

Bilingual multimodality in language documentation data¹

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Most people in the world speak more than one language, making bilingualism the norm rather than the exception. Furthermore, speakers generally also move their hands – they gesture – in coordination with speech and language in nontrivial ways. Bilingualism and multimodality should thus be on research agendas focused on the nature of linguistic systems and language use in context, yet they are often overlooked. Conversely, research and theorizing on bilingualism and multimodality is often based on Western-European, standardized languages, and little is known about other linguistic contexts. This paper makes the point that language documentation data has the potential to inform theoretical and empirical studies of linguistics, bilingualism and multimodality in entirely new ways, and, conversely, that documentation work would benefit from taking the bilingual and multimodal nature of its data into account.

1. INTRODUCTION. It is frequently (and probably accurately) claimed that most people in the world speak more than one language, meaning that bilingualism² – not monolingualism – is the norm rather than the exception (e.g., Grosjean 1982). Furthermore, when we speak, we also move our hands and arms, producing gestures in coordination with speech and language in nontrivial ways. The fact that most speakers are bilingual under some definition and that they gesture while they speak should put bilingualism and multimodality at the heart of research agendas focused on the nature of linguistic systems and language use in context. Moreover, the communities represented in documentation data of endangered languages are often bilingual, and the data at hand typically contain multimedia recordings of interactions where gestures are a natural part of language use (see Gippert, this volume). This paper therefore makes the point that language documentation data has the potential to inform theoretical and empirical studies of linguistics, bilingualism and multimodality (meaning the combined study of speech and gesture as one ensemble) in entirely new ways,

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² I will use the term bilingual to refer to speakers who regularly use more than one language, regardless of the actual number of languages used, acquisition history, or proficiency level. The term therefore includes multilinguals, early simultaneous bilinguals, and speakers who have acquired their languages in adulthood (‘second language speakers’) but use them regularly.



and, conversely, that documentation work would benefit from taking the bilingual and multimodal nature of its data into account.

2. BILINGUALISM. Studies of bilingualism and adult second language acquisition (SLA; traditionally two separate fields) are inherently concerned with cross-linguistic and typological variation in that the properties of languages that come into contact in an individual mind are assumed to make a difference for the nature of bilingualism and language learning and use. Different linguistic domains are examined for the ways in which a bilingual's languages interact and determine the nature of the bilingual's language system. In the vast body of work in this domain, data typically come from standardized languages (European languages, Japanese, Korean, and Mandarin Chinese) studied and acquired in classroom settings. Based on such data sets, research addresses theoretical concerns. A first example of such a question is the monolingual native speaker norm. Most studies assume that the goal of bilingualism and SLA is to become like a monolingual native speaker, the golden standard against which all bilinguals and learners are measured. This is particularly obvious in the literature probing the role of maturational constraints on learning (the critical period hypothesis), asking why children seem to be 'better' language learners than adults (e.g., DeKeyser & Larson-Hall 2005, Hyltenstam & Abrahamsson 2003; for the standard view in SLA that adult learners are faster than children, who in turn may reach higher final levels of proficiency in some linguistic domains, see Krashen et al. 1982). There is a strong bias towards the standardized language in its written, academic form as opposed to the variation found in actual spoken language use. Furthermore, there is surprisingly little recognition of the fact that if most speakers in the world are bilingual, then it is unclear who the monolingual native speaker is and what the norm represents (cf. Davies 2003). Even studies that recognize that bilinguals are not two monolinguals in one body (cf. Grosjean 1998) nevertheless compare bilinguals to monolinguals, and usually find fault.

A second issue is the question of general and supposedly universal developmental trajectories in adult acquisition whereby learners, for instance, acquire grammatical morphemes in a set order (e.g. Dulay & Burt 1972, 1978) or pass through specific developmental stages of word order acquisition regardless of the patterns in the first and second language (Hyltenstam 1978, Klein & Perdue 1997, Pienemann 1998).

