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## The relation between multilingualism and basic human values among primary school children in South Tyrol

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Cook (2002) argued that the learning of a new language leads to a state of multi-competence, with the learner's mind changing in ways that go beyond the linguistic realm. The present study follows Dewaele's (2016) suggestion that multilingualism is linked to both cognitive and psychological changes. It explores one particular under-researched relationship, namely the link between bi- and multilingualism and human basic values (Schwartz, 1992). Participants were 398 primary school children (incipient bilinguals and functional bi- and multilinguals) in South Tyrol. They filled out a questionnaire on background information and the Picture Based Value Survey for Children (PBVS-C, Döring et al., 2010). Multidimensional scaling was used to understand the value structures and hierarchies among these pupils. Results suggest that, contrary to expectations, incipient bilinguals scored significantly higher on openness to change than their multilingual peers. Multilingualism was linked to higher scores on conservation, while children from a migrant background scored higher on conservation and self-enhancement, and lower on openness to change. Children with two migrant parents rated openness to change significantly lower.

Keywords: multilingualism, children's values, individual differences, migrant background

### Introduction

Globalisation has brought massive cultural and linguistic changes around the world. Societies are becoming more heterogeneous linguistically and culturally and more individuals are becoming multilingual, multicultural, and multi-competent. Cook (2012) explained that multi-competence is 'neither particularly a psychological concept (...), nor particularly sociological' (p. 3768). Instead, it focuses on the mind: 'Multi-competence therefore involves the whole mind of the speaker, not simply their first language (L1) or their second' (p. 3768). While multi-competence research has extended to various linguistic, cognitive and psychological phenomena (Cook & Wei, 2016), it has not yet considered variation in beliefs and values. Members from different cultural and linguistic backgrounds might have different conceptions of what is good and desirable in line with their values. We know from previous research that children's beliefs can shift because of their early contact with a second language (L2) (Byers-Heinlein & Garcia, 2015). In the present paper, we will investigate the potential influence of bi- and multilingualism as well as migration on the value structure of primary school-aged children.

The present study combines different research areas, from education, applied linguistics, cross-cultural psychology to personality psychology. While most of the research on values in cross-cultural psychology typically involves comparisons between cultures, it typically does not delve into the effect of linguistic profiles on individuals'

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values. Although researchers talk about similarities and differences in value structures and preferences, they rarely focus on the effect of language issues (see e.g. Döring et al., 2015). Researchers in multilingualism do focus on individual differences in language use and personality but have not yet considered basic human values. Thus, in the literature review we will present the underlying theory and present an overview of the contiguous and sometimes overlapping research on multilingualism and individual differences. Firstly, we will give a brief definition of the key concepts used in this paper.

### ***Key concepts***

Throughout this paper, the term *bilingualism* is used to refer to individuals who learn and/or use two languages, while *multilingualism* indicates the use of more than two languages, typically including first language(s) (L1) and foreign languages (LXs) irrespective of the language level.

Furthermore, it is not always possible to define the status of language unambiguously as some children are regular LX users and learners while others are 'only' LX learners (Dewaele, 2017). In this paper, LX refers to all languages that are not students' L1(s).

Even though the language situation is very complex in the research context (South Tirol)– German, Italian, and Ladin as official languages and English as a school subject, as well as other languages in schools due to migration – the term *second language (L2)* is used for describing German as a subject in Italian primary schools and Italian as a subject in German primary schools. L2 learning describes an instructed, organisational learning of a second<sup>1</sup> or third language<sup>2</sup>.

Dewaele and van Oudenhoven (2009) labelled children who were basically monolinguals, not yet using their LX regularly outside the classroom, 'incipient bilinguals', and contrasted them to the 'functional' ones who used two or more languages in their daily life. We adopted this terminology also for this study.

## **Literature review**

### ***Research on value orientation***

Studying values and their development among individuals and societies has fascinated many researchers (see e.g. Hofstede, 2001; Inglehart & Baker, 2000; Sortheix & Lönnqvist, 2014). In cross-cultural psychology, values are defined as a part of a self-system, which transcend specific situations and underlie actions. Thus, they are a type of personality disposition (Bilsky & Schwartz, 1994; Feather, 1992). The values and customs shape the way in which we think and therefore our personality. Allport (1961) states that

[p]ersonal values are the dominating force in life, and all of a person's activity is directed toward the realization of his values. And so the focus for understanding is the other's value orientation – or, we might say, his philosophy of life. (p. 543)

This statement shows that values are related to personality traits. However, values and traits are two distinct concepts. In an attempt to describe the difference between both, Roccas, Sagiv, Schwartz, and Knafo (2002) underlined that '[t]raits refer to what people are like, values to what people consider important' (p. 799). One of the most influential theories of human values was developed by Schwartz (1992, 1994), who has defined values as desirable, trans-situational goals, which vary in importance and serve as

guiding principles in human life. Schwartz's model of ten values could be described as a comprehensive, cross-culturally stable model that can predict series of external constructs. Schwartz (1992) defined the following ten value types and their motivational goals.

<i>Value</i>	<i>Motivational goals</i>
<i>Universalism</i>	Understanding, appreciation, tolerance, and protection for the welfare of all people and for nature
<i>Benevolence</i>	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact
<i>Tradition</i>	Respect, commitment and acceptance of the customs and ideas that traditional culture or religion provide the self
<i>Conformity</i>	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms
<i>Security</i>	Safety, harmony, and stability of society, of relationships, and of self
<i>Power</i>	Social status and prestige, control or dominance over people and resources
<i>Achievement</i>	Personal success through demonstrating competence according to social standards
<i>Hedonism</i>	Pleasure and sensuous gratification for one-self
<i>Stimulation</i>	Excitement, novelty, and challenge in life
<i>Self-direction</i>	Independent thought and action-choosing, creating, exploring

Table 1: Value types and their motivational goals (adapted from Schwartz, 1992)

The value types can be organised in two bipolar orthogonal dimensions. The first dimension opposes values of openness to change to values of conservation. The second dimension opposes values of self-enhancement to values of self-transcendence. The four poles, openness to change, conservation, self-enhancement, and self-transcendence are often also referred to as higher order value types (Schwartz, 1994). Schwartz's theory has been supported empirically in more than 300 samples from around the globe (Schwartz, 2006), supporting the distinction of ten value types and the circular structure of relations among them (Figure 1).

