

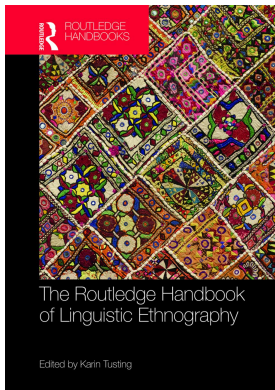
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Language diversity in classroom settings

Richard Barwell

Much linguistic ethnography research examines language in classrooms (Maybin & Tusting, 2011), particularly in contexts of language diversity, such as second-language classrooms, multilingual classrooms, bilingual classrooms, Content and Language Integrated Learning (CLIL) classrooms, urban classrooms and complementary schools. Conducting such research is methodologically challenging, requiring researchers to tackle multiple and diverse language repertoires; negotiate institutional norms, constraints and expectations; and draw on additional theoretical concepts relating to learning, teaching, educational policy and so on. In this chapter, I review linguistic ethnographic research in language-diverse classrooms, focussing on three methodological challenges that are characteristic of this research: reflexivity, indexicality and intertextuality (see Budach, this volume; Blackledge and Creese, this volume; Jaspers and Van Hoof, this volume). These three challenges are particularly salient in the context of language diversity in classrooms, where social and institutional macro-structures encounter and are produced by the local language practices of students and teachers, and their constructions of selves, identities, languages and communities. I argue that linguistic ethnographic research involves a methodological ‘doubling’: double-reflexivity, double-indexicality and double-intertextuality. I illustrate these ideas with reference to key linguistic ethnography studies as well as examples from my own research on language diversity in mathematics classrooms in Canada.

Historical perspectives

Linguistic ethnographic research in language-diverse classrooms can be understood as arising from the intersection of two important strands in linguistic ethnographic research and its antecedents: research focussed on language practices in the context of language-diverse settings and research focussed on language practices in educational settings.

Interest in language practices in language-diverse settings dates back at least to Gumperz’s (1982) work on the pragmatics of code-switching, which introduced an important focus on the organisation and meaning of code-switching, as it occurred in interaction. In linguistic ethnography, this interest in language diversity, frequently focussed on multilingualism, has arisen in part in response to globalisation (see Grey and Piller, this volume), and in

part through the interaction between linguistic ethnographers and researchers interested in the sociolinguistics of multilingualism, such as in contexts of migration, superdiversity and metrolinguism (Blommaert, 2010).

Classrooms and other educational settings have been a second important and recurring focus in linguistic ethnography. Maybin and Tusting (2013) highlight three areas of inquiry within this work. First, classrooms are valuable sites because they reflect patterns of language and interaction in wider society. Hence, linguistic ethnographers have examined classroom interaction to understand these patterns and the beliefs about language that they may reveal. Second, linguistic ethnography has contributed to understanding the relationship between language and learning, through its detailed analysis of classroom interaction. Third, prompted by critical perspectives on youth culture and education, linguistic ethnography has examined student voice in classrooms, thus engaging with questions of gender, race and identity.

These two strands of research – on language diversity and in classroom settings – have frequently intersected, with studies of language diversity often venturing into classrooms. In some cases, researchers interested in language diversity have found classrooms a convenient and accessible site in which to develop their work, focussing on race, identity and student voice (Rampton, 1995). In other cases, studies of multilingual classrooms or schools have drawn on linguistic ethnography to provide detailed accounts of how language is implicated in learning and teaching (Heller & Martin-Jones, 2001; Creese, 2005; Blackledge & Creese, 2010, 2014; Budach, 2013).

A significant trend in this work is the development of increasingly critical understandings of previously taken-for-granted ideas, such as bilingualism, multilingualism, code-switching and the notion of the native speaker (see Blommaert & Rampton, 2011, for an overview). While such critiques have emerged from a variety of perspectives (Ortega, 2014), linguistic ethnographers have been able to offer rich accounts of language practices in schools and classrooms that provide important ballast to these critiques. The conceptualisation of language diversity, in particular, has moved from a narrow idea of multilingualism, understood as speakers using multiple discrete languages, to heteroglossia, which involves a much more fluid, dynamic and complex view of language diversity (Blackledge et al., 2014; Blackledge and Creese, this volume). Busch (2014) points out that the term ‘heteroglossia’, adopted by Bakhtin’s translators, refers to three different related Russian terms, which she translates as multidiscursivity, multivoicedness and language diversity. The first refers to the languages of different activities, such as professions, pastimes and social groups. The second refers to the way language carries the voices, meanings and ideas of others, such as in reported speech, parody or the simple recognition of a particular turn of phrase. The third refers to diversity of broader languages and dialects.