A third question concerns the role of the other language, known as transfer or cross-linguistic influence (Jarvis & Pavlenko 2008, Kellerman & Smith 1986, Odlin 1989). Traditionally, the first language (L1) has been assumed to 'leak' into the second language (L2) in the form of foreign accent, lexical choice, structures, etc. Similarity between languages is supposed to be helpful; differences are assumed to cause difficulties in learning (Ringbom 2007 for an overview). However, recent work highlights the fact that languages affect each other in all directions such that the second language also affects the first, making the pure monolingual speaker even less likely (e.g. Brown & Gullberg 2011, Cook 2003). The psycholinguistic literature focuses on the costs of controlling this interaction. Bilinguals are often shown to be slower to name pictures than monolinguals, leading to the assumption that it is costly to be bilingual. This assumption is based on ideas of co-activation in processing, inhibition, and executive control (e.g. Costa 2005, Meuter 2005).

Finally, research on code-switching – that is, the use of two languages in the same utterance, clause, or phrase – examines what sort of social and linguistic constraints can be

placed on mixing, asking whether mixing is orderly or random (e.g. Auer 1998, Clyne 2003, Muysken 1995, Myers-Scotton & Jake 2001, O'Shannessy 2011). Recently, researchers also ask what psycholinguistic constraints may be placed on mixing.

Two things are noteworthy. First, empirical facts and theories about bilingualism/acquisition (within the four domains outlined, but also beyond them) are based on very small samples of languages that are formally acquired, supporting the bias towards monolingual norms. Findings may therefore not reflect typical patterns across larger samples and in the untutored 'wild'. It is unclear how the standard claims would fare if language documentation data were taken into account. For example, the claims might look different if the full extent of linguistic variation in contexts where speakers are functionally bilingual with complex sociolinguistic and functional divisions of labor between languages were taken into account. Similarly, the claims might take a different form if contexts where speakers are acquiring languages for different purposes other than passing academic proficiency tests were considered. Put differently, there are substantial gaps in our knowledge about bilingualism and adult acquisition. The variation and rich bilingual contexts in language documentation data raise important challenges for bilingual/acquisition studies with implications for the validity of the theorizing around these issues.

Second and conversely, studies of language contact and documentation work rarely consider theoretical claims in SLA and bilingualism concerning acquisition, language processing, and the nature of bilingual linguistic systems in general. This means that descriptions of endangered systems as if they were monolingual also risk misrepresenting the linguistic reality under study. In this case, insights from bilingualism studies raise challenges for descriptive work, and this has implications for the theorizing around the nature of linguistic systems (cf. Evans & Levinson 2009a,b, Levinson & Evans 2010).

3. MULTIMODALITY – HEARING AND SEEING LANGUAGE. When we speak, we typically also gesture, and we deploy this expressive resource in systematic and nontrivial ways. Contemporary gesture studies indicate that gestures are closely linked to language and speech in production, comprehension, and development, and interact with cultural, social, psychological, and linguistic aspects of communication (cf. Goldin-Meadow 2003, Kendon 2004, McNeill 2005). The connections are manifold: Gestures improve speech comprehension (e.g. Rogers 1978); their presence or absence influences both the content and the fluency of speech production (e.g. Bernardis & Gentilucci 2006, Graham & Heywood 1975); and the modalities develop in parallel in childhood (e.g. Capirci et al. 2005, Hickmann et al. 2011, Iverson & Goldin-Meadow 2005), and break down together in disfluency and stuttering (Mayberry & Jaques 2000, Seyfeddinipur 2006). Speech and gestures also combine in complex ways to regulate speakerhood, turn-taking, and other aspects of conversation (Duncan 1972, Schegloff 1984).

A number of theoretical issues are being discussed in this field. One concerns the relationship between speech and non-conventionalized gestures (so-called co-speech gestures that lack standards of well-formedness) and the assumption that they form an integrated and co-orchestrated system (Clark 1996, Goldin-Meadow 2003, Kendon 2004, McNeill 2005). Specifically at stake is their common conceptual origin. Tight semantic and temporal cross-modal coordination (similar meaning expressed at the same time, e.g., a gesture tracing a

circling movement rightward as the speaker says *roll down the street*) is taken as evidence for such a joint stage, suggesting that gestures are planned and organized with speech.

