

# Using emojis to assess children's linguistic stereotypes about Italian regional varieties

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**Abstract:** Linguistic stereotypes emerged both in relation to biological and social factors. Different studies have offered different methodologies to ascertain their emergence in children or even babies. In this paper, we present a survey on six Italian regional varieties tested on 79 children aged from 6 to 10 years old. The survey took place in two elementary schools and used a paper questionnaire in which emojis were used to express different values to be associated with different accents. Our results show that this method was reliable for studying linguistic stereotypes, even in children with a low level of literacy due to their age.

**Key words:** linguistic stereotype, language attitude, Italian, accent study, sociolinguistics.

## 1. Introduction<sup>3</sup>

Linguistic stereotypes (LSs) are one of the most debated topics in the fields of sociolinguistics and psycholinguistics, from both a theoretical and a methodological point of view. LSs have been widely investigated in relation to individuals' age with the general question of when LSs emerge in the linguistic or para-linguistic behavior (cf. Rosenthal 1974, Kinzler & DeJesus 2013a, 2013b, among many others). The use of different elicitation techniques and experimental methods revealed to be key for deepening the understanding of language perception and stereotypes in children. Nevertheless, both the presence of quantitative studies about LSs in the Italian landscape and experimental methodologies applied to the study of language perception in children are limited.

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<sup>3</sup> The paper has been conceived and written jointly by the two authors. However, for the requirements of the Italian Academy, Chiara Meluzzi will be considered responsible for sections 1, 3, 4.1, 4.2, 6 and 7, whereas Camilla Masullo for sections 2, 4.3 and 5, 5.1 and 5.2.

Our work aims to fill this gap by proposing a new method focused on children's perception by using emojis as a way to elicit answers from children of different ages, thus including the youngest ones, with a low level of literacy. The reader should be aware that we use the label 'emoji' in a broad general sense, thus including all images or ideograms used in online communication to represent ideas, feelings, abstract or material concepts without the need of words (cf. Chiusaroli 2015 on Italian emojis and their translation). In this respect, the meaning of 'emoji' covers more than the simple emoticon, and it includes those stylized images that conveys ideas of activities, objects and so on.

Our research investigates the development of LSs in Italian school-children aged between 6 and 10 years old in the Alpine valley of Biella. Since after WWII, the area was subjected to massive migration from other Italian areas and, more recently, also from Eastern Europe and Northern Africa. So far, few studies have focused on internal migrations, and the dynamics of language loss and maintenance in the immigrant community (Meluzzi 2019, Meluzzi *et al.* 2021).

Our work aims at understanding how these dynamics of language contact impact children's perception in terms of LSs. We focus on different Italian regional varieties that characterize the Biellese area and the different internal migratory waves. The main purpose is to verify whether using emojis could help in testing LSs with respect to Italian regional varieties, and when such stereotypes emerge according to the main sociolinguistic variables of age, sex and origin of the pupils.

The paper is organized as follows. The theoretical section provides a definition of stereotypes with respect to language variation and children's perception. We then discuss the methods of data collection and organization we used for our experiment on 79 Italian schoolchildren of Biella, before proceeding with the main results of our experiment. In the discussion, we comment on the main findings of the experiment but also its limitations and issues, in particular regarding the methodology we applied.

## **2. Theoretical remarks: Linguistic stereotypes and children**

The concept of stereotype lies in a multidisciplinary ground, where social sciences, psychology, anthropology, and linguistics stand together. According to Sills and Merton (1991), the introduction of the term dates back to 1922, when Lippmann cited it in relation to cognitive processes used to reach indirect knowledge: stereotype is described as a mental image through which reality could be stored in cultural and social preconceived notions (Lippmann 1922). Over the next years, many authors belonging to different scientific fields defined

the concept and associated it with the notion of prejudice (Allport 1954; Brown 1995, 2013). Currently, it has commonly been argued that the difference between stereotype and prejudice lies in the fact that the former is linked to the cognitive dimension, the latter is inherent in the behavioral sphere, as manifestation of the stereotype itself.

Since its first appearance in social sciences, the stereotype has become the pillar of many behavioural theories. Within SIT (Social Identity Theory), the concepts of identity, group and stereotype are linked together: the group represents the origin of social identity, which, in turn, is the outcome of three connected processes: categorization, identification, and social comparison (Tajfel *et al.* 1979). SIT laid the foundation for many other theories on the concept of stereotype and social identity, like the Ethnolinguistic Identity Theory (Giles and Johnson 1987), the Ethnolinguistic Vitality Theory (Harwood *et al.* 1994), and also the Communication Accommodation Theory (Giles & Giles 2016). The concept of social creativity has been deepened by the Stereotype Content Model (Fiske & Glick 2002). This model focuses on how different outgroups are perceived by an ingroup. According to the intergroup's relations and to the competence and the warmth attributed to the outgroup, four different types of stereotypes are generated: low judgements for both warmth and competence; high judgements for both warmth and competence; low judgements in warmth/high judgements in competence; high judgements in warmth/low judgements in competence.

From the close connection between culture, identity, and language, the concept of stereotype was extended to LSs. Indeed, language is conceived by Mahady and Jafari (2012) as the symbolic presentation of specific community, therefore it has been also linked to the notions of linguistic community, ingroup and outgroup.