In a similar broadening, and related to the notion of heteroglossia, the concept of code-switching has also been rethought through work in linguistic ethnography. It is noticeable, in fact, that code-switching was a major focus of much early research in language-diverse classrooms (see Martin-Jones, 1995, for a review). Research in linguistic ethnography has shown how code-switching is really too narrow a concept (see Bailey, 2007) and has contributed to the development of a variety of alternative concepts, including crossing (Rampton, 1995) and translanguaging (Blackledge & Creese, 2010).

Current contributions and research areas

A series of linguistic ethnography studies has examined the nature and role of heteroglossia in language-diverse classroom settings (Rampton, 2006; Blackledge & Creese, 2010); studies

in Blackledge & Creese, 2014). This work has demonstrated the variety and richness of heteroglossia in language-diverse classrooms, highlighting patterns and practices that in many cases run counter to orthodox assumptions. Rampton's (1995) study, for example, showed how youth in a multi-ethnic community in the UK made use of language styles of groups to which they did not ostensibly belong. Rampton then analysed how this 'crossing' is used to position students in relation to institutional expectations, such as in interaction with teachers.

Several studies have examined the role of language in various aspects of learning and teaching. For example, some recent work has proposed various versions of a pedagogy of heteroglossia, in which teachers seek to draw on the multiplicity of student voices and experiences, including through translanguaging, to promote dialogue and learning beyond the narrow ideological confines of many curricula (see Blackledge & Creese, 2014). In my own work, I have examined the tensions that arise when students from marginalised language backgrounds must expropriate the dominant language of mathematics in English (the alien word) and the various associated ideologies of both mathematics and the English language (Barwell, 2014, 2017). Creese (2005) investigated the role of language teachers in mainstream classrooms in the UK and showed how language was subordinated to curriculum content. Budach (2013), on the basis of research conducted in German CLIL classrooms, argues that this phenomenon is particular to secondary schools, as a result of an ideological shift – in primary schools, students' language repertoires are likely to be seen positively, as collective, shareable resources; in secondary schools, the focus is on individual subject learning, with subjects being seen, as Creese (2005) also found, as, in some sense, beyond language.

Some key contributions, then, of linguistic ethnography in language-diverse schools and classrooms are:

- to have shown that language diversity is itself diverse;
- to have shown that there is more going on, in terms of language practices, in schools and classrooms than might be supposed;
- and to have shown some of the detailed local work that goes into the joint production of children's and teachers' local identifications, which are, in turn, linked to broader institutional and ideological patterns.

Critical issues and debates

The issues of how to deal with reflexivity, indexicality and intertextuality recur in linguistic ethnography. In this section, I review how they have arisen in some of the work already discussed. I also illustrate how they arise in a more concrete way by drawing on my own research in second-language mathematics classrooms in Canada. My discussion of these methodological issues highlights the recursive nature of linguistic ethnography research, in which researchers make use of their own language repertoires to observe classroom settings, make sense of participants' repertoires and create research texts.

The ethnographic study to which I refer in the following sections was conducted in four second-language mathematics classrooms in Canada. The aim of the study was to understand the different ways in which language diversity influences the participation of bilingual learners in mathematics. Canada has two official languages, English and French, but many other languages are used, including Indigenous languages and languages of historical or recent immigrant communities. In public schools, English and French are the languages of instruction. I collected data in four elementary school sites, including a sheltered ESL class of Indigenous Cree students (in English), in which, for most of the year, all the students were

Cree and were considered to be speakers of Cree as their first language. Data consisted of field notes from classroom observation, including participant observation, audio-recordings, copies of students' work, photographs of classroom artefacts and interviews with students and teachers.

Reflexivity

There are (at least) two related aspects of reflexivity that can be seen in linguistic ethnographic research, both of which can be explained and understood with reference to Bakhtin's (1981) ideas. One form of reflexivity is that the claims of an ethnographer cannot be separated from the ethnographer themselves. Ethnographers need a particular awareness of this epistemological reflexivity and increasingly (must) perform it in their work. Such performance takes the form of accounts of self and interest, the researcher's background and reflections on the research process. Reflexivity is more than this, though; a second aspect of reflexivity, then, arises from the Bakhtinian idea that language precedes us. For linguistic ethnographers, for whom language is a principal focus, we are caught up in the inherent recursivity of language and of using language to talk about language. From a Bakhtinian perspective, all language use is relational and dialogic. Every utterance is a response within a sequence or chain of utterances. Every utterance is addressed by someone to someone and anticipates a response. And every utterance has an author. These precepts apply as much to ethnographers as they do to the participants in ethnographic research:

Bakhtin is aware that the author of a novel is fully its author, and there is no reason why we should not accept that the author of an ethnography is just as fully its author. What we must garner from Bakhtin's work is not just that culture is heteroglossic, but that it is dialogic and textual. Ethnography must always be understood as discourse situated in time and place and as authored by humans participating in a discourse of their own.

