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ABSTRACT

This paper presents a critical examination of key concepts in the study of (signed and spoken) language and multimodality. It shows how shifts in conceptual understandings of language use, moving from bilingualism to multilingualism and (trans)languaging, have resulted in the revitalisation of the concept of language repertoires. We discuss key assumptions and analytical developments that have shaped the sociolinguistic study of signed and spoken language multilingualism as separate from different strands of multimodality studies. In most multimodality studies, researchers focus on participants using *one* named spoken language within broader embodied human action. Thus while attending to *multimodal* communication, they do not attend to *multilingual* communication. In translanguaging studies the opposite has happened: scholars have attended to multilingual communication without really paying attention to multimodality and simultaneity, and hierarchies within the simultaneous combination of resources. The (socio)linguistics of sign language has paid attention to multimodality but only very recently have started to focus on multilingual contexts where multiple sign and/or multiple spoken languages are used. There is currently little transaction between these areas of research. We argue that the lens of semiotic repertoires enables synergies to be identified and provides a holistic focus on action that is both multilingual and multimodal.

Introduction

This paper foregrounds the work in this special issue that brings together the study of linguistic diversity and multilingualism, sign language studies and studies of multimodality. The combination of papers in this special issue illustrates how the recent multimodal turn (Jewitt, 2009), also understood as a broader embodied focus in research on languages and communication (Nevile, 2015) brings together mainstream research on language and society together with research on sign languages. This marks a significant development in terms of the recognition of sign language and deafness related research in broader academia (Bagga-Gupta, 2007; Tapio, 2014).

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The theme of multilingualism provides the overarching context for the papers in this special issue that comprises perspectives from education (Swanwick and Snoddon) and urban spaces (Blackledge & Creese; Kusters; and Pennycook). This theme embraces the concept of repertoire as the totality of linguistic resources of the individual (Busch, 2012, 2015; Spotti & Blommaert, 2017) and of translanguaging as the individual's dynamic use of their linguistic resources in different contexts for meaning-making without regard for socio-cultural boundaries of named languages (Otheguy, García, & Reid, 2015). Translanguaging thus transforms repertoires as resources are added, expanded, revised and sometimes sedimented onto particular functions and within particular contexts (leading to the concept of 'spatial repertoires', Pennycook & Otsuji, 2015).

The concept of repertoire is central to this special issue as one which traverses studies of spoken and signed language and softens the boundaries between languages and research paradigms. This introductory paper explores how the concept enables a fresh perspective on the multimodal and multilingual aspects of communication and a more nuanced understanding of translanguaging that recognises the different ways in which individuals draw on their multimodal linguistic resources to make meaning.

Gesture studies and multimodality

One possible starting point for breaking down boundaries between languages and language studies and transforming the study of repertoires is attention to the role of gesture in communication. Gesture studies scholars such as McNeill (1992), Goldin-Meadow (2003) and Kendon (2004) have paid attention to (and argued for more attention to) the manual modality in language production in general. To this regard, Gesture studies has not only uncovered how gestures are partnered with *spoken* components of language, but also studied how gestures are incorporated in *sign languages* (for the latter, see e.g. Liddell, 2003). The latter is a rather recent development: in the 1970s and 1980s, sign language linguists were preoccupied with proving that sign languages are natural languages and not 'just gestures' (Stokoe, Casterline, & Croneberg, 1965), resulting in a contradistinction between sign language and gesture (Kendon, 2004). Nowadays a number of sign language linguists acknowledge and attend to gesture, asking what is the relationship, the analogy or the difference between signs and gestures, and how much of signing is iconic and transparent (see, e.g. Green, Kelly, & Schembri, 2014; Jantunen, in press; Kendon, 2004; Vermeerbergen, 2006). However, an analysis of only the relationships between gesture and speech, gesture and sign and gesture *in* sign, is insufficient for understanding meaning-making in (signed) interaction – the scope should be wider, including other multimodal means of constructing meaning (Tapio, 2013; Vermeerbergen, Leeson, & Crasborn, 2007).

