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Moving beyond language(s): a case study on a newcomer's translanguaging practices

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Abstract: Numerous scholars have investigated translanguaging in students with a migration background by examining the deployment of their linguistic repertoire. By contrast, few studies have adopted a social semiotic perspective on translanguaging. Similarly, studies on newcomers in this field are scarce. Newcomers, especially those to the trilingual education system in Luxembourg, face significant language challenges. The present paper explores the ways in which Portuguese-speaking Harry combined the resources of his semiotic repertoire in science and French lessons in Year 4, and discusses different combinations of resources. Findings based on field notes and video-recordings of classroom activities show that the eleven-year-old engaged in learning by activating his prior knowledge and deploying his semiotic repertoire in resourceful ways. He mobilised features of five languages, coordinated linguistic, paralinguistic and extralinguistic resources, and aligned his resources to those of his peers. Furthermore, he reproduced the semiotic combinations of peers as well as the translanguaging practices in class. We show that a newcomer orchestrates his semiotic resources in complex ways to communicate, make meaning and engage in learning processes. Further research into the deployment of the semiotic repertoire at school is needed.

Keywords: translanguaging, semiotic, multilingual, newcomer, primary school

Résumé: Beaucoup de chercheurs ont étudié le *translanguaging* des élèves avec origine migratoire en examinant le déploiement de leurs répertoires linguistiques. En revanche, peu ont étudié le volet sémiotique du *translanguaging*. De plus, ils ne se focalisent guère sur les élèves nouvellement arrivés. Dans un système éducatif trilingue comme au Luxembourg, ces derniers sont confrontés à des défis langagiers importants. Le présent article explore les façons dont Harry, lusophone et âgé de onze ans, a combiné les ressources de son répertoire sémiotique

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dans les cours de sciences et de français en 4^e année et discute différentes combinaisons de ressources. Basés sur des observations et des enregistrements vidéo d'activités d'apprentissage, les résultats montrent que Harry s'est investi dans son apprentissage en puisant dans ses connaissances antérieures et en déployant son répertoire sémiotique de manière ingénieuse. Il a mobilisé cinq langues, a coordonné des ressources linguistiques, paralinguistiques et extralinguistiques et a aligné ses ressources sur celles de ses pairs. De plus, il a reproduit les combinaisons sémiotiques de ses pairs et les pratiques *translanguaging* en classe. Nous montrons qu'un élève nouvellement arrivé orchestre ses ressources sémiotiques de manière complexe pour communiquer, donner du sens et s'engager dans des processus d'apprentissage. Des études supplémentaires sur le déploiement du répertoire sémiotique à l'école sont nécessaires.

Resumo: Vários investigadores têm estudado o *translanguaging* de alunos com origem migratória, examinando a utilização dos seus repertórios linguísticos. Em contraste, poucos estudos se debruçaram sobre a perspectiva semiótica do *translanguaging*, especialmente no que concerne aos alunos recém-chegados ao país de emigração. Estas crianças enfrentam muitos desafios na aprendizagem da linguagem, particularmente quando inseridas num sistema educativo trilingue como o do Luxemburgo. O presente artigo explora as diferentes maneiras que Harry, lusófono de onze anos de idade, combinou os recursos do seu repertório semiótico em aulas de ciência e francês do quarto ano de escolaridade, e discute varias combinações de recursos. Resultados baseados em notas observacionais e gravações de vídeo, mostram que Harry investiu na sua aprendizagem ativando os seus conhecimentos prévios e implementando o seu repertório semiótico de forma proficiente. Mobilizou características de cinco línguas diferentes, coordenou recursos linguísticos, paralinguísticos e extralinguísticos, e alinou-as com os recursos dos seus pares. Além disso, ele reproduziu as combinações de recursos dos seus pares e as práticas *translanguaging* na classe. Mostramos que o aluno recém-chegado orchestra seus recursos semióticos de maneira complexa para comunicar, construir sentido e envolver-se em processos de aprendizagem. Mais estudos são necessários sobre a utilização do repertório semiótico na escola.

1 Introduction

Newly arrived pupils face many challenges in their new school. They need to find ways to access the curriculum in their new country, make meaning of its content, and communicate despite possibly limited competences in the language(s) of the curriculum (Kalocsányiová 2017; Gómez-Fernández 2011). They may *translan-*

guage, that is, use their entire semiotic repertoire to communicate and learn (García and Otheguy 2019). They thereby draw on linguistic resources, paralinguistic ones such as stress, pitch and volume, as well as extralinguistic ones such as gestures, movements and visuals (Li Wei and Lin 2019). To date, few empirical studies have investigated the ways in which newcomers select and combine the resources of their semiotic repertoire.

