F. Lanthaler (ed.), *Mehr als eine Sprache. Zu einer Sprachstrategie in Südtirol/ Più di una lingua. Per un progetto linguistico in Alto Adige*. (pp. 13-35). Meran: Alpha und Beta Verlag.
- Moberg, J., Gooskens, C., Nerbonne, J. & Vaillette, N. (2007). Conditional entropy measures intelligibility among related languages. In P. Dirix, I. Schuurman, V. Vandeghinste & F. Van Eynde (eds.), *Computational Linguistics in the Netherlands 2006: Selected papers from the 17th CLIN Meeting*. (pp. 51-66.). Utrecht: LOT.
- Montrul, S. (2008). *Incomplete Acquisition in Bilingualism: Re-examining the Age Factor*. Amsterdam: John Benjamins.
- Moore, T. (1989). Speech Technology in the Cockpit. *Proceedings of Aviation Psychology*, pp. 50-65.

- Morton, J. (1969). Interaction of information in word recognition. *Psychological Review* 76, pp. 165-178.
- Moser, H. (1982a). *Zur Situation des Deutschen in Südtirol (Innsbrucker Beiträge zur Kulturwissenschaft, Germanistische Reihe 13)* [The situation of German in South Tyrol]. Innsbruck: Institut für Germanistik.
- Moser, H. (1982b). Methodische Überlegungen zur Untersuchung des gesprochenen Deutsch in Südtirol [Methodological considerations regarding the investigation of the spoken German in South Tyrol]. In H. Moser (ed.), *Zur Situation des Deutschen in Südtirol (Innsbrucker Beiträge zur Kulturwissenschaft, Germanistische Reihe 13)*. (pp. 75-90). Innsbruck: Institut für Germanistik.
- Moser, H. & Putzer, O. (1980). Zum umgangssprachlichen Wortschatz in Südtirol: Italienische Interferenzen in der Sprache der Städte [The colloquial lexicon in South Tyrol: Italian interferences in the language spoken in cities]. In P. Wiesinger (ed.), *Sprache und Name in Österreich. Festschrift für Walter Steinhauser zum 95. Geburtstag*. (pp. 139-172). Wien: Braumüller.
- Moser, H. (2015). *Wörterbuch der Südtiroler Mundarten* [Dictionary of the South Tyrolean vernaculars]. Haymon: Innsbruck-Wien.
- Munro, M. & Derwing, T. (1995). Foreign accent, comprehensibility and intelligibility in the speech of second language learners. *Language Learning*, 45, pp. 73-97.
- Munro, M., Derwing, T.M. & Morton, S. (2006). The mutual intelligibility of L2 speech. *Studies in Second Language Acquisition*, 28 (1), pp. 111-131.
- Myers-Scotton, C. (1992). Comparing codeswitching and borrowing. *Journal of Multilingual and Multicultural Development*, 13 (1-2), pp. 19-39.
- Myers-Scotton, C. (2006). *Multiple voices: An introduction to bilingualism*. Malden, MA: Blackwell Publishing.
- Naigles, L.R. & Mayeux, L. (2001). Television as incidental language teacher. In D. Singer & J. Singer (eds.), *Handbook of children and the media*. (pp. 135-152). London: Sage Publications.
- Nakayama, M., Verdonschot, R., Sears, C. & Lupker, S. (2014). The masked cognate translation priming effect for different-script bilinguals is modulated by the phonological similarity of cognate words: Further support for the phonological account. *Journal of Cognitive Psychology*, 26 (7), pp. 714-724.
- Neugebauer, C. (2004). *"Hochdeutsch - vom Grüezi bis zum Adieu": Bericht zur explorativen Studie "Hochdeutsch als Unterrichtssprache in der ersten Klasse"* [Standard German:

- a report on the explorative study "Standard German as medium of instruction in the first grade"]. Pädagogische Hochschule (Zürich). Forschung und Entwicklung.
- Nicoladis, E. & Genesee, F. (1996). A longitudinal study of pragmatic differentiation in young bilingual children. *Language Learning*, 46, pp. 439-464.
- Nicoladis, E. & Genesee, F. (1997). Language development in preschool bilingual children. *Journal of Speech-Language Pathology and Audiology*, 21 (4), pp. 258-270.
- Nicoladis, E., Palmer, A. & Marentette, P. (2007). The role of type and token frequency in using past tense morphemes correctly. *Developmental Science*, 10, pp. 237-254.
- Nizegorodcew, A. (2007). *Input for instructed L2 learners. The relevance of relevance*. Clevedon, Buffalo, Toronto: Multilingual Matters LTD.
- Nodari, C. & De Rosa, R. (2003). *Mehrsprachige Kinder. Ein Ratgeber für Eltern und andere Bezugspersonen* [Multilingual children. A guidebook for parents and other people]. Bern, Stuttgart, Wien: Haupt Verlag.
- Oberhammer, M. (2007). Literature in South Tyrol. In A. Abel, M. Stuflesser & L. Voltmer (eds.), *Aspects of multilingualism in European border regions: Insights and views from Alsace, Eastern Macedonia and Thrace, Lublin Voivodeship and South Tyrol*. (pp. 243-251). Bozen/Bolzano: European Academy.
- Oller, D. K. (2005). The distributed characteristics in bilingual learning. In K.M.J. Cohen (ed.), *ISB4: Proceedings of the 4th International Symposium on Bilingualism*. (pp. 1744-1749). Somerville, MA: Cascadilla Press.
- Oller, D.K. & Eilers, R.E. (2002). *Language and literacy in bilingual children*. Clevedon: Multilingual Matters.
- Oller, D.K. & Pearson, B.Z. (2002). Assessing the effects of bilingualism: A background. In D.K. Oller & R.E. Eilers (eds.), *Language and Literacy in Bilingual Children*. (pp. 3-21). Clevedon, UK: Multilingual Matters.
- Oller, D. K., Pearson, B. Z. & Cobo-Lewis, A. B. (2007). Profile effects in early bilingual language and literacy. *Applied Psycholinguistics*, 28, pp. 191-230.
- Ortiz, E. (2009). *The influence of family structure and the role of siblings on early language development of Latino preschool children*. Published PhD Dissertation. Utah State University.
- Oshima-Takane, Y., Goodz, E. & Derevensky, J. (1996). Birth order effects on early language development: Do secondborn children learn from overheard speech? *Child Development*, 67 (2), pp. 621-634.

