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Messaging in the Midlands

Exploring digital literacy repertoires in a superdiverse region

Caroline Tagg and Esther Asprey

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Abstract

This paper explores how individuals and communities living or working in the West Midlands exploit practices of 'translanguaging' in the maintenance of intimate relationships – that is, how they draw on features from various local (and far-flung) dialects, languages, styles, scripts and registers as expressive resources.

The paper draws on analysis of a corpus of mobile messages collected during a project funded by the Institute for Research into Superdiversity (IRiS). Data were collected from 40+ participants at the central Library of Birmingham over a one-week period, with supplementary data collected at other public locations in and around the city. The project discovered the presence of resources from 30 languages, including Punjabi, Urdu, Mirpuri, Arabic, Farsi, Hindi, Swedish, Patwa, Tigre, Mandarin, Hebrew, Japanese, Kikongo, Sylheti, Bengali, Luganda, and Cantonese.

We present indicative preliminary trends in the data showing that people have available various languages, styles and registers in maintaining intimate relationships within superdiverse locations.

Citation

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Introduction

We report on an initial sociolinguistic study of mobile messages (chiefly SMS, WhatsApp and Facebook Messenger) collected in and around the superdiverse city of Birmingham in early 2015.[1] The messages were collected in public places including the Library of Birmingham in central Birmingham, along with demographic information retrieved through a short questionnaire. In this paper, we use our dataset to explore how people in the West Midlands draw on and exploit diverse digital literacy resources in performing identity and maintaining family and friendship networks through their mobile phones. The research question we seek to address is: Which resources can be said to make up the digital literacy repertoire of people in the West Midlands, and how do individuals draw on these resources for interpersonal purposes?

Our analysis starts from the assumption that people have linguistic repertoires shaped by their individual trajectories through life (Blommaert and Backus 2013), the space in which they are interacting (Pennycook and Otsuji 2015) and, we argue, their various social roles; and that these repertoires can be reconstructed in post-hoc fashion through analysis of actual use (Androutsopoulos 2014). Our analysis suggests that 'txtspk' and other features are not only passed on through 'digital recycling' (Shortis 2007) but are actively extended through dynamic processes of mimesis whereby new forms are creatively developed (Deumert 2014). Given the range of modes, dialects, languages, styles and registers on which our participants draw, we conclude by arguing that 'translanguaging' (Garcia and Wei 2014) – the process of moving fluidly between languages – needs to be extended to capture other intersemiotic practices (Lyons 2015). Our contribution to superdiversity research is to highlight the importance of various sources of social diversity – such as age, gender and individual trajectories as well as ethnicity, legal status and socio-economic background – in shaping identity construction and social relationships.

Digital literacy repertoires

The notion that people have access to biographically-ordered repertoires of linguistic resources is widely accepted within sociolinguistics (Blommaert and Backus 2013; Rymes 2010). Individual linguistic repertoires are dynamically shaped throughout people's lives, with resources appropriated from various informal and formal learning spaces. They thus serve as 'indexical biographies' (Blommaert and Backus 2013) in that linguistic resources index aspects of a person's life and identity. One strength of the 'repertoire' is its recognition that nobody speaks 'a language' – in the sense of having access to an entire variety – but that they draw on resources associated with various languages, dialects, registers, modes and styles (Canagarajah 2013). Therefore, people can have a language in their repertoire and use it effectively without being 'fluent'. One limitation of the linguistic repertoire is its focus on language at the expense of other modes, an argument made by Rymes (2010) who looks instead at 'communicative repertoires'. This paper adopts an alternative term, digital literacy repertoire, so as to cover the range of resources available online, including punctuation, emoji, photos, and voice recordings.

This paper also engages with Pennycook and Otsuji's (2015: 9) contention that language practices can only be understood through exploring the 'relations between personal trajectories, current activities and spatial repertoires'. The notion of spatial repertoires – the resources expected in interactions in a particular place – helps to explain how individual, biographically- and (we argue)

[1] The study was sponsored by seedcorn funding from the Institute of Research into Superdiversity (IRiS).

socially-ordered repertoires, which exist only as 'potentialities and constraints' (Busch 2014: 14), come to be exploited and realised in particular ways in any one context. In this paper, we interpret 'space' in two ways: firstly, as the wider geographical context in which most of our participants live and work (the West Midlands); and, secondly, as the social space co-constructed by participants within the technical infrastructure provided by mobile messaging apps. As Androutsopoulos (2014) points out, how repertoires are drawn on in digitally-mediated interactions is shaped by the affordances associated with that particular digital space.

We also argue in this paper that repertoires are socially-structured according to social roles or categories such as age and gender. Social categories are no longer seen as direct indicators of a person's language choices, not only because the mobility, diversity and complexity of contemporary society challenges straightforward correlations between a person's origin, their place of residence and their language use (Blommaert and Rampton 2011), but also because of the recognition in sociolinguistics that people are never determined by pre-existing social characteristics but can affirm, adapt or contest their ascribed social roles through their interactional performances (Eckert 2012). However, this is not to say that individuals are immune to social expectations and norms. As Blackledge et al (2014: 486) put it, 'the complexity of late modern, superdiverse societies is not random, nor is it a free-for-all'. We highlight the importance of people's perceptions of their ascribed social roles and which roles they make relevant in understanding and managing social situations (Williams 2005). As Agha (2007) points out, recurring semiotic features come to index particular identities or social roles, which are then oriented towards and reproduced, and individuals cannot avoid being ascribed social identities by others in processes of grouping and 'Othering' (Blommaert 2005), suggesting that people will be socially evaluated according to the extent to which their language practices conform to or transgress expected norms.