Indeed, all human interactions, and linguistic repertoires, are (and always have been) multimodal. Language in use, whether spoken, signed or text, is always and inevitably constructed across multiple modes of communication and through 'contextual' phenomena such as the use of the surrounding physical spaces (Goodwin, 2000; Scollon & LeVine, 2004). People speak, point, gesture, sign, write, draw, handle objects and move their bodies, in a variety of combinations or aggregates, within diverse social and material contexts. Multimodality scholars (such as Goodwin, 2000; Jewitt, 2009; Kress & Van Leeuwen, 2001; Mondada, 2016; Norris, 2004) have investigated how different 'modes' work together

(or 'semiotic fields', or 'modalities': several terminologies are in circulation), such as pictures, spoken language, gestures, posture and proxemics; how some modes can be primary in some situations or some sequences of interactions, and get subordinate roles in others.

Researchers in gesture studies and multimodality in spoken languages have tended to focus on what could be called 'monolingual' utterances (though see Gullberg, 1998) rather than on multilingualism and linguistic diversity. The (socio)linguistic study of sign language has paid attention to multimodality within the context of sign language in general (where signing is often combined with mouthing); sign language in conjunction or comparison with spoken language (Meier, Cormier, & Quinto-Pozos, 2002; Vigliocco, Perniss, & Vinson, 2014) or in the context of sign bilingualism (i.e. bimodal bilingualism, see below) (Bagga-Gupta, 2000; Humphries & MacDougall, 1999). These lines of enquiry are less visible in multilingual contexts where multiple sign and/or multiple spoken languages are used, though see Holmström and Schönström (in press), Kelly, Tapio and Dufva (2015), Swanwick (2017) and Tapio (2013) for recent work in this direction.

There is therefore a lack of transaction between research that focuses on gestures, signs and multimodality on the one hand, and research into linguistic diversity or multilingualism on the other hand. Although some scholars, such as Garcia and Wei (2014) and Jørgensen, Karrebæk, Madsen, and Møller (2011) have emphasised that translanguaging is essentially multimodal, they have not yet expanded on this concept. Translanguaging scholars who *did* focus on multimodality have paid attention to Internet memes (mostly social media) or mobile phone texting. Linguistic landscaping (see Pennycook, 2017), another branch of the study of language in society, is inherently multimodal, but mostly by focusing on pictures, smells, signage, blackboards and screens; and not so much on the use of the visual-gestural modality of communication including signing, gesturing, body orientation and the use of objects. We bridge these different fields by paying attention to the *semiotic repertoire*.

From monolingualism to multilingualism and languaging

The perspective on repertoire offered in this special issue implies an ethnographic approach to the study of multilingualism and multimodality. In interaction, speakers first and foremost use semiotic resources, rather than languages understood as coherent packages. The social environments in which we live in are characterised by an extremely low degree of presupposition in terms of identities; patterns of social, spatial and cultural behaviour; social and cultural structure; and norms and expectations. People cannot be straightforwardly associated with particular (national, ethnic and socio-cultural) groups and identities; their meaning-making practices cannot be assumed to 'belong' to particular (sub)cultures through specific languages. Yet somewhere along the way, speakers learn that some of these resources are thought to belong together in 'languages'. Language scholars such as Pennycook and Otsuji (2015) and Otheguy et al. (2015) oppose this kind of monolingual and bounded-language ideological underpinning within academic inquiry, which espouses a monolithic notion of language and of language use in modern society. These insights – that question the very ontological assumption and status of language – are based on linguistic ethnography on multilingualism, which has its roots in the study of bilingualism.

Established notions of bilingualism have gradually replaced the initial strong focus on competence in two different languages by a view in which language users would draw on any kinds of resources useful and accessible to them, with various degrees of fluency determining the scope of such resources – the concept of 'languaging' (Creese & Blackledge, 2010; Jørgensen et al., 2011). Thus, from a 'dual grammar' perspective, bilingualism gradually moved toward a more flexible and less structured field of multilingualism – a shift that involved other reorientations: one, toward the macrosocial contexts of multilingualism in society, the other to the individual linguistic repertoires of interactants. In the process, researchers have used and devised concepts (some of them neologisms) such as crossing (Rampton, 1995), translanguaging (Garcia & Wei, 2014), metrolingualism (Pennycook & Otsuji, 2015), plurilingualism (Canagarajah, 2009) and polylanguaging (Jørgensen et al., 2011). The difference between code-switching (a term central in the field of bilingualism, meaning the alternate use of material from two or more languages in the same sequence) and translanguaging (and the other neologisms) is that translanguaging encompasses code-switching, but entails a wider set of practices and use of resources (Garcia & Wei, 2014).