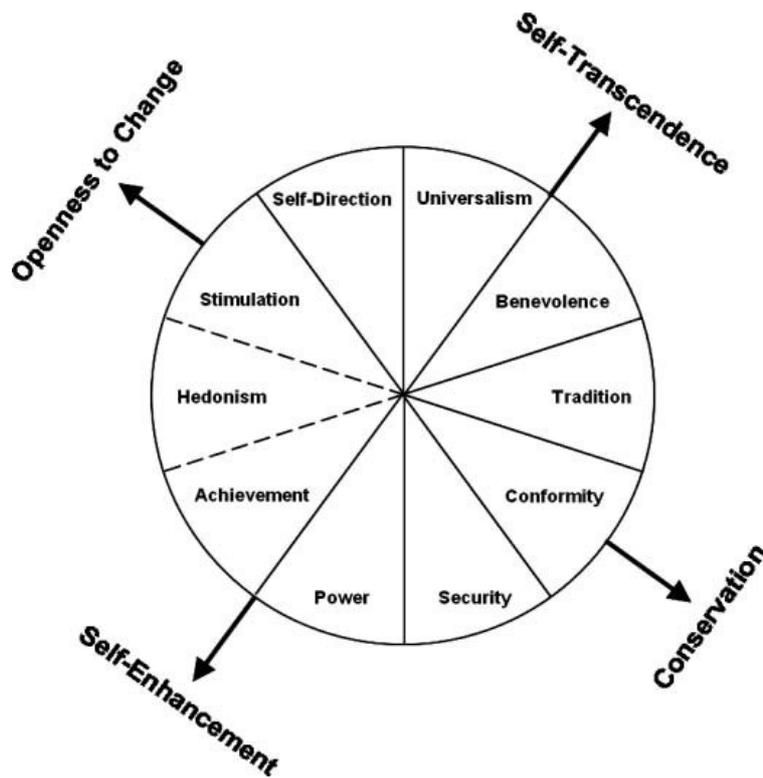


Figure 1: Schwartz's (1992) circular model of values.

The higher order value type self-transcendence contains the value types universalism and benevolence. The higher order value type conservation contains the value types tradition, conformity, and security. The higher order value type self-enhancement contains the value type power and achievement. Hedonism generally does not belong to any higher order value type. In practice, however, hedonism is usually assigned to the higher order value type openness to change, which also includes the value types stimulation and self-direction (Schwartz, 2010).

Adults and children from different cultural backgrounds might have different conceptions of what is good and desirable in line with their value orientations (Hofstede, 2001; Schwartz, 2004). However, Schwartz and Bardi (2001) found a pan-cultural hierarchy of values. Benevolence, universalism, and self-direction values were rated consistently most important in the large majority of cultures, whereas power, tradition, and stimulation values were rated least important. Security, achievement, conformity, and hedonism fell in between.

Human values have been studied mostly among adults; only around fifteen years ago did researchers focus on values in adolescence (see e.g. Schwartz et al., 2001; Knafo & Schwartz, 2003, and more recently Barni & Knafo, 2012; Schwartz et al., 2012) and in late childhood (Bubeck & Bilsky, 2004, Bilsky et al., 2013; Ciecuch et al., 2013). In addition, few studies exist on value structures and priorities in middle childhood (Döring et al., 2010; Knafo & Spinath, 2011; Döring et al., 2015). This has been linked to a lack of suitable instruments. Bilsky, Niemann, Schmitz, and Rose (2005) found that the most common instrument in assessing value structures among adults, the Portrait Value Questionnaire (PVQ), is too demanding for elementary school aged children's reading ability, vocabulary level, and ability for abstract thinking. In order to overcome these difficulties, Döring et al. (2010) developed a new self-report instrument that is more closely attuned to children's life experience, the Picture-Based Value Survey for Children (PBVS-C). They have successfully covered the value

relevant aspects as formulated in Schwartz's (1992) model using pictures with short titles.

Döring et al. (2010) showed that the PBVS-C is well suited for children. They found four distinct regions according to the items' a priori assignment to higher order value types and ten distinct wedge-shaped regions according to the lower order value types. All items were located in the expected regions. The authors looked for a pan-cultural hierarchy of value preferences in children. They calculated scores as means of the scores of all items belonging to each higher order value type. Self-transcendence turned out to be the most important and self-enhancement the least important higher order value type in the sample. These results are in line with previous evidence from adult samples (Schwartz & Bardi, 2001). The authors also found that the broad value structures, sex differences in value priorities and pan cultural value hierarchies typical of adults have already taken form at an early age. Hence, Schwartz's model of motivational compatibilities and oppositions provides a useful conceptual framework for describing children's value structure. The authors finally found that individual differences in social background, enculturation, and genetic heritage as well as life experiences give rise to individual differences in value priorities among children.

Because of the lack of research on the relationship between values and multilingualism at primary school, we have to widen the scope of our literature review and include studies, which investigated the relation between traits and values as well as traits and multilingualism.