In sum, digital literacy repertoires – the potential resources that a person has at their disposal in an online situation – are shaped by the biography of the individual, constrained by the particular digital space in which they are interacting and, we argue, to some extent structured by social roles towards which users may orient. However, it is important to reiterate that repertoires are neither static nor fixed, but that they shift, grow, reduce and transform with every interaction and over a person's lifetime.

Mobile messaging

We use the term 'mobile messaging' to refer to a range of mobile phone apps which facilitate private interactions between individuals and small groups and which in this study includes WhatsApp and Facebook Messenger, as well as SMS text messaging. Although the internet has been recognised as hosting and facilitating superdiverse spaces (Androutsopoulos and Juffermans 2014; Varis and Wang 2011), little if any superdiversity research has focused on private messaging, not least because of difficulties in data collection (one exception is Velghe 2012). We argue that mobile messaging constitutes an interesting site for the study of language use in a wider context of superdiversity, for a number of reasons.

Firstly, most superdiversity work focuses not on private but on public or semi-public (parochial) spaces in which people of diverse backgrounds convivially negotiate difference (Wessendorf 2014) as they seek to meet transactional goals such as selling and buying market produce (Creese and

Blackledge 2015). Although people are much less likely to rub up against diversity in the private sphere, private communication often involves family and friendship groups (re-)defining themselves in relation to other local groups, calling on, confirming, challenging and extending stereotypes (Blackledge et al 2014). Importantly, the private sphere also offers a safe space in which prejudices and assumptions that cannot be expressed publically find a voice (Valentine 2014). Our research aims to fill this gap in the literature by focusing on a medium described as 'almost always private and personal, and sometimes very intimate' (Thurlow 2003). Furthermore, mobile messages are potentially permanent (they 'persist', in Boyd's and Marwick's 2011 terms) and can be collected post-hoc, with arguably reduced effects of the Observer's Paradox when compared to spoken interaction (Labov 1972).

Secondly, online messages are particularly interesting for the study of identity performance and self-expression. On the one hand, the intimacy of private messaging is likely to encourage users to adopt informal, non-standard and locally-shared linguistic practices which reflect spoken language practices in domestic and private settings (Tagg 2012). On the other hand, in digital spaces, participants do not have access to the paralinguistic resources available to them in face-to-face interactions (gesture, facial expression, tone of voice) and instead draw on the graphic resources mentioned earlier (punctuation, emoji, images) as well as relying on text-centred cues such as linguistic style-shifting or code-switching (Georgakopoulou 1997). What this means is that, in digital spaces, linguistic choices may be particularly significant as they come to fulfil the identity and interpersonal work carried out in spoken conversations through other modes (Androusopoulos 2013). It is also possible that, as written texts which can be planned, edited and revised, digital interactions encourage greater reflexivity (Deumert 2014; Macleod and Grant 2016). In short, this means that online messages can be sites for linguistic stylisation and heightened identity performance (Mair 2013). By focusing on mobile messaging, we can explore features of social salience to the people concerned and which are likely to feature in acts of identity, belonging and exclusion.

Most research into text messaging has focused on spelling variants or *respellings*[2] (Sebba 2007) such as homophones (e.g. <u> as a non-standard variant of <you>). Studies document similar spelling patterns across English varieties (Deumert and Masinyana 2008) and other languages (Anis 2007). These shared practices are seemingly driven by similar motivations (brevity, speed, relational work) and are disseminated through media discourses (Thurlow 2006) as well as emerging through interaction (Shortis 2007). Linguists such as Shortis (2007) and Tagg (2012) argue that spelling variation is not random but principled and regulated, so that only certain forms are meaningful, and that much of their meaning depends on a particular relationship with the standard. For instance, phonetic spelling often works because it constitutes the 'default' spelling of a particular sound. One example is the spelling of the sound /o/ with the letter <o>, as in the respelling <wot> which captures some British pronunciations of *what* (Tagg 2012). According to Blommaert (2011), globally-circulating respellings form a 'supervernacular', a stigmatised vernacular no longer associated with a particular locality but realised internationally in distinct dialects. However, a description of texting practices as a vernacular, a language variety, sits uneasily within the superdiversity paradigm (Makoni 2014: 83). Despite conceptions of 'txtspk' as a monolithic and fixed code, the term masks a diversity of resources, dynamism and innovation. This can be seen, for example, in the ways that some internet users construct themselves as cosmopolitan and worldly by drawing idiosyncratically on Roman

[2] The term 'respelling' is an alternative to 'misspelling' used to describe deliberate non-standard usages which cannot be described as mistakes.

characters and Arabic numerals in writing languages traditionally written with other scripts (Seargeant and Tagg 2011). As Deumert (2014: 142) argues:

> do respellings actually have to be principled? … we can describe these practices as going beyond mere mimicry, simply imitating and copying pre-existing forms: rather they are about mimesis. That means that similarities are established with existing forms, and existing patterns are exploited, but at the same time writers are able to break through existing molds and invent forms that are unpredictable and original.