In the last few years, the multilingual turn (Conteh and Meier 2014) and the languaging perspective (Makoni and Pennycook 2007) have led to reconceptualisations of the notions of *repertoire* and *language* in the fields of sociolinguistics and education. As a result, the interconnection of the linguistic and embodied resources has been highlighted (Kusters et al. 2017). Nevertheless, empirical studies examining the individuals' orchestration of resources, particularly those of newcomers, are scarce (Poza 2018). In many European countries, newcomers are defined in relation to their time of arrival in the education system. In Luxembourg, the definition includes in addition the lack of competence in the school languages (MENJE 2018: 7). This article focuses on an 11-year-old newcomer to Luxembourg and examines the deployment of his semiotic repertoire as well as the combination of his resources. The data stem from Degano's doctoral research project (2017–2021) which investigates the translanguaging practices of four pupils of different language and educational backgrounds in Years 4 and 5 in Luxembourg. In this small country, Luxembourgish, French and German are the official languages, but many more are spoken on account of the high immigration level. In the academic year 2019/20, 44.8% of primary school children did not have Luxembourgish citizenship, and 65.5% did not speak Luxembourgish at home (MENJE 2020). In most cases, these children had to learn two or three languages to access the trilingual curriculum. Before presenting Harry's combination of semiotic resources, one of the pupils, in science and French lessons in Year 4, we will present the education system in Luxembourg, review literature on repertoire, translanguaging and social semiotics, and outline the methodology.

2 The education system in Luxembourg

Language education in French, German, and Luxembourgish is given particular importance at primary school, and makes up 40.5% of curricular time. In Year 1, pupils become literate in German and develop oral skills in Luxembourgish and, since 2017, French. In Year 3, they develop literacy in French. German is the language of instruction of the main subjects (i.e. German, mathematics, science) while Luxembourgish is used in other subjects (e.g. physical education, moral education). Access to the curriculum is challenging as pupils need to develop the

necessary academic language skills in the institutional languages. Statistics continue to show that pupils of migrant background and low socio-economic status (SES) underachieve compared to children speaking Luxembourgish or German and of higher SES (MENJE 2020). Partly because they operate within a monolingual habitus, schools fail to adequately address the language skills of pupils with migrant backgrounds (Tajmel 2010). Albeit a trilingual system – or possibly because of the compartmentalised language teaching regime – little space is left to draw on home languages other than the institutional ones (Horner and Weber 2018). Nevertheless, some teachers and children have been found to open up translanguaging spaces in their classrooms (Kirsch 2020). For instance, the primary school teachers who worked with the App iTEO, encouraged the six-to-eight-year-old pupils to draw on their home languages when collaboratively telling stories and engaging in vocabulary tasks (Kirsch and Bes 2017). While a range of studies investigate multilingual pupils' translanguaging, few focus on newcomers. In Luxembourg, two doctoral studies examined the ways in which a newcomer in Year 1 and three adult refugees in French language classes, respectively, used their linguistic repertoires to become members of the classroom community (Gómez-Fernández 2011) and learn (Kalocsányiová 2017). Both studies, like many others elsewhere, connected meaning-making processes exclusively with linguistic resources and thereby overemphasised the linguistic mode of communication (Li Wei 2018: 15). Meaning-making occurs, however, across multiple modes (Kress 2013).

3 Conceptualisations of repertoire and translanguaging

This section explores the interconnections between semiotic repertoire and translanguaging.

3.1 Language, languaging and semiotic repertoire

At the beginning of the century, sociolinguists moved away from the traditional, structural concept of language perceived as a fixed, autonomous, and stable system, and reframed language as practice. The new perspective emphasises the act of using language or languaging, and acknowledges the interaction between linguistic, paralinguistic, and extralinguistic dimensions of communication (Li Wei and Lin 2019). Languaging is understood as the speakers' use of mobile linguistic resources (Makoni and Pennycook 2007) which are part of a repertoire. The con-

cept of repertoire is rooted in the works of Gumperz (1964) and Hymes (1974) who spoke of ‘verbal repertoire’ and ‘linguistic repertoire’, respectively, when describing language use. Unlike these two authors and in line with the languaging perspective, Blommaert (2010), Hall (2019) and Kusters et al. (2017) characterise the repertoire as ‘semiotic’.

To explain the move from a linguistic to a semiotic repertoire, it is necessary to look into other fields. Scholars studying gestures in psychology, semiotics and linguistics hold that linguistic and embodied communicative practices are interrelated. However, the exact nature of the sign-gesture relation has been controversially discussed. While McNeill (2000) suggests a continuum, Goldin-Meadow (in Goldin-Meadow and Brentari 2017) speaks of two temporally co-existing systems and Kendon (2014), by contrast, holds that gestures and signs are an integral part of speech. Kendon (2014: 3) broadens the concept of language, includes different modalities and emphasises the flexible interrelation of different semiotic systems.