### ***Research on traits and values***

Regarding the differences between traits and values Oliver and Mooradian (2003) stated '[a]ccumulating evidence shows that personality traits are largely endogenous characteristics, while personal values are learned adaptations strongly influenced by the environment' (p. 109). Grankvist and Kajonius (2015) underlined that the authors 'take traits to be viewed more as products of "nature" (i.e. biological/genetic) while values should be viewed more as the results of interactions between 'nature' and the environment' (p. 2).

Different studies (De Raad & van Oudenhoven, 2008; Roccas et al., 2002; Parks-Leduc, Feldman, & Bardi, 2015; Grankvist & Kajonius, 2015) have reported that openness to experience is positively correlated with the value types self-direction, universalism, stimulation, and negatively correlated with conformity, power, security, and tradition. Therefore, openness to experience is positively related to the value dimension openness to change as well as to values found at the self-transcendent endpoint in the value model. Agreeableness correlated positively with benevolence, conformity, and in part with tradition, and negatively with power. Hence, agreeable individuals are likely to be found close to the conservation and self-transcendent endpoints on the two bipolar axes. Extraversion correlated positively with stimulation, hedonism, and achievement, and negatively with tradition. It seems that extraversion is positively related to both the openness to change and self-enhancement endpoints on the bipolar axes in Schwartz's value model. Conscientiousness was positively correlated with security, conformity, and in part with achievement. Therefore, high scores on conscientiousness would mean a positive association with being located at the self-enhancement and conservation ends at the bipolar axes in the value model.

There is no research yet – to our knowledge – on the relationship between individual values and multilingualism nor to the potential link with personality traits.

### ***Research on traits and multilingualism***

Dewaele and van Oudenhoven (2009) investigated the link between multilingualism, multiculturalism and scores on personality traits of 79 young London teenagers by using the Multicultural Personality Questionnaire (MPQ) developed by van Oudenhoven and Van der Zee (2002). Immigrant teenagers scored significantly higher than locally born teenagers did on the dimensions of open-mindedness, and, marginally, on cultural empathy. Participants who reported that they were dominant in two languages obtained significantly higher scores on the dimensions of open-mindedness, marginally higher scores on cultural empathy and significantly lower scores on emotional stability compared with participants who were dominant in a single language. Multilinguals scored significantly higher on the dimensions of cultural empathy and open-mindedness, and significantly lower on the dimensions of emotional stability compared to emergent bilingual classroom learners of an L2.

Korzilius, Van Hooft, Planken, and Hendrix (2011) studied the relation between foreign language skills and the MPQ's multicultural personality dimensions among 144 international and non-international employees of a Dutch company. The authors found that the number of LXs known by the participants correlated significantly with open-mindedness and emotional stability, and discovered a significant correlation between self-assessed knowledge of LXs and cultural empathy. The international participants, who were more multilingual, scored higher on open-mindedness and flexibility than non-international employees. The latter were more emotionally stable.

Dewaele and Wei (2012) looked at the effect of multilingualism on cognitive empathy (defined as the ability to see the world from an interlocutor's point of view) among 2158 mono-, bi- and multilinguals from around the world. While the knowledge of more languages, growing up bilingually and having lived abroad were not linked to higher levels of cognitive empathy, high levels of global proficiency in all languages known by participants and frequent use of these languages were significantly and positively linked to cognitive empathy.

Dewaele and Wei (2013) used the same large corpus to investigate the link between multilingualism, a high level of global proficiency in multiple languages, frequent use of various languages and a measure of tolerance of ambiguity. They found a significant positive link between the number of languages known to participants, global proficiency, frequent use of various languages, and their tolerance of ambiguity scores. While growing up bi- or trilingually from birth had no effect on tolerance of ambiguity, the experience of having lived abroad had a positive impact. The authors concluded that an individual's social, linguistic and cultural environment, as well as the individual's conscious endeavour to learn a new language, is influencing the tolerance of ambiguity score.

Dewaele and Stavans (2014) investigated variation in the psychological profiles of 193 Israeli multilingual secondary school students using the MPQ. Participants born locally scored higher on emotional stability compared to those born abroad. Participants with only one immigrant parent scored higher on cultural empathy, open-mindedness and social initiative than those with two locally born parents or two immigrant parents. Surprisingly, participants with two immigrant parents scored lower on open-mindedness compared to participants with locally born parents. The authors argued that linguistic and cultural homogeneity within the family (of local or immigrant origin) stifles cultural empathy, open-mindedness and social initiative while exposure to different languages and cultural values within the home opens children's eyes, heart and mind to diversity. Contrary to the findings in Dewaele and van Oudenhoven (2009), the number of languages known by participants was not linked to personality traits. One possible

explanation for this was that all participants were already functional bi- or multilinguals. A frequent use of many different languages was linked to significantly higher scores on cultural empathy and open-mindedness. The authors concluded that active multicompetence (Cook 2002; Cook & Wei, 2016) affects the personality dimensions that are most likely to be shaped by environmental factors. They stated that it is not the knowledge of another language that opens the mind, but it is the active engagement in authentic interactions with various linguistic and cultural groups including family members.

This brief literature review leads to the conclusion that while some studies have examined the effect of linguistic profiles on personality profiles, no research has yet examined the effect of multilingualism on individual human values. By controlling the linguistic and migrant background, the language use, and by using a sample of incipient bilinguals, functional bi- and multilinguals, it should be possible to determine their effect on values. In the present study, the value types are used exclusively as dependent variables, as the aim is to find whether they are influenced by children's linguistic and migrant background.

### **Research questions and hypotheses**

1. Is there a difference between incipient bilinguals and functional bi- and multilinguals on higher order values (self-transcendence, conformity, self-enhancement and openness to change) and lower order values (universalism, benevolence, tradition, conformity, security, power, achievement, hedonism, stimulation, and self-direction)?