(Quantz & O'Connor, 1988, p. 108)

In language-diverse classrooms, one important issue arising from this reflexivity is that ethnographers' interpretations are in strong relation to their familiarity with the various languages or varieties that are present. Equally, they are in relation to their place in the institutional order – whether they are seen as teachers, or outsiders, researchers or helpers.

One response to this aspect of reflexivity is for researchers to seek to present something of themselves in their writing, so that readers of their work have some sense of where their interpretations come from. In Blackledge and Creese's (2010) report of a multi-site team ethnography of complementary schools in the UK, for example, several pages are devoted to reflections of the various team members. Some of the team members had connections with communities running the schools and so were familiar with the languages, language practices and assumed cultural knowledge of the classrooms. Other team members positioned themselves more as outsiders. Their accounts highlight very clearly the difference the team members' backgrounds made to their interpretations.

Addressivity is relevant to linguistic ethnography in a particular way: much of the 'product' of linguistic ethnography is addressed to researchers or their students. As Quantz and O'Connor (1988, p. 108) note, researchers are "participating in a discourse of their own" as much as they are participating in the discourses of their participants, such as classrooms. As a result, academia is, in effect, a 'site', as much as these classrooms. The interpretations of

ethnographers arise from interactions in ‘the field’, in academia, and in the interactions between the two. In the work reported by Blackledge and Creese (2010), the discussions among team members were as important in developing the interpretations (the findings) of the study as the fieldwork. This point can be extended to include the researchers’ participation in wider academic communities, such as at conferences, seminars and so on. Rather than see the research process as one of collecting data in the field, and then interpreting the data in the university, reflexivity means that in some sense, both data collection and interpretation take place in both contexts.

In my own research, my background as a British immigrant to Canada who began his career as a mathematics teacher is clearly relevant in understanding the kinds of interpretations I was able to make in my study of second-language mathematics classrooms in Canada. In one publication arising from my analysis of interaction in the class of Cree students, I included some acknowledgement of this aspect of reflexivity:

As in any ethnographic study, a number of tricky methodological issues arose. The most significant of these is that I am not Cree and do not speak Cree. While I have learnt a lot about Cree people and their history and current situation, I am in no way an expert [...] my portrayal of the classroom must be read as an outsider account of the Cree students’ participation, to the extent that I do not share their background or language. It is, of course, also an outsider account of the school, since I am not a member of staff there. On the other hand, I have a background as a mathematics teacher and have worked in schools in several countries. As such, my interpretation of classroom life is certainly more informed than my minimal (but increasing) understanding of Cree society.

(Barwell, 2014, p. 916)

Such concerns are particularly important in the context of centuries of oppression of Indigenous peoples in North America and, in particular, the role of education in perpetuating this oppression. How, though, did these differences make a difference?

To explore this question, I will discuss one episode (from Barwell, 2014) in which I worked with two students on a word problem about a tulip festival that takes place in Ottawa, Canada, each year. A word problem is a common genre in mathematics classrooms, in which a mathematical problem is embedded within a scenario presented in a text form, sometimes with accompanying diagrams. In this case, the problem began with an extended 90-word introduction to the tulip festival, followed by a problem involving both geometry and arithmetic about the number of tulips needed to complete a design in a tulip bed. In the article, I include an extract from my visit report for the day (a summary of my observations prepared after each visit):

- 1 the problem text was very challenging as a text;
- 2 the problem context was very unfamiliar as a context;
- 3 for two of the three students, the calculations were fairly straightforward;
- 4 writing out the solutions was also very challenging.

For Curtis, in particular, once he understood the problem, he was able to solve it fairly easily and explain his thinking to me, but producing a written account of that was difficult – and also tedious – he lost interest. In terms of a formal assessment task, he would most likely have only written his numerical solutions and been marked down.

(Visit report, 8 February, 2010, reported in Barwell, 2014: 919)

These notes illustrate the multiple layers of interpretation derived from my own prior experiences as well as through interaction with the two students. For example, my interpretation that the two students found the text challenging and the context unfamiliar arose in part from the interaction during their work on the problem, which was filled with pauses, hesitations, repair sequences, clarifications and so on, including an extended sequence in which we discussed what tulips were, from which I concluded that they had only a general sense that it was a type of flower. My interpretation also relied on my previous experience as a teacher and the many similar exchanges with students I have experienced. The same points apply to my view that they found the calculations straightforward and the writing of the solutions more challenging.

It is clear from these comments that my ‘point of view’ was largely informed by my experience of formal education and the teaching of mathematics, and much less informed by any insight into the students’ backgrounds. This tendency is in part explained by the goals of the project: its addressivity. That is, the project was oriented to understanding students’ participation in second-language mathematics classrooms. As such, I largely accepted the broad goals of mathematics education, even if the research I have described may lead me to question certain aspects of its organisation.