In the same way as the exact relationship between sign, language and gesture depends on the scholars and their definition of gesture, the relationship between translanguaging and semiotic repertoire varies with the scholar. What seems clear in all fields, however, is the connection between the social, physical and cognitive dimensions of communication. Atkinson et al. (2007) speak of the ways in which language users constantly adapt and align themselves both to other speakers and their social and physical environments. Thibault (2017: 76) explains that individuals adapt “their bodies and brains to the languaging activity that surrounds them” to communicate and participate in cultural activities and, lately, Li Wei and Lin (2019: 210) speak of the orchestration of “the neural-bodily-worldly skills of languaging”.

In this paper, we use the term *semiotic repertoire* to refer to an integrated inventory of resources including language varieties, registers, genres, modalities (e.g. speaking, writing), gestures, movements and visuals (Li Wei 2018).

3.2 The combination of semiotic resources

In the field of social semiotics, meaning-making refers to sign-making with all available modes in interaction (Kress 2013). The term mode denotes a set of resources for making meaning in interaction and in response to the environment (Kusters et al 2017). Modes of communication can be linguistic, gestural, aural, visual and spatial. In the process of communication, actors combine various modes thereby interconnecting linguistic, paralinguistic and extralinguistic resources.

The orchestration of multiple semiotic resources has been highlighted by several scholars working in educational contexts across Europe, South Asia, the US

and South Africa. Empirical studies from South Africa have shown that multimodal presentations increased the students' engagement with the task (Guzula et al. 2016) and their audience (Newfield 2011), respectively. Relying on Stein's work on oral storytelling practices, Newfield (2011), for instance, pointed out that a 13-year-old Zulu learner strategically combined Zulu, specific click sounds, facial expression, as well as body and eye movements to connect with her audience.

In South Asia, Wu and Lin (2019) investigated a Year 10 biology class in Hong-Kong and found that the teacher systematically used his voice, gestures and body in a culturally sensitive way to engage students and explain relationships between scientific concepts. Owing to this vivid combination of resources, the students recalled the content of the lesson and developed a deeper understanding of the concepts. Siry and Gorges (2019) took the investigation of multimodal resources to preschool education in Luxembourg. They observed science activities and found that, when given the opportunity, a 5-year-old drew on numerous resources other than linguistic ones to express and demonstrate their complex and nuanced understanding. In all three studies, the students were encouraged to draw on their entire semiotic repertoires and combine linguistic, visual, sonic, vocal and bodily resources. This stimulated their creativity and resourcefulness and enabled them to make and express meaning in a range of modes. This would have been impossible in 'monomodal approaches' which focus traditionally on languages as the primary means of communication (Newfield 2011:29).

3.3 Translanguaging and the co-ordination of semiotic resources

Like the concept of repertoire, translanguaging has known a profusion of meanings over the last twenty years (Li Wei 2018). At first, it described the flexible use of linguistic resources which allowed for "making meaning, shaping experiences, gaining understanding and knowledge through the use of two languages" (Baker 2011: 288). Over the years, translanguaging came to incorporate features that were associated with multimodality. For instance, Conteh (2018) described translanguaging as the process through which individuals "use multimodal resources to construct meanings, shape experiences and perform identities in their social encounters" (p. 473). Lately, García and Otheguy (2019: 10) retained two definitions: translanguaging as a practice and translanguaging as the deployment of the semiotic repertoire. The notion of practice refers to both monolinguals' and bilinguals' habit of using features of various languages and registers, as well as to planned pedagogical practices. The translanguaging pedagogy in the United States expanded with García and her colleagues (García et al. 2017). It expects that

teachers create opportunities for themselves and students to strategically select and flexibly assemble various resources to communicate and learn. At the individual level, translanguaging thus means using a range of resources from one's semiotic repertoire (García and Otheguy 2019). It mediates social interactions and becomes a catalyst for meaning-making processes that extends beyond the use of linguistic resources and includes transformations within and across modes (Li Wei 2018). To emphasize the entanglement between language and other semiotic systems, Lin (2019: 11) coined the term “trans-semiotizing”. She holds that people co-ordinate their gestures, body movements, facial expressions, sounds and visuals while communicating. During these interactions with others with whom they share semiotic resources, they also adapt, co-construct and expand resources. In the present paper, we use translanguaging in line with the latest work of García and Otheguy (2019) and understand translanguaging as the co-ordination of all meaning-making resources.

In sum, to this date, the majority of researchers investigating teacher or pupil-led translanguaging understand translanguaging in relation to linguistic rather than semiotic repertoires. Furthermore, only few studies have been undertaken in multilingual contexts (Siry and Gorges 2019; Guzula et al. 2016) and even fewer with newcomers in primary schools (Degano 2019; Gómez-Fernández 2011). The purpose of this article is to analyse the ways in which a newcomer in Luxembourg deploys and combines the resources of his semiotic repertoire in interaction with his peers. The research questions read as follows:

- What resources feature in the newcomer's semiotic repertoire?
- How does he combine his resources in interaction with his peers?