The term *linguistic stereotype* conveys the linguistic ideology through which a linguistic form is perceived as representative of a particular social group (Pistolessi & Schwarze 2007). The terminology underlying the concept of LSs is broad and it includes terms like *linguicism* (Drager 2010), *glottophobia* (Blanchet 2016), *verbal hygiene* (Cameron 2012) and *accenteism* (Orelus 2018), all used to encode the same concept. Especially the term *accenteism* highlights the idea of a linguistic hegemony according to which standard language is preferred to other varieties labelled as non-standard. This contributes to the discrimination of people who don't speak the standard variety or simply have a different accent (Clopper *et al.* 2012) from the one perceived as standard. This topic is clearly illustrated by the Standard Language Ideology (Lippi-Green 1997): the absence of accents or language varieties is described as a myth used to enforce social distinctions and this leads to the discrimination of the linguistic community using a different communicative code far from the standard one.

Research on LSs led to the investigation of their specific traits, with particular attention to their evolution in individuals. While the previous literature assumed that linguistic attitudes arise from puberty, studies on linguistic attitudes in childhood started from the 70's with the purpose of inquiring when and how LSs develop. Among the first studies on this topic, Rosenthal (1977) showed that children from 3 to 5 years old were already able to distinguish language varieties, in particular standard American English and Black English: children revealed to prefer their own ingroup variety. Another ground-breaking study was conducted by Mehler *et al.* (1988) who tested the responses to language of 4-day-old infants: his research surprisingly showed that new-born children were already able to distinguish their mother tongue from another auditory stimulus. Kinzler *et al.* (2009, 2011) focused on children from 5 months to 5 years of age, by confirming that even at this age children showed a preference for the auditory stimuli with the accent of their ingroup. Further studies by Kinzler & DeJesus (2013a, 2013b) highlighted how solid LSs seemed to emerge around 9-10 years old: the diachronic comparison with 5-6 years old children revealed that, from the age of 5, individuals can distinguish between regional accents. The endorsement of adult LSs is registered later, when subjects are close to puberty.

The emergence of LSs seems to be linked to both biological and social factors. The children's sex has been held responsible for different linguistic attitudes across many theoretical frameworks. In his study about linguistic prestige in Norwich, Trudgill found a feminine preference for the standard variety, and he attributed this result to the female wish for social mobility (Trudgill 1972, but see also Labov 1972). A similar view is shared by Milroy (1980) and is the basis for his Social Network theory: women choose vernacular varieties or standard varieties according to the social context in which they are immersed. The differentiation between women's and men's linguistic behaviours is explained by the process of building social group identity: sex appears to be a crucial factor in determining everyone's identity group, thus it plays a critical role in childhood and adolescence, when social identity takes shape (Cahill 1986; Haslett 1986). Evidence for this hypothesis was found in various studies with participants in early childhood to puberty. In her 3-to-5 year old child sample, Rosenthal (1977) revealed different linguistic attitudes in girls and boys, with girls preferring their own ingroup variety; this result is explained by the possible absence of social pressure due to the very young age of the participants. In a later study, Ladeegard (1998) found that boys and girls from a Danish rural community showed divergent linguistic behaviours, with girls preferring the standard variety and boys opting for the vernacular one.

Age has also been argued to be a major biological factor in the development of LSs. During childhood, a difference of a few years is enough for a radical change in linguistic attitudes. If newborn

babies are already able to distinguish their own mother tongue from foreign languages (Mehler *et al.* 1988), the ability to recognize different varieties of their own mother tongue develops between the ages of 5 and 7 (Kinzler & DeJesus 2013a; Floccia *et al.* 2009). While linguistic attitudes in early childhood are driven by the familiarity effect with respect to linguistic stimuli, the linguistic behaviour that children showed around 9-10 is linked to the sociolinguistic prestige ascribed to specific linguistic varieties. Children at this age become aware of the sociolinguistic environment in which they live, and they are influenced by the adults' social attitudes.

Apart from biological factors, socio-cultural elements also play an important role in the development of children's linguistic behaviour, above all the growth environment of the child. The sociolinguistic background of children consists of several determinants among which exposure to languages seems to assume a relevant position. Several studies focusing on bilingual children have shown how bilingualism can affect the children's linguistic perception. Anisfeld and Lambert (1964) were among the first to show how 10-year-old bilingual French-English children in Canada were more prone to accepting linguistic outgroups different from their own ingroup compared to monolinguals. Similar results for younger children from the same linguistic background were presented by Byers-Heinlein and colleagues (2017) and comparable findings were also presented in different sociolinguistics landscapes (see Reizábal *et al.* 2004 for Basque-Spanish children). Advantages driven from exposure to more languages during childhood have been reported with respect to recognition of both regional and foreign accents (Clopper *et al.* 2012; Vieru *et al.* 2011). In her study conducted on the processing of unfamiliar accents by monolingual and bilingual children, Levy *et al.* (2019) stated that "a child who regularly hears regional-accented German may have an advantage in processing an unfamiliar regional German accent as compared to a child who hears less regional-accented speech" and she assumed that variability in input can be crucial in the detection of novel accents. A similar conclusion was drawn by Hudon (2013), who focused on French-English bilingual children and concluded that accent accommodation is input specific. Thus, bilingualism appears to be an impacting variable not only on children's linguistic perception, but also on their social attitudes: if language conveys identity, being bilingual means being identified by more cultural identities at once and being more prepared to accept other sociolinguistic groups. The presence of a mono- or multicultural environment is also the heart of Allport's Contact Hypothesis (1954), according to which greater or smaller openness to other ethnic groups depends on how often an individual meets other outgroups. Language exposure is not the only factor to have an impact on children's linguistic behaviour. In

