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‘Red is the colour of the heart’: making young children’s multilingualism visible through language portraits

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ABSTRACT
The increasing occurrence of multilingualism in the educational sphere is challenging teachers to deal with the coexistence of different languages in the classroom. The present paper presents the analysis of language portraits as a tool to make students’ multilingualism visible by using colours to represent their multilingual repertoires. Through a mixed methods design, our research analyses 570 language portraits and sociolinguistic surveys, as well as 21 semi-structured interviews with children aged 6 to 13 in order to investigate the ways in which pupils represent and reflect upon their multilingual repertoires. Using a qualitative content analysis, we have classified the most common patterns within pupils’ choices of colours and placement of languages on their portraits, later analysed through a semiotic approach. Results show three recurring patterns of colour choices: colours of national flags, associations with life experiences, and associations with feelings. As for language placement, results show two recurring patterns: structuring languages according to linguistic skills, and according to body functions. The analysis also revealed a tendency among participants of representing their languages through a “monolingual lens” (García and Flores) and draws implications for the implementation of multilingual education.

1. Introduction
Across the globe, the contact between different languages has become more frequent as a result of the increasing mobility of its speakers. The occurrence of multilingualism in the educational sphere has become the norm in many regions, and students from different backgrounds are enrolling in schools and bringing with them a multiplicity of languages (and dialects) in addition to the language(s) of instruction, thus transforming the sociolinguistic realities of classrooms (Hélot et al. 2018). In order to manage these classrooms, teachers should acknowledge the hybrid language practices of the pupils, and therefore make use of multilingual pedagogies (García and Flores 2012). Students feel empowered when their languages are welcomed in the classroom and they are free to use them, helping...
them acquire school knowledge and facilitating the flow of ideas between the school and the home languages (Cummins et al. 2005).

A particular approach within multilingual teaching consists of applying methodologies in order to visualise students' multilingualism. Graphic representations of the linguistic repertoire of students have been used in schools as a tool to reflect on the languages present in the classroom, as well as to raise awareness when dealing with multilingualism (Busch 2018). One form of graphic visualization are the so-called language portraits (Busch 2006), consisting of colouring different languages in a body silhouette as a way of symbolically representing the embodiment of one's languages, revealing attitudes towards and socio-affective links to languages and bringing forward the linguistic and cultural diversity of students (Gkaintartzi and Tsokalidou 2018).

The current research is set in Friesland, a province located in the north-western part of the Netherlands, where about 65% of the inhabitants of the Province are bilingual Frisian-Dutch speakers (Duarte and Günther-van der Meij 2018b). Since 1997, there are trilingual primary schools in which Dutch, Frisian and English are used as medium of instruction. In the last decade, however, there has been an increase up to 15% in the number of pupils with an immigrant background (CBS 2019). The presence of migrant languages in the classroom is triggering teachers to look for new strategies to deal with and make use of this multilingualism (Mercator 2017). In order to improve multilingual education in the Province, two research projects More Opportunities with Multilingualism Project (Meer kansen Met Meertaligheid – 3M-project) and Languages4all (L4A), were set up. The projects work in collaboration with primary school teachers, researchers, and students and teachers at the primary teacher training program (Duarte and Günther-van der Meij 2018a). In order to valorise pupils’ home languages in the classroom, language portraits (Busch 2006) were used in all project schools. In studies on multilingualism, visual narratives have been previously used to investigate the representations of languages in the multilingual mind and body, as well as the relationship between them (Melo-Pfeifer 2015). Visual materials, drawings of human figures and self-portraits are a recent interest in the field of applied linguistics, which acknowledges that there are things that can only be expressed visually and not linguistically, and vice versa (Kalaja, Dufva, and Alanen 2013). There is, in fact, such a growing body of research drawing upon visual methodologies, that it has been termed the “visual turn” in applied linguistics (Chik and Melo-Pfeiffer 2020). Drawings are commonly used in research involving children, as they are an efficient tool to access children’s perceptions and representations of themselves and their environment (Moore and Castellotti 2011). The field of social semiotics considers any artefact used to communicate as a “semiotic resource”, meaning that almost everything one does allows the articulation of social and cultural meanings (Van Leeuwen 2005). These resources are signifiers used in social contexts that have a theoretical semiotic potential for making meaning, which are constituted by all past uses and also by all potential uses (Kress 2013). Semiotics thus offers an appropriate lens to analyse visual materials in their relation to identities and language practices.

Drawing on language portraits and a sociolinguistic survey of 570 pupils aged 6 to 13, and 21 semi-structured interviews, the current research seeks to map the ways primary school pupils in a linguistically diverse area – with a regional minority language and a rising number of migrant languages – represent and reflect on their multilingual repertoires. The study will answer the following research questions:
1. How do multilingual children represent their linguistic repertoires in language portraits?
2. What differences can be found in the representations of children’s languages between language portraits and sociolinguistic surveys?

2. Visual representations of multilingualism

The increasing mobility of people around the globe has brought different groups and their languages in contact with each other, changing their ethnolinguistic characteristics (García 1992). Such changes in the population due to global migration flows have been termed “super-diversity”, which entails a range of variance of social, cultural and linguistic diversity, triggering a set of transformations in society (Meissner and Vertovec 2015). In the field of education, super-diversity has caused teachers to deal with a growing range of languages present in the classroom, resulting in a change of the traditional monoglottal ideology (Spotti and Kroon 2017). With the increase of linguistic heterogeneous classrooms, the inclusion of multilingualism in instruction is becoming an important tool for helping students develop their multilingual repertoires (García 2013).