A second and related question is the extent to which different linguistic communities have different gestural repertoires and whether they are determined by cultural convention or by linguistic factors. If speech and gestures express the same meaning at the same time (*roll down the street* in speech and a rightward circling gesture), and different languages express different meanings in speech (e.g., *descend la rue* 'descend the street' [path but not manner of motion] vs. *roll down the street* [manner and path of motion]), then logically, different linguistic communities should have different gestural repertoires. Moreover, traditional claims about cultural differences between, for instance, gesture-rich (e.g. Italian) vs. gesture-poor (e.g. Japanese) communities are persistent but not supported by empirical facts. Studies of culture-specific meanings of conventional gestures (e.g. the ring-gesture which can mean 'zero', 'excellent', 'money' or 'orifice', depending on location) are also relatively rare. Therefore, cross-linguistic and cross-cultural issues remain relatively under-explored in gesture studies. Existing work predominantly focuses on gestural practices in European languages, Japanese and Mandarin Chinese (Kita 2009 for an overview). Very few studies have examined how speech and gestures are mobilized and orchestrated in a wider set of languages. When they have, studies have often focused on deixis and pointing (e.g. Kita & Essegbey 2001, Sherzer 1973, Wilkins 2003). Much less is known about the full repertoires of conventional and non-conventional gestures, forms and meanings, and their deployment in discourse (e.g. Barakat 1973, Brookes 2004, Newbury 2011, Núñez & Sweetser 2006).

A third related issue is how children and other learners become competent, native speakers and gesturers of a particular language in a given community. The question of whether gestures are learned (through imitation and molding) or whether their development is based on linguistic development remains a contentious topic (e.g. Bates et al. 1977, Gullberg et al. 2008). In adults and bilinguals, issues of cross-linguistic influence and general developmental trends become pertinent with questions concerning whether one repertoire leaks into another, whether bilinguals code-switch in gesture along with speech, etc. (e.g. Brown & Gullberg 2008, Gullberg 2009, Nicoladis et al. 1999). These are largely open empirical questions at this point.

Thus, as with bilingualism studies, the empirical facts and theories around speech, language, and gestures are based on very small samples of standardized languages, and typically on adult native monolingual speakers. Current empirical findings may represent sub-patterns, and again, it is unclear how theoretical claims would fare if language documentation data were taken into account to explore the full extent of gestural, cultural, and linguistic variation found in contexts typically described. It seems likely that the current theoretical landscape would change considerably. The gaps in our knowledge will have consequences for the validity of the theorizing around these issues.

Conversely, although language documentation now often comprises multimodal resources such as audio and video, these are rarely exploited to address theoretical questions regarding the multimodal nature of language, acquisition, and bilingualism. More complete descriptions of language in contextual use – the natural habitat of language – should obviously take gestures into account. Gesture analysis can open new windows on the nature of the systems under description and on the interactive practices. Insights from gesture studies

raise challenges for descriptive work and this has implications for theories pertaining to the nature of linguistic systems.

4. CONCLUDING REMARKS. I have outlined a situation where bilingualism/SLA studies and studies of multimodality remain uninformed by the knowledge accumulated in language documentation work and the linguistic analyses resulting from it. I have also suggested that theoretical issues raised in the fields of bilingualism and gesture studies are not discussed in the domain of linguistic analysis or contact linguistics. This mutual ignorance is unfortunate. Clearly, vital theoretical and empirical gains could be made in all fields if researchers collaborated and considered data and frameworks on both sides. Bilingualism and multimodality studies are rife with testable claims and theories waiting to be challenged and informed by the rich resources in documentation data. Documentation work would also benefit from acknowledging the bilingual and multimodal nature of the data collected. The way forward then, to achieve the “sea change in linguistics” that Levinson & Evans (2010) discuss, lies in joint ventures and collaborative interdisciplinary work to exploit the data already available in archives and to inform new data collection. In this way, the language sciences can become truly accumulative, and a broader view of multimodal language in situated use can inform our theories. We have everything to gain and very little to lose.

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