In this paper, we document how users draw on and exploit their awareness of circulating respellings, to invent forms or styles that break with previous practice.

As a final point, however, the significance of respellings in mobile messaging should not be overplayed. Despite the scholarly focus on respellings, studies document a variety of written styles in text messaging (Tagg 2012). Messaging can, for example, be characterised by the tendency of texters to imitate speech, not only through colloquial contractions like <gonna> (that is, through respelling) but also through speech-like syntax and discourse markers (Tagg 2012), a mixing of codes that reflect spoken practices (Lexander 2011) and language play typical of spoken conversation: idiom manipulation, allo-repetition and wordplay (Tagg 2013). Texters also draw on resources associated with written genres. The following message combines a simple clausal structure and forms of ellipsis associated not only with speech (Carter and McCarthy 2006: 181-188), as in 'Will fill you in', but also with written notes, namely the omission of copular BE: 'Evening [was] v good', 'Head [is] ok' and 'throat [is] wrecked'.

> Evening v good if somewhat event laden. Will fill you in, don't you worry ... Head ok but throat wrecked. See you at six then! (Tagg 2012: 85)

In sum, it is likely that the relative novelty of mobile messaging and the need to perform interpersonal functions through the constrained medium encourages users to draw creatively on a range of resources, including but not limited to respellings. We therefore extend Deumert's argument regarding mimesis potentially to all linguistic practices in our data.

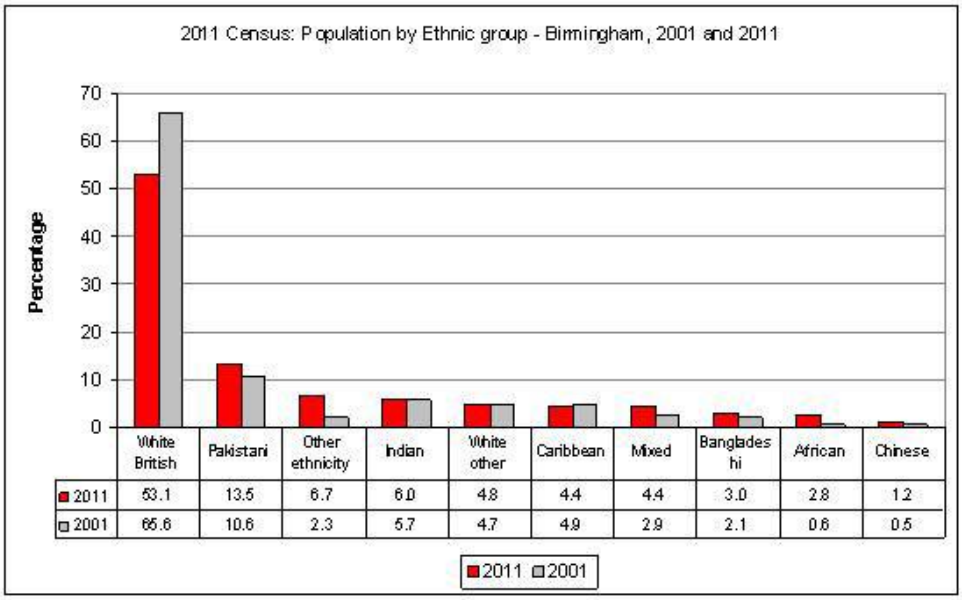
Context, methods and data

Description of context

Research was conducted in 2015 in Birmingham, in the satellite suburb of Rubery to the south-east of Birmingham, and in the town of Walsall to the north. As explained below, Rubery and Walsall were chosen as data-collection sites alongside Birmingham in an attempt to explore how the effects of shifting and increasingly complex migration patterns might stretch beyond large cities and into traditionally white working-class neighbourhoods.

Birmingham spans three historical counties: Warwickshire, Worcestershire and Staffordshire. It has 40 electoral wards and considerable socioeconomic and ethnic diversity from ward to ward. The 2011 census gives the following bar chart comparing 2001 with 2011 to report on the changing ethnic make-up of the city (Figure 1).

Figure 1 Birmingham population by ethnic group



Source: Office for National Statistics licensed under the Open Government Licence v.3.0 Reproduced by Birmingham County Council, http://www.birmingham.gov.uk

It can be seen that the proportion of White British and Pakistani residents is falling, while the number of those declaring mixed ethnicity, White Other ethnicity (including many EU nationals) and African ethnicity is rising. Whilst these figures focus attention on ethnic diversity, they also begin to hint at other aspects of superdiversity, including changes and variation in migrant category, legal status, socio-economic background and employment history. For example, even among workers coming from other EU countries, differing constraints regarding work and residence rights apply. Croatian nationals are still required to register for registration documents, the nature of which varies depending on the work they propose to do. Romanian and Bulgarian nationals were until 2014 blocked from claiming benefits and undertaking many kinds of work within the UK – such restrictions have now been lifted (Cabinet Office 2017). Differing access to residence, social security and the workplace within such an apparently homogeneous trading bloc show how residents' lives might pattern differently based on their access to or exclusion from work, money and housing.