Recent studies have been concerned with how languages are related to identity, as language choices and the way one speaks are a reflection of individual identities (Joseph 2010). Due to globalisation, languages are now seen in motion, no longer being fixated to places and time, causing multilingual speakers to make use of different language systems to perform their personhood (Makalela 2014). These language practices are referred to by García (2009) as “translanguaging”, defined as “multiple discursive practices in which bilinguals engage in order to make sense of their bilingual worlds” (p. 45). Growing linguistic and cultural diversity expand the range of identity options available (Pavlenko and Blackledge 2004). There has been an increasing interest in the field of sociolinguistics in examining individuals’ multilingual identities (Prasad 2014; Melo-Pfeifer 2017; Cummins 2006; Busch 2018). In order to approach both language practices and identities, Cummins (2006, 2018) has proposed that different kinds of cultural production (written, spoken, visual, musical, etc.) are important forms of identity expression.

2.1. Language portraits

In an effort to visualize pupils’ linguistic resources, a new type of visual narrative came into use, the so-called language portraits (Busch 2006). Language portraits consist of the outline of a body silhouette, which participants must colour by choosing colours to represent different languages, placing them on different body parts, resulting in a graphic visualisation of their linguistic repertoire (Busch 2018). As the portraits make multilingual repertoires visible, they become a powerful tool to help children represent their linguistic identities and language diversity, providing a way for teachers to access and understand their students’ voices, without limiting them to focus on a particular language (Prasad 2014). The use of language portraits as a group activity provides valuable material for class discussion, enabling students to critically think about what being multilingual means, besides making teachers and students aware of all the languages spoken by their classmates (Dressler 2015).
making the languages present in the classroom visible, students become open-minded, empowered multilingual citizens as they see their languages becoming legitimate at school (Hélot et al. 2018).

Using visual methodologies for data collection enables participants to deeply reflect on their responses while engaging in a creative production (Krumm 2011) as they have alternative ways of articulating their experiences creating an interpretative story of their embodied languages, and therefore providing new resources for thinking about “identity and subjectivity as embodied and relational” (Botsis and Bradbury 2018, p. 12). Instead of emphasizing how the languages represented were acquired or even the participant’s language proficiency, language portraits provide an overview of the linguistic practices of the students, making possible the expression of emotions or experiences that are linked to each language (Busch 2010).

Although visual representations are considered texts to be read interpretively, Riessman (2007) acknowledges that “just as oral and written narratives cannot speak for themselves, neither can images” (p. 179). The use of a multimodal approach allows participants to present their linguistic repertoire through different modes, switching from visual to oral and written modes (Busch 2018), overcoming the limitations of each mode and contributing to the “unravelling of narratives of identity and language” (Bristowe, Oostendorp, and Anthonissen 2014). Most researchers working with language portraits, however, acknowledge the limitations of this research tool and therefore make use of a multimodal approach, either interviewing the participants or asking them for a written description of their linguistic repertoire (Botsis and Bradbury 2018; Bristowe, Oostendorp, and Anthonissen 2014; Busch 2010; Coffey 2015; Dressler 2015; Melo-Pfeifer 2015, 2017; Prasad 2014). Against this backdrop, we also employ a multimodal approach in our research, making use of language portraits, written descriptions as well as interviewing some of the participants.

In a modal framework, colours are considered signifiers, carrying “a set of affordances from which sign-makers and interpreters select according to their communicative needs and interests in a given context” (Kress and van Leeuwen 2002, p. 355). Kress and van Leeuwen (2002, 2006) distinguish two different sources for making meaning with colour: association and distinctive features. Association refers to ‘where’ that particular colour comes from, which can be from a certain object or even a place, for example. The association made with a colour carries a symbolic and emotive value in the given socio-cultural context, providing the context of production and its interpretation. The second affordance, the distinctive features of colour, indicate values on a range of scales, such as from saturated to desaturated and from light to dark. These features not only distinguish between colours, but also serve as meaning potentials, in which any colour can be analysed as a combination of specific values on each scale (Kress and van Leeuwen 2002). All the affordances attached to colours can be selected by the authors according to their interests and communicative needs in a certain context. Their choices can be regulated by explicit or implicit rules or even by role models, or, in other cases, it can be relatively free, depending on their creativity. Sometimes both constraint and creativity can be mixed in complex ways (Kress and van Leeuwen 2002).

Clinical psychologists and art therapists have argued that children’s use of colour in artistic assignments is the manifestation of their emotional status, giving colour an emotional significance (Boyatzis and Varghese 1994). Burkitt, Barrett, and Davis (2003)
conducted a study with 330 children, 4-11 years old, to explore children’s systematic use of colours in affectively characterised drawings. The results showed that children alter their choices of colour in response to differential affective topic characterizations, as children used their preferred colours for positively characterized drawings and least preferred colours for negatively characterized drawings. As pointed out by the authors, their findings also support the idea that children use colours symbolically from a young age on (Burkitt, Barrett, and Davis 2003) which could be explained by the fact that they use visual signifiers as a response towards objects and events that play an important role in their lives (Hopperstad 2008). As seen above, this is considered by Kress and van Leeuwen (2002, 2006) an association source of making meaning with colour.