4 Methodology

To examine the translanguaging practices of four pupils over a period of one calendar year, Degano drew on a qualitative research paradigm with ethnographic research methods. The present article foregrounds one of the pupils, Harry. The project abided by the regulations of the Ethics Committee of the University of Luxembourg and the National Data Protection Regulatory Agency. The following section provides details on Harry, his class, as well as the methods for data collection and analysis.

4.1 Participants

Of Cape-Verdean and Portuguese origins, Harry moved from Portugal to Luxembourg and was enrolled in his local primary school in April 2017. In Portugal, he had been taught in Portuguese and had learnt some English. Owing to his lack of proficiency in Luxembourgish, German and French, Harry was asked to join a Year 3 class. Like most pupils in his school, he attended the after-school programme on a daily basis where staff addressed him mainly in Luxembourgish.

At the beginning of the data collection period, in October 2017, Harry, aged 10, attended both a Year 4 class and the ‘accueil’ [reception], a so-called bridge class for newcomers. For example, he would go to this reception class during subjects taught in German, unless the teacher had prepared individualised tasks in French for him. Over time, Harry spent fewer hours in the bridge class and more time with his 15 peers in Year 4. The home languages of these children included Luxembourgish, Portuguese, Cape-Verdean Créole, Albanian, Arabic and French. A third of the pupils in his class had Portuguese citizenship, a ratio that mirrors the linguistic landscape of the school population and is also in line with the national statistics (MENJE 2020). While Harry communicated in multiple languages with his peers, he used French almost exclusively with his Year 4 teacher, Ms Anna.

Ms Anna was a native Luxembourgish speaker. In line with the curriculum, she reported sticking to the languages of instruction but refrained from doing so in order to address Harry in French and occasionally resort to Portuguese translations. She predominantly engaged in teacher-centred learning, with group or pair work occurring from time to time in both academic school subjects (e.g. science) and non-academic ones (e.g. Art).

4.2 Methods of data collection and analysis

To develop an understanding of Harry’s languaging and the deployment of his semiotic repertoire, Degano observed classroom interactions in a range of school subjects, video-recorded activities, and carried out both semi-structured interviews and stimulated recall interviews with teachers and pupils. The data for the present article were collected during 20 days between January and July 2018, and stem from six science and 14 French lessons during which 25 video-recorded activities were produced. Details can be found in Table 1.

Table 1. Overview of the methods and quantity of data collected in science and French classes

Subject	Duration of the observations	Methods
Science	3 hours 20 minutes	fieldnotes
	20 minutes	11 video recordings
French	10 hours 20 minutes	fieldnotes
	1 hour 40 minutes	14 video recordings

The use of various qualitative methods not only ensured contextual validity and trustworthiness, but also helped identify ethnographic rich points (Agar 1996). In the first stages of data analysis, Degano highlighted such rich points in the field notes completed after the school visit and marked them as key events. These key events included learning situations in which he used Portuguese, shifted between languages and used multiple resources to engage with curricular content. In the second stage, Degano presented some selected key events to Harry and discussed them to gain additional information or validate her own interpretations. For instance, a video-recorded stimulated recall interview relating to Excerpt 2 confirmed that Harry flexibly assembled a range of resources to ensure that his interlocutor could comprehend him. The third stage focused on the analysis of Harry's semiotic repertoire and the combination and co-ordination of resources in interactions with others. For this purpose, the video-recordings were transcribed multimodally: relevant descriptions of non-verbal behaviour and video captures were added to describe the complex character of the interactions. Next, all field notes as well as most of the transcribed observations were coded in NVIVO. The analysis was influenced by Norris' (2004) multimodal interaction analysis and Mercer's (2004) sociocultural discourse analysis. The former made it possible to investigate the interplay of the resources of Harry's semiotic repertoire, and the pupils' reactions to the respective semiotic combinations, while the latter enabled the investigation of the pupils' speech acts, and the embeddedness of the resources in the social context. The interactions were coded according to the addressees and speech acts (e.g. asking, explaining), the school subject and the materials (e.g. visuals, texts). To examine Harry's repertoire, Degano coded the linguistic resources (e.g. features of named languages), the extralinguistic ones (e.g. gesture, gaze, mime), and the paralinguistic ones (e.g. pitch, tone, volume, pace, sounds). To identify the combination of resources in interaction with others, Degano and Kirsch analysed the speech acts of Harry and his peers in conjunction with the children's deployment of their repertoires. Preliminary patterns related to the frequency of specific resources and modes (e.g. singing), the frequency of certain resource combinations (e.g.

the use of Portuguese in combination with iconic gesture), and similarities across lessons. Member checks with researchers from the University of Luxembourg, University of Cologne, and University of Hamburg have been used to explore the validity of the results.