- Österreichisches Wörterbuch (2006) [Austrian dictionary] Eds. Im Auftrag des Bundesministeriums für Bildung, Wissenschaft und Kultur (40, neu bearbeitete Auflage). Wien: ÖBV&HPT.
- Paladino, M.-P., Poddesu, L., Rauzi, M., Cadinu, M. & Vaes, J. (2006). Minaccia indotta dallo stereotipo e padronanza della seconda lingua: Il ruolo dei processi psicologici nelle competenze in tedesco della popolazione di lingua italiana della provincia di Bolzano [Threat induced from the stereotype and domination from the second language: the role of the psychological processes in German competences among the Italian-speaking language group in South Tyrol]. In A. Abel, M. Stuflesser & M. Putz (eds.), *Plurilinguismo in Europa: esperienze, esigenze, nuove pratiche*. 24.-26.08.2006, Bolzano/Bozen. (pp. 161-170). Bozen/Bolzano: Eurac Research.
- Pallaver, G. (2015). Sprache in der Pufferzone: Deutsche Lehnwörter im Trentiner Dialekt: Branzoll im Südtiroler Unterland [Language in the buffer zone: German loanwords in the Trentino dialect: *Branzoll/ Branzolo* in the South Tyrolean *Unterland/ Bassa Atesina*]. In A. Corbea-Hoisie & S.P. Scheichl (eds.), Scheichl, *Kulturen an 'Peripherien' Mitteleuropas (am Beispiel der Bukowina und Tirols)*. (pp. 179-195). Konstanz: Jassy.
- Paradis, J. (2005). Grammatical morphology in children learning English as a second language: Implications of similarities with specific language impairment. *Language, Speech and Hearing Services in the Schools*, 36, pp. 172-187.
- Paradis, J. (2009). *Oral language development in French and English and the role of home input factors*. Report for the Conseil Scolaire Centre-Nord, Edmonton, Alberta.
- Paradis, J. (2010). Bilingual children's acquisition of English verb morphology: Effects of language dominance, structure difficulty, and task type. *Language Learning*, 60 (3), pp. 651-680.
- Paradis, J. (2011a). Individual differences in child English second language acquisition: comparing child-internal and child-external factors. *Linguistic Approaches to Bilingualism*, 1, pp. 213-237.
- Paradis, J. (2011b). *Developing resources for language assessment with English second language children. Scientific report for the Alberta Centre for child, family and community research*. University of Alberta.
- Paradis, J. & Genesee, F. (1996). Syntactic acquisition in bilingual children: Autonomous or independent? *Studies in Second Language Acquisition*, 18, pp. 1-25.

- Paradis, J. & Grüter, T. (2014). Introduction to 'Input and experience in bilingual development'. In T. Grüter & J. Paradis (eds.), *Input and experience in bilingual development*. (pp. 1-14). Amsterdam/Philadelphia: John Benjamins.
- Paradis, J., Rice, M., Crago, M. & Marquis, J. (2008). The acquisition of tense in English: Distinguishing child second language from first language and specific language impairment. *Applied Psycholinguistics*, 29, pp. 689-722.
- Patterson, J. (2002). Relationships of expressive vocabulary to frequency of reading and television experience among bilingual toddlers. *Applied Psycholinguistics*, 23, pp. 493-508.
- Patterson, J. & Pearson, B. (2004). Bilingual lexical development: Influences, contexts, and processes. In B.A. Goldstein (ed.), *Bilingual language development and disorders in Spanish-English speakers*. (pp. 77-104). Baltimore, MD: Paul Brookes.
- Pavlenko, A. & Jarvis, S. (2002). Bidirectional transfer. *Applied Linguistics*, 23 (2), pp. 190-214.
- Peal, E. & Lambert, W.E. (1962). The relation of bilingualism to intelligence. *Psychological Monographs*, 76, pp. 1-23.
- Pearson, B. (1998). Assessing lexical development in bilingual babies and toddlers. *International Journal of Bilingualism*, 2 (3), pp. 347-372.
- Pearson, B. (2007). Social factors in childhood bilingualism in the United States. *Applied Psycholinguistics*, 28, pp. 399-410.
- Pearson, B.Z., Fernández, S. & Oller, D.K. (1993). Lexical development in simultaneous bilingual infants and toddlers: Comparison to monolingual norms. *Language Learning*, 43 (1), pp. 93-120.
- Pearson, B. & Fernández, S. (1994). Patterns of interaction in the lexical growth in two languages of bilingual infants and toddlers. *Language Learning*, 44, pp. 617-653.
- Pearson, B., Fernández, S., Lewedeg, V. & Oller, D. (1997). The relation of input factors to lexical learning by bilingual infants. *Applied Psycholinguistics*, 18, pp. 41-58.
- Peterlini, O. (2000). *Autonomie und Minderheitenschutz in Südtirol und im Trentino. Überblick über Land und Geschichte, Recht und Politik* [Autonomy and protection of minorities in South Tyrol and in Trentino: an overview of country and history, law and politics]. Bozen/Trient: Consiglio della Regione Autonoma Trentino-Alto Adige.
- Petkova, M. (2009). Das Korpus des Projekts "Mischphänomene zwischen Dialekt und Standardsprache in der Deutschschweizer Diglossie". Über die Schwierigkeit, selten vorkommende Phänomene zu dokumentieren [The corpus of the project "Mix-