fact, attitudes of parents and caregivers strongly influence children's beliefs, as explained by the Developmental Intergroup theory (Bigler & Liben 2007). Many studies have shown how adults' prejudices are transferred on children in direct and indirect manners (Castelli *et al.* 2009 *inter alia*). Social influences from people of the community, for instance, are considered responsible for the disadvantage in accented-speech detection experienced by bilingual children (Tao and Taft 2017). This result is in contrast with the positive findings described above about the linguistic perception of bilingual children and it highlights the importance that the family background and social factors could gain in shaping the children's linguistic attitudes. This phenomenon is well expressed by the concept of "acculturation stress", defined as "the stress that is associated with the expectation that one must fit into the majority culture" (Arizmendi *et al.* 2018). These factors, whether they have biological or social grounds, are critical to building the children's linguistic attitudes and they also have crucial consequences in educational and pedagogical settings.

### **3. Research questions**

Based on the previous literature on LSs in children, our work seeks to address the following research questions:

- 1) Are linguistic stereotypes, in either an emerging or a consolidating form, already present in primary school children?
- 2) Which social factors influence the children's linguistic stereotypes?
- 3) Is the usage of emojis a suitable and ecological method for eliciting children's attitudes towards different accents?

In fact, we were interested in testing whether it is possible to identify the development of linguistic stereotypes in school-age children. Furthermore, we wanted to investigate whether the different migratory background, albeit internal to the Italian peninsula, affects judgments over different Italian regional accents. Finally, from a methodological perspective, we wanted to verify whether the use of emojis is suitable for assessing attitudes to speech in children across ages, by using the same methods even with children who are not familiar with reading and writing.

## **4. Methodology**

### **4.1. Voices and questionnaire**

Due to the migratory background of the Biella Alpine valley, we selected six different regional varieties of Italian. Among them, two were identified as local varieties (Piedmontese and Lombard), whereas



the other four were the varieties spoken by different migratory groups, both ancient ones (Venetian and Sardinian) and more recent ones (Neapolitan and Sicilian).

We asked a professional male voice actor to record, in the six different accents, a short weather forecast without indications of a precise location. The text was as follows: «Cieli molto nuvolosi o coperti con deboli piogge per l'intera giornata. Sono previsti 8 mm di pioggia. Durante la giornata di oggi, la temperatura massima registrata sarà di 15°, la minima di 10°, lo zero termico si attesterà a 2050 metri. I venti saranno al mattino deboli e proverranno da Sud-Est, al pomeriggio moderati e proverranno da Est-SudEst. Nessuna allerta meteo presente» (Engl. "Skies very clouded or covered with light rain for the whole day. 8 mm of rain are expected. During the present day, the maximum temperature will be 15° C, the minimum 10°, with thermic zero attested at 2,050 meters. The winds will be weak in the morning and coming from the South-East, in the afternoon average and coming from the East / South-East. No weather warning present").

The audio files were recorded in a soundproofed environment, with a TASCAM DR-20 recorder set at 44.1 kHz and with a sampling rate of 16 bit. The actor read each text twice in the different accent, by making a short pause between an accent and the other. After a first auditory check on the audio quality and the pertinence of the different audios to the target accent, we acoustically analysed the different audios through PRAAT in order to ascertain the presence of the phonetic and phonological characteristics of the different regional varieties (Loporcaro 2009). This is crucial due to the great variability of Italian across regional varieties (see also Cerruti *et al.* 2016), so it was fundamental to ascertain that all the segmental and suprasegmental features were consistent with the accent imitated by the actor. Other than an acoustic check, we also performed a preliminary test to verify that Italian L1 speakers were able to identify the different voices as belonging to the target regional varieties. An online test was set up through Google Modules and sent to a group of 10 University students aged between 18 and 25. Respondents were not informed of the purpose of the experiment, and they were asked to listen to the different audio files and for each one to write down the possible origin of the speaker. The results confirmed that all respondents recognized each recording as belonging to the desired regional variety.