5 Findings

The following sections present the ways in which Harry combined the resources of his semiotic repertoire and aligned them with his peers across different subjects.

5.1 Co-ordinating and attuning semiotic resources

A representative example of a science lesson (Excerpt 1) will illustrate the complex assemblage of Harry's linguistic, paralinguistic and extralinguistic resources. This particular lesson on Egypt took place in February 2018 when Harry had been in Luxembourg for ten months. Ms Anna had asked the pupils to choose a topic they wanted to investigate and Virgil, Jean and Harry opted to work on mummies. Ms Anna made materials available in German and, for Harry, in French. She gave him a difficult French text on mummification that explained how embalmers eviscerated the corpse, preserved the organs, and wrapped the body. Pictures illustrated this process. Ms Anna encouraged Harry to ask Virgil, a native French speaker, to help him understand subject-related terminology if needed. As seen in Excerpt 1, Harry did so as well as interacting in Luxembourgish, German and Portuguese with Luxemburgish-speaking Jean and Portuguese-speaking Tiagitos. The excerpt presents the interactions in the original languages and in English translations. Utterances originally voiced in French are represented in normal script, those in Portuguese are in italics, the Luxembourgish ones are underlined, and those in German are in bold. Descriptions relating to extralinguistic and paralinguistic resources are put in curly brackets. The video captures were taken out to protect the children's identity.

Excerpt 1: Talking about the preservation of the mummies (February 2018)

Lines	Speaker	Utterances
1	Harry	{mouthing while reading the text 'Les embaumeurs retiraient d'abord le cerveau. Puis ils enlevaient le foie, les poumons, l'estomac et les intestins' [The embalmers removed the brain first. Then they removed the liver, lungs, stomach and intestines]}

Excerpt 1: (continued)

Lines	Speaker	Utterances
2	Harry	{stopping, looking at Virgil} Virgiiiiil {low, strained voice} Virgiiiiil {low, strained voice}
3	Virgil	Oui [Yes]
4	Harry	C'est quoi? [What is this?]
5		{briefly pausing, looking at his sheet and baring his teeth} enlevaient [removed]
6		{turning his sheet around} <i>Tu po</i> regarder ici [You can look here]
7	Virgil	{reaching out to grab Harry's sheet, turning it around}
8	Harry	{looking at his sheet} Ici regarde [Here look]
9		{coming closer, looking at the sheet, wanting to point at one of the words, stopping, muttering to himself} Hein, il est où? [Hey, where is it?]
10	Virgil	{coming closer} Où ça? [Where about?]
11	Harry	Attends je regarde [Wait I am looking] {looking at his sheet}
12		Ici [Here] {repeatedly pointing his fingertip at the word 'enlevaient'}
13		Haataa {in a louder and strained voice}
14	Virgil	{reading quickly in a low voice} Eeh [Uh]{sticking out his tongue expressing disgust and reading again}
15		C'est ça [Is it that one] {pointing to another word}
16	Harry	Non [No] {in a harsh voice}
17		Ça [That one] {pointing at the right word, grabbing his pen}
18		Ici regarde [Here look] {whispering and circling the word 'enlevaient'}
19	Virgil	Ils enlèvent [They remove] {pretending three times to grab something from the air with his right hand}
20	Harry	{sticking out his tongue expressing disgust} Beeh [Eww] {pulling away from the sheet}
21		{reading, asking Jean sitting next to him in Luxembourgish to stop doing nonsense} <u>Hal op net witzeg. Laachen ech? [Stop not funny. Do I laugh?]</u> <u>{glancing sideways} Hei I offer ass do jammerschade [Look teacher is over there bumper]{grinning}</u>
22		{calling Tiagitos} <i>Sabes como é que eles fazem eles guardam as a pele das múmias [Do you know how they do it they keep the skin of the mummies]</i> {plucking the sleeve of his jumper}

Excerpt 1: (continued)

Lines	Speaker	Utterances
23		<i>E depois fazem envelopes</i> [and then they make envelopes] {making rotating movements with his hands} {going back to reading}
24	Virgil	{leaning over Harry's sheet, pointing at a picture} <u>Ev du hues hei ein Loch</u> [Hey you have here a hole]
25	Harry	Oui [Yes] {looking at the hole in the deceased person's body on the sheet}
26		then at the canopic jars in the middle of the sheet
27		and at the ones at the bottom of the page}