The present study analyses how pupils of public primary schools in the super-diverse region of Friesland, the Netherlands, use colours as visual signifiers to represent their linguistic repertoire in language portraits. It also compares children’s self-reported language background with the representations of their multilingual repertoires in the language portraits.

### 3. Methods and procedures

#### 3.1. Design

In order to answer the research questions, a concurrent mixed-methods design was employed (Creswell 2014). A language background questionnaire was applied to gain a detailed profile of the linguistic repertoires and background information of the students, providing a quantitative description of the sample. Parallelly, language portraits (Busch 2006) were conducted to provide a graphic visualisation of the students’ linguistic repertoire, an insight into emotional language experiences, ideologically informed ideas and attitudes about languages (Busch 2018). Along with the previously mentioned tasks, semi-structured interviews (Galletta and Cross 2013) with a sub-sample of the students were conducted. This kind of interviews, designed to be both cumulative and iterative, include open-ended and more theoretical driven questions, being sufficiently structured in order to address specific dimensions of the research, but flexible enough to leave space for a narrative to unfold, which informs the remaining segments of the interview (Galletta and Cross 2013). The combination of different methods of data collection and analysis allow us to triangulate our findings, comparing different data sources and methods (Patton 1999).

#### 3.2. The setting and school types

The data used in this study was collected as part of above-mentioned projects 3M and Languages4all, that aim to develop and implement an innovative approach for multilingual education with activities that focus on the acknowledgement and use of minority and migrant languages in mainstream education (for a detailed description see Duarte and Günther-van der Meij 2018a). The sample includes a total of 12 schools, 24 teachers and around 600 pupils (ages 8–10) for the 3M-project and 8 schools, 16 teachers and 400 pupils (ages 10–12) for the Languages4all-project. Schools were approached by phone or mail,
informed about the projects and enrolled to participate voluntarily. Most research in the region has so far focused more on the Frisian-Dutch bilingual children and has neglected the growing number of migrant pupils. To address this gap and include the various types of multilingual students in the region, the four school types were specifically targeted. In order to have a representative sample of the different types of schools according to the multilingualism of their pupils, the schools were selected to represent the four main types of schools in the region (Duarte and Günther-van der Meij 2018a): trilingual primary schools (with Dutch, English and the regional minority language Frisian as official languages of instruction), refugees/newcomer primary schools, primary schools with a high percentage of migrant language speakers and primary schools with a high percentage of Dutch speakers. The language portraits and accompanying sociolinguistic surveys were collected in the initial phase of the projects, between November 2018 and June 2019, with the aim of mapping pupils’ multilingualism and raising teachers’ awareness for the ways in which pupils perceive their own multilingualism.

### 3.3. Instruments

#### 3.3.1. Sociolinguistic survey

A sociolinguistic survey (Duarte and Günther-van der Meij 2018a) was applied to the pupils, as part of a class activity that took place during school hours. Each pupil received a booklet containing a questionnaire in Dutch and the language portrait task. In this handout, pupils would first fill in the language questionnaire, which consisted of nine open-ended questions and two multiple-choice questions. Five of the eleven questions were on personal information such as name, age, gender, school name, and school year. The other six questions were on language background and daily language use with family and friends, favourite language, and the desire to learn new languages. Although the last six questions were open-ended questions, they were still easily quantifiable.

Participants in the language survey included children between 6 and 13 years old. Data collection with the younger pupils (6 to 8-year olds) was done with the support of two research assistants and two interns who helped pupils read the questions and write their answers in the booklets. In total, there were 570 participants, but 15 of the language questionnaires were eliminated from our sample as the participants left them blank. Therefore,

### Table 1. Sample of the sociolinguistic survey.

<table>
<thead>
<tr>
<th>School type</th>
<th>Gender</th>
<th>Participants</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Girls</td>
<td>Boys</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Trilingual primary schools</td>
<td>36 (54.5%)</td>
<td>30 (45.5%)</td>
<td>66 (11.9%)</td>
</tr>
<tr>
<td>Refugees/Newcomer primary schools</td>
<td>15 (57.7%)</td>
<td>11 (42.3%)</td>
<td>26 (4.7%)</td>
</tr>
<tr>
<td>Primary schools with a high percentage of migrant language speakers</td>
<td>118 (50.6%)</td>
<td>115 (49.4%)</td>
<td>233 (42%)</td>
</tr>
<tr>
<td>Primary schools with a high percentage of Dutch speakers</td>
<td>110 (47.8%)</td>
<td>120 (52.2%)</td>
<td>230 (41.4%)</td>
</tr>
</tbody>
</table>
this sample (Table 1) consisted of 555 participants, aged 6–13 ($M = 9.5$), of which 50.3% identified themselves as girls and 49.7% as boys.

All handouts were given a code in reference to the school, grade and pupil they belonged to. They were then coded into four typological categories: Dutch-speaking pupils, Frisian-speaking pupils, 1st generation migrant pupils, and 2nd generation migrant pupils. We analysed each category separately.