The questionnaire was prepared by following similar steps. The main stereotypes we wanted to test were friendliness, social class, and level of education associated to the speakers of the six Italo-Romance varieties. Five questions were prepared to test these variables: one question concerned the friendliness, and one the level of education, whereas social class as a broad concept was divided into three different indirect questions concerning, respectively, the work

done by the speaker, the house and the car he possessed. There was no explicit “I don’t know” answer, but the children were instructed to leave an answer blank if they didn’t feel that the images were appropriate. A final optional question was left open for pupils to write down their guesses about the origin of the speaker; for the youngest children, the last question was asked orally by the researcher and the children’s answers were transcribed. Each question was written on the questionnaire and was also read aloud during the test (see 4.2). The answers to each question but the last one were presented not in the form of a text but as emojis (see Fig. 1). As already specified in the introduction, in this paper we use the term emoji in a broad sense and it refers to the use of simple images to represent an object, an emotion, a concept or a feeling. They differ from emoticons, that are composed only of characters and refer only to emotions expressed by facial traits. To make sure that the meaning of each emoji/image was understood by the children, a brief explanation of the task was made before the experiment. Besides reading each question out loud and explaining it to the classes, researchers clarified that children were free to choose between three emojis/images for each question; every emoji/image was briefly matched by an oral description of its conveyed meaning (emotion/activity), with researchers underlying the main feature of each option (for example, an unfriendly, normal, very friendly face for the first question). Thus, children were made aware that each emoji/image corresponded to different values on a scale: the first one on the left (option a) representing the worst value, the last one on the right (option c) representing the best one.

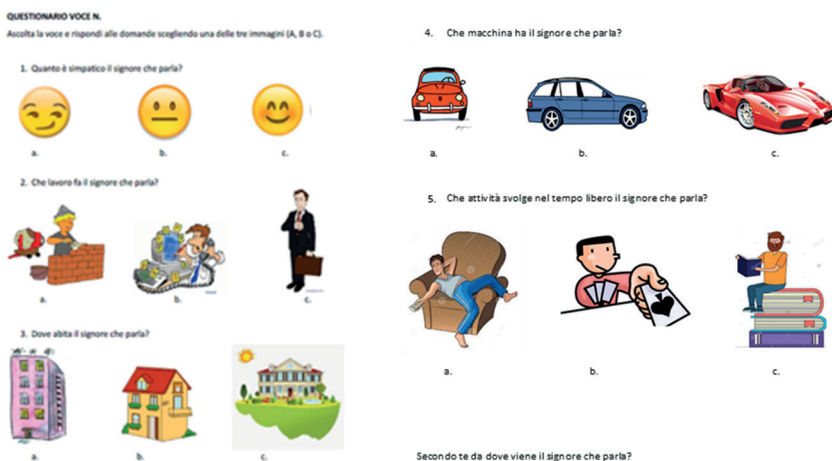


Fig. 1: The two-pages questionnaire with the five questions with emojis and the last open question (without numbers)



The selection of the different emojis was carried out firstly by the two researchers, in order to express values on a 3-point Likert scale. For instance, question 3 asked where the speaker may live, and the answers presented a working-class apartment, a small but independent house, and a big villa surrounded by a magnificent garden. The pertinence of each emoji was also preliminarily tested with the same sub-sample to ensure that every image properly conveyed the right Likert scale value. The 10 respondents were asked to indicate, for each emoji, the level of friendliness, the social status, salary, and level of education expressed by the image. A few emojis had to be changed if compared with the first versions of the questionnaire, and the test was re-run with the new emojis that were finally included in the questionnaire.

The questionnaires were printed and presented to the pupils in paper-form.

#### **4.2. Data collection**

The questionnaire was proposed in two elementary schools of Biella for a total of 79 pupils (35 males, 44 females), aged from 6 (1<sup>st</sup> grade) to 10 years old (5<sup>th</sup> grade). The children's distribution inside the different grades was as follows: 21 children attended the 1st grade (9M, 12 F), 15 were in the 2nd grade (8M, 7 F), 24 children in the 4th grade (10M, 14F) and, finally, 19 children (8M, 11F) were in the 5th and last grade of elementary school. According to their origin, children were also classified in three groups, namely local children (26 pupils), 2nd generation migrant children (29 pupils), and 3rd generation migrant children (24 children). As specified above, we are dealing here with internal migration, that is from different regions of Italy to Biella.

The teachers and headmasters of the two schools had been previously contacted and consent forms had been filled by the pupils' families prior to the experiment. In line with the current legal norms and scientific practice, the family were carefully informed about the nature of the surveys and the general purposes of the experiment; no harm or danger would be caused to their children, and the participation was completely free, without entailing extra credits or other rewards. Furthermore, it was clarified that personal data collected during the study would have been anonymized and used only for scientific purposes.

The data were collected during the normal morning school activities, with the collaboration of the teachers. On the day of the experiment, we asked children to clean their tables and to pick only a pencil or a pen with them. We carefully explained to them that we were playing a game, that it was not an evaluation and that there was not a correct or wrong answer. In light of this, we also asked them not

to copy answers from other classmates because we were interested in their ideas and perceptions.

A laptop with external speakers was used to ensure the quality of sound everywhere in the small classroom. We then distributed one copy of the questionnaire, by asking the pupils to put their first name on it, followed by number “1”. After having explained the different questions, we played the first voice twice, and we asked pupils to fill the questionnaire whenever they felt ready. After that, we proceeded to collecting the questionnaire, and to distributing another copy of for all the six linguistic stimuli we played. Each round of hearing and answering was annotated on the questionnaire with progressive numbers. In order to minimize the impact of priming effects, we presented the voice stimuli to the four grades in different orders.