- phenomena between dialect and Standard German in the Swiss German diglossia". About the difficulty to document rarely occurring phenomena]. *Linguistik Online* 38/2, pp. 23-34.
- Petkova, M. (2012). Die Deutschschweizer Diglossie. Eine Kategorie mit fuzzy boundaries. [The Swiss German diglossia. A category with fuzzy boundaries]. In R. Franceschini (ed.), *Verschwommene Dialekte. Zeitschrift für Literaturwissenschaft und Linguistik* 166. (pp. 61-87). Stuttgart/Weimar: J.B. Metzler.
- Pfitscher, A., Altstätter, E. & Gianni, B. (2001). *Martell. Sprache und Kultur [Martell/ Martello. Language and culture]*. Martell: Gemeinde Martell.
- Pine, J. (1995). Variation in vocabulary development as a function of birth order. *Child Development*, 66, pp. 272-281.
- Place, S. & Hoff, E. (2011). Properties of dual language exposure that influence 2-year-olds' bilingual proficiency. *Child Development*, 82 (6), pp. 1834-1849.
- Platt, J.T. (1977). A model for polyglossia and multilingualism (with special reference to Singapore and Malaysia). *Language in Society*, 6 (3), pp. 361-378.
- Poarch, G. & Van Hell, J. (2012a). Executive functions and inhibitory control in multilingual children: Evidence from second-language learners, bilinguals, and trilinguals. *Journal of Experimental Child Psychology*, 113 (4), pp. 535-551.
- Poarch, G. & Van Hell, J. (2012b). Cross-language activation in children's speech production: Evidence from second language learners, bilinguals, and trilinguals. *Journal of Experimental Child Psychology*, 111 (3), pp. 419-438.
- Polinsky, M. & Kagan, O. (2007). Heritage languages: In the 'wild' and in the classroom. *Language and Linguistics Compass*, 1 (5), pp. 368-395.
- Poplack, S. (1980). "Sometimes I'll start a sentence in Spanish y termino en Espanol": Toward a typology of code-switching. *Linguistics*, 18 (7/8), pp. 581-618.
- Prader, L. T. (1988). *The German Language in Primary Education in South Tyrol, Italy*. EMU- Project (Fryske Akademy): 24.
- Price, G. (2000). *Encyclopedia of the Languages of Europe*. Oxford: Wiley-Blackwell.
- Putzer, O. (1997). *Zusammenfassende Analyse und Ergebnisse der schriftlichen Sprachfertigkeiten an den italienischen Oberschulen, Mittelschulen und Grundschulen* [Summarizing analyses and results of the written language facility on Italian-speaking high schools, secondary and primary schools]. Bolzano/Bozen: Autonome Provinz Bozen- Amt für Zweisprachigkeit.

- Rash, F. (2002). *Die deutsche Sprache in der Schweiz. Mehrsprachigkeit, Diglossie und Veränderung* [The German language in Switzerland. Multilingualism, diglossia and change]. Bern: Peter Lang.
- Rice, M. & Woodsmall, L. (1988). Lessons from television: children's word learning when viewing. *Child Development*, 59, pp. 420-429.
- Rice, M., Huston, A., Truglio, R. & Wright, J. (1990). Words from "Sesame Street": Learning vocabulary while viewing. *Developmental Psychology*, 26, pp. 421-428.
- Riedmann, G. (1979). Bemerkungen zur deutschen Gegenwartssprache in Südtirol [Remarks on the German present-day language in South Tyrol]. In P.S. Ureland (ed.), *Standardsprache und Dialekte in mehrsprachigen Gebieten Europas*. (pp. 149-181). Tübingen: Max Niemeyer Verlag.
- Riehl, C.M. (1994). Das Problem von 'Standard' und 'Norm' am Beispiel der deutschsprachigen Minderheit in Südtirol [The problem of 'standard' and 'norm' illustrated by the example of the German minority in South Tyrol]. In O. Winkelmann, U. Helfrich & C.M. Riehl (eds.), *Mehrsprachigkeit in Europa - Hindernis oder Chance?* (pp. 149-164). Wilhelmsfeld: Gottfried Egert Verlag.
- Riehl, C.M. (1997). *Schreiben, Text und Mehrsprachigkeit. Beitrag zu einer Theorie der mehrsprachigen Gesellschaft am Beispiel der deutschsprachigen Minderheiten in Südtirol und Ostbelgien* [Writing, texts and multilingualism. Contributions to a theory of multilingual communities illustrated by the example of the German minorities in South Tyrol and East-Belgium]. (Habilitationsschrift) Freiburg.
- Riehl, C.M. (1998). Schriftsprachliche Kompetenz und Zweisprachigkeit. Der Fall Südtirol [Written competence and bilingualism. The South Tyrolean case]. In I. Werlen (ed.), *Mehrsprachigkeit im Alpenraum*. (pp. 175-192). Aarau/Frankfurt/Salzburg: Sauerländer.
- Riehl, C.M. (2001). *Schreiben, Text und Mehrsprachigkeit. Zur Textproduktion in mehrsprachigen Gesellschaften am Beispiel der deutschsprachigen Minderheiten in Südtirol und Ostbelgien* [Writing, texts and multilingualism. Text production in multilingual communities illustrated by the example of the German minorities in South Tyrol and East-Belgium]. Tübingen: Stauffenburg Verlag.
- Riehl, C.M. (2007). Varietätengebrauch und Varietätenkontakt in Südtirol und Ostbelgien [Use of and contact between varieties in South Tyrol and East-Belgium]. *Linguistik online* 32, 3, pp. 105-117.