Indexicality

In one of his discussions of heteroglossia, Bakhtin mentions the stratification of language:

At any given moment of its evolution, language is stratified not only into linguistic dialects in the strict sense of the word [...] but also [...] into languages that are socio-ideological: languages of social groups, ‘professional’ and ‘generic’ languages, languages of generations and so forth.

(Bakhtin, 1981, pp. 271–272)

Bakhtin’s point is that heteroglossia is not simply what Holquist (2002, p. 89) calls “a cacophony of voices” but is organised – and not in a neutral way. The stratification Bakhtin refers to, however, is a consequence of its indexicality and the centripetal and centrifugal forces inherent in all language use. Ways of talking index discourses, social groups, identities, worldviews and so on, but within these always heteroglossic discourses, some utterances conform more to an ideal(ised) form, and so are more valued. Similarly, any utterance may index particular social groups and their place in stratified social structures (Silverstein, 2003).

In any particular context, the use of a particular language is indexical (Blommaert, 2010). In the UK, a few years ago, a German car-maker used the advertising slogan “vorsprung durch technik”, presumably in the hope that the use of German would index a supposed Germanic worldview of efficiency and quality manufacturing. In this example, this choice of language is indexically significant. Blommaert, in his study of indexicality and language diversity, argues that indexicality is also stratified:

Ordered indexicalities operate within large stratified complexes in which some forms of semiosis are systemically perceived as valuable, others as less valuable and some are not taken into account at all, while all are subject to rules of access and regulations as to circulation. That means that such systemic patterns of indexicality are also systemic

patterns of authority, of control and evaluation, and hence of inclusion and exclusion by real or perceived others.

(Blommaert, 2010, p. 38)

This idea should not be taken to mean that ordering and stratification are monolithic; orderings change constantly. They are also related to the stratification of society, so that an examination of indexicality provides one valuable analytic tool with which to explore the production of wider social structures in local language practices and vice versa. This approach is particularly useful for exploring how, for example, marginalisation is produced in and reflected in interaction. Maybin (2013, p. 394) shows how school children's voices are "institutionally configured, dialogically emergent, and appropriated from adults, peers and texts of various kinds" and, as such, shape who they can be. Their voices thus often index the forces that shape what they are able to say, through reference to, for example, school rules, curriculum requirements or parental expectations.

Blackledge et al. (2014) include a focus on indexicality in their analysis of interaction during a lesson in a Punjabi complementary school in the UK. They show how the discussion, involving three students, draws on Punjabi, English and Hindi, and Latin vocabulary, as well as various accents and styles. In their analysis, Blackledge et al. made the following point, partly with respect to the students' reference to Latin vocabulary:

For these young people, some linguistic signs were indexically linked to their beliefs about, and practices of, educational achievement. We also saw students insisting on norms of standardization and correctness [...] norms enregistered through years of schooling, in which questions have answers and answers shall be given.

(Blackledge et al., 2014, p. 211)

The point is that indexing these norms positions students within wider social structures.

Much as it provides a tool for analysis, indexicality is also apparent in the utterances of researchers. The research text generally indexes particular academic discourses, for example. In this chapter, the writing explicitly indexes linguistic ethnography, but also does so implicitly, through choice of phrasing, references, topics and so on. Research texts display a kind of double-indexicality, derived from the intrinsic double-voicedness of ethnographic writing, in which utterances are reuttered as transcripts or as quotations from interaction, from field notes, or from other research texts.

For example, Rampton (1995) shows how the phenomenon of language crossing in particular situations indexes particular social groups and identities, as well as the relations between them. He reports one occasion during his fieldwork in which a student from a British Panjabi background addresses him:

Extract 11.7

I was standing behind the snack bar. Ishfaq (Pa M 15) came into the club soon after it opened and in our first exchange of the evening, he came up to me at the counter and said in a strong Panjabi accent: '**Ben Rampton can I help you.**' Though it was me doing the serving, I sustained the joke and asked for 20? Mojos (chews). Then in his ordinary voice he placed an order for 10 Refreshers – is this a party I asked, etc. [fieldnotes]

(Rampton, 1995, p. 78)

Rampton discusses how Ishfaq's switch to stylised Asian English (SAE) indexes the relation between various social categories, including 'Asian who doesn't speak vernacular English [SAE]' and Rampton's own social status (Rampton, 1995, p. 79) (although Rampton does not use the term 'index' in his analysis). Rampton's analysis relies on similar inferences to those used by the participants, his own position reflexively reflected in an acknowledgement that he "generally felt uncomfortable when addressed in SAE" (Rampton, 1995, p. 80). That is, Rampton is able to recognise SAE through his ethnographic experience in the school.