### 3.3.2. Language portraits

The sociolinguistic survey was followed by the language portrait task. A short paragraph explaining the task preceded two empty body silhouettes, one male and one female. Along with the written description, the researchers also gave a fixed explanation of the task and answered any questions raised by the students. Pupils were instructed to choose one body silhouette and fill it in with colours in which each colour related to one language of their choice, although children were instructed that they could mix colours. They could represent any language they speak or would like to speak, and the languages could be placed in any part of the body.

A total of 570 pupils completed the language portrait activity, 49.8% girls and 50.2% boys, ages from 6 to 13 ($M = 9.6$). The vast majority of these pupils overlap with those of the language surveys, however due to data collection in different days the samples differ slightly from each other (Table 2).

The analysis of the language portraits was carried out in two separate steps. First, by using a quantitative overview, we present the different languages represented by the students in their portraits. In order to do so, we coded all languages mentioned in the portraits into an Excel Sheet, dividing them into four categories: officially recognised languages (e.g. German), dialects and varieties (e.g. Bildts, a regional dialect), country-based languages (e.g. ‘Somalish’), and fantasy languages (e.g. ‘language of love’), meaning languages that pupils made up themselves and assigned to different parts of their language portraits. We counted each language within each portrait once, regardless of how many times they were mentioned by the participants. The number of languages present in the portraits was then compared to the number of languages mentioned in the background language questionnaires, which were also coded with the same categories. The differences between the two were calculated using a Pearson’s Chi-square test. For

<table>
<thead>
<tr>
<th>School type</th>
<th>Gender</th>
<th>Participants</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trilingual primary schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>38 (52.8%)</td>
<td>34 (47.2%)</td>
<td>72 (12.6%)</td>
</tr>
<tr>
<td>Boys</td>
<td>34 (47.2%)</td>
<td>34 (47.2%)</td>
<td>72 (12.6%)</td>
</tr>
<tr>
<td>Refugees/Newcomer primary schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>15 (57.7%)</td>
<td>11 (42.3%)</td>
<td>26 (4.6%)</td>
</tr>
<tr>
<td>Boys</td>
<td>11 (42.3%)</td>
<td>11 (42.3%)</td>
<td>26 (4.6%)</td>
</tr>
<tr>
<td>Primary schools with a high percentage of migrant language speakers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>119 (50.6%)</td>
<td>116 (49.4%)</td>
<td>235 (41.2%)</td>
</tr>
<tr>
<td>Boys</td>
<td>116 (49.4%)</td>
<td>116 (49.4%)</td>
<td>235 (41.2%)</td>
</tr>
<tr>
<td>Primary schools with a high percentage of Dutch speakers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>112 (49.3%)</td>
<td>125 (50.7%)</td>
<td>237 (41.6%)</td>
</tr>
<tr>
<td>Boys</td>
<td>125 (50.7%)</td>
<td>125 (50.7%)</td>
<td>237 (41.6%)</td>
</tr>
</tbody>
</table>
the second part of our analysis, we selected the participants that were also interviewed in order to analyse their portraits.

### 3.3.3. Semi-structured interviews

While the group was working on their assignments, some of the pupils were interviewed regarding their language portrait using an interview guide developed on the basis of previous research on language portraits (Prasad 2014; Melo-Pfeifer 2017; Busch 2006, 2018). The interviews were conducted either in Dutch, Frisian or English, depending on the children’s own language preference. Semi-structured interviews were conducted to further explore the children’s choices of colours and their placement on the body silhouette. The interviews were video recorded, and the data obtained was transcribed verbatim (Bailey 2008). A total of 21 students were interviewed (Table 3), 8 female and 13 male participants, from 6 to 12 years old (M = 9.8).