Repertoires: conceptual overview and re-evaluation

The concept of repertoire offers a way in which to articulate the ways individuals draw on their diverse resources mapping them onto functions in a communicative act. The study of languaging as using resources from linguistic or communicative *repertoires* is much indebted to the work of Joshua Fishman and to the later developments brought to the field by John Gumperz and Dell Hymes. John Gumperz and Dell Hymes, in their introduction to *Directions in sociolinguistics* (1972, pp. 20–21), listed repertoire as one of the basic sociolinguistic concepts and defined it as 'the totality of linguistic resources (i.e. including both invariant forms and variables) available to members of particular communities', a notion that would be later combined with the much broader and less precise notion of 'manners of speaking'. From there, 'repertoire' became the word used to describe all the 'means of speaking' that users of a language know, know how to use and use with a specific reasoning in mind, while they are engaged in a communicative encounter.

Although groundbreaking at that time this is more or less where the concept of communicative repertoires has stayed for decades and it has been a radical concept in linguistics for years. With time, its use became more closely associated with a Chomskyan approach to language and often was placed on the same level as 'competence', until authors such as Blommaert and Backus (2013), Busch (2012, 2015) and Rymes (2010) took up the concept again. People use resources acquired over the course of their life trajectories through membership or participation in various socio-cultural spaces in which their identities are measured against normative centres of practice (Busch, 2012, 2015; Canagarajah, 2013; Creese & Blackledge, 2010; Jørgensen et al., 2011). Blommaert and Backus (2013) explain that 'A repertoire is composed of a myriad of different communicative tools, with different degrees of functional specialization. No single resource is a communicative panacea; none is useless' (p. 25). They point out that repertoires do not develop along a linear path of ever-increasing size; rather, resources develop according to the situational communicative needs that someone may encounter. In other words: people learn situated usages of resources, that is, practices; and practices differ both

contextually and modality-wise (Dufva, 2013). In this process, some resources are perma-nent and enduring and others are temporary and dynamic (Blommaert & Backus, 2013), and resources are understood 'in relation to one another, in distinction from one another, or as differentiated in themselves' (Busch, 2012, p. 520).

Pennycook and Otsuji (2015) also have taken up the term of repertoire, coining the concept 'spatial repertoires'. Examples are particular terms that are intelligible within par-ticular locations only; and scripts, which are questions and answers (this can include bar-gaining) that are more or less expected within specific locations, and are linked to situations, places (such as markets) and persons. Individual and spatial repertoires con-verge and diverge, draw on each other and contribute to each other (Pennycook, 2017; Pennycook & Otsuji, 2015).

We argue that if we do not want to make a strict distinction between named languages, and make no distinction between linguistic and non-linguistic, and signal a multimodal perspective (see below), we should talk about *semiotic repertoires* rather than linguistic repertoires. In contrast to Virkkula-Räsänen (2010) who conceptually separated linguistic repertoires and semiotic resources (such as gesture and body orientation), we use the broader term 'semiotic repertoires' to encompass them both (and this broader semiotic perspective is also implied in the concept of 'spatial repertoires'). Rymes (2010) used the corresponding term 'communicative repertoire' to imply this focus on broader semio-tics. The importance of this focus on broader semiotics will become clear in the sub-sequent sections on sign languages and multimodality.

Sign bilingualism and multilingualism

Attention to repertoire in the context of sign languages tends to be located in studies of bimodal bilingualism or sign bilingualism. These terms are used to describe the use of a sign language and a written/spoken language and in this context the term 'modality' is defined different than in multimodality studies, that is, as the visual-gestural modality, the auditory-oral modality and the written modality. Sign bilingualism has been mostly discussed and investigated with regard to deaf education (Marschark, Tang, & Knoors, 2014). Discussions of sign bilingualism in this context tend to focus on the fact most deaf children are born in hearing non-signing families and thus learn sign language at school and from hearing adults who are themselves not fluent signers. More recently dis-cussions of sign bilingualism have begun to focus on multilingualism, recognising that deaf people's language lives are plural in terms of their use of sign and spoken languages. Sophisticated hearing technologies provide the potential for deaf children to learn two (or more) spoken languages and, as society is linguistically diverse, deaf children are likely to encounter different spoken languages at home and at school. Furthermore, transnational connections among sign language users are possible for an increasing number of deaf people due to possibilities offered by new technologies and affordable travel (Friedner & Kusters, 2015) and thus deaf people learn other sign languages or communicate in Inter-national Sign; the latter could be said to be a form of translanguaging. It is very common for, for example, for a Finnish signer to be multilingual in several spoken and signed languages (Kelly et al., 2015).