Within the text of Rampton's book, this extract from his field notes does indexical work in a similar way to the situation it describes. As readers, the field note and Rampton's subsequent analysis relies on indexical inferences through which we can interpret the situation (a school snack bar), the exchange between Ishfaq and Ben, and the nature of a 'strong Panjabi accent'. This indexical inferencing is even stronger when reading the lengthy transcript sequences included in the book.

Such data extracts, however, also do indexical work at a second level. The presentation of the account as an extract, the label at the end showing it is from field notes and the neutral descriptive tone all index a certain way of doing research that is likely to be familiar to other ethnographers and qualitative researchers. Rampton's subsequent analysis of the episode includes extensive additional references to the episode linked to theoretical concepts, such as Goffman's work in the opening of encounters. There is, therefore, a double-indexicality in the use of data examples in ethnographic writing, in which the same extract indexes both the kinds of social structure relevant in the original encounter, and aspects of a researcher discourse and identity, involving technical aspects of the research process and theoretical concepts from the literature. It seems likely that in operating at the latter level, researchers establish their academic identity and position themselves with respect to academic social structures.

In analysis of data from my own study, I have shown how word problems position students in relation to particular versions of Canadian-ness, particular forms of mathematical explanation and mathematical ways of construing the world (Barwell, 2015). I argued that the text of the word problem about a tulip festival indexes a general school mathematical discourse, an assessment discourse, the word problem genre and some aspects of Canadian identity, and these discourses all have accompanying worldviews (what Bakhtin refers to as ideologies). There is a particular way to read the world using mathematics, to read the world when doing a word problem and so on.

In the transcript of the students' encounter with this text, I show how the students are produced as unfamiliar with these discourses; their utterances index different discourses, such as Cree identity, or else index classroom discourses, but in a less unitary way. That is, within school mathematics discourse, heteroglossia means that there is variation, which includes the students' utterances as they work on the tulip festival problem. But when these utterances do not conform well enough to the unitary ideal of mathematical language, they are likely, over time and over multiple interactions, to be revoiced, corrected, reworked and so on, by the teacher. Blommaert (2010) refers to these socialising instances as scale-jumping (see Slembrouck and Vandenbroucke, this volume). Indeed, I quoted an example of this process, in which I worked with a student on formulating an account of how he calculated the solution to the tulip problem in order to 'show his work':

RB: so (.) that's a good beginning (.) but you need to explain like the calculations that you did (.) you need to say what kind of calculations you did

CURTIS: times

RB: yup but precisely what did you times what did you add

CURTIS: I timesed seven (.) times seven (.) six times (.)

RB: right right

CURTIS: seven plus that's it

RB: so like when you worked out for purple

CURTIS: I did five times five

RB: uhum

CURTIS: plus one

RB: right so I would write purple and then exactly what you just said

(From Barwell, 2015)

I am very much guiding Curtis here to conform to standard ways of explaining a problem solution as I understand it from my background as a mathematics teacher. In my analysis, I point out, amongst other things, my use of the word 'need' that indexes these expected forms. This example again illustrates the double-voicedness of ethnographic writing implied by Quantz and O'Connor (1988). Curtis speaks, but I am the author. I have combined voices from his classroom to say something myself. My inclusion of the first line of the transcript indexes expected mathematical ways of talking, but also, in interaction with my surrounding text, indexes scale-jumping, centripetal forces and the like, and hence particular academic discourses, such as those of sociolinguistics and linguistic ethnography.

Intertextuality

Intertextuality refers to the chains of reference arising between utterances. From a Bakhtinian perspective, all language use is intertextual (Todorov, 1984). Although Bakhtin never seems to have used the word, the intertextual basis for his thinking about language use can be seen throughout his work, including in the following remarks:

There are no 'neutral' words and forms – words and forms that can belong to 'no one'; language has been completely taken over, shot through with intentions and accents. For any individual consciousness living in it, language is not an abstract system of normative forms but rather a concrete heteroglot conception of the world. All words have the 'taste' of a profession, a genre, a tendency, a party, a particular work, a particular person, a generation, an age group, the day and hour. Each word tastes of the context and contexts in which it has lived its socially charged life; all words and forms are populated by intentions.

(Bakhtin, 1981, p. 293)

The idea of the 'taste' of different discourses implies that any utterance is connected to previous utterances, and relies on such connections to make meaning. Thus, all utterances are linked in a kind of web of voices. This intertextuality is linked to alterity: using language means using others' words. Intertextuality is an inherent part of every utterance in which the voice of the speaker encounters, dialogically, the voices of others.