### **4.3. Data structure**

Before the perceptual experiments, information about the children’s sociolinguistic backgrounds was gathered through a questionnaire that was completed by the respondents’ caregivers. The questionnaire included information about the age, place of birth and mother tongue of the child but it also provided details about the origin, mother tongue and job of the children’s mother, father, and maternal/paternal grandparents. A specific section focused on languages spoken in the family and linguistic uses: the respondents were asked to describe how many languages and/or dialects were spoken in their family, and they were also asked to specify the frequency and the context of use for each language. All together, these pieces of information allowed us to trace the socioeconomic status (SES) and origin of the participants. In particular, questions about the parents’ and grandparents’ places of birth were crucial to categorize the sample in three different groups according to the migration status of the respondents. The children were labelled as local if both their parents and their grandparents were born in Piedmont, otherwise they were defined as second-generation or third-generation migrants. Second-generation migrants included children for whom at least one of their parents came from a region other than Piedmont; the children for whom at least one grandparent was from a region other than Piedmont were defined as third-generation migrants.

## **5. Results**

To answer our research questions, we carried out two different analyses on our data. First, a preliminary analysis was conducted to observe the distribution of the answers given by the children about friendliness, hypothetical job, residence, car, and hobby of each recorded

voice. The results were calculated both for the entirety of the sample and for subgroups differentiated by multiple variables (age, sex, migration group, linguistic background). Then we ran a quantitative analysis on the correlation between recorded accents and the judgments about the speakers' hypothetic friendliness and SES; also, in this second analysis, results were calculated for both the whole sample and for different subgroups.

### 5.1. A preliminary analysis

A frequency analysis was used to observe the hypothetic sociocultural status attributed to the speaker by the respondents along five dimensions on a Likert scale. In this way, we were able to detect in which of the five investigated dimensions was found the highest concentration of low/middle/high-Likert scale values. We then observed the distribution of the percentages along each Likert-scale value for all the five investigated dimensions, to detect whether the distribution of the three values followed a normal trend.

The first analysis concerned answers' distribution given by the totality of the sample (Tab. 1): value 1 is always the lowest, while value 3 the highest.

	Value 1	Value 2	Value 3
Friendliness	24.8%	34%	41.2%
Work	23.1%	42.1%	34.8%
Home place	25.6%	43.4%	31%
Car	28.6%	44.4%	26.7%
Hobby	30%	35.9%	34%

Table 1: Distribution of answers in the whole dataset across variables

For four of the five investigated dimensions the distribution of the values followed a normal trend, with higher percentages of answers registered in the central value 2 and lower percentages in the external values 1 and 3. Only the dimension 'friendliness' did not show a normal distribution, since the highest percentage (41.2%) of answers lies in Value 3. When observing the distribution of percentages for each value, the highest percentage of Value 1 was registered for the 'hobby' dimension (30%); the hypothetic car attributed to the speaker obtained the highest frequency of Value 2 (44.4%), while friendliness gathered the highest percentage of Value 3 (41.2%).

In order to highlight the similarities and differences between the distributions of responses, we divided the sample in different

subgroups according to sex, age, migration group, mother tongue and linguistic background. From the comparison between male and female respondents, we found more dimensions with a normal distribution for males than for females.

	Value 1		Value 2		Value 3	
	Female	Male	Female	Male	Female	Male
Friendliness	26.7%	22.4%	34.9%	32.9%	38.4%	44.8%
Work	21.7%	24.8%	39.9%	44.8%	38.4%	30.5%
Home place	24.4%	27.1%	43.8%	42.9%	31.8%	30%
Car	27.5%	30%	43.8%	45.2%	28.7%	24.3%
Hobby	29.1%	31.4%	34.1%	38.1%	36.8%	30.5%

Table 2: Distribution of answers across the different questions divided by pupils' sex

The trend observed for the whole sample was maintained in both male and female subsamples: 'friendliness' registered the highest percentage of Value 3 (44.8% for males and 38.4% for females), 'hypothetic car' showed the highest concentration of Value 2 (45.2% for male, 43.8% for female), while 'hobby' had the highest percentages of Value 1 (31.4 % for males, 29.1 % for females).

The comparison between the distributions of the judgments by children of different ages revealed that the 4th and 5th grades were the ones with the more varied answers, which also followed a normal distribution, as tested with the Shapiro-Wilk test. Furthermore, for these grades, the values of 'friendliness' also showed a normal distribution contrary to the general trend. In general, 'hypothetic hobby' was the dimension that registered the highest percentages of Value 1 in all age group, while 'friendliness' had more frequently Value 3.

## 5.2. Quantitative analysis

Besides verifying whether different accents elicit different linguistic attitudes, we also focused on the role of different social factors: sex, age, migration group and linguistic background of the respondents were used as covariates with the purpose of highlighting which of these variables has an impact on the development of LSs. Information about linguistic background included the mother tongue of the children, the languages spoken in the family and other languages present in the growth environment of the children. Correlations between variables were tested through contingency tables on the software IBM SPSS 21, and we calculated chi-square values and Cramer's V.