Tapio (2013, 2014) shows how deaf signers not only deal with many linguistic varieties, but with an exceptional number of modes in which and with which those languages are

manifested. There exists a wide range of studies on signers' use of features of multiple languages, such as research on sign language contact including sign-speech contact, sign-writing contact and sign-sign contact (see Quinto-Pozos & Adam, 2013 for an overview), code-switching between sign language and spoken language (De Quadros, Lillo-Martin, & Chen Pichler, 2014) and more recently, between two sign languages (Zeshan & Panda, 2015). Furthermore, signers continually and skillfully switch not only between languages but also between modalities. One example of this is seen in 'chaining' where different modalities or resources are connected through a sequence of signing a concept and then fingerspelling it (the use of fingerspelled signs for each letter of a word); or pointing at a written word and then signing/saying it, for example in order to highlight equivalence (Bagga-Gupta, 2000; Holmström & Schönström, in press; Humphries & MacDougall, 1999; Tapio, 2013).

The boundaries between different sign and spoken languages and modalities become fuzzy in sign language contexts; for example, in practices that draw from several modalities and languages *at the same time*. This happens for example when signers *voice* and sign simultaneously (Emmorey, Borinstein, Thompson, & Gollan, 2008), or when people produce mouth patterns (*mouthing*) which can be (partially) derived from a spoken language (such as English), while signing (such as in British Sign Language) (Boyes-Braem & Sutton-Spence, 2001; Vermeerbergen et al., 2007). Mouthings also can be (strategically) in other 'non-related' languages, for example, when a person mouthes an English word and simultaneously signs a Finnish Sign Language sign with the same meaning (see, e.g. Tapio, 2013), or when a person connects a gesture with mouthings in more than one language (see Kusters, 2017). These multilingual and multimodal practices are inherent part of many sign languages, but the extent to which mouthing is used can vary, for example mouthing might happen to a strong extent in contact between spoken language-dominant and sign language-dominant interactants. Ulrike Zeshan's ERC project on sign multilingualism, focusing on 'cross-signing' (signing between unacquainted signers with different sign language backgrounds) (Zeshan, 2015), 'sign-switching' (code-switching between sign languages) (Zeshan & Panda, 2015) and 'sign-speaking' (fluently combining sign and speech) is a very important step towards a better understanding of signers' multilingual and multimodal practices. In all, these practices are possible due to the fluidity and transformative quality of signs/gestures. Research with a narrow view on language use and communication often lacks such a wider perspective of the semiotic resources of signing communities (Tapio, 2013, 2014).

Nothwithstanding the multilingual practices of signers, central to the literature on signers is the theme of *access* to semiotic resources that enable such practices. There is a continuing need to assert sign languages as genuine languages and to lobby for sign language rights (De Meulder, 2015). The continued existence of many sign languages is endangered, partly due to coupling state-of-the-art hearing technologies with an exclusive focus on spoken language acquisition, but also because of the attrition of (sign bilingual) schools for the deaf as spaces for the emergence and transmission of sign languages (Kusters, De Meulder, Friedner, & Emery, 2015). Within this context, the concept of translanguaging understandably raises concerns among deaf professionals and some education specialists who interpret it as a Total Communication approach that gives precedence to sign systems based on spoken language grammar over sign languages (see Swanwick, 2017; Snoddon, 2017). Although translanguaging is a term that has

been arisen and used within the context of minority language users and language main-tenance (Otheguy et al., 2015), the *unhampered access* to both sign and spoken language that is crucial within this process is often compromised in the case of deaf people. There are sensitive issues therefore associated with translanguaging behaviours that foreground speaking, mouthing or lip-reading practices to the extent of marginalising signing and other visual-embodied resources (see Swanwick's, Kusters' and Snoddon's articles in this issue for attention to asymmetries and inequalities encountered by signers).