- Rinker, T., Budde, N., Bamyaci, E. & Winter, V. (2011). Einblicke in die sprachlichen Leistungen türkischer Kinder mit Deutsch als Zweitsprache [Insights into the linguistic achievements of Turkish children with German as L2]. *Diskurs Kindheits- und Jugendforschung Heft 4.*, pp. 471-478.
- Roberts, P. & Deslauriers, L. (1999). Picture naming of cognate and non-cognate nouns in bilingual aphasia. *Journal of Communication Disorders*, 32, pp. 1-23.
- Rodríguez, J., Díaz, R., Duran, D. & Espinosa, L. (1995). The impact of bilingual preschool education on the language development of Spanish-speaking children. *Early Childhood Research Quarterly*, 10, pp. 475-490.
- Rodriguez, E.T., Tamis-LeMonda, C.S., Spellman, M.E., Pan, B.A., Raikes, H., Lugo-Gil, J., Luze, G. (2009). The formative role of home literacy experiences across the first three years of life in children from low-income families. *Journal of Applied Development Psychology*, 30, pp. 677-694.
- Rogers, V. & McLeod, W. (2006). Autochthonous minority languages in public-sector primary education: Bilingual policies and politics in Brittany and Scotland. *Linguistics and Education*, 17, pp. 347-373.
- Romaine, S. (1989). *Bilingualism*. Oxford: Basil Blackwell.
- Romaine, S. (2006). The Bilingual and Multilingual Community. In T.K. Bhatia & W.C. Ritchie (eds.), *The handbook of bilingualism*. (pp. 385-405). Blackwell Publishing.
- Ronjat, J. (1913). *Le développement du langage observé chez un enfant bilingue* [Language development observed in a bilingual child]. Paris: Librairie Ancienne H. Champion.
- Rosenhouse, J. & Goral, M. (2004). Bilingualism in the Middle East and North Africa: A focus on the Arabic-speaking world. In T.K. Bhatia & W.C. Ritchie (eds.), *The Handbook of Bilingualism*. (pp. 835-868). Blackwell Publishing Ltd.
- Rowe, M. (2008). Child-directed speech: relation to socioeconomic status, knowledge of child development and child vocabulary skill. *Journal of Child Language*, 35, pp. 185-205.
- Rowley, A.R. (2000). North Bavarian. In C.V.J. Russ (ed.), *The dialect of Modern German. A linguistic survey*. (pp. 417-437). London: Routledge.
- Rowley, A.R. (2011). Bavarian: Successful dialect or failed language? In J. Fishman & O. García (eds.), *Handbook of language and ethnic identity. The success-failure continuum in language and ethnic identity efforts. Volume 2*. (pp. 299-309). Oxford; New York: Oxford University Press.
- Rubin, J. (1972). Bilingual usage in Paraguay. In J. Fishman (ed.), *Readings in the Sociology of Language*. (pp. 215-530). The Hague: Mouton.