As the value structure observable in adults is already developed in middle childhood, results from adults should be comparable. Openness to experience has been found to be linked to self-direction, universalism, and stimulation. Furthermore, openness to experience and open-mindedness have been found to be positively linked with the number of languages known by individuals. We therefore expect that functional bi- and multilingual children will score higher on openness to change and in part on self-transcendence (universalism).

2. Does the L2 use affect the children's value preferences?

The use of many different languages has been linked to significantly higher scores on open-mindedness. Hence, we expect a high level of use of different languages to be linked to higher scores on openness to change, the value close to open-mindedness. Moreover, we expect lower scores on conservation in children with a high second or further language use.

3. Do children with a migrant background have different value preferences compared to children with no migrant background? Is there a difference between children with one, or two parents with a migrant background?

Migrant background has been linked to increased open-mindedness. Hence, we expect that children with a migrant background score higher on openness to change. Having just one migrant parent has been linked to higher scores on cultural empathy, open-mindedness and social initiative. Therefore, we expect to find differences in children of migrants, especially those with one migrant parent, to score higher on openness to change.

## Method

### *Participants and data collection*

The participants (N = 398, 193 girls and 205 boys, aged between 8.1 and 11.7 years, M = 9.7, SD = 0.4) came from German and Italian language primary schools in the northernmost region in Italy – South Tyrol – a region with a unique linguistic situation. South Tyrol has three official languages, German, Italian and Ladin. Schooling is divided into linguistic groups. In other words, South Tyrol has an entirely separated German and Italian school system from kindergarten to the end of secondary school and a separated Ladin school system to the end of grade eight. It is important to note that there are inconsistencies in the implementation of language policies among the three school systems. These inconsistencies might lead to social inequalities, since education does not provide equal opportunities for all students among the different systems. In particular, in German and Italian schools in South Tyrol, school lessons in both languages are compulsory. In these schools, Ladin is not taught. However, to show the inconsistencies among the school systems, German primary schools have in average four to five school lessons of Italian as L2<sup>3</sup> a week. Italian primary schools have many more lessons in German L2: from 5 hours a week up to 13 hours within programmes which promote the L2. Moreover, the division of the school systems and the separation into linguistic groups maintain and create social barriers among citizens because of negative connotations attached to linguistic groups. In Ladin primary schools, Ladin, German and Italian is taught. Secondary schools provide a strictly multilingual school policy until the end of grade eight. That means that the same number of subjects is taught in German and in Italian. This may be the cause why Ladin speakers are the most successful in the acquisition of both Italian and German – 13,6% of Ladin first language (L1) speakers possess the highest level of L2 certificates for German and Italian, while only 10 % of German and 7% of Italian L1 speakers possess it (ASTAT, 2015). Because of the special language learning policy, pupils from these schools did not participate in the research. In addition, English is taught as a foreign language in the three systems from primary school age.

The participating children came from 26 school classes – a maximum of two per school – spread across the region. Schools were contacted directly by the researcher or through the help of the German education authority in South Tyrol after a systematic, stratified sampling in order to arrange the study population (children at grade four) according to the ordering scheme, which was the territory. After the consent from the school heads all parents from selected school classes were contacted and asked for their consent. On the data collection day, all children who had their parents' consent were informed about the process and objective of the study. Thereupon, they could agree or refuse to take part and they knew that they could skip questions and opt out if they wished. Only a few children decided not to participate. None of the children decided to opt out during the questionnaire completion.

Data collection was conducted during an official L2 lesson at the children's respective school. The researcher guided the children in the completion of the questionnaire, that is, questions were read aloud and children could ask questions if something was unclear. Children filled out the questionnaire in Italian or German where they reported age, gender, mother tongue, language use, and contact with other languages and cultures. The second part of the questionnaire focused on the children's value structure by means of the PBVS-C (Döring et al., 2010).

Twenty-one different L1s could be observed in these 26 school classes. A majority of children (n = 213; 53.5%) had German as L1, with a close to a third having

Italian as L1 (n = 115; 29%). In German schools, 95% of pupils have German as L1; in Italian schools, just 60% have Italian as L1. These data underline the fact that migrants in South Tyrol enrol their children more often in Italian schools than in German schools. Five per cent of pupils had Albanian and 2.5% had Arabic as L1. Another 10% of children shared 17 other languages as an L1: Macedonian, Urdu, Slovak, Serbian, Russian, Spanish, Sinto, Moldovan, Polish, Romanian, Bengali, Punjabi, Bosnian, Greek, Portuguese, Ladin, and French (ordered according to decreasing frequency).

All participants lived in South Tyrol. Two hundred and nine children attended a German public school and 189 an Italian one. The majority of participants were born in South Tyrol (n = 356; 89.4%) and others were born in Northern Italy (n = 15; 3.8%), Central Italy (n = 6; 1.5%), South Italy (n = 6; 1.5%), Central Europe (n = 4; 1%), South-eastern Europe (n = 4; 1%), Asia (n = 4; 1%), Latin America (n = 2; .5%), and Africa (n = 1; .3%). Three per cent of the children were first-generation immigrants, 15.1% of the participating children were second-generation migrants.