### Table 3. Sample of the semi-structured interviews.

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Age</th>
<th>Gender</th>
<th>School type</th>
<th>Language of the interview</th>
<th>Duration of the interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pupil 1</td>
<td>10</td>
<td>Girl</td>
<td>Primary schools with a high percentage of migrant language speakers</td>
<td>Dutch</td>
<td>8:51</td>
</tr>
<tr>
<td>Pupil 2</td>
<td>13</td>
<td>Girl</td>
<td>Primary schools with a high percentage of migrant language speakers</td>
<td>Dutch</td>
<td>13:22</td>
</tr>
<tr>
<td>Pupil 3</td>
<td>9</td>
<td>Boy</td>
<td>Primary schools with a high percentage of migrant language speakers</td>
<td>Dutch</td>
<td>5:32</td>
</tr>
<tr>
<td>Pupil 4</td>
<td>12</td>
<td>Boy</td>
<td>Refugees/Newcomer primary schools</td>
<td>Frisian</td>
<td>17:24</td>
</tr>
<tr>
<td>Pupil 5</td>
<td>11</td>
<td>Boy</td>
<td>Primary schools with a high percentage of migrant language speakers</td>
<td>Dutch</td>
<td>9:55</td>
</tr>
<tr>
<td>Pupil 6</td>
<td>12</td>
<td>Boy</td>
<td>Refugees/Newcomer primary schools</td>
<td>Dutch</td>
<td>6:10</td>
</tr>
<tr>
<td>Pupil 7</td>
<td>9</td>
<td>Boy</td>
<td>Primary schools with a high percentage of Dutch speakers</td>
<td>Dutch</td>
<td>13:16</td>
</tr>
<tr>
<td>Pupil 8</td>
<td>9</td>
<td>Boy</td>
<td>Primary schools with a high percentage of Dutch speakers</td>
<td>Dutch</td>
<td>9:58</td>
</tr>
<tr>
<td>Pupil 9</td>
<td>9</td>
<td>Girl</td>
<td>Primary schools with a high percentage of Dutch speakers</td>
<td>Frisian</td>
<td>13:20</td>
</tr>
<tr>
<td>Pupil 10</td>
<td>6</td>
<td>Girl</td>
<td>Trilingual primary schools</td>
<td>Frisian</td>
<td>6:17</td>
</tr>
<tr>
<td>Pupil 11</td>
<td>6</td>
<td>Boy</td>
<td>Trilingual primary schools</td>
<td>Frisian</td>
<td>8:00</td>
</tr>
<tr>
<td>Pupil 12</td>
<td>10</td>
<td>Girl</td>
<td>Trilingual primary schools</td>
<td>Frisian</td>
<td>5:09</td>
</tr>
<tr>
<td>Pupil 13</td>
<td>8</td>
<td>Girl</td>
<td>Trilingual primary schools</td>
<td>Dutch</td>
<td>2:58</td>
</tr>
<tr>
<td>Pupil 14</td>
<td>11</td>
<td>Boy</td>
<td>Refugees/Newcomer primary schools</td>
<td>Dutch</td>
<td>3:55</td>
</tr>
<tr>
<td>Pupil 15</td>
<td>11</td>
<td>Girl</td>
<td>Refugees/Newcomer primary schools</td>
<td>Dutch</td>
<td>7:24</td>
</tr>
<tr>
<td>Pupil 16</td>
<td>10</td>
<td>Boy</td>
<td>Primary schools with a high percentage of migrant language speakers</td>
<td>English</td>
<td>4:43</td>
</tr>
<tr>
<td>Pupil 17</td>
<td>9</td>
<td>Girl</td>
<td>Primary schools with a high percentage of migrant language speakers</td>
<td>Dutch</td>
<td>24:20</td>
</tr>
<tr>
<td>Pupil 18</td>
<td>10</td>
<td>Boy</td>
<td>Primary schools with a high percentage of migrant language speakers</td>
<td>English</td>
<td>5:32</td>
</tr>
<tr>
<td>Pupil 19</td>
<td>12</td>
<td>Boy</td>
<td>Primary schools with a high percentage of migrant language speakers</td>
<td>English</td>
<td>5:54</td>
</tr>
<tr>
<td>Pupil 20</td>
<td>10</td>
<td>Boy</td>
<td>Primary schools with a high percentage of Dutch speakers</td>
<td>Dutch</td>
<td>14:37</td>
</tr>
<tr>
<td>Pupil 21</td>
<td>10</td>
<td>Boy</td>
<td>Primary schools with a high percentage of Dutch speakers</td>
<td>Dutch</td>
<td>14:32</td>
</tr>
</tbody>
</table>
The interviews were analysed through a qualitative content analysis approach (Mayring 2000). The transcription of the interviews was added into the NVivo software, and then organized, categorised and classified according to recurring patterns and its frequency of occurrence. In total, five categories were used to code the data, three of them related to colour choices and two related to language placement.

With both the language portrait and the interviews, we were able to combine the pupils’ explanations for their colour choices and placement, given in the interviews, with the drawings. Separated by the categories found within the qualitative content analysis of the interviews, the portraits were then analysed through a semiotic lens (Kress and van Leeuwen 2002).

4. Results

4.1. The multiplicity of languages: surveys and portraits compared

Our first research question concerned the investigation of the representation of languages in both sociolinguistic surveys and language portraits. A total of 97 different languages were identified by the pupils in the surveys. Not only official named languages were mentioned (66%), but also dialects and varieties (10.3%). Pupils also mentioned languages that we termed as ‘country-based languages’ (12.4%), in which they would use the name of the country to represent the official language, such as “Mexicaans” instead of Spanish and “Braziliaans” instead of Portuguese. Furthermore, languages created by the participants (11.3%), which we named as ‘fantasy languages’, such as “Vampiers” (vampire language) and “Thuistaal” (home language), were also represented. A larger number of languages was found within the language portraits, (N = 121). Comparing it to the languages found on the background questionnaires, some differences were found. There was a smaller number of official languages (44.6%), dialects and variations (9.1%), as well as of country-based languages (8.3%) represented on the portraits. On the other hand, there was a considerable increase on the number of fantasy languages (38%).

In order to compare the results (see Figure 1) found for both instruments and investigate whether there is a difference on the amount and type of languages represented on each of

![Figure 1. Representation of languages in questionnaires and portraits.](image-url)
them, we conducted a Pearson’s Chi-square test. The test revealed that this difference is significant, $\chi^2(3) = 20.17, p < .001$. This means that children tend to represent more languages, especially fantasy languages, when making use of language portraits.

### 4.2. Students’ visual representation of their linguistic repertoires

A qualitative content analysis approach (Mayring 2000) was applied to the interview data in order to find the most frequent patterns of colour choices and language placement in the language portraits. Three recurring patterns were found for their colour choices and two patterns were found for their language placement. These will be discussed next.