In linguistic terms, it is also clear that Birmingham is superdiverse. Even given the blunt instrument that is the UK census language question, the data show this clearly, with over 88 languages reported as spoken at home in the 2011 census. Birmingham is in many respects an acknowledged site of superdiversity (Creese and Blackledge 2010).

However, the project extends the concept of superdiversity in two ways. Firstly, it ventures innovatively into spaces which have not been explored hitherto as superdiverse, to examine the limits of the theoretical construct of superdiversity. Walsall and Rubery exhibit the traits characteristic of superdiverse locations but, crucially, do so in a more uneven way, so that certain electoral wards in these places might well exhibit high levels of superdiversity while others might exhibit very low levels. The 2011 census (Walsall MBC online) reveals for example just 3% of ethnic minority residents for Pelsall ward, 5.5% for Bloxwich East and 11.3% for Rushall;Shelfield, In contrast, St Matthew's percentage was 46.9 and Pleck's 58.9%. Such variation leads to reflection on

mobility and diffuse social networks. Rubery, situated immediately to the south of Birmingham in the Bromsgrove district of Worcestershire, has lower rates of variation in languages spoken or in the diversity of its population than Birmingham or even Walsall. However, its traditional chiefly white working-class population has nonetheless been exposed to new arrivals and demographic shifts.

Secondly, the project aims to account for the language practices of speakers whose history of living in the region has a longer time depth (typically we might invoke the category of White British speakers) alongside the new migrant communities usually researched by superdiversity scholars. Sociolinguists such as Asprey (2015) document a great deal of mobility, flexibility and change among white working-class speakers in the region. Asprey's research suggests that Birmingham English is undergoing significant change and that different speaker groups can deploy features of Birmingham English as a purposeful resource depending on the situation and speakers involved (Clark and Asprey 2013). Other researchers document similar practices. Edwards (1986), for example, found Black Caribbean speakers in the Black Country capable of producing authentic dialect more typically associated with white working-class speakers. However, a link still needs to be made between variationist sociolinguistics and a method which takes a holistic approach to the entire population of such areas. By applying a superdiversity perspective to traditional white working-class communities alongside the ethnic minorities that make up the West Midlands, we hope to understand dialectal diversity (that is, the use or influence of multiple dialects) within areas often considered to be homogenous and stable in terms of both population demographics and language use. It is wise to take note of Blommaert et al (2005) who discuss the notion of the 'neighborhood' in terms greater than merely geography. They argue that a neighbourhood can also be defined as 'a unit of practice mapped by field-specific relations.' That is, it is what people do and with whom which is paramount, and the specific space in which interactions take place becomes less important. They argue that language use and multilingualism are given social form by conditions of polycentricity and regimes of interactional practice. We argue similarly that variationist sociolinguistics can benefit from the insights raised by a superdiversity lens which sees mobility, change and unpredictability as the norm.

Methods

We draw on corpus methods to interrogate our interactional data alongside analysis of a participant survey. Although the superdiversity and language research agenda has focused on ethnography (Blommaert and Rampton 2011), corpus methods have proved valuable in other fields in tracing patterns across texts and in uncovering hidden discourses.

We set up stalls at each venue and waited for interested parties to approach us and volunteer to be interviewed. Each stall had two posters, clear information about the project, sweets and a prize to draw in people who might wish to take part. This approach proved successful, although success varied from site to site and across the sample population. The main drawback was the fact that, although our intention was to collect dyadic message information from pairs of intimates, in practice we found that most people approached us by themselves. Once participants had approached the stall and chatted to us, we informed them of the nature of the project. If they were happy to take part, they completed a questionnaire with their age, gender, place of origin, current place of residence and any other places of residence. We also asked them which languages they could speak and/or write, and gave a binary choice of 'a little' and 'a lot' for proficiency. The informants were

finally asked which phone model they currently used and which messaging platforms they used.[3] We recognise the limitations of questionnaires in eliciting valid data, particularly those using closed questions which may not include the exact answer that participants would ideally give, and sought to offset the disadvantages to some extent by engaging the participants in informal talk around their responses.

Figure 2 Our stall in the Library of Birmingham (March 2015)

Informants were also asked to submit (either via a secure and dedicated email account in the case of *Whatsapp* messages or via photo in other cases) up to ten messages which they felt represented stylistic variation in their texting. They were asked to describe how they felt their texting style varied according to interlocutor. Informants proved remarkably able to express register variation when describing their text style to us. The research purpose was clearly explained to all participants and they were free to ask questions and to decline to participate. All participants were given a statement of informed consent allowing them the right to withdraw in compliance with the UK Data Protection Act (1998). Despite many people's reassurances that their interlocutors would not mind, we have not used any messages sent by people who were not present to give consent. This has limited our ability to explore the co-construction of meaning across turns, a limitation we aim to overcome in subsequent research.