While reading his text on the mummification process (line 1), Harry came across the unknown French word 'removed'. To understand its meaning, he tried to draw Virgil's attention to the word in three different ways. He first called him in a strained and crackling voice (lines 2, 13), explicitly asked in French for his help (lines 4, 5), told him where to look (lines 6, 8), turned around his sheet (line 7), repeatedly pointed at the word in addition to deictic words (lines 12, 17) and, ultimately, changed the tone of his voice (line 16) and identified the word by circling it with his pen (line 18). In other words, to co-construct knowledge with Virgil, Harry combined his linguistic resources in French with sonic ones (i.e. voice), gestures (i.e. pointing) and movements (e.g. circling). To help his friend, Virgil, read the complex sentence twice in a low voice and stuck out his tongue, using the sound 'Eeh' to express disgust (line 14). He then explained the word 'remove' with a combination of linguistic (i.e. French) and extralinguistic resources (i.e. pull-away hand movements) (line 19). Harry mirrored Virgil's combination of facial expression and sound effect, leaned back and continued reading on his own (line 20). The act of mirroring showed that Harry attuned his semiotic resources to those of his friend.

A few minutes later Harry expressed his understanding of the mummification process, including the verb "remove", by combining his multimodal resources differently. When he explained to Tiagitos that the embalmers removed the organs of the corpse, kept the skin and wrapped it in linen, Harry shifted into Portuguese and supplemented his utterance with touch and rotating hand movements (lines 22–23). In this way, he added information to Virgil's explanation and recontextualised and transformed it. He thereby showed that he had processed the information. Harry's semiotic combination reflected that of Virgil – a combination of linguistic and extralinguistic resources – but included features of a second language. A further example of a yet different way in which Harry expressed his understanding multimodally can be seen in lines 24–27. Virgil had

mentioned a hole in a deceased person's body in a mixture of Luxembourgish and German and had pointed to the hole represented in the picture. Harry acknowledged the answer in French and directed his gaze from the hole in the mummy's body to the embalmed mummy and then to the canopic jars in the middle and bottom of the page. His gaze suggests that he processed visual information and imagined the way the organs travel from the body to the jar. He attuned his linguistic and non-linguistic resources to those of Virgil, this time not to mirror his friend's semiotic combination but to contextualize and make meaning of his comment.

Finally, the assemblage of linguistic, visual and gestural resources also occurred at other moments, for instance, when Harry jokingly told Jean off (line 21). He made use of features of formulaic Luxembourgish and German, his gaze (a side-glance at the teacher) and a bright grin to warn Jean that Ms Anna was nearby. In sum, this excerpt has shown that Harry aligned his resources with those of his peers and combined them in different ways to engage with curricular content, develop and share knowledge, and make a joke. He combined linguistic resources with either one or three of the following ones: gestures, facial expression, gaze and tone of voice. For instance, he assembled French, tone of voice and deictic gesture (lines 1–17); Luxembourgish, German and facial expression (line 21); Portuguese and deictic gesture (lines 22–23) and German, French and gaze (lines 23–27). Table 2 summarises Harry's complex resources in seven science and French lessons.

In the table, F stands for French, G for German, L for Luxembourgish, P for Portuguese and E for English; brackets indicate that Harry has shown understanding of utterances voiced in specific languages without having used these himself. S refers to science and F to French.

Table 2. Overview of the type of resource and speech acts in seven lessons

Date	Subject	Linguistic resources	Paralinguistic resources	Extra-linguistic resources	Relevant speech acts
February (Excerpt 1)	S	F, G, L, P	tone, pace, sound effects, change of volume	gesture	asking, confirming, explaining, insisting, informing, joking, reformulating, repeating, specifying, summarising, translating

Table 2. (continued)

Date	Subject	Linguistic resources	Paralinguistic resources	Extra-linguistic resources	Relevant speech acts
June (Excerpt 2)	S	F, L, P, E	tone, pitch, pace, sound effects (+song), change of volume	gesture, mime	explaining, informing, ordering, mouthing, repeating, singing, translating
March 1	F	F, L	emphasis, pace, sound effects, change of volume	gesture, mime	answering, correcting, informing, repeating, translating
March 2	F	F, (E)	pitch, emphasis, pace, sound effect, change of volume	gesture, touch, acting moves, mime	asking, answering, explaining, mouthing, reformulating, summarising, repeating
June 1	F	F, P, E	emphasis, pace, change of volume	gesture, mime	answering, correcting, explaining, informing, repeating
June 2 (Example in 5.2)	F	F, G, L, P, E, S	pitch, pace, sound effect (+ song), change of volume	gesture, mime	arguing, correcting, explaining, informing, repeating, translating, singing
June 3	F	F	pitch, change of tone	gesture, mime	explaining, informing, reasoning, summarising, translating

5.2 Translanguaging across modes and modalities

Excerpt 1 has illustrated that Harry combined various modes of communication, using multiple resources (shown in brackets): linguistic (e.g. various languages), visual (e.g. gaze, facial expressions, pictures), gestural (e.g. gestures, movements) and aural (i.e. sounds). Excerpt 2 provides further insights into Harry's

complex meaning-making process. In addition, it foregrounds a different modality and gives a second example of mirroring.