- Russ, C. (2005). *The German language today. A linguistic introduction*. London and New York: Routledge.
- Sachse, S., Budde, N., Rinker, T. & Groth, K. (2010). Mehrsprachige Kinder in vorschulischen Sprachfördermaßnahmen: Soziodemografischer Hintergrund und Sprachleistungen [Linguistic assistance measures for multilingual children in preschools: sociodemographic background and language achievements]. *Logos interdisziplinär*, 18, pp. 337-345.
- Sagmeister, A. (2009). "Sou red man in Lana" ["That's how it is spoken in Lana"]. *Dialektwörterammlung*. Lana: Druckerei Gruber.
- Saiegh-Haddad, E. (2003). Linguistic distance and initial reading acquisition: The case of Arabic diglossia. *Applied Psycholinguistics*, 24 (3), pp. 431-451.
- Saiegh-Haddad, E. (2004). The impact of phonemic and lexical distance on the phonological analysis of words and pseudowords in a diglossic context. *Applied Psycholinguistics*, 25, pp. 495-512.
- Saiegh-Haddad, E. (2011). Phonological processing in diglossic Arabic. The role of linguistic distance. In E. Broselow & H. Ouali (eds.), *Perspectives on Arabic linguistics. Papers from the annual symposia on Arabic Linguistics. Volume XXII-XXIII* (pp. 269-280). College Park, Maryland, 2008 and Milwaukee, Wisconsin, 2009: John Benjamins Publishing Company.
- Saiegh-Haddad, E., Levin, I., Hende, N. & Ziv, M. (2011). The linguistic affiliation constraint and phoneme recognition in diglossic Arabic. *Journal of Child Language*, 38 (2), pp. 297-315.
- Sauerland, U. & Yatsushiro, K. (2012). Welche Kinder sind in Sprachförderschulen? Eine Regressionsanalyse anhand von Standardtests [Which children are in special-needs schools? A regression analysis based on standardized tests]. *Spektrum Patholinguistik*, 5, pp. 117-122.
- Saunders, G. (1982). *Bilingual children: guidance for the family*. Clevedon, Avon: Multilingual Matters.
- Saxalber-Tetter, A. (1982). Einschätzung des Dialekts bei Eltern und Lehrern. Ergebnisse einer Umfrage [Estimation of the dialects among parents and teachers. Results of a survey]. In H. Moser (ed.), *Zur Situation des Deutschen in Südtirol. Sprachwissenschaftliche Beiträge zu den Fragen von Sprachnorm und Sprachkontakt*. (pp. 179-200). Innsbruck: Institut für Germanistik.

- Saxalber-Tetter, A. (1985). *Dialekt-Hochsprache als Unterrichtsthema. Anregungen für die Deutschlehrer/innen der Mittel- und Oberschule* [Dialect-Standard German as medium of instruction. Suggestions for German teachers in secondary school and high school]. Bozen: Südtiroler Kulturinstitut. Pädagogisches Institut.
- Saxalber-Tetter, A. (1994). *Dialekt-Hochsprache als Unterrichtsthema. Anregungen für die Deutschlehrer/innen der Mittel- und Oberschule* (2nd Edition) [Dialect-Standard German as medium of instruction. Suggestions for German teachers in secondary school and high school]. Bozen: Südtiroler Kulturinstitut. Pädagogisches Institut.
- Saxalber-Tetter, A. & Lanthaler, F. (2012). Deutschunterricht in Südtirol – Sprachdidaktik für den kleinen Raum [German lessons in South Tyrol – Language didactics in the small space]. In H. Drumbl & H. Sitta (eds.), *Franz Lanthaler. Texte zu Sprache und Schule in Südtirol (1974-2012)*. (pp. 347-369). Meran: Alpha und Beta Verlag.
- Scharloth, J. (2006). Schweizer Hochdeutsch – schlechtes Hochdeutsch? [Swiss Standard German – bad Standard German?] In C. Dürscheid & M. Businger (eds.), *Schweizer Standarddeutsch. Beiträge zur Varietätenlinguistik*. (pp. 81-96). Tübingen: G. Narr.
- Scheele, A., Leseman, P. & Mayo, A. (2010). The home language environment of monolingual and bilingual children and their language proficiency. *Applied Psycholinguistics*, 31, pp. 117-140.
- Schepens, J., Dijkstra, T., Grootjen, F. & van Heuven, W. (2013). Cross-language distributions of high frequency and phonetically similar cognates. *PLOS ONE*, 8 (5), pp. 1-15.
- Schipke, C.S., Knoll, L.J., Friederici, A.D. & Oberecker, R. (2012). Preschool children's interpretation of object-initial sentences: Neural correlates of their behavioral performance. *Developmental Science*, 15 (6), pp. 762-774.
- Schmitt, C. & Miller, K. (2010). Using comprehension methods in language acquisition research. In E. Blom & S. Unsworth (eds.), *Experimental methods in language acquisition research*. (pp. 35-56). Amsterdam, Philadelphia: John Benjamins Publishing Company.
- Schüppert, A. & Gooskens, C. (2011). Investigating the role of language attitudes for perception abilities using reaction time. *Dialectologia*, 7, pp. 119-140.
- Schüppert, A., Haug Hilton, N. & Gooskens, C. (2015). Swedish is beautiful, Danish is ugly? Investigating the link between language attitudes and spoken word recognition. *Linguistics*, 53 (2), pp. 375-403.