Data analysis

We surveyed over 50 participants and collected a corpus of 412 messages (4371 words) sent through SMS, WhatsApp, and Facebook Messenger. The data was largely collected through photos or what we call 'screen-snaps'. In only one case did the participant email his WhatsApp conversation. The screen-snaps were anonymised and transcribed into an Excel database, together with relevant meta-data. Each message was linked to its sender and thus to the sender's biographical details held in a linked table. These biographical details had been transcribed from the questionnaire into Excel, and enabled us to sort and filter the message data according to age, gender, place of birth, phone type, and so on.

[3] For demographic details of Library of Birmingham participants, see our blog post: https://tlangblog.wordpress.com/2015/03/25/messaging-in-the-midlands/

Data analysis was conducted in Excel. We identified features of interest by drawing on the existing literature (Tagg 2012) and by allowing interesting features to emerge from the data. For the purposes of this paper, we work with 23 categories, spanning a range of respellings – both those which are phonetically-motivated and those unrelated to spoken forms – as well as features often associated with spoken interaction such as discourse markers, vocatives, slang, and language mixing; those associated with written correspondence: greetings, sign-offs; and those increasingly associated with an emergent digital register: emoji, kisses, and dialect representation. Messages were tagged in Excel according to which of these features they contained. It was thus possible to identify the features used by a particular social group or individual or in a particular message type.

In the following discussion of our findings, we start by outlining a general repertoire of digital resources and showing how this is socially-structured by gender (as an example of a social category). We then use this information to inform a more in-depth analysis of selected individuals' identity performance through mobile messaging.

Findings and discussion: potential linguistic repertoire

Reconstructed repertoire-in-use

Our first step was to outline the potential repertoire of resources – the 'repertoire-in-use' (Androutsopoulos 2014) – available to users of mobile messaging apps in the West Midlands. The resulting list of resources (Table 1) is not intended to be definitive but rather indicative of available resources, and it allows us to evaluate and understand individual choices as more or less typical of wider practices. It is likely that the repertoire-in-use captured here reflects wider tendencies in mobile messaging practices at the time when the data was collected.

Table 1 Post-hoc construction of a local repertoire-in-use

All features	**No.**	**Examples**
Respellings	259	<u>, <jst>, <bruv>, <mins>
Kisses	139	x, xx, xxx
Emoji	86	
Vocatives	53	bro, chick, buddy, mate
Discourse markers	50	Well, Oh god, Soo
Greetings	46	Hi F1, Hellllo, Good morning babe
Sign offs	41	Love you tons!, take great care
Emoticons	34	:/, :), :(
Expressive punctuation (?!)	33	??, !!, …
All capitals	20	Cause you know they gonna make us HOWL
Other languages	23	Yeep uu to giv ur famaly my salams x
Slang terms, including quotative 'like'	24	grub, booze, init, fam

It is difficult to compare the frequencies of features in Table 1 in any meaningful way, as we would not expect them to have comparable frequencies. Nonetheless, three important observations are:

- the high number of messages which end in a **kiss** (over a third of all messages).
- the relatively high frequency of **emoji** (86) compared to **emoticons** (34), as well as the range of emoticons used: :'), :), :p; :D, :(, :), :/, :3 (Tagg 2012 notes a more limited range in her corpus). We also note that emoji are often repeated, with one text message containing a string of 16 emoji, while others have seven (1), six (1), four (2), three (6) and two (5).
- the general observation that people frequently use seemingly 'redundant' features such as vocatives, discourse markers, greetings and sign-offs, as well as other expressive resources: all capitals, expressive punctuation, slang terms, which highlights the interpersonal nature of mobile messaging.

Taken together, these observations point to the importance of interpersonal and relational work within mobile messaging, and they pinpoint frequently-used resources that may be considered to play a central role in the local digital literacy repertoire: kisses, emoji, vocatives and discourse markers, as well as respellings.

Respellings as a digital literacy resource

The fact that people continue to respell despite changes in technology (from the traditional phone keypad to a fuller keyboard; and from predictive texting to AutoCorrect) is interesting to note, given anecdotal claims that people no longer use 'txtspk'. Table 2 shows the distribution of respelling types identified across the data.

<insert Table 2 here>

Table 2 Respelling as a digital literacy resource

	Respellings	**Examples**	
1	Phonetically-motivated respellings (colloquial respellings (27), colloquial contractions (9) and eye dialect (2))	'Ta bruv', 'Ur jus paying' 'Gimme them'; 'Something's gotta be wrong'; 'Happy new year huni'	38
2	Homophones (letters)	'U can't bring ur laptop in school tho'; 'RU IN BRUM'	34
3	Letter repetition	'I'm soooooooooooooo shocked!!!!!! X'	29
4	Misspellings (11) and typos (17)	'I will tell you how trully awsome it is! :D'	28
5	Acronym (textspeak)	<lol> (19): 'In my heart we are lol' (also LMAO)	27
6	Conventional clippings (19), acronyms (4) and visual morphemes (2)	All OK ? Good luck at parents eve x'; 'you start work in 13 mins';	25

		'But it will be going on my CV lol'; 'Miss you a lot & see you in the evening!'	
7	Consonant writing	'I jst heard frm mum who bumped into your mum'	14
8	Clipping (colloquial)	':/ … She only saw it now cos she was asleep'	11
9	Clipping (marked)	'Wil cal you later'	10
10	Homophones (numbers)	'I've only had this phone since just b4 NYE!'	2

Again, it is important not to overstate the generalisations that can be made from this breakdown. Nonetheless, three main observations can be made:

- firstly, there is a relatively high frequency of phonetically-motivated respellings – attempts to reflect spoken forms – in comparison to acronyms (<lol>), consonant writing (<pls>) and clippings (<wil>) which have a less obvious relationship with speech;
- secondly, there is a noticeably high frequency of letter homophones in comparison to number homophones;
- thirdly, there is a high frequency of letter repetitions, forms which cannot easily be explained in terms of economy or brevity.