Multimodality

In the previous section we have lifted a tip of the veil as to what multimodality means in the context of gesture and sign language. Within this section we shed light on the largely separate field of multimodality studies (mostly focusing on spoken language users), where foci and emphasis vary. Crucial to several of the articles in this special issue is the analysis of embodied language use as *embedded within particular surrounds* (such as shops, markets and classrooms)*: actions and the body* (rather than 'language', which is narrower) are at the centre of attention (Mondada, 2016; Scollon & Scollon, 2004). Multimodality is often linked to globalism, new technologies and to the internet in particular (Jewitt, 2009). The multimodal turn is also linked to the abovementioned shift (culminating in translanguaging theory) that has been going on for several decades in the way we view language as processes of meaning-making rather than as enclosed systems. Jewitt (2008, 2009) and Norris (2012) have considered the similarities and differences between different approaches to multimodality, as well as the underlying theoretical backgrounds of each approach. The following three fields of application (Jewitt, 2008) can be recog-nised: (1). the semiotic approach linked to Halliday's *social semiotic theory*, (e.g. Kress & Van Leeuwen, 2001); (2). the research into interaction that arises from the methodological framework of *conversation analysis (CA) and ethnomethodology (EM)* (e.g. Goodwin, 2000; Mondada, 2014, 2016) and (3) the multimodal approach that stems from *mediated discourse analysis (MDA)* (Norris, 2004; Norris & Jones, 2005; Scollon, 1998; Scollon & Scollon, 2004).

Central to multimodality studies is the study of the *simultaneous* deployment of resources (Goodwin, 2000; Mondada, 2016). One obvious example of simultaneity is speak-ing and gesturing at the same time (studied by gesture studies which partially overlaps with multimodality studies, particularly with CA and EM), yet it is much broader than that: speech, eye gaze, the mutual orientation of the bodies of the interlocutors, the material structure of the surround, objects (such as products for sale, or materials with which people work), environmentally coupled gestures ('gestures that cannot be under-stood by participants without taking into account structures in the environment to which they are tied') (Goodwin, 2007, p. 195) and (hand)writing-in-interaction (Mondada & Svinhufvud, 2016). Importantly, simultaneity thus involves all interlocutors: all engage in body orientations and eye gaze, even when only one person is speaking, for example; and interactants might already start to respond while the previous action is still being produced, such as by interrupting or by reorienting the body, ready for produc-ing a response (Mondada, 2016). Sign language researchers have done extensive research on complex simultaneous structures, such as (1) mouthing while signing, but also (2) when two hands each convey different information and (3) research on eye gaze and body

posture when signing (Vermeerbergen et al., 2007). Yet in contrast to multimodality studies, there has been less attention to the use of objects and the physical environment in sign language studies. We should move from examining linguistic elements to a full multimodal perspective.

We mentioned the use of *objects* as possible semiotic resources, the acknowledgment of which is important in this special issue since in several of the articles in this issue, objects (such as meat cuts, frozen fish, pen and paper, calculators, vegetables and money) are central to the interactions. A growing body of research has focused on objects in inter-action (Nevile, Haddington, Heinemann, & Rauniomaa, 2014; Streeck, Goodwin, LeBaron, & 2011): objects differ from talk, gestures and signs, or even writing with the finger in the hand or fingerspelling (Kusters, 2017; Snoddon, 2017), since they are not fleeting and evanescent, and can be 'noticed, appreciated, assessed, imagined, created and made sense of, or can be given and received, shared or distributed, shown and demon-strated, described and explained, or disputed' (Nevile et al., 2014, p. 7). Authors have suggested that in each context, different resources are relevant. While objects are every-where around us when interacting (bodies, clothes, counters, cash tills, tables, pens, papers and products for sale), they are 'made relevant through participants' pointing, referencing, naming and touching' (Nevile et al., 2014, p. 15): they become semiotically charged (Goodwin, 2013).

Note that attention to handling objects does not necessarily mean that authors have paid attention to tactility. Indeed, multimodal interaction is multi-sensory, but, as Mondada (2016, p. 355) pointed out, the visual turn in multimodality research (made poss-ible by video recording interactions) has led to (or obscured) 'another form of reduction-ism, that of embodiment to audible-visible features': touching, tasting, smelling are understudied in the field of multimodality research (see also Norris, 2013). Multisensoriality has received more attention within linguistic landscaping (see Pennycook, 2017), a field of study that focuses less on language in interaction. Pennycook (2017) therefore argues that a bridge is urgently needed between translanguaging studies and linguistic landscaping studies.