#### 4.2.1. Students’ colour choices

**4.2.1.1. Flags.** A frequent pattern observed within the sample, 7 out of the 21 language portraits analysed, was that of making colour choices according to the colours present in the national flag of the country in which a certain language is officially spoken, e.g. choosing blue to represent English, as can be seen in both the United States flag as in the United Kingdom flag. In the explanation below given by one of the participants we see an example of this pattern being used:

**Interviewer:** Why did you choose blue to represent Dutch?

**Pupil 1:** One of the colours of the Dutch flag is blue. (…)

**Interviewer:** May I ask why you chose red for the Polish language?

**Pupil 1:** Red is one of the colours of the Polish flag.

![Figure 2. Language portrait using flags.](image)
As seen in the excerpt, the pupil justifies the choice of colours for the language portrait with their association to the colours in the national flags thus making a direct connection between nations and languages (similar to the findings by Melo-Pfeifer 2015).

In Figure 2, we can see that some of the students chose to draw whole flags in order to represent a language instead of picking just one of the colours of the flag.

4.2.1.2. World knowledge and own experiences. Some of the pupils’ colour choices are not as straightforward as the one mentioned above. As it has been observed, 5 of the 21 participants associate colours to their own world knowledge and experiences they have lived, choosing colours that remind them of these experiences. Therefore, these choices will vary from participant to participant. In the example below, the pupil chose the green colour to represent Dutch based on her own perception of the country:

**Interviewer:** Why is Dutch green?

**Pupil 2:** A lot of things in the Netherlands are green. Like all the grass.

Pupil 2 uses here her everyday experience in the Netherlands to justify the use of the green colour to represent the Dutch language. In another example (Figure 3), brown was chosen to represent English because of an experience the participant had when he visited England:

**Interviewer:** Why did you choose brown for English?

**Pupil 3:** Ah… Because I went there this summer…

**Interviewer:** Yes…

Figure 3. Language portrait using world knowledge and own experiences.
Pupil 3: Because my mom has a friend over there, she is from Thailand. She did there a course for her work… And there was a very cute dog and that dog was brown.

In this excerpt, the pupil’s positive experience with a brown dog in the summer holidays is said to determine the choice of this colour to represent the English language.

4.2.1.3. Emotions. Another pattern used by 5 of the 21 participants was that of choosing colours associated to emotions that the participants hold towards those colours, relating them to the feelings they hold towards their languages, like choosing their favourite colour to represent their favourite language. Figure 4 is a good representation of the emotional significance colours can carry:

Interviewer: Why did you choose blue for Dari?

Pupil 4: Blue is my favourite colour. And I love my language Dari, that’s why I chose blue. And then for Dutch I chose yellow, because yellow is a happy colour and I am very happy that I can be in the Netherlands.

In this example, pupil 4 clearly establishes a connection between positive emotions, such as happiness or love, and colours he considers to be positive as well. He establishes a direct link between his affections and the colours he uses in his portrait.

4.2.2. Students’ language placement
4.2.2.1. Language skills. When it comes to the placement of the colours on the silhouette, a frequent pattern found was that of placing the languages in accordance to the participants’ perceived linguistic skills, placing the languages they consider to be best at on the upper
parts of the body and the languages they consider to not be as good at on the lower parts. In total, 8 of the 21 interviewees chose this pattern for their language placement on the portraits, as it becomes clear from the excerpt below:

**Interviewer:** Why did you colour the legs with Frisian?

**Pupil 5:** Frisian sank down to my toes.

**Interviewer:** Why did that happen?

**Pupil 5:** I forgot it a little bit. I am not that good at it.

**Interviewer:** What does it mean when a language is in your feet?

**Pupil 5:** It means that I’m not that good at it, but I can understand it. If I was better at it, I would have drawn it on my belly or arms. I can understand it, but this is about speaking right?

**Interviewer:** It is all up to you.

**Pupil 5:** I can speak it just a little bit, like ‘hi’. But understanding is fine.

**Interviewer:** So, this all is Polish? *(points at the chest area on the drawing)*

**Pupil 5:** Yes, shall I tell you why?

**Interviewer:** Yes, please.

**Pupil 5:** Polish is nailed to my head.

**Interviewer:** What does that mean?

**Pupil 5:** Just that I am really good at it.

Pupil 5 thus makes a clear connection between language skills in a language and its placement in the language portrait; the higher a language is placed in the body – like the case of Polish in the head – the higher this pupils’ proficiency in the language.

The following example, shows how students reflect on the acquisition of new languages and how this would alter their repertoire:

**Interviewer:** I see two other languages that are at the bottom, they are in your feet. These are Spanish and French?

**Pupil 6:** Spanish and French, yes, I placed them in my feet because I don’t understand these languages. These languages I can’t speak. But when I start to understand Spanish or French these languages can climb up *(draws an imaginary line on the portrait from feet to the belly)*.