- Schwienbacher, B. (1997). *Über den Ultner Dialekt. Struktur und Aufbau einer Tiroler Mundart* [About the dialect spoken in *Ultental/ Val d'Ultimo*. Structure and composition of a Tyrolean vernacular]. Museumsverein Ulten.
- Shin, S. (2013). *Bilingualism in schools and society: Language, Identity, and Policy*. New York: Routledge.
- Sieber, P. & Sitta, H. (1986). *Mundart und Standardsprache als Problem der Schule* [Vernacular and standard language as school problem]. Aarau, Frankfurt am Main, Salzburg: (Reihe Sprachlandschaft Bd. 3).
- Siegel, J. (2010). *Second dialect acquisition*. Cambridge: Cambridge University Press.
- Sitta, H. (1994). Im Dialekt leben [Living in the dialect]. In F. Lanthaler (ed.), *Dialekt und Mehrsprachigkeit. Beiträge eines Symposiums. Dialetto e plurilinguismo. Atti di un simposio*. (pp. 13-26). Meran: Alpha und Beta Verlag.
- Six, U. (2008). Medien und Entwicklung [Media and development]. In R. Oerter & L. Montada (eds.), *Entwicklungspsychologie*. (pp. 885-909). Weinheim: Psychologie Verlags Union.
- Smith, J., Durham, M. & Fortune, L. (2007). "Mam, my trousers is fa'in doon!": Community, caregiver, and child in the acquisition of variation in a Scottish dialect. *Language Variation and Change*, 19, pp. 63-99.
- Snow, C. (1977). Mothers' speech research: from input to interaction. In C.E. Snow & C.A. Ferguson (eds.), *Talking to children*. (pp. 31-49). Cambridge: Cambridge University Press.
- Snow, C., Arlman-Rupp, A., Hassing, Y., Jobse, J., Joosten, J. & Vorster, J. (1976). Mothers' speech in three social classes. *Journal of Psycholinguistic Research*, 5 (1), pp. 1-20.
- Snow, D. (2013). Revisiting Ferguson's defining cases of diglossia. *Journal of Multilingual and Multicultural Development*, 34 (1), pp. 61-76.
- Spolsky, B. (1969). Attitudinal aspects of second language learning. *Language Learning*, 19 (3-4), pp. 271-285.
- St Peter, M., Huston, A. & Wright, J. (1989). Television and families: parental co-viewing and young children's language development, social behavior, and television processing. *Kansas City: paper presented at the biennial meeting of the Society for Research in Child Development*, pp. 1-19.
- Steinberg, D. (1995). *An introduction to psycholinguistics*. Harlow: Longman.
- Stocker, M. (2007). *Our History. Südtirol/South Tyrol 1914-1992 in brief*. Bozen: Verlagsanstalt Athesia.

- Stockwell, P. (2007). *Sociolinguistics. A resource book for students* (2nd Edition). London and New York: Routledge.
- Stolarova, M., Wolf, C., Rinker, T. & Brielmann, A. (2014). How to assess and compare inter-rater reliability, agreement and correlation of ratings: an exemplary analysis of mother-father and parent-teacher expressive vocabulary rating pairs. *Frontiers in quantitative psychology and measurement*, 5, pp. 1-13.
- Swarte, F. & Hilton, N. (2013). Mutual intelligibility between speakers of North and West Frisian. In C. Gooskens & R. van Bezooijen (eds.), *Phonetics in Europe: Perception and Production*. (pp. 281-302). Frankfurt a.M.: Peter Lang.
- Tagliamonte, S. (2006). *Analysing Sociolinguistic Variation. Key Topics in Sociolinguistics*. Cambridge: Cambridge University Press.
- Tamburelli, M. (2012). Dalla diglossia al bilinguismo: note sul mantenimento del patrimonio linguistico d'Italia [From diglossia to bilingualism]. In G. Agresti & M. De Gioia (eds.), *L'enseignement des langues locales Institutions, méthodes, idéologies: Actes des Quatrièmes Journées des Droits Linguistiques*. (pp. 187-202.). Rome: Aracne.
- Tamburelli, M. (2014). Uncovering the 'hidden' multilingualism of Europe: an Italian case study. *Journal of Multilingual and Multicultural Development*, 35 (3), pp. 252-270.
- Tang, C. (2009). *Mutual intelligibility of Chinese dialects. An experimental approach*. LOT Dissertation, Utrecht: LOT.
- Tang, C. & van Heuven, V. (2007). Mutual intelligibility and similarity of Chinese dialects. Predicting judgments from objective measures. In B. Los & M. van Koppen (eds.), *Linguistics in the Netherlands 24*. (pp. 223-234). Amsterdam: John Benjamins Publishing.
- Tang, C. & van Heuven, V. (2009). Mutual intelligibility of Chinese dialects experimentally tested. *Lingua, an International Review of General Linguistics*, 119 (5), pp. 709-732.
- Tang, C. & van Heuven, V. (2015). Predicting mutual intelligibility of Chinese dialects from multiple objective linguistic distance measures, *Linguistics* 53 (2), pp. 285-311.
- Ten Thije, J.D. & Zeevaert, L. (2007) Receptive multilingualism: Linguistic analyses, language policies and didactic concepts. Amsterdam/Philadelphia: John Benjamins Publishing.
- Thierry, G. & Wu, Y. (2007). Brain potentials reveal unconscious translation during foreign-language comprehension. *PNAS*, 104 (30), pp. 12530-12535.
- Thordardottir, E. (2011). The relationship between bilingual exposure and vocabulary development. *International Journal of Bilingualism*, 15, pp. 426-445.