We have pointed out the importance of a focus on the way people use and regulate multiple semiotic resources in action. Actions consist of different *consecutive* steps, and simultaneous presence of particular semiotic fields (such as: a particular body orientation, a point or an emblematic gesture and a spoken utterance) could last just a few seconds, until the next 'stage' of the action. The 'contextual configuration' of resources is then restructured, disassembled, reorganised: some semiotic fields overlap into the next con-figuration, new semiotic fields are added while others are no longer relevant (Goodwin, 2000, 2013). When new layers of resources are brought in, a transformation occurs, since the whole contextual configuration changes: we have 'co-operative transformation zones that decompose and reuse current resources to create something else' (Goodwin, 2013, p. 17).

Within the organisation and transformation of semiotic fields, particular fields can be foregrounded and fields or modes can exist in *hierarchical constellations*. Several authors have argued that there is no a priori hierarchy (Mondada, 2014; Norris, 2011). Mondada (2016, p. 341) states that 'some ecologies and types of activities might favor verbal resources along with gestures and body movements, whereas other ecologies and activi-ties might favor distinctive and specific embodied resources over talk'. (Contrarily,

Stevanovic and Monzoni (2016) argue that embodied behaviour gets the top position in the hierarchy of interactional resources.) Norris (2004) has done extensive work in this regard, looking at 'levels of attention/awareness' of modes, and understanding the role of modes in particular interactions in terms of 'modal intensity', and 'modal complexity'. For example, a mode (such as speech, gestures, posture and eye gaze) can have a 'high modal intensity' (i.e. it carries a lot of weight in the interactions) within a particular sequence; yet the interactions are often featured by a 'high modal complexity' (i.e. an intertwining of different modes/modalities). An example is Kusters' article in this issue, where she shows how gestures get a high modal intensity in interactions between deaf signers and hearing non-signers in Mumbai.

We believe that it is of crucial importance to attend to such hierarchies since they point toward (historically embedded) unequal power relationships between the people who use semiotic resources, how resources are more or less valued by different stakeholders, and how people have more or less access to resources. Such inequalities and asymmetries get central emphasis in MDA (Norris & Jones, 2005), which is an important difference between MDA and the other strands of multimodality studies. As mentioned above, we find it extremely important to pay attention to such asymmetries: people have differential access to languages, literacies, objects and other resources, and different uses of the senses. Examples from the articles in this issue include: the person behind the counter can access objects the customer cannot; the hearing teacher can hear and speak which is not necessarily the case for deaf students; the deaf teacher can sign while the hearing students cannot (yet) and some customers can read and write (particular languages) while others cannot.

This flexible use of resources is embedded within, and leads to, 'intensive local adaptation' (Goodwin, 2013) or 'a local assembling of a diversity of resources': resources are mobilised 'in response to the contingencies of the setting and of the interaction' (Mondada, 2014, p. 140). Some configurations become more or less sedimented within particular spaces: 'They become incorporated into the epistemic organization of particular, local actions' (Goodwin, 2013, p. 16). Inspired by Kress and Van Leeuwen (2001), Tapio calls them regularised, patterned communication-practices (Tapio, 2014). Examples are particular combinations of semiotic fields that are frequently used within market stalls for example, particularly between acquaintances, (see Blackledge & Creese, 2017; Kusters, 2017 and Pennycook, 2017), or in teaching situations (Swanwick, 2017; Snoddon, 2017). What happens is that 'locally relevant webs of semiotic and social relationships' occur (Goodwin, 2013, p. 16); such as the frequent combination of particular gestures with other resources such as speaking in different languages, object handling and writing.

As shown, the questions that are asked in research into multimodality overlap, and researchers use several approaches in their research on multimodality yet reach similar conclusions on (1) the complex way people employ and combine resources in action, (2) the hierarchies between modes, (3) the transformative (rather than additive) effect of the use and the combination of resources and (4) the sedimentation of resources/repertoires within particular contexts. Multimodality studies have the latter two foci in parallel with translanguaging research. Also, parallel to MDA, translanguaging theory (cf. polylanguaging, metrolingualism and so on) focuses on 'bigger wholes', taking into account how people produce and balance language ideologies, identities, cultures, inequalities, oppression and histories (Garcia & Wei, 2014; Jørgensen et al., 2011; Pennycook &