Similarly to pupil 5, the lower part of the body is associated by pupil 6 to lower proficiency in the languages. In addition, this pupil adds the fact that language proficiency is a dynamic concept and, as such, that if proficiency were to increase, languages could be moved up in the language portrait, then occupying a place that is associated with higher proficiency.
4.2.2.2. Body functions. Another frequent pattern was that of placing their languages on the body silhouettes taking into consideration the functions of each body part, e.g. placing languages they think of on their heads, or placing languages they speak on their mouth. The majority of the sample, 10 of the 21 participants, placed their languages on the portrait in accordance to this pattern. In the example below, we can see that the pupil related his languages to both body parts as well as with common metaphors:

**Interviewer:** Why is Arabic red and in your heart?

**Pupil 7:** Red is the colour of the heart. I lived and spoke Arabic for eleven years. It is my language.

**Interviewer:** What is yellow?

**Pupil 7:** Yellow is in my head and it is Dutch. Since Dutch is in my head. I want to become a teacher or doctor. So, I want to learn Dutch and English.

**Interviewer:** English is in your ears. Why?

**Pupil 7:** I can't speak English, but I can understand what they say.

Pupil 7 justifies the choice of colours used with the functions they fulfil in his life now and in the future. Red in his heart symbolises the importance of Arabic in his life, yellow in the head highlights the importance of Dutch for him now and for his future career choices and English in the ears is an indication of his receptive skills in this language.

A great proportion of non-coloured space could be found in most of the portraits that followed this pattern of colour placement. Pupils frequently added colours to the extremities of the silhouettes (head, arms and feet) and central parts (heart and belly), as these are the body parts they could relate functions to (such as understanding or writing), or common metaphors to the languages they wanted to represent, leaving everything in between blank. However, this tendency was not seen among the portraits coloured according to the students’ perceived linguistic skills, as students would colour the whole body transforming it into a big language scale, with some languages even juxtaposing each other.

Just like in the patterns of colour choices, a few of the participants, three in total, were not allocated in any of the patterns found for language placement as they did not give clear answers concerning their choices.

5. Discussion

The present study aimed at exploring differences between pupils’ representations of their multilingual repertoires in sociolinguistic surveys as compared to language portraits and at mapping the ways they represent their languages in the latter. Concerning the first research question, our contrastive analysis showed that children represent significantly more languages when drawing language portraits than they self-report when filling in a sociolinguistic survey. In addition, they engage with the concept of language in a more creative way, as they depict more fantasy languages. These findings point towards the potential of language portraits in gaining a deeper understanding of children’s “self-perception as multilingual selves” (Melo-Pfeifer 2015, p. 197). The divergence found between language depiction in survey and portraits may be explained by the influence each instrument plays
in the participants’ use of their semiotic resources. While some contexts have rules or best practices, which regulate the way semiotic resources are used, others enable their free use (Van Leeuwen 2005). As visual methodologies allow participants to engage in a creative production (Krumm 2011), language portraits were found to provide a context that leaves students free in their use of semiotic resources, and therefore, free to represent languages they have created. On the other hand, the questionnaire might resemble the context of school worksheets and exercises, influencing students to give more standard responses, representing only languages that they perceive to be real, as the context has a clear set of rules and expected practices.

To address the second research question, on exploring the ways children represent their languages in language portraits, we applied a qualitative content analysis (Mayring 2000) to our interview data to find the recurring patterns of colour and placement choices for the language portraits. For the choice of colours, pupils’ most frequently occurring patterns were related to the colours of national flags, associations with their own previous experiences, and association with personal feelings. The findings of both the language portraits and the interviews have proven that the affordances colours hold will depend on the creativity of each student, and these affordances can only be understood with either an oral or a written explanation of the author, as images often cannot speak for themselves (Riessman 2007). The findings also show that most students have developed different relationships with each of their languages, being able to organise and portray them through the use of emotional self-perceived modes, indicating a considerable level of self-knowledge and self-reflection (Melo-Pfeifer and Schmidt 2012).

Since colours can be chosen by the associations one makes to “where” these colours come from (Kress and van Leeuwen 2002, 2006), by choosing colours from national flags, students demonstrate how the idea of nation-state and language is linked in their minds, showing us that the language-nation interdependence seems natural and legitimate to them, which could be a result of their reality at school or at home, and even a response to what they have perceived from the media (Marchessou 2013). This attachment of a language to a single country also illustrates the ideology of a country being a linguistic homogeneous region (Melo-Pfeifer and Schmidt 2012) and could be picked up (and deconstructed) by teachers more explicitly.

When children make associations with a colour, these carry a symbolic and affective value to them, providing the context of production and its interpretation, leading to further considerations such as “where these colours come from” and “where they have seen them before” (Kress and van Leeuwen 2002). Therefore, it is not unusual to see children associating colours to their own life experiences or choosing colours that they have seen before in a certain context. Besides associating colours to past experiences and world knowledge, it has also been found that colours can be affected by the feelings children hold towards the topic of the drawing (Burkitt, Barrett, and Davis 2003), giving colour an emotional significance, which is not in any instance universal (Boyatzis and Varghese 1994). It thus becomes relevant for teachers to be aware of such associations and explore them explicitly when implementing pedagogies that make use of pupils’ multilingual repertoires or aim at reinforcing their multilingual identities.