- Thordardottir, E., Rothenberg, A., Rivard, M. & Naves, R. (2006). Bilingual assessment: Can overall proficiency be estimated from separate measurement of two languages? *Journal of Multilingual Communication Disorders*, 4 (1), pp. 1-21.
- Torres-Guzmán, M. (2007). Dual language programs: Key features and results. In O. García & C. Baker (eds.), *Bilingual education: An introductory reader*. (pp. 50-63). Clevedon, Buffalo, Toronto: Multilingual Matters LTD.
- Trudgill, P. (1972). Sex, covert prestige and linguistic change in the urban British English of Norwich. *Language in Society*, 1 (2), pp. 179-195.
- Trudgill, P. (1992). Ausbau sociolinguistics and the perception of language status in contemporary Europe. *International Journal of Applied Linguistics*, 2 (2), pp. 167-177.
- Trudgill, P. (2000). *Sociolinguistics. An introduction to language and society* (4th Edition). London: Penguin Books.
- Trudgill, P. (2002). *Sociolinguistic Variation and Change*. Washington, D.C.: Georgetown University Press.
- Trudgill, P. (2003). *A glossary of sociolinguistics*. Edinburgh: Edinburgh University Press.
- Uchikoshi, Y. (2006). English vocabulary development in bilingual kindergarteners: What are the best predictors? *Bilingualism: Language and Cognition*, 9 (01), pp. 33-49.
- Umbel, V., Pearson, B., Fernández, M. & Oller, D. (1992). Measuring bilingual children's receptive vocabularies. *Child Development*, 63, pp. 1012-1020.
- Unsworth, S. (2011). *Utrecht bilingual language exposure calculator*. Unpublished manuscript, Utrecht University.
- Unsworth, S. (2013). Current issues in multilingual first language acquisition. *Annual Review of Applied Linguistics*, 33, pp. 21-50.
- Valdés, G. (2000). Introduction. In Spanish for native speakers. *AATSP Professional Development Series Handbook for teachers K-16, Volume 1*. (pp. 1-20). New York: Harcourt College.
- Valentini-Botinhao, C. & Wester, M. (2014). Using linguistic predictability and the Lombard effect to increase the intelligibility of synthetic speech in noise. In *Proc. Interspeech*, Singapore, September 2014, pp. 2063-2067.
- van Bezooijen, R. (1994). Aesthetic evaluation of Dutch language varieties. *Language and communication*, 14, pp. 253-263.
- van Bezooijen, R. & Gooskens, C. (2005). How easy is it for speakers of Dutch to understand spoken and written Frisian and Afrikaans, and why? In J. Doetjes & J. Weijer (eds.),

- Linguistics in the Netherlands*, 22. (pp. 13-24). Amsterdam: John Benjamins Publishing Company.
- van Bezooijen, R. & Gooskens, C. (2007). Interlingual text comprehension: linguistic and extralinguistic determinants. In J.D. ten Thije & L. Zeevaert (eds.), *Receptive Multilingualism and intercultural communication: Linguistic analyses, language policies and didactic concepts*. (pp. 249-264). Amsterdam: Benjamins.
- Van De Mierop, D., Zenner, E. & Marzo, S. (2016). Standard and Colloquial Belgian Dutch pronouns of address: A variationist-interactional study of child-directed speech in dinner table interactions. *Folia Linguistica: Acta Societatis Linguisticae Europaeae*, 50 (1).
- van Leeuwen, D. (2013). *The effect of Non-native Input and Other External Factors on Bilingual Language Acquisition*. Utrecht University: Unpublished Research MA Thesis.
- Veith, W. (1982). Zur mutuellen Verstehbarkeit von Dialekt und Standardsprache im Deutschen [To mutual intelligibility of dialect and standard language in German]. *Linguistische Berichte*, 77, pp. 49-61.
- Vesco, M. (2011). "Dative Case in Südtirol-German". Universität Wien: Diplomarbeit.
- Vettori, C. (2005). *La competenza del tedesco degli studenti italofofoni di scuola media inferiore e superiore di Bolzano e Trento: confronto e valutazione* [German competence among Italian-speaking students in secondary school and high school from Bolzano and Trento: confrontation and evaluation]. Modena: Dissertation, Università di Modena.
- Vettori, C., Wisniewski, K. & Abel, A. (2012). Becoming bilingual in a multilingual context: A snapshot view of L2 competences in South Tyrol. In K. Braunmüller & C. Gabriel (eds.), *Multilingual individuals and multilingual societies*. (pp. 437-455). Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Voltmer, L., Lanthaler, F., Abel, A. & Oberhammer, M. (2007). Languages in South Tyrol: Historical and Legal Aspects. In A. Abel, M. Stuflesser, L. Voltmer (eds.), *Aspects of Multilingualism in European Border Regions: Insights and Views from Alsace, Eastern Macedonia and Thrace, the Lublin Voivodeship and South Tyrol*. (pp. 201-220). Bozen/Bolzano: European Academy.
- Von Lehmden, F., Kauffeldt, J., Belke, E. & Rohlfing, K. (2013). Das Vorlesen von Kinderbüchern als implizites Mittel zur Sprachförderung im Bereich Grammatik