Intertextuality has a particular, more specific role in ethnography, including (perhaps especially) in linguistic ethnography, as in other human sciences: such work involves entering into dialogue with texts (Todorov, 1984, p. 63). In ethnography, these texts include:

- academic texts (e.g. research reports, theoretical writings, conference papers);
- participants' texts (e.g. their own writings and productions; in education, they might include children's work, teachers' planning documents, curriculum documents);
- our research texts (e.g. field notes, transcripts, photos, recordings).

As with the related dimensions of reflexivity and indexicality, ethnographers engage with intertextuality at least at two levels: they observe it and examine it in their analyses, and they deploy it in their writings.

Busch's (2014) study illustrates well how these two layers of intertextuality arise in linguistic ethnographic research. The focus of her study is on the heteroglossic nature of an activity in a language-diverse Austrian primary school class, in which students regularly wrote, illustrated and made small booklets to contribute to an ever-expanding 'Little Books Library'. Busch (2014) presents an analysis of one such booklet, prepared by a student called Nemanja, and contains a story about an elephant and a mouse. Nemanja first wrote the text of the booklet in Serbian, and then in a first draft German version. The teacher reformulated the German version and it was typed up alongside a typed version of the Serbian text. Nemanja illustrated the story with a series of drawings. Busch's analysis examines the diversity in the use of languages, discourses and voices apparent in the story, both in the written words and in the accompanying images.

Although intertextuality is not a central focus of her analysis, it is nevertheless apparent in several ways. She shows, for example, how Nemanja's narrative draws on common features of the fairy tale genre, while the choice of characters relates to a genre of joke common in Austria and in the Balkans. Busch also delicately discusses the 'contextualisation' (i.e. an aspect of intertextuality) of Nemanja's various drawings of the elephant in the story. She shows how variations in the depiction of the elephant's head relate to the emotional tenor of the story at different points. Busch also traces different versions of the text of the story, highlighting features of Nemanja's initial German version, such as its mixture of relatively formal and relatively informal words and phrases. This version succeeds the Serbian version and is then the basis for the teacher-assisted version. Busch notes how Serbian is an 'alien word' for the teacher, and presumably, aspects of German are rather alien to Nemanja. Finally, Busch explicitly points out the intertextual place of Nemanja's story within a chain of other similar booklets produced by children in the class. His booklet is, in part, a response to the preceding corpus of Little Books and is in dialogue with them.

Busch's (2014) report of her research is also intertextual in its construction. Her own text includes a discussion of literature relating to heteroglossia, thus engaging and refracting other academic texts. It also includes an account of the research site, presumably based in part on documentation from the school and/or her own records of field visits. Busch's report of her analysis includes extracts from research texts, which are themselves derived from participants' own productions: notably, it includes images showing the illustrations of Nemanja's booklet and one page of written text. She also includes various quotations from Nemanja's text, or else translations of Nemanja's text into English (since the chapter appears in an English-language publication). Hence, the second layer of intertextuality is clearly operating in parallel with the first. That is, Busch draws on many of the same textual resources to construct her account of her analysis as the participants used in the original classroom activity. For example, she reproduces and discusses the links between various versions of Nemanja's story, including Serbian and German versions. She also adds an English version. The Serbian and German versions were, of course, the original texts produced by Nemanja. Busch weaves these same texts together, along with English versions and connections to theoretical concepts and the work of other researchers. Intertextuality is therefore an important aspect of Busch's own text.

The focus of much of my own analysis of data from the ESL mathematics class is on mathematical meaning-making. In one detailed analysis, I examined the intertextual processes through which two students make sense of a word problem about time zones. I trace how they come up with a solution and then write out a solution, and show how, in the process, the word problem text mediates the prevailing language tensions between heteroglossia

and language ideologies (Barwell, 2017). For example, students' utterances are shaped by the requirement to speak in English and to produce written responses in English, with its associated ideology of correct orthography. In the following short extract, two students from the class are working on the following problem, which Curtis begins by reading out:

CURTIS: the two thousand four grey cup was played in ottawa (.) ontario (.) the game began at six *P M* it was (.) shown live on television across canada (.) the *B C* lions were on the team playing (.) what time did fans

BEN: one

CURTIS: uh?

BEN: one (.) one

CURTIS: one of the teams playing (.) what time did fans in (.) nanaimo? british columbia? have to turn on their televisions to (.) watch the game

RB: do you understand the problem?