Accent	Friendliness		
	Unfriendly	Neither friendly nor unfriendly	Friendly
Lombard	37.2%	33.3%	29.5%
Neapolitan	30.8%	42.3%	26.9%
Piedmontese	19.2%	23.1%	57.7%
Sardinian	20.5%	29.5%	50%
Sicilian	24.4%	47.4%	28.2%
Venetian	16.7%	28.2%	55.1%

Table 3: Accents and hypothetic friendliness for the whole sample ( $p < .0001$ ; Cramer's  $V = .205$ )

The contingency table with the accents and social judgments given by the whole sample showed statistically significant results for all dimensions (see Table 3). For friendliness, the local accents (Piedmontese, Venetian, Sardinian) were the ones to receive the highest percentages of positive judgements about friendliness, with the more friendly accents being Piedmontese (57.7%), Venetian (55.1%) and Sardinian (50%). In contrast, the most unfriendly accents were Lombard (37.2%) and Neapolitan (30.8%). Sicilian was the accent that registered the highest percentages of judgments in the middle value (47.4%), that is neither friendly nor unfriendly.

Accent	Hypothetic job		
	Low income	Middle income	High income
Lombard	17.9%	48.7%	33,30%
Neapolitan	12.8%	21.8%	65,40%
Piedmontese	16.7%	64.1%	19,20%
Sardinian	34.6%	43.6%	21,80%
Sicilian	23.1%	29.5%	47,40%
Venetian	33.3%	44.9%	21,80%

Table 4: Accents and hypothetic job for the whole sample ( $p < .0001$ ; Cramer's  $V = .277$ )

With respect to the judgments regarding the hypothetic job of the speakers, Sardinian and Venetian received the highest percentages of low-income values, with respectively 34.6% and 33.3% of answers

attributing a low-income job to the speakers. The accents that received the best judgments in terms of gainful employment were Neapolitan (65.4%) and Sicilian (47.4%), both belonging to outgroups.

Despite the long-lasting presence of the Sardinian community in Biella, Sardinian speakers are believed to inhabit a poor house in a crowded block of flats (41%). Conversely, Lombard and Sicilian speakers were supposed to live in large and comfortable villas (38.5% and 41% respectively;  $p < .0001$ , Cramer's  $V = .228$ ).

The tendencies previously observed were maintained for judgments about the hypothetical car owned by the speaker ( $p < .0001$ , Cramer's  $V = .198$ ). The local accents received the highest percentages of low socioeconomic values (Sardinian 42.3%, Piedmontese 39.7% and Venetian 35.9%). The best cars were owned by Neapolitan (46.2%) and Sicilian (34.6%) speakers.

The judgments about the hypothetical hobby of the speakers were more concentrated on the middle value, but with a lower correlational factor as demonstrated by the low Cramer's  $V$ 's value ( $p < .0001$ , Cramer's  $V = .168$ ). However, specific tendencies were also observed in this contingency table: Sardinian (46.2%) and Sicilian (32.1%) were the accents for which children gave the highest negative percentages associated with the hobby dimension, whereas Lombard and Neapolitan were associated to a more cultural hobby like reading books (Fig. 1, question 5).

After the analysis of the judgments given by the whole sample, other analyses were conducted with social variables (sex, age, migration group) used as covariates. Female respondents were proved to present a higher number of statistically significant correlations than male participants. For girls, the contingency tables for all the five dimensions investigated showed statistically significant results ( $p < .05$ ); for boys, instead, only three correlations (accent/hypothetic job, residence and car) out of five revealed a  $p$  value lower than .05.

Accent	Friendliness		
	Unfriendly	Neither friendly nor unfriendly	Friendly
Lombard	37,20%	34,90%	27,90%
Neapolitan	32,60%	48,80%	18,60%
Piedmontese	25,60%	14,00%	60,50%
Sardinian	20,90%	32,60%	46,50%
Sicilian	25,60%	51,20%	23,30%
Venetian	18,60%	27,90%	53,50%

Table 5: Accents and friendliness for the female sample ( $p < .0001$ , Cramer's  $V = .251$ )



As for friendliness, the female sample revealed a similar tendency to the one observed for the whole sample (cf. Tab. 5). The friendliest accents were Piedmontese (60.5%), Venetian (53.5%) and Sardinian (46.5%), whereas the most unfriendly were Lombard and Neapolitan (37.2% and 32.6% respectively).

As far as the hypothetical job is concerned, girls once again attributed the highest percentage of low-income jobs to the Sardinian and Venetian accents (30.2% and 34.9%), while Lombard and Neapolitan received the highest percentages of high-income job responses (41.9% and 65.1%). A very similar tendency was registered for the hypothetical home residence, where Sardinian was the accent to receive the highest percentages of poor household responses (37.2%), while the Lombard and Neapolitan accents were judged as the ones associated with the best homes. Piedmontese, Sardinian and Venetian were once again the accents that registered the lowest values for 'hypothetic car' (41.9%, 37.2% and 39.5% respectively). However, in this case Sardinian (37.2%) and Neapolitan speakers (46.5%) were judged to have the best cars. As for hobbies, the highest percentage of judgments linked to a low cultural level was registered for Sardinian (48.8%), while Lombard and Neapolitan were more often supposed to be linked to a high cultural level (48.8% and 46.5% respectively).