Otsuji, 2015). In most multimodality (CA, EM and MDA) studies and in sign language studies, researchers focus on situations where participants use *one* named spoken language (either as spoken, or in the form of mouthings) within human action. Thus while attending to *multimodal* communication, they do not attend to *multilingual* communication. In translanguaging studies the opposite has happened: researchers have attended to multilingual communication without really paying attention to multimodality and simultaneity, and to hierarchies within the simultaneous combination of resources. There is a slowly growing consciousness in that regard. For example, Canagarajah (2016) argues that non-verbal resources should not be seen as compensatory or subservient to spoken/written language. And as mentioned above, Pennycook's concept of spatial repertoires (Pennycook, 2017; Pennycook & Otsuji, 2015) brings in the spatial environment (including the use of objects) in the study of translanguaging.

Conclusion

In this article we have argued that using 'semiotic repertoires' as the frame of reference offers us the potential to bridge studies of multilingualism in spoken and signed languages, gesture studies and multimodality research. The notion 'semiotic repertoire' departs from the idea that languages are bounded systems (an understanding that is central to translanguaging theory); and that repertoires are merely linguistic (they are multimodal and embodied).

Furthermore, the concept also enables us to take a *holistic* perspective, taking into account inequalities and power differences by paying attention to hierarchies of resources, and to lack of accessibility to resources. Indeed, as Blommaert and Backus (2013, p. 20) state; 'The repertoires of people absorb whatever comes their way as a useful – practical and/or pleasant – resource, as long as such resources are accessible to them'. Jørgensen et al. point out that people have unequal access to linguistic resources: translanguaging is not a 'free-for-all': 'resources which are available to speakers in the sense that the features are used around them every day may not be at the service of all of them' (Jørgensen et al., 2011, p. 35). For deaf people such access to resources is compromised by a reduction of, or lack of sensory access to spoken language production and lack of opportunities for access to sign language production in the educational context. There are important implications here for the way in which translanguaging is construed and the extent to which this concept could legitimise inaccessible utterances aimed towards deaf people (such as speaking with a very limited use of sign/gesture, see Kusters, 2017) and what is meant by 'skillful signing' in the educational context (see e.g. Snoddon, 2017).

The perspective on repertoires that was suggested by Busch (2015, p. 14) is very pertinent to the discussions going forward in this special issue. She argues that 'Our repertoire is not determined solely by the linguistic resources we have, but sometimes by those we do not have, and these can become noticeable in a given situation as a gap, a threat or a desire'. Broadening Bush' focus from linguistic repertoires to semiotic repertoires, a semiotic repertoire can thus be understood as a heteroglossic realm of embodied potentialities and constraints. Different resources not only are differentially accessible, but also get ascribed different values and get assessed differently in different spaces, and are connected to emotions, different experiences, power relations, desires (Busch, 2012, 2015) and identities (Spotti, 2007). In summation, we argue that the lens of semiotic repertoires

enables a holistic focus (addressing ideologies, histories, potential and constraints) on action that is both multilingual and multimodal.

By exploring in depth, for the first time, the application of translanguaging theory to multimodal interaction this issue makes two important contributions to language research. The first is that the study of translanguaging in this context provides a lens through which to identify the ways in which deaf and hearing individuals draw on all of their semiotic resources (such as image, text, gesture, gaze, facial expression, speech, posture, objects and the environment) for meaning-making and to explore ways of capturing, describing and analysing sign and spoken language interaction that is not constrained by boundaries between languages, methodological approaches, disciplinary paradigms and cultural expectations. While this perspective provokes anxiety in terms of language precarity, power and asymmetries that are explored in this issue, it also expands our understanding of the multimodal nature of meaning-making.

The work presented here therefore also transforms our understanding of translanguaging itself by expanding what is normally understood by 'linguistic resources' in descriptions of translanguaging (Otheguy et al., 2015) and the ways in which they may be 'combined' to make meaning. The examination of signed, gestured and spoken language interaction in multimodal (simultaneous) configurations explored in this issue provides the opportunity to observe communication between individuals with semiotic repertoires that do not show significant overlap, including between individuals who do not share the same primary 'languages', 'codes' or 'modalities'. This examination enriches concepts of translanguaging by extending our inventories of the semiotic resources that people use to communicate, offering a more sophisticated understanding of the relationship across and between modalities and shedding new light into the processes, dynamics and principles of co-constructed meaning in communication beyond the boundaries of codified 'modalities' and 'languages'.

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