The high frequency of phonetically-motivated respellings may in part be because it is a category which covers a wide number of potential features. However, it is interesting to speculate that people are respelling to index informal spoken conversation – rather than to be brief or to construct deviance/rebellion through novel acronyms or reduced forms. In comparison with Tagg's (2012) study of respelling practices in 2004-2007, letter homophones (particularly <u>) are still used frequently. This is in line with Evans and Tagg's (2016) study of one texter's developing practices – in her later practices, she stabilises on <u> as a respelling of *you*. In comparison, number homophones such as in <b4> (once the focus of intense media attention) are very infrequent. Interestingly, the second most frequently deployed resource, letter repetition, appears to be growing in frequency (Evans and Tagg 2016; Tagg 2012). Its frequency lends support to the argument that respelling is less about brevity and economy – driven by technological constraints – than it is by interpersonal and expressive functions (Thurlow 2003).

Other languages

Whole messages in languages other than English are not frequent; there are only 11 messages in the database of 411 which make up conversations completely in a language other than English. The languages are Mandarin, Spanish and Kikongo. In these instances the texters reported that they were messaging an interlocutor whose first language was that which they used in the message, so the language choice is not surprising. In the majority of cases, however, switches to other languages appeared to be largely iconic; that is, they comprise of specific forms which have come to index particular aspects of identity (Barrett 2008; Gal and Irvine 2000). Below we discuss three main categories identified: ritual honorifics; iconic code-switches motivated by cultural factors; and those motivated by addressee considerations.

Ritual honorific participles

There are a couple of examples where people writing in English use ritual honorific participles from other languages. Such particles are used in offline contexts as well, so are not an innovation prompted by the digital medium.

1) Happy new year huni xxxxx from F1-DIM ji x :p

The suffix *–ji* attached to a personal name in Panjabi is an honorific signalling close tenor relations between writer and reader.

Subḥānahu wa ta'āla ['may he be glorified and exalted'] or *swt* is required as an honorific in Arabic after mention of Allah. To omit this would be blasphemy for a practicing Muslim.

2) I jst heard frm mum who bumped into your mum… Im so sorry to hear of your loss i cant begin to imagine what you are going through. I pray allah swt keeps u strong in these times. I am only a call away hun , you dont have to be alone. Lots of love .. F1 take great care x

Iconic codeswitching for cultural reasons

The examples below contain cultural concepts which might be translated into English but which in practice are rarely translated by people affiliating with those cultures who draw on them. The Birmingham Jewish texter in the first example uses the Yiddish word *shul* for what Gentiles refer to as a *synagogue*. It is possible to refer to the shul as a synagogue, indeed the sign above this particular place of worship does just that. To refer to it in Yiddish, then, can be seen as an in-group marker of religious affiliation.

3) hi hope you are ok. I was just wondering if you are going to the Friday dinner at Centre shul on 10th Jan at 18:30 as a few of us from singers hill are going costing £15. I had the invite from rabbi N1 wife asking me to attend, as there is going to be a guess speak as well, so I will be attending. Anyway you take care speak to you soon.

Similarly, *inshallah* is a discourse marker used in Arabic to express the hope that something will happen. It would not be likely that a Muslim texter would translate *inshallah* ['God willing'] since this would bleach the phrase of its overt Muslim connections, just as *shul* indexes Jewish connections. Again the use of *eemaan* in the online petition link to protect halal slaughter processes is unlikely to be translated as 'faith'. Its appearance in Arabic marks it out not just as meaning 'faith', but specifically faith in the God of Islam.

4) So will be doing it Friday inshallah

5) Sign this petition to force a debate in Parliament to protect Halal slaughter - WEB ADDRESS [RETURN] Sign and share - text / facebook / email to all your family/friends/contacts [RETURN] This is a test of your Eemaan - DO NOT IGNORE!!! So a ot the message above jus wen to all my contacts

Finally, *kanji* in the example below is used to refer to the Japanese orthographic system. Again it is possible that the texter might have translated *kanji* as <characters> but in fact use of the Japanese term *kanji* shows knowledge of Japanese culture and serves to make the learner seem authentic – a keen Japanese learner (who goes on to use some Japanese).

6) Soo, show me what kanji, if any that you know please.

Iconic codeswitching for interpersonal purposes

There are messages in the database where people's social networks prompted them to use iconic instances of language. These are frequently one-word examples in an English-dominated message, and are often assimilated morphologically into English to some extent. It is possible that these speakers know the respective target forms; equally possible that they do not.