For the choice of placement, the most frequent patterns were related to body functions or a top-down rating of language skills. The juxtaposition of portrait and language enables participants to think about languages in a creative and metaphorical way, creating an
interpretative story of their embodied languages (Botsis and Bradbury 2018). The different ways students structure their languages on the portraits correspond to different frames for metaphors (Busch 2018). In this particular sample, two most recurrent patterns were found for the body placement of languages. In the first pattern, participants structured their languages within a spatial metaphor (Busch 2018), by using an up-down structure, placing languages they consider mastering well at the up part of the silhouette and the ones they are less proficient in at the bottom of the silhouette. We acknowledge the fact that these representations of students’ linguistic repertoire are not rigid. In fact, pupils perceive and represent their multilingual identities as fluid and dynamic, as new languages can be acquired and “old” languages can be left out by the speaker. Therefore, a given language portrait could look different in the future from what it looks like now. Another common pattern found was that of structuring the languages according to parts of the body (Busch 2018), relating them to their functions or common metaphors such as the heart as the place of love.

The findings of the visual representations of pupils’ linguistic repertoires have shown that children seem to be aware of their multiple linguistic competences, being able to distinguish between them, meaning they have an accurate perception of their communicative resources. In addition, they also perceive and portray their identities as being multilingual. The pupils tend to portray their languages separately, adopting a monoglossic ideology in which languages are seen as a sum of skills (Melo-Pfeifer and Schmidt 2012), which could be the result of the way different languages interact in their lives (Melo-Pfeifer 2017), or even of the monolingual approaches being used in multilingual classrooms (Spotti and Kroon 2017). However, the rigid language separation found in the portraits can also be a direct consequence of the way in which the exercise and the silhouette are presented, and which elicits thinking about one separate colour for each language and then placing them separate in the body.

In the present study we have used a multimodal approach to investigate young children’s representation of their linguistic repertoires as well as their multilingual identities in a language diverse area. Our results show that:

a. all pupils are aware of their own multilingualism and, with the visual support of language portraits, represent it as an inherent and dynamic part of their identities;
b. home languages of pupils, independent of whether they are regional or migrant languages, dialects or varieties, or whether they are visible or not at school, constitute a central part of pupils’ self-representations as multilingual selves and are often reflected upon based on strong socio-affective associations and metaphors (e.g. at the heart of the language portraits);
c. although different paths were taken in shaping these pupils’ multilingual identities, most children are able to reflect consciously on their choices of colours and languages indicating an awareness of their language proficiencies and the roles of the different languages in their everyday lives. As a result, as pupils “unpack the meanings embedded in their self-portraits, we [and they] gain deeper insight[s] into how they individually negotiate their plural identities and internalize language hierarchies within their school and wider society” (Prasad 2014, p. 68).
d. For teachers, this constitutes essential knowledge in developing understanding and empathy towards their multilingual students, whose languages often remain invisible in schools.

In terms of the methodology used, the different modes were adopted in an attempt to compensate for the limitations of each mode, as each one has its own affordances for meaning-making (Kress 2013). As the meaning pupils attribute to their choice of colours and placement are linked to their personal experiences and life trajectories (Busch 2012), we have conducted interviews to better understand their reasons. Although we acknowledge the weaknesses of each mode, a possible limitation of this research is the fact that even though 570 language portraits were collected, only 21 interviews were conducted. In order to gather a more complete range of data, future research should conduct more interviews. Another limitation is that the data collected from the background language questionnaires rely on what pupils self-reported, therefore some of the responses might be inaccurate, incomplete or subjective. A few changes in the questionnaires could have helped obtaining clearer findings, such as more closed-ended answers. In addition, a parental questionnaire would have completed the information. Despite these limitations, the results reported here contribute to the research of multilingual repertoires of primary school pupils. From a methodological perspective, our research has indeed shown the importance of data triangulation in order to get more consistent results (Patton 1999). Thus, we encourage researchers to also triangulate their data, making use of not only language portraits but also of written or oral modes, in order to get a better understanding of the participants’ choices.

6. Conclusion

Language portraits, surveys and interviews have been used as tools to help students represent their linguistic repertoires without limiting them to communicate in a particular language, making their multilingualism visible (Prasad 2014). From a pedagogical perspective, both teachers and students benefit from this activity as language portraits provide valuable material for class discussion, in addition to making teachers and pupils aware of all the languages present in the classroom (Dressler 2015), and therefore, impacting students’ attitudes and motivations towards other languages (Hélot et al. 2018) as it would “allow the emergence and development of social representations of bilingualism/plurilingualism that are not dependent on monolingual and monoglossic ideologies” (Melo-Pfeifer 2017, p. 54). From a research perspective, language portraits enable researchers in accessing and understanding the multilingual voices, identities and experiences of participants (Prasad 2014). Besides, the collection of data through visual methodologies gives participants alternative ways of articulating their experiences, deeply reflecting on their responses while engaging in a creative production (Krumm 2011).

In conclusion, as the number of highly linguistic heterogeneous classrooms increases, research concerning students’ multilingual repertoires is essential, as one’s identity is closely linked to language attitudes and choices (Pavlenko and Blackledge 2004). It is also important to keep in mind that although language portraits graphically represent participants’
linguistic repertoires, the use of a multimodal approach is advisable as it allows participants to present their linguistic repertoire through different modes (Busch 2018), which can contribute to a better understanding of language practices (Bristowe, Oostendorp, and Anthonissen 2014). The current study was a first contribution to developing such a multimodal approach towards capturing language profiles and language representations of primary school children in super-diverse areas.

Disclosure statement

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References