CURTIS: yeah

(From Barwell, 2017, pp. 126–127)

Although this extract is quite short, it illustrates some of the intertextuality present in the two students' work on the problem. Reading out the problem involves Curtis voicing the words of the problem and inflecting them with his own meanings and accents. In fact, his reading is in Cree-accented English, which arises from the use of English as the language of instruction and of the textbook. Curtis is, in some sense, reading out 'alien' words, as indicated by the uncertainty with which some words are uttered and the frequent pauses. The two students' subsequent discussion involved restating parts of the problem, as well as referring to a time zone map of Canada shown on another page in the textbook and then, under guidance, the development of a written solution. In my analysis, I show how their interaction involves several 'others', including the textbook, each other, me and a generalised other to whom their written solution is addressed, leading to the following claims:

My analysis shows that both the production and consumption of mathematical texts involves a complex intertextuality and an ongoing encounter with an intertwined set of 'others'. [...] all tend towards a particular form of schooled mathematical English, and the texts present particular versions of school, of children and of Canadian life. Curtis and Ben must live in response to these texts, in which they may not entirely see themselves. As such, they are themselves positioned as 'other' within their mathematics class.

(Barwell, 2017, p. 135)

Just as Curtis and Ben are making links between different texts, as well as with previous work in their mathematics class, so I am making links between those same texts as I observed the two students' intertextual meaning-making. My work as a researcher involved recording the interaction, collecting digital photos of the two students' work, writing up field notes after the visit to their class and so on. It also involved the development of an ongoing relationship with the class and with these two students. My analysis is a form of intertextual meaning-making, in which I read through field notes and transcripts, examined the students' work and drew on Bakhtinian theory and linguistic ethnography research texts to make connections between texts. This analysis entailed my engagement with others' words, which I cannot fully interpret. My report of this analysis includes extended sequences from transcripts, versions of the textbook problems and quotations from the students' solutions which I present alongside a

discussion of the concept of intertextuality drawing on quotations from Bakhtin and other authors. My own work as an ethnographer, then, is highly intertextual.

Discussion, conclusions and further directions

In this chapter, I have provided an overview of linguistic ethnography research in language-diverse classrooms and I have discussed three methodological tensions in this research: reflexivity, indexicality and intertextuality. I have pointed out, in particular, how indexicality and intertextuality are features of participants' meaning-making, but also of researchers' meaning-making. While, on reflection, perhaps not very surprising, this point has some important consequences.

First, it underlines how ethnographic research texts are, as Quantz and O'Connor (1988) long ago pointed, authored. It is not possible to present our research 'neutrally' or 'objectively', for this research has thinking, meaning-making authors: us. Second, all linguistic ethnographic writing has a double-voiced quality (really, a multiple-voiced quality) that is perhaps stronger in such work than in everyday language practices (Todorov, 1984). Clearly, double-voicedness does arise in everyday interaction and appears to be important in things like the production of aspects of identity (Maybin, 2005). I argue, however, that ethnographic texts rely fundamentally on this double-voicedness, and a related double-indexicality and double-intertextuality, in order to be what they are. Much like novels, then, ethnographic writing about language diversity in classroom settings is profoundly heteroglossic: it features diverse voices (including the researcher's authorial voice and the participants), discourses (including academic discourses and those of the classroom) and languages (including those of the classroom, and of the research text).

What might my observations mean for the future of linguistic ethnographic research in language-diverse classrooms? Should we write ethnography like novels? They seem to share similar features, including the incorporation of multiple voices that interact within the text and with the authoritative authorial voice. Should we write ethnography *as* novels? Such an approach might allow us to capture more honestly some of the richness of everyday classroom heteroglossia. Whatever genre we choose, what responsibilities do we have to the participants whose voices we expropriate to produce our ethnographic texts?

As research on the diverse nature of language diversity continues to expand, language-diverse classrooms will remain an important site for linguistic ethnographic research. Classrooms are fascinating sites of collision between languages, identities and ideologies, between the micro and the macro. An increasing variety of contexts are now being investigated, including post-colonial and Indigenous contexts (see Saxena & Martin-Jones, 2013). There is also a need for more research that includes disciplinary discourses, such as mathematics, science, history and the arts. While this work does exist in other domains of applied linguistics research, it has yet to develop in linguistic ethnographic studies.

Further reading

- Blackledge, A., & Creese, A. (2010). *Multilingualism: A critical perspective*. London, UK: Continuum. (This book describes an exemplary multi-site team ethnography of complementary (heritage language) schools in the UK.)
- Busch, B. (2014). Building on heteroglossia and heterogeneity: The experience of a multilingual classroom. In A. Blackledge & A. Creese (Eds.), *Heteroglossia as practice and pedagogy* (pp. 21–40). Dordrecht, The Netherlands: Springer. (This chapter unpacks the key concept of heteroglossia and illustrates it with fascinating examples involving migrant children in Austrian classrooms.)
- Rampton, B. (1995). *Crossing: Language and ethnicity among adolescents*. Harlow, UK: Longman. (This classic study looks at adolescent language practices in multiracial urban schools in London.)

Related topics

Heteroglossia; Reflexivity; Sociolinguistic ethnographies of globalisation; Style and stylisation; Scale.