7) Yeep uu to giv ur famaly my salams x

Example 1 shows the English plural morpheme {z} applied to the Arabic word *salaam*. The Arabic plural would be *salāmāt,* yet neither this nor use of Arabic orthography is in evidence. The speaker reported Urdu and English as languages spoken and is likely to be using <salam> as an Urdu word.

8) Hope the day improves. Krammers!

Example 2 has also been subjected to English orthographic rules. The form in colloquial Swedish is *kram* for 'a hug', plural *kramarna*. The texter has doubled the <m> in accordance with English spelling rules following a short vowel, and added the English plural morpheme <s>. The informant in this case was a 42-year-old male from Birmingham who worked at the library and was of Bengali background. A first-language Bengali-speaker, he claimed to speak Swedish a little and explained that he was married to a Swedish woman, to whom 'Krammers' was addressed.

The corpus contains one example of a speaker who reported that they spoke a little Spanish. In 9), they use *padre* to refer to their father. When discussing this at our stall she reported that her interlocutor was completing a BA in Modern Languages and had taught them some Spanish, and that this now formed a creative resource in their friendship, both when speaking and writing. In this case, the use of *padre* together with the definite article *the* appear to be used metonymically to refer to an embarrassing incident (the interruption of their phone call by her father) in a humorous way that perhaps serves to distance the user from her father.

9) Sorry about the padre! You were on loudspeaker and he just opened the door to my car

Finally, the Japanese text message example below is part of the afore-mentioned conversation in which two learners of Japanese discuss what Japanese they know. The informant was a male university graduate from Leicester aged 23 who purported to speak a little Japanese and to write it well. In the text message exchange we collected, he asks his interlocutor 'Soo, show me what kanji, if any that you know please.' before telling them 'You will have to remind me, of some grammar and vocabulary because it's been, years since I did Japanese' and then, in his next turn, producing the following Japanese utterance.

10) <emoji>monkey</emoji> OTHER SCRIPT-JAPANESE

[Hey, NAME san, how are you today?]

In our (albeit small) dataset, language shifts seem to function mainly as a resource for interpersonal functions (distancing oneself, demonstrating solidarity, friendship, claiming close relationships in order to ask a favour). It also seems that iconic codeswitching is used in the same ways by speakers regardless of how much of a particular language they have in their repertoire (Blommaert and Backus 2013). It is not methodologically politic to distinguish between 'bilinguals' and 'monolinguals' (Gardner-Chloros et al 2000; Morel et al 2012) and indeed our dataset, collected as it is in relative isolation from speakers' other linguistic practices, allows little way to do so, even were this desirable. In this way our data is best explained by interactional models of sociolinguistics which move away

from monolithic concepts of the bilingual speaker and look instead at how all speakers deploy stylistic variation, treating 'translanguaging' – this fluid shifting between languages – as one axis of such stylistic variation (Creese and Blackledge 2010).

Findings and discussion: repertoires socially-structured by gender

For the purposes of this paper, we focus on gender as an example of a social role which may be oriented towards, contested or exploited by participants. In total, 26 men contributed 144 messages and 33 females contributed 259 (an average of around 6 and 8 messages contributed per man and woman respectively). As Table 3 suggests, women's texts are slightly longer than men's.

Table 3 Digital literacy resources structured by gender

	No. messages	**No. words**	**Average words per message**	**No. respellings**
Males (26)	144	1335	9.27	102
Females (33)	259	3036	11.72	156
Total	**403**	**4371**	**10.85**	**258**

In terms of respellings, men respelt more than women, measured by respellings as either a percentage of total words or per message. There were 102 respellings across men's 144 messages, compared to 156 across the 259 messages sent by women (Table 3). This is an average of 0.71 respellings per message for men, and 0.60 for women; totalling 7.64% of total words submitted by men and 5.14% of those submitted by women. This finding is somewhat unintuitive given the role played by respellings in self-expression and relational work, as described above, in the light of the observation made elsewhere that women tend to be more expressive in digital communications (Tannen 2011).

There were also gendered patterns in the types of respellings most frequently used (Table 4). In short, men most frequently use letter homophones (chiefly <u>) and phonetically-motivated respellings (<sorta>, <bruv>, <holla>), while women most frequently use letter repetitions (<Awwww>, <sorrrrrrry>, <Oooohhhh>), acronyms (overwhelmingly <lol>) and clippings (<fab>, <cos>, <meds>, <giv>). Men also misspelt more than women.

Table 4 Distribution of respellings across men's and women's messages

Respellings	**Male**	**Respellings per message**	**Female**	**Respellings per message**
Apostrophe	10	0.10	18	0.12
Capital	3	0.03	14	0.09
Clipping	12	0.12	23	0.15
Phonetically-motivated	21	0.21	17	0.11
Consonant	6	0.06	8	0.05
Homophones (Number)	1	0.01	1	0.01

Homophones (Letter)	23	0.23	11	0.07
Initialism/Acronym	6	0.06	25	0.16
Letter Repetition	3	0.03	26	0.17
Misspelling	16	0.16	12	0.08
Visual morpheme	1	0.01	1	0.01
TOTALS	102	0.71	156	0.60

As Table 5) below shows, women use relatively more expressive features than men, at least in terms of emoticons and particularly emoji, as well as typographical resources (particularly kisses, but also expressive punctuation and capitals). However, they use relatively fewer greetings and vocatives, other languages, and slang. Use of discourse markers appears to be fairly similar across the genders.