Accent	Hypothetic work		
	Low income	Middle income	High income
Lombard	20%	57,1%	22,9%
Neapolitan	14.3%	20%	65,70%
Piedmontese	20%	65,7%	14,30%
Sardinian	40%	45,7%	14,30%
Sicilian	22.9%	25,7%	51,40%
Venetian	31.4%	54,3%	14,30%

Table 6: Accents and hypothetical job for the male sample ( $p < .0001$ ; Cramer's  $V = .339$ )

For the male sample, only three correlations revealed to be statistically significant and concerned the hypothetical job, home residence and car of the speaker. When it comes to the hypothetical job (cf. Tab. 6), the Sardinian accent was judged to be associated to a low-income job (40%), whereas the highest-income jobs were registered for Neapolitan and Sicilian (65.7% and 51.4% respectively). A very similar trend was also observed for judgments attributed to

the hypothetical home residence and car of the speakers.

With respect to the respondents' age, some specific trends were found: only 4<sup>th</sup>-grade children reached statistical significance in judgments about all the five investigated dimensions, followed by 5<sup>th</sup>-grade children for whom four dimensions out of five were proved to be significant. This pattern suggests that the children at older ages are more prone to showing specific linguistic behaviors. Respondents in the 1<sup>st</sup> and 2<sup>nd</sup> grades, indeed, had statistically significant results only for few dimensions (friendliness, hypothetical work, and hobby).

Accent	Low Income		Middle Income		High Income	
	1 <sup>st</sup> Gr.	5 <sup>th</sup> Gr.	1 <sup>st</sup> Gr.	5 <sup>th</sup> Gr.	1 <sup>st</sup> Gr.	5 <sup>th</sup> Gr.
Lombard	14.3%	27.8%	61.9%	50%	23.8%	22.2%
Neapolitan	4.8%	27.8%	38.1%	11.1%	57.1%	61.1%
Piedmontese	9.5%	33.3%	71.4%	50%	19 %	16.7%
Sardinian	9.5%	27.8%	42.9%	72.2%	47.6%	0%
Sicilian	0%	50%	33.3%	16.7%	66.7%	33.3%
Venetian	42.9%	27.8%	33.3%	61.1%	23.8%	11.1%

Table 7: Differences between 1<sup>st</sup> and 5<sup>th</sup> grade children's judgments concerning the jobs of the different accents (1<sup>st</sup> grade:  $p < .0001$ , Cramer's  $V = .37$ ; 5<sup>th</sup> grade:  $p < .0001$ , Cramer's  $V = .382$ )

In Table 7 the differences in judgments about the hypothetical job of the speaker are represented. 1<sup>st</sup>-grade children tended to attribute the highest percentages of low-income jobs to Venetian (42.9%), while the highest percentages of high-income job are registered for Sicilian (66.7%). If we compare these results with the judgments given by 5<sup>th</sup>-grade children, we note some differences: the accent that receives the highest percentages of low-income jobs was Sicilian (50%), while Neapolitan gained the highest values of high-income judgments (61.1%).

Another important point regards the interrelatedness between sex and age. The contingency tables of the female sample showed statistically significant correlations for 1<sup>st</sup>- and 2<sup>nd</sup>-grade children more frequently than the male sample did. For females, the hypothetical job and hobby obtained statistically significant judgments already in the 1<sup>st</sup> and 2<sup>nd</sup> grades; on the other hand, for males, statistically significant judgments were given only by 4<sup>th</sup>- and 5<sup>th</sup>-grade children with the only exception of friendliness, which received significant judgments from the 2<sup>nd</sup>-grade children as well. This trend is indicative of the fact that girls develop linguistic attitudes earlier than their male counterpart.

Migration group		Hypothetic job		
		Low Income	Middle Income	High Income
2nd generation				
accent	<b>Lombard</b>	17.2%	51.7%	31%
	<b>Neapolitan</b>	6.9%	27.6%	65.5%
	<b>Piedmontese</b>	13.8%	65.5%	20.7%
	<b>Sardinian</b>	37.9%	44.8%	17.2%
	<b>Sicilian</b>	31%	27.6%	41.4%
	<b>Venetian</b>	31%	48.3%	20.7%
3rd generation				
accent	<b>Lombard</b>	8.3%	54.2%	37.5%
	<b>Neapolitan</b>	16.7%	16.7%	66.7%
	<b>Piedmontese</b>	20.8%	66.7%	12.5%
	<b>Sardinian</b>	41.7%	41.7%	16.7%
	<b>Sicilian</b>	29.2%	25%	45.8%
	<b>Venetian</b>	25%	58.3%	16.7%
Local				
accent	<b>Lombard</b>	28%	40%	32%
	<b>Neapolitan</b>	16%	20%	64%
	<b>Piedmontese</b>	16%	60%	24%
	<b>Sardinian</b>	24%	44%	32%
	<b>Sicilian</b>	8%	36%	56%
	<b>Venetian</b>	44%	28%	28%

Table 8: Hypothetic job and accent according to the group of origin of the respondents (2<sup>nd</sup> gen.:  $p=.01$ ; Cramer's  $V=.299$ ; 3<sup>rd</sup> gen.:  $p<.0001$ ; Cramer's  $V=.343$ ; Local:  $p=0.009$ ; Cramer's  $V=.280$ )