We created two groups based on the number of languages known. A majority (259 children, 65.1%) were basically monolinguals in the process of learning two LXs at school (German or Italian and English), not yet using their L2 (German or Italian) regularly outside the classroom. Following Dewaele and van Oudenhoven (2009), these children were labelled 'incipient bilinguals'. The second group, representing a third of participants, were labelled as 'functional bi- and multilingual children'. These children are effectively bi- or multilingual outside school, they have a constant contact with several languages and use of a minimum of one further language in their extended family and/or in their social environment. Children indicated their L1(s), L2, L3 and their language use in the first part of the questionnaire. There were questions on language(s) used in family with the mother, father and sisters/brothers, language(s) used with the larger family, friends, in associations and the frequency of use, as well as the age of acquisition of each language. These variables were used to decide whether children were emergent bilinguals or functional bi- and multilinguals. Children who spoke a L3 at home and attended a school where the language of instruction was different from the home language were classified as functional bi- and multilinguals. The classification by the researcher was checked with the children's L2 teacher. Only six children used more than two languages regularly. Therefore, this small group of multilingual children was merged with the larger group of functional bilinguals. This process produced a group of 139 children (34.9% of the total).

Children were also asked about their extra-curricular L2 use. They had to specify with whom – for example, relatives, association, friends – they used the so-called L2 (German in Italian primary schools and Italian in German primary schools) and how frequent these interactions were. This variable was recoded in a new variable, which indicated the level of extra-curricular L2 use ranging from: none (0), low (1), medium (2), to high (3).

The questionnaire also contained items on the children's birthplace, and the mother's and father's birthplace. These variables were used to classify children according to migrant background (first or second generation) or not and whether they had no, one or both parents with a migrant background. We wanted to compare groups with a highly different cultural background; therefore, the group 'children with a migrant background' included children with two migrant parents and children with one migrant parent, where children spoke, at different levels of proficiency, the language of the migrant parent(s). This allowed an estimation of the degree of assimilation with the host culture. Table 2 shows that most children without a migrant background were incipient bilinguals (79.1%), while most first and second generation migrant children

were functional bilinguals (91.7%). Because of the low number of first generation migrant children (3%), first and second generation migrant children were merged into a single group. The migrant children's parents in this study migrated to Italy from the following countries: Albania (n = 22), Macedonia (n = 16), Morocco (n = 15), Kosovo (n = 13), Germany (n = 13), Pakistan (n = 8), Slovakia (n = 5), Russia (n = 4), Moldova (n = 4), Poland (n = 4), Peru (n = 4), Austria (n = 4), India (n = 3), Serbia (n = 3), Dominican Republic (n = 3), Bolivia (n = 2), Bangladesh (n = 2), Tunisia (n = 2), Romania (n = 2), Guinea (n = 2), Ivory Coast (n = 2), Belgium (n = 2), Bosnia (n = 2), Iran (n = 1), Brazil (n = 1), Switzerland (n = 1), Croatia (n = 1), Czech Republic (n = 1), Greece (n = 1), and Russia (n = 1).

	Incipient bilinguals	Functional bilinguals	Functional multilinguals
Children without migrant background	258 79.1%	67 20.6%	1 0.3%
First generation migrant children	0 0%	11 91.7%	1 8.3%
Second generation migrant children	1 1.7%	55 91.7%	4 6.7%

Table 2: Migrant background by degree of bi- and multilingualism

### ***Data analysis***

The value structure of the PBVS-C was analysed with theory-based ordinal Multidimensional Scaling (MDS), a popular method for analysing value structures at an early age (Döring et al., 2015). This analysis presents similarities between value items as distances in a two-dimensional space. The more similar the correlation between value items, the closer the items are in the space. As an arbitrarily chosen starting configuration could lead to results where the iteration process might stay within local minima (Borg & Staufenbiel, 2007), a theory-based MDS was applied. Within this approach, a theory-based starting configuration assigns every item its place within the hypothesised structure of values<sup>4</sup>. In the PROXSCAL module in SPSS version 23, the following parameters were used: stress convergence = 0.0001, minimum stress = 0.0001, and maximum iterations = 100. We assessed the presence of distinct higher order value types by studying whether it was possible to divide the two-dimensional space into distinct regions, which should contain the items that had been assigned to the same higher order value type (Döring et al., 2010). Furthermore, we looked at the Stress 1 of the MDS solution, which provides information about the fit between similarity data and corresponding distances in space. Regarding this, the smaller the value for Stress 1, the better the distances represent the similarity data (Borg & Groenen, 2005). The underlying structure was confirmed by MDS. The value structure closely follows Schwartz's prototypical model and the four higher order values could be identified. The goodness of fit between the configuration of points in space and the empirical pattern of similarities or dissimilarities observed in the value items is .18, which is considerably lower than the stress for random data. In random data, it would be approximately .3 for

20 items in a two-dimensional space (Spence & Ogilvie, 1973). The mean of all items that represent a higher order value type was used for the value priorities (Schwartz, 2010). Table 3 reports the mean and standard deviations<sup>5</sup>. Self-transcendence turned out to be most important (M = 3.58), and self-enhancement turned out to be least important (M = 2.05). Conservation and openness to change are situated in the middle and are very close together (M = 3.12 and 3.11).

	N	M	SD
Self-transcendence	398	3.58	.50
Conservation	398	3.12	.35
Openness to change	398	3.11	.39
Self-enhancement	398	2.05	.49

Table 3: Value scores among participating primary school children.

Subsequently, an independent-samples t-test was used to find out whether there were significant differences between incipient bilinguals and functional bi- and multilinguals regarding their value structure. To assess the significance and effect of differences in the level of L2 use, we computed a Univariate Analysis of Variance (ANOVA). The four higher order values represented the dependent variables while the level of L2 use was the factor. An independent-samples t-test was conducted in order to figure out whether there were differences in children with and without a migrant background. The influence of the parents' migrant background on the value structure was investigated by means of an ANOVA.

## Results

### *Research question 1*

The first research question focused on a difference between incipient bilinguals and functional bi- and multilinguals on basic human values. A t-test revealed a small but significant difference between both groups on openness to change: mean incipient bilinguals = 3.14, SD = .39, mean functional bi- and multilinguals = 3.06, SD = .39,  $t(396) = 2.04$ ,  $p < .042$ . These results suggest that the incipient bilinguals are more open to change than the functional bi- and multilinguals (see Figure 2).