- [Reading out children books as implicit instrument for language promotion in grammar] *Praxis Sprache 1*, pp. 18-27.
- Wade-Wooley, L. & Geva, E. (2000). Processing novel phonemic contrasts in the acquisition of L2 word reading. *Scientific Studies of Reading*, 4, pp. 295-311.
- Wagner, D. (1998). Putting second language first: Language and literacy learning in Morocco. In A.Y. Durgunoglu & L. Verhoeven (eds.), *Literacy development in a multilingual context. Cross-cultural perspectives*. (pp. 169-184). Mahwah, NJ: Lawrence Erlbaum Associates.
- Wagner, D.A., Spratt, J.E. & Ezzak, A. (1989). Does learning to read in a second language always put the child at a disadvantage? Some counter evidence from Morocco. *Applied Psycholinguistics*, 10, pp. 31-48.
- Walqui, A. (2007). Scaffolding instruction for English language learners: A conceptual framework. In O. García & C. Baker (eds.), *Bilingual education. An introductory reader*. (pp. 202-218). Clevedon, Buffalo, Toronto: Multilingual Matters LTD.
- Walter, C. (2004). Transfer of reading comprehension skills to L2 is linked to mental representations of text and to L2 working memory. *Applied Linguistics*, 25 (3), pp. 315-339.
- Wandruszka, M. (1981). *Die Mehrsprachigkeit des Menschen* [People's multilingualism]. München: Deutscher Taschenbuch-Verlag.
- Wang, H. (2007). *English as a lingua franca: Mutual Intelligibility of Chinese, Dutch and American speakers of English*. LOT Dissertation, Utrecht: LOT.
- Wang, M. & Geva, E. (2003). Spelling acquisition of novel English phonemes in Chinese children. *Reading and Writing: An Interdisciplinary Journal*, 16, pp. 325-348.
- Wardhaugh, R. (2006). *An introduction to Sociolinguistics* (5th Edition). New York: Blackwell.
- Wei, L. (2007). Dimensions of bilingualism. In L. Wei (ed.), *The Bilingualism Reader* (2nd Edition). (pp. 3-22). London, New York: Routledge.
- Wei, L., Dewaele, J.-M. & Housen, A. (2002). *Opportunities and challenges of bilingualism*. Berlin, New York: Mouton de Gruyter.
- Weinreich, U. (1953). *Language in Contact. Findings and problems*. New York: Linguistic Circle.
- Weinreich, U. (2011). *Languages in Contact. French, German and Romansh in twentieth-century Switzerland*. Amsterdam, Philadelphia: John Benjamins Publishing Company.

- Weisleder, A. & Fernald, A. (2013). Talking to children matters: Early language experience strengthens processing and builds vocabulary. *Psychological Science, 24* (11), pp. 2143-2152.
- Weizman, Z. & Snow, C. (2001). Lexical input as related to children's vocabulary acquisition: Effects of sophisticated exposure and support for meaning. *Developmental Psychology, 37* (2), pp. 265-279.
- Werlen, I. (1998). Mediale Diglossie oder asymmetrische Zweisprachigkeit? Mundart und Hochdeutsch in der deutschen Schweiz [Medial diglossia or asymmetric bilingualism? Vernacular and Standard German in the German-speaking Switzerland]. *Babylonia, 1*, pp. 22-35.
- West, J. (2000). German. In G. Price (ed.), *Encyclopedia of the Languages of Europe*. (pp. 193-206). Oxford: Wiley-Blackwell.
- Wiesinger, P. (1990). The Central and Southern Bavarian Dialects in Bavaria and Austria. In C.V.J. Russ (ed.), *The Dialects of Modern German. A Linguistic survey*. (pp. 438-519). London, New York (reprinted 2000): Routledge.
- Wiggers, H. (2006). *Reevaluating Diglossia: Data from Low German*. University of Texas at Austin: PhD Dissertation.
- Wild, M. (2005). *Ridnauner Dialektwörterbuch's Maul au tien* [Dictionary about *Ridnaun/Ridanna*]. Innsbruck: Wagner.
- Winkler, I., Kujala, T., Tiitinen, H., Sivonen, P., Alku, P., Lehtokoski, A., Czigler, I., Csépe, V., Ilmoniemi R.J. & Näätänen, R. (1999). Brain responses reveal the learning of foreign language phonemes. *Psychophysiology, 36*, pp. 638-642.
- Winsler, A., Díaz, R., Espinosa, L. & Rodríguez, J. (1999). When learning a second language does not mean losing the first: Bilingual language development in low-income, Spanish-speaking children attending bilingual preschool. *Child Development, 70* (2), pp. 349-362.
- Wisthaler, V. (2013). Identity politics in the educational system in South Tyrol: Balancing between minority protection and the need to manage diversity. *Studies in Ethnicity and Nationalism, 13* (3), pp. 358-372.
- Wode, H. & Giroto, I. (2008). *Evaluierung zur Entwicklung des Deutschen. Annäherung an die deutsche Sprache und Kultur im italienischen Kindergarten* [Evaluating the development of German. Convergence of the German language and culture in Italian-speaking preschools]. Meran: Alpha und Beta Verlag.

- Wolff, H. (1959). Intelligibility and inter-ethnic attitudes. *Anthropological Linguistics*, 1 (3), pp. 34-41.
- Wolfram, W. (2004). Social varieties of American English. In E. Finegan & J.R. Rickford (eds.), *Language in the USA. Themes for the Twenty-first Century*. (pp. 58-75). Cambridge: Cambridge University Press.
- Wood, D. (1988). *How children think and learn*. Oxford: Blackwell.
- Wright, K. (2005). Researching Internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services. *Journal of Computer-Mediated Communication*, 10 (3), pp. 00.
- Wu, J. (2008). The analysis of cultural gaps in translation and solutions. *English Language Teaching*, 1 (2), pp. 123-127.
- Wu, Y. & Thierry, G. (2010). Chinese-English bilinguals reading English hear Chinese. *The Journal of Neuroscience*, 30 (22), pp. 7646-7651.
- Youssef, V. (1991a). The acquisition of varilingual competence. *English World Wide*, 12 (1), pp. 87-102.
- Youssef, V. (1991b). Variation as a feature of language acquisition in the Trinidad context. *Language Variation & Change*, 3, pp. 71-101.