As for the immigration generation, only the hypothetic job attributed to the different accents was statistically significant in the three sub-groups (that is, local children, 2<sup>nd</sup> and 3<sup>rd</sup> generations, see Table 8). For the local group, the highest percentages of low-income job responses were associated to Venetian (44%); second-generation migrants showed this trend too, with Venetian and Sicilian judged more frequently as associated to low-income jobs (31%). Differently, for third-generation migrants the highest percentages of low-salary job responses were linked to Sardinian (41.7%). A common trait for the third-migration group concerned Neapolitan: it was the accent to receive the highest percentages of high-income job responses for all three groups of children (Local 64%; 2<sup>nd</sup> gen. 65.5%; 3<sup>rd</sup> gen. 66.7%).

Finally, the last open question in the questionnaire did not get valuable results for the purposes of this study. Only the 5<sup>th</sup> grade children

correctly understood the question and they tried to guess from what area of Italy the speakers came from. Conversely, the youngest children didn't get that they were supposed to give a geographical reference, and they provided generic answers like "from a mountain" or even "from his house". This information could also be a further qualitative resource for tracing the perception of different accents as linked to more rural areas. However, a plausible general lack of geographical knowledge could also be assumed, at least for 1<sup>st</sup> and 2<sup>nd</sup> grade pupils.

## 6. Discussion

The usage of emoji revealed to be suitable for eliciting children's linguistic stereotypes across age by using a unique questionnaire across all grades. A questionnaire with numerical Likert-scale values or open answers would have probably been too complex for primary school children, especially with low levels of literacy as in 1<sup>st</sup> grade. Furthermore, open questions or numbers could have been interpreted by school-children as a test, with right and wrong answers. By using emojis, the cognitive-affective filter was lowered (Krashen 1981), and children took part in the task as it was a game, not a test. Their answers showed interesting patterns of variability. It has been confirmed, in line with the previous literature, that even 6-year-old children have already developed a sociocultural stereotype towards different accented varieties of their L1. Since the children have the possibility to leave the answers blank, we do not believe that these results could be somehow induced by the obligation to choose among three values or the lack of a neutral option.

Even at this age, a distinction between the male and female pupils has been found: girls were more sensitive to the voice as a whole, whereas boys were more prone to assessing the social status of the voices they heard. Furthermore, the migratory background of the respondents shapes the socio-cultural values associated to different regional varieties, even with surprising correlations: indeed, Neapolitan was always judged with a high social status, whereas a more local accent like Piedmontese was assessed as very poor, especially by children without a migratory background. However, this could be explained through the internal variability of the single regional varieties: indeed, we chose a Piedmontese accent that imitated the so-called "koine Piedmontese" (Cerruti & Regis 2020), which is different from the local Biellese variety from a phonetic and phonological perspective, although there are not detailed analyses in this respect and Biellese is usually simply and simplistically classified as Piedmontese. From these results, it seemed that children are quite sensitive to this perceived difference within the Piedmontese varieties, which ought to be better investigated.

Despite the usage of emoji helping in eliciting children's linguistic stereotypes, some limitations of the experiment have emerged. Even if we tested 79 children, the groups were not fully balanced across possible migratory backgrounds, thus more data are needed to test the preliminary results presented here. Secondly, the use of a 3-points Likert scale could have reduced the possible variability of the answers: in future, we aim at testing children of the same age with a 5-point continuum, still using emojis. Indeed, this method has shown some weaknesses, in particular for what it concerns the "hobby" question: children have shown some difficulties in understanding what the guy in the middle was doing, since apparently playing cards was not an activity they were exposed to anymore, and they did not recognize the image as a game. This could be linked to the fact that the pre-test has been carried out on young adults and not on children. Nevertheless, the methodology has proved to be quite robust and worth reproducing in further studies, by also explicitly comparing the effectiveness of the use of emojis vs. traditional closed or numeric questions.

## **7. Conclusion and future perspectives**

The present study investigated the presence of LSs in children by using a novel elicitation method, namely surveys with multiple choice questions where Likert-scale values consisted of emojis. The use of emojis allowed to elicit children's linguistic attitudes towards different Italian accents: answers along emojis' values revealed to be normally distributed for all the investigated dimensions except for friendliness, which generally received the biggest concentration of answers in the highest value. Using emojis facilitated sociolinguistics judgements by graders in a way that fosters the children's participation in the experiment and reduces loss of attention. Nevertheless, we saw that this methodological approach doesn't come without limitations, which can be fixed in further studies.

Indeed, it will be interesting to test a larger sample, balanced by migratory origins, and also to extend the test to other varieties, by including also foreigner-accented Italian. The use of emojis instead of written values could be helpful in testing people with a low level of Italian literacy, that is not only children of 6 or less years of age, but also adult migrants. Participation of students from secondary schools will also be a further development to test the validity of this methodology with older participants. Deepening the research about the origin of LSs could be the key to highlighting the most impactful factors that influence linguistic identity during infancy, and it could be also a tool to develop proper pedagogical measures to harmoniously support children in their growth.

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