References

- Bailey, B. (2007). Heteroglossia and boundaries. In M. Heller (Ed.), *Bilingualism: A social approach* (pp. 257–274). Basingstoke, UK: Palgrave Macmillan.
- Bakhtin, M.M. (1981). *The dialogic imagination: Four essays*. (Ed., M. Holquist; Trans, C. Emerson and M. Holquist). Austin, TX: University of Texas Press.
- Barwell, R. (2014). Centripetal and centrifugal language forces in one elementary school second language mathematics classroom, *ZDM*, 46(6), 911–922.
- Barwell, R. (2015). Heteroglossia, indexicality and marginalisation in a second language mathematics classroom. *Paper presented at the annual meeting of the British Association for Applied Linguistics*, Cambridge, UK, September.
- Barwell, R. (2017). Mathematical texts, alterity and the expropriation of mathematical discourse in second language mathematics classrooms. In J. Langman & H. Hansen-Thomas (Eds.), *Discourse analytic perspectives on STEM education: Exploring interaction and learning in the multilingual classroom* (pp. 119–138). Cham, Switzerland: Springer.
- Blackledge, A., & Creese, A. (2010). *Multilingualism: A critical perspective*. London, UK: Continuum.
- Blackledge, A., & Creese, A. (Eds.) (2014). *Heteroglossia as practice and pedagogy*. Dordrecht, The Netherlands: Springer.
- Blackledge, A., Creese, A., & Takhi, J.K. (2014). Beyond multilingualism: Heteroglossia in practice. In S. May (Ed.), *The multilingual turn: Implications for SLA, TESOL and bilingual education* (pp. 191–215). New York: Routledge.
- Blommaert, J. (2010). *The sociolinguistics of globalization*. Cambridge, UK: Cambridge University Press.
- Blommaert, J., & Rampton, B. (2011). Language and superdiversity. *Diversities*, 13(2), 1–21.
- Budach, G. (2013). From language choice to mode choice: How artefacts impact on language use and meaning making in a bilingual classroom. *Language and Education*, 27(4), 329–342.
- Busch, B. (2014). Building on heteroglossia and heterogeneity: The experience of a multilingual classroom. In A. Blackledge & A. Creese (Eds.), *Heteroglossia as practice and pedagogy* (pp. 21–40). Dordrecht, The Netherlands: Springer.
- Creese, A. (2005). *Teacher collaboration and talk in multilingual classrooms*. Clevedon, UK: Multilingual Matters.
- Gumperz, J.J. (1982). *Discourse strategies*. Cambridge, UK: Cambridge University Press.
- Heller, M., & Martin-Jones, M. (Eds.) (2001). *Voices of authority: Education and linguistic difference*. Westport, CT: Ablex.
- Holquist, M. (2002). *Dialogism* (2nd ed.). Abingdon, UK: Routledge.
- Martin-Jones, M. (1995). Code-switching in the classroom: Two decades of research. In L. Milroy & P. Muysken (Eds.), *One speaker, two languages: Cross-disciplinary perspectives on code-switching* (pp. 90–111). Cambridge: Cambridge University Press.
- Maybin, J. (2005). *Children's voices: Talk, knowledge and identity*. Basingstoke: Palgrave Macmillan.
- Maybin, J. (2013). Towards a sociocultural understanding of children's voice. *Language and Education*, 27(5), 383–397.
- Maybin, J., & Tusting, K. (2013). Linguistic ethnography. In J. Simpson (Ed.), *Routledge handbook of applied linguistics* (pp. 515–528). Abingdon, UK: Routledge.
- Ortega, L. (2014). Ways forward for a bi/multilingual turn in SLA. In S. May (Ed.), *The multilingual turn: Implications for SLA, TESOL and bilingual education* (pp. 32–53). New York: Routledge.
- Quantz, R.A., & O'Connor, T.W. (1988). Writing critical ethnography: Dialogue, multivoicedness, and carnival in cultural texts. *Educational Theory*, 38(1), 95–109.
- Rampton, B. (1995). *Crossing: Language and ethnicity among adolescents*. Harlow, UK: Longman.
- Rampton, B. (2006). *Language in late modernity: Interaction in an urban school*. Cambridge: Cambridge University Press.
- Saxena, M., & Martin-Jones, M. (2013). Multilingual resources in classroom interaction: Ethnographic and discourse analytic perspectives. *Language and Education*, 27(4), 285–297.
- Silverstein, M. (2003). Indexical order and the dialectics of sociolinguistic life. *Language & Communication*, 23(3–4), 193–229.
- Todorov, T. (1984). *Mikhail Bakhtin: The dialogical principle* (trans. W. Godzich). Manchester, UK: Manchester University Press.