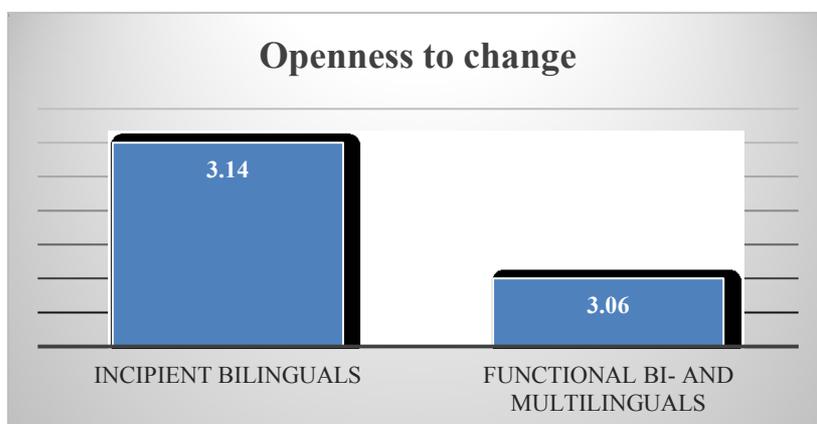


Figure 2: Linguistic background difference on openness to change

The independent-samples t-test showed that there was no significant difference between both groups on the other three higher order value types. Self-transcendence: mean incipient bilinguals = 3.57, SD = .51, mean functional bi- and multilinguals = 3.61, SD = .50,  $t(396) = -.78$ ,  $p = .44$ . Conservation: mean incipient bilinguals = 3.10, SD = .35, mean functional bi- and multilinguals = 3.16, SD = .35,  $t(396) = -1.39$ ,  $p = .17$ . Self-enhancement: mean incipient bilinguals = 2.05, SD = .50, mean functional bi- and multilinguals = 2.06, SD = .47,  $t(396) = -.20$ ,  $p = .84$ .

An independent-samples t-test was conducted to compare the lower order values of incipient bilinguals and functional bi- and multilinguals. Table 4 shows that there was a significant difference for conformity;  $t(396) = -3.49$ ,  $p < .001$ . Functional bi- and multilinguals ( $M = 2.77$ ,  $SD = 0.56$ ) scored significantly higher than incipient bilinguals ( $M = 2.57$ ,  $SD = 0.54$ ). Furthermore, functional bi- and multilinguals scored significantly lower on hedonism ( $M = 2.92$ ,  $SD = 0.70$ ) than incipient bilinguals ( $M = 3.07$ ,  $SD = 0.70$ );  $t(396) = 2.01$ ,  $p < .045$ .

Values	M (SD)		t	p
	Incipient bilinguals	Functional bi- and multil.		
Universalism	3.33 (0.66)	3.43 (0.68)	-1.42	0.16
Benevolence	3.81 (0.66)	3.79 (0.63)	0.25	0.80
Tradition	3.51 (0.60)	3.47 (0.66)	0.48	0.64
Conformity	2.57 (0.54)	2.77 (0.56)	-3.49	0.00
Security	3.23 (0.66)	3.22 (0.57)	0.21	0.83
Power	1.67 (0.66)	1.62 (0.63)	0.75	0.45
Achievement	2.42 (0.66)	2.49 (0.69)	-1.02	0.31
Hedonism	3.07 (0.70)	2.92 (0.70)	2.01	0.05
Stimulation	3.20 (0.73)	3.09 (0.71)	1.58	0.12
Self-direction	3.14 (0.58)	3.16 (0.60)	-0.28	0.78

Table 4: The effect of linguistic background on lower order values

### ***Research question 2***

A number of ANOVAs were run to assess the effect of language use on the four higher order values. The ANOVAs indicated significant between-subjects effects of L2 use on the higher order value conservation:  $F(3,39) = 2.74$ ,  $p < .043$ ,  $\eta^2 = .02$ . A post hoc Tukey's Honestly Significant Difference test showed marginally significant differences between children with a medium level of L2 use ( $M = 3.23$ ,  $SD = .34$ ) and children with a high level of L2 use ( $M = 3.01$ ,  $SD = .45$ ),  $p = .079$ . Children with a high L2 use tended to give less importance to conservation than children with a medium L2 use did (Figure 3).

There was no significant effect of the level of L2 use on the higher order values self-enhancement ( $F(3,39) = .67$ ,  $p = .569$ ,  $\eta^2 = .005$ ), self-transcendence ( $F(3,39) = .63$ ,  $p = .596$ ,  $\eta^2 = .005$ ) and openness to change ( $F(3,39) = 1.37$ ,  $p = .250$ ,  $\eta^2 = .01$ ).