Harry's persistence and task engagement were also shown by his co-ordination of semiotic resources in the science lesson on snails in June 2018. Ms Anna had asked the pupils to work individually, look up information on snails in either German or French books, and write a short text. Excerpt 2 presents the interactions between Harry and Tiagitos who worked with a German book. Harry leafed through two pages of his French book. The first page displayed snail eggs and bore the title 'Salut les petits' [Hello little ones] and one of the following showed four stages of the development of snails with a picture of a three-week-old baby snail.

Excerpt 2: Describing snails (June 2018)

Lines	Speaker	Utterances (original in French, Portuguese, Luxembourgish, German, English)
1	Tiagitos	{looking at Harry's book} Ass dat Franséisch [Is that French]
2	Harry	{pointing to the title of the page he is looking at 'Le temps des amours' [The time of love]}
3		<u>Jo</u> regarde <u>Yes</u> look {reading} le temps de l'amour [The time of love]{brushes the picture of the heart}
4	Tiagitos	<i>Onde é que aqui há bebês?</i> [Where are the babies here?]
5	Harry	<i>Eu não sei</i> [I don't know] {singing while looking at the same page} Looovin' youuu
6		{turning the page, looking at next page with the snail eggs, inhaling sharply} <u>Uma kleng dat ass dat</u> [A small one that is that] {smiling, pointing to the snail eggs, and showing them to Tiagitos}
7		Oooh {opening his mouth widely, using a raspy voice}
8	Tiagitos	{reading} Die Zeit der Liebe [The time of love] {grinning, showing Harry his book}
9	Harry	{turning the page, looking at the picture with a small snail on top of a big one, singing} They see me rollin' they hatin' {turning the book towards Tiagitos}
10	Tiagitos	<u>Uma kleng</u> [A small one] {looking at the page, smiling}
11	Harry	{looking at the same page} <i>Uma carac</i> {swallowing the end of the word 'caracol' [snail]} <i>uma grouss</i> [A snail, a big one] {pausing, looking at the bottom of the page, turning a paper disk}
12		Oooh {opening his mouth widely, using a raspy voice} <u>Kuck dat, trois semaines ass esou</u> [Look at this, three weeks is like this] {closing thumb and forefinger, holding them in front of his eye, looking at Tiagitos}

In addition to responding in the language he was addressed in (lines 3, 5), Harry used features of four languages (i.e. English, French, Luxembourgish and Portuguese) and mixed languages on a few occasions (lines 3, 7, 11, 12), an assemblage of linguistic resources that was typical for Harry towards the end of the academic year. Like in Excerpt 1, he added a range of paralinguistic resources (i.e. using a raspy voice) and extralinguistic ones (i.e. closing his thumb and forefinger) (lines 7, 12) when he told Tiagitos that one of the pages in his book showed snail eggs (line 6) and explained that a three-week-year-old snail is extremely small (line 12). Unlike Excerpt 1, however, Harry additionally sang a few bars of two English songs which perfectly fitted the visuals (lines 5, 9). This illustrates that he had picked up information from the page 'Le temps des amours' (The time of love), switched language, and changed modality, moving from written language to singing. By translanguaging across modes and modalities, he recontextualized the written and iconic information and gave the curricular content a new meaning. Harry systematically interjected such musical interludes to get his peers' attention before sharing knowledge. Tiagitos' verbal and non-verbal response to Harry's semiotic combinations (lines 8, 10) signaled his interest in the interaction around the topic. He smiled, looked at Harry and sustained the conversation.

In both excerpts Harry initiated the conversation, but the alignment of resources changed. Whereas Harry attuned his resources to those of Tiagitos in the science lesson, Tiagitos followed Harry's lead in the French lesson and mirrored Harry's actions. He showed Harry his book, read his title (line 8), used multiple languages, and mixed languages (line 10).

5.3 Translanguaging practices in the classroom

The previous excerpts have shown that children combined different modes of communication thereby interconnecting linguistic, paralinguistic and extralinguistic resources to interact with peers. The attunement of linguistic resources was particularly remarkable. To help Harry understand and communicate, Virgil did not refrain from using his home language French whereas he did so with his other peers and Ms Anna. Likewise, Tiagitos drew on his home language Portuguese to address Harry whereas he rarely did so when talking to his other friends. By using their home languages in class, the boys adapted their language use to Harry. As seen before, Harry also adapted his language use to the interlocutors and the situation at hand. In fact, the pupils' translanguaging practices reflected the languaging practice in the classroom. At the beginning of the school year, the school had seen an increase in refugee children whose repertoires did not include the school languages. Ms. Anna tried to accommodate the language needs of new-

comers and other children. She communicated in German, French, Luxembourgish and at times in Portuguese and used these languages flexibly and strategically. When interacting with Harry, she also made ample use of gestures. The pupils were therefore used to hearing three to four languages during a lesson and see the teacher combine different modes of communication. As a result, they reproduced this practice in peer-interactions.