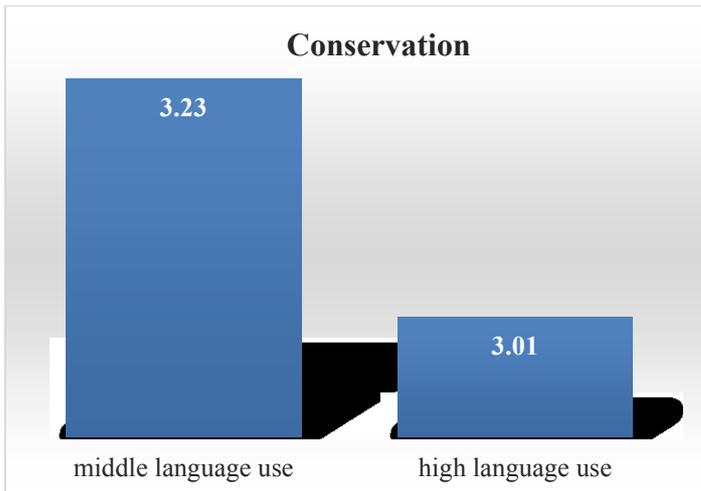


Figure 3: Effect of language use on conservation values

### Research question 3

The presence or absence of a migrant background was found to have a significant effect on openness to change and conservation, and a marginal effect on self-enhancement. A t-test showed that children with a migrant background ( $M = 2.96$ ,  $SD = .38$ ) scored significantly lower on openness to change than children without a migrant background ( $M = 3.15$ ,  $SD = .39$ ),  $t(396) = 3.69$ ,  $p < .001$ . Furthermore, a t-test indicated significant effects of migrant background on conservation,  $t(396) = -2.36$ ,  $p < .019$ . Children with a migrant background ( $M = 3.21$ ,  $SD = .30$ ) valued conservation more than children without a migrant background ( $M = 3.10$ ,  $SD = .36$ ). The former ( $M = 2.15$ ,  $SD = .48$ ) scored also higher on self-enhancement ( $t(396) = -1.94$ ,  $p = .050$ ) than the latter ( $M = 2.03$ ,  $SD = .49$ ). There was no effect on self-transcendence. Figure 4 shows the differences between migrant and non-migrant children in their value preferences.

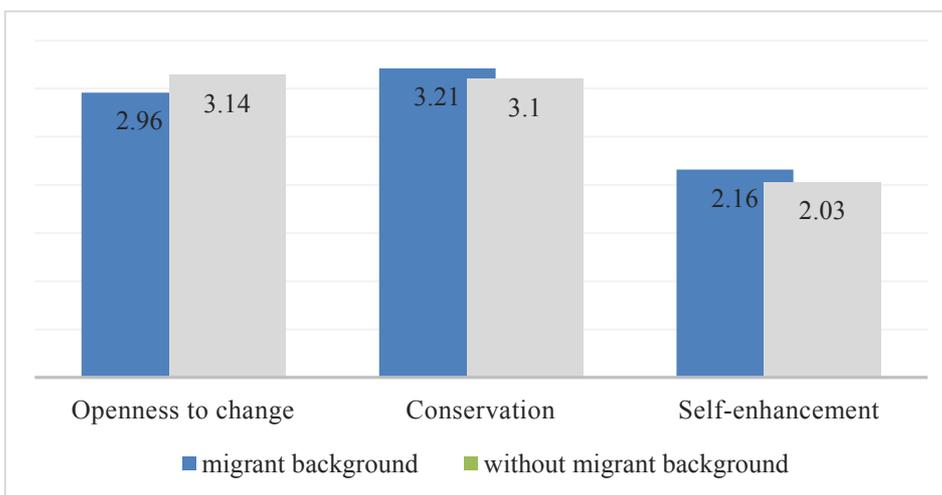


Figure 4: Differences in value preferences in children with a migrant and without a migrant background

An ANOVA was conducted to examine the effect of place of birth or one or two migrant parents on the four higher order value types. This indicated a significant effect on openness to change ( $F(2.40) = 6.74$ ,  $p < .001$ ,  $\eta^2 = .03$ ). The variable has a small but significant effect, explaining 3.3% of the variance in openness to change. A post hoc

Tukey's Honestly Significant Difference test showed that the differences were significant between children with no migrant parent ( $M = 3.15$ ,  $SD = .38$ ) and children with both parents with a migrant background ( $M = 2.94$ ,  $SD = .39$ ),  $p = .001$ . The difference between no and one migrant parent ( $M = 3.08$ ,  $SD = .39$ ) and one and both migrant parents was not significant ( $p = .57$  and  $p = .18$ ). While having one migrant parent seemed to have no influence on the children's value preferences, having both parents with a migrant background resulted in lower scores on openness to change than having parents without a migrant background. No significant differences were observed in the higher order values self-transcendence, conservation, and self-enhancement.

## **Discussion**

The results from this study suggest that some of the lower and higher order values of the children were linked to their linguistic and migrant background, though not in the way we had expected.

Because multilingualism has been linked with increased open-mindedness (Dewaele & van Oudenhoven, 2009; Korzilius et al., 2011) we hypothesised that functional bi- and multilinguals would score higher on openness to change. This hypothesis was rejected. On the contrary, the incipient bilinguals scored higher on openness to change than the functional bi- and multilinguals. To put it differently, functional bi- and multilingual children rated openness to change values as being less important than incipient bilinguals did. Functional bi- and multilingual children attached more importance to conformity than their largely monolingual peers. One possible explanation for this unexpected finding is that the bi- and multilingual children had experienced too much unwanted change and therefore craved stability and conformity. Even if this experience was second hand, that is, having heard about the traumatic experience of migration from their parents, it may have strengthened their desire for conformity. Another possible explanation is that the divided German and Italian school system in South Tyrol does not encourage openness but boosts conservation. Furthermore, functional bi- and multilinguals scored significantly lower on hedonism than incipient bilinguals. In other words, the former were less likely to seek pleasure and sensuous gratification. Previous studies have shown that value priorities can be affected by individual characteristics, for instance gender (see e.g. Döring et al., 2015), and by life experiences, for instance growing up in a religious home (see e.g. Uzevsky, Döring, & Knafo-Noam, 2016). The findings of the present study suggest that children's linguistic and cultural background influence their value structure.