6 Discussion and conclusion

The present article analysed the ways in which Harry combined the resources of his semiotic repertoire. Regardless of the language barriers he encountered as a newcomer to the trilingual education system, he creatively combined his linguistic resources and attuned them to relevant human and material ones (Atkinson et al. 2007). He shuttled between five named languages which contrasts with studies elsewhere where two languages were used (Siry and Gorges 2019, Guzula et al. 2016; Wu and Lin 2019). In addition, Harry strategically combined these linguistic resources with paralinguistic and extralinguistic ones without prioritising one over the other. The use of multimodal resources was similar to students and teachers in the studies of Lin (2019), Siry and Gorges (2019), Wu and Lin (2019), de Saint-Georges et al. (2017) and Newfield (2011).

Furthermore, Harry translanguaged across modes and modalities. His use of songs in Science and French lessons was particularly noteworthy as it illustrates his ability to process the linguistic input in science and French lessons, ‘translate’ it into a different mode and modality, and communicate it to friends. In this re-semiotising process (Bradley and Moore 2018, Li Wei 2018), Harry reinterpreted signs and created new meanings. His singing testified to his creativity and linguistic competence and allowed him to make connections between the curriculum, his funds of knowledge and identity (Esteban-Guitart and Moll 2014), and to mark his identity as a creative language user (Li Wei 2018). These findings corroborate those of Bradley and Moore (2018) who analysed the ways in which teenagers wrote poems in an after-school workshop in Leeds. They revealed how a bilingual girl brought together music and oral and written text and with the help of other participants transformed a hand-written poem into a digital version and then a song. In this way, she moved across modalities. While she worked creatively in an informal workshop outside school, Harry did so in a class.

A key role came to the alignment of resources (Atkinson et al. 2007) during these interactions. The children, firstly, co-ordinated their own linguistic and non-linguistic resources and, secondly, attuned them to those of others. In this way, the “assemblage of agents and resources”, was “all entrained (i.e. drawn or

pulled along) into the fluid, dynamic flow of meaning making” (Lin 2019: 8). The pupils carefully observed each other’s semiotic combinations, interpreted them and creatively reproduced them (Corsaro 2018). Similarly, they reproduced the translanguaging practices in the classroom. Their acts are reminiscent of the eight- to- ten-year olds studied by Eckermann and Heinzel (2016) who engaged in ‘mimetic action’ (p. 266) when they mirrored the teacher’s behaviour.

This article has illustrated the extent to which a newcomer systematically engaged in learning processes with his peers. Harry’s semiotic combinations enabled him to make meaning of curricular content and participate in classroom activities (de Saint-Georges et al. 2017; Kirsch 2017). Translanguaging was for him a means to communicate his “conceptual understanding or misunderstanding in an immediate and efficient way” (Lewis et al. 2013: 160). The communication with his peers enabled him to get help from friends, co-construct meaning and develop understanding in interaction (Wu and Lin 2019; Guzula et al. 2016; Lewis et al. 2013). The findings from the entire doctoral research project show that orchestrating multiple multimodal resources enabled Harry to access his learning community. He was aided by his peers who reproduced the translanguaging practices of the teacher. We conclude that teachers can promote learning when they encourage students to flexibly combine their resources in a meaningful way and when they create opportunities where students can capitalize on these semiotic combinations in interaction with the teacher or peers. These practices are pillars of the translanguaging pedagogy which builds on students’ language backgrounds and leverages their multilingual resources (García et al. 2017). Based on principles of social justice and participation, translanguaging pedagogies move away from monolingual policies and practices and offer a curriculum that helps students connect their home and school languages. In order to leverage students’ resources for participation and learning, translanguaging pedagogies need to encourage teachers to capitalize on students’ semiotic rather than linguistic repertoire. In this way, translanguaging does not only go beyond languages but also beyond the traditional division of linguistic and semiotic resources.

Limitations of this paper are related to its nature as a case-study: we neither delved into Harry’s meaning-making processes with all peers and in all subjects, nor presented the teaching practices in greater detail. The former will be the subject of Degano’s PhD thesis. Nevertheless, the findings offer important insights into the ways in which a newcomer manages to grasp curricular content in a trilingual education system regardless of the language barriers encountered. They also testify to the abilities and resourcefulness of a newcomer in multilingual contexts.

We conclude with two implications. At the level of research, further studies could explore the holistic meaning-making processes of newcomers, particularly

those in primary school and multilingual contexts. At the level of practitioners, teachers should acknowledge the semiotic resourcefulness of all students, particularly newcomers, harness the potential of students' re-semiotisation processes, detect evidence of their learning at multiple levels, and help them become agents of their own learning (Kress 2013).

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