Our second question investigated the effect of the L2 use on values. Dewaele and van Oudenhoven (2009) found that teenagers' frequent use of many languages was linked to significantly higher scores on open-mindedness. Hence, we expected a high level of use of different languages to be linked to higher scores on openness to change, the value close to open-mindedness. This could not be confirmed, as no significant differences emerged between the different levels of L2 use on openness to change. One possible reason for this is the sociocultural and linguistic environment. The research by Dewaele and Oudenhoven was conducted in London, a city characterised by a high degree of multiculturalism and multilingualism. It is possible that in such an environment individuals enjoy more linguistic freedom and interact more frequently with people from other cultures and languages, as well as being exposed to a wider variety of beliefs and values. This might boost open-mindedness. In contrast, in South Tyrol, with its divided school system, social interactions between different language groups and cultures are limited, leading to an overall promotion of conservation values. As Jessner (2008) pointed out, multilingualism at regional or national level does not

imply that all citizens are multilingual. It could also be that children's social, linguistic and cultural environment shape values over a longer time span and that the children had not yet absorbed these at the time of the investigation. Similarly, Dewaele and Wei (2012, 2013) found that participants who had been brought up bi- or trilingually were not more cognitively emphatic nor more tolerant of ambiguity than participants who grew up in monolingual families. In addition, no difference emerged between participants who grew up in bilingual or trilingual families. The authors speculated that 'the mere presence of two languages/cultures in one's environment is insufficient to boost tolerance of ambiguity' (p. 237). This statement can be extended to openness to change; the mere presence of more languages and cultures in a certain environment does not guarantee a higher openness to change.

Cieciuch, Davidov, and Algesheimer (2016) looked at maturation effects on values and found that openness to change values became more important and conservation values became less important from childhood to adolescence. The authors state that this trend is connected with the cognitive development and the entry into adolescence. We expected lower scores on conservation in more multilingual children. This hypothesis was confirmed as children with a high language use rated conservation lower than children with a medium L2 use.

Moreover, we hypothesised that children with a migrant background might score higher on openness to change values, as Dewaele and Stavans (2014) found that Israeli participants with only one migrant parent scored higher on open-mindedness compared to participants with either two migrant parents or two locally born parents. This hypothesis could not be confirmed. The analysis showed that children with a migrant background scored significantly lower than children without a migrant background on the higher order values openness to change, and higher on conservation and self-enhancement. Surprisingly, children with two migrant parents rated openness to change lower than children with no migrant parents. In other words, growing up in a family with a migrant background in South Tyrol did not increase children's openness to change but strengthened conservation and self-enhancement values. It is possible that children who were classified as children with a migrant background grew up in families which migrated from less developed and more conservative countries. Researchers have found (e.g. Schwartz & Sagie, 2000) that development and democratisation are linked positively with the importance of openness to change values and negatively with the importance of conservation values. Furthermore, Schwartz (2014) underlined the existence of a societal value system that is a fundamental part of the latent culture. The societal value system is external to the individual but affects the individual system of values. We regretted having no information on the integration of migrant families. Parents may have developed a negative perception of the highly divided society in South Tyrol, which doused their desire to integrate and strengthened their conservation values. Furthermore, the role of women in the more conservative migrant families and their possibilities to get in touch with other languages and cultures – for instance, through employment – could be linked to limited openness to change, values which they transmit to their children. Members of these families may lack opportunities of experiencing sociocultural heterogeneity and diversity. To conclude, as Dewaele and van Oudenhoven (2009) suggested, it is not the mere knowledge of another language or the fact that a migrant background is present, that promotes openness, but it is the active engagement in authentic interactions with various linguistic and cultural groups.

## **Limitations**

We are aware of a number of limitations in our research design. Our sample of

primary school children is relatively large but all children came from the same unique multilingual region. There also is a relative confound between bi- and multilingualism and immigration (see Table 2), which makes it hard to disentangle both effects. A study comparing locally born and foreign born multilinguals would allow to control this variable. Future research should focus, on the one hand, on children with different language profiles in different cultural settings and, on the other hand, on adult multilinguals in order to further explore the relation between multilingualism and values. Finally, further research could adopt a mixed method approach where the questionnaire data could be complemented with interviews in order to obtain a richer and more nuanced understanding of participants' values (Creswell & Plano Clark, 2010). We are also aware that any investigation into values, especially with children of migrant background, raises delicate ethical issues.

## Conclusion

Children's linguistic background, language use and migrant background are linked to a number of significant differences in their lower and higher order value preferences. The present study thus complements previous research on the link between adult bi- and multilinguals and personality traits (Dewaele & Stavans, 2014; Dewaele & van Oudenhoven, 2009; Dewaele & Wei, 2012, 2013) as well as the relationship between bilingualism and beliefs in young children (Byers-Heinlein & Garcia, 2015). The most original finding in the present study is that the effect of bi- and multilingualism on children can be completely different from that in adults. While more multilingual adults tend to score higher on open-mindedness and related constructs, the more multilingual children in the present study scored lower on these value dimensions. This unexpected result might be the consequence of a confound of children's bi- and multilingualism and their migrant background. It is possible that the multilingual children of migrant descent wanted to fit in most of all, craving stability and aiming for self-enhancement. Moreover, structural barriers in the school system in South Tyrol might have strengthened their conservation values. Finally, the trauma of migration, and possibly their religious beliefs might have contributed to family values that reject hedonism.

To conclude, previous work has shown that learning additional languages leads to multi-competence (Cook, 2002, 2012). The present study confirms that multi-competence has psychological effects, including human basic values (Dewaele, 2016; Schwartz, 1992).

## Notes

<sup>1</sup> If German or Italian is the child's L1.

<sup>2</sup> If the child has neither German nor Italian as L1.

<sup>3</sup> The L2 refers here to the second language taught at school, which for migrant children may be an L3 or L4.

<sup>4</sup> For a detailed explanation and coordinates for the starting configuration, see Döring et al. (2010).

<sup>5</sup> For procedure details within Schwartz's approach, please see Schwartz (2010).

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