Table 5 Distribution of other features across men's and women's messages

Feature	Male	Features per message	Female	Features per message
Greetings	25	0.17	21	0.08
Vocatives	25	0.17	28	0.11
Discourse markers	12	0.08	38	0.05
Other Languages	9	0.06	8	0.03
Slang	14	0.10	8	0.03
Capitals	2	0.01	18	0.07
Punctuation	7	0.05	26	0.10
Kisses	18	0.13	121	0.47
Emoticons	5	0.03	29	0.11
Emoji	8	0.06	74	0.29
Quotative like	0	0.00	1	0.00
Local forms	1	0.01	4	0.02
TOTALS	**126**	**0.88**	**376**	**1.45**

Findings and discussion: individual identity performances

In this section, we explore how individual users draw on the potential repertoire available to them in this digital and physical space, given their social roles and the identities they wish to convey.

Performing stylised gendered identity

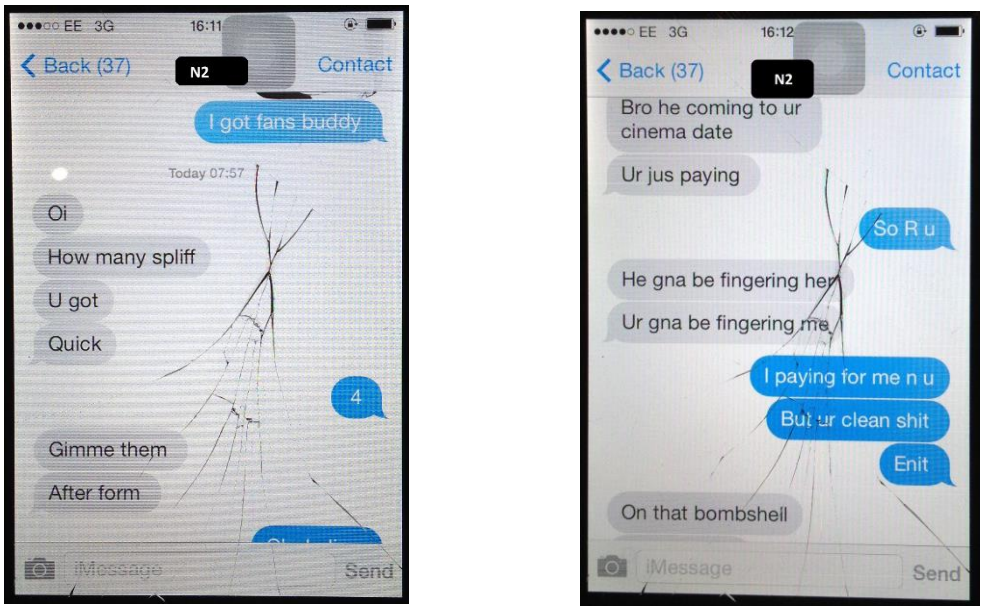
We spoke to two young men, LOB-37 and LOB-38, together.[4] Both men were born in 1998 (aged 18) in Birmingham, where they both now live. LOB-37 also lived for four years in Preston. He speaks English and Urdu, as well as some Spanish. At the time of data collection, he had an iPhone 6. He claims to use SMS and WhatsApp frequently. We took f4 screenshots of his phone, which included 13 of his messages (around 57 words) and 11 from LOB-38 (34 words). LOB-38 has lived in Birmingham all his life. He claims to speak and write English and Urdu, as well as a little Hindi and Punjabi (the latter spoken only). He can also write (but apparently not speak) Arabic. At the time of data collection, he had an iPhone 5s and used SMS (including iMessage), WhatsApp, and Snapchat. We did not take any screenshots of his phone but he gave consent for us to use messages he had sent to LOB-37, which we collected from LOB-37's phone.

We collected a total of 24 messages (91 words), 13 from LOB-37 and 11 from LOB-38:

- 17 iMessages between LOB-37 (6 messages) and LOB-38 (11 messages)
- 7 iMessages from LOB-37 to another male friend

The two seem to have a shared linguistic repertoire (or they draw on their repertoire in similar ways). In short, they build on existing digital literacy forms, as well as the affordances of mobile messaging, to create what appears to be an over-stylised, informal urban youth language, characterised by very reduced words, colloquial respellings, informal discourse markers, slang, and short quick-fire turns.

Figure 3 iMessage conversation between LOB-37 and LOB-38



Between them, the two men use 26 respellings over 24 messages, so more than one per message (compared to 0.71 per message for men generally and 0.60 per message for women). We might say their respelling is very 'male'. Of these, 14 are letter homophones (also used particularly frequently by men), 7 are phonetically-motivated respellings or contractions, and 3 involve consonant writing. Again, this is a very 'male' way of respelling (in that men across the corpus used letter homophones and phonetically-motivated respellings more than women).

[4] LOB means Library of Birmingham, where we met these participants.

Interestingly, the analysis reveals forms not used elsewhere in the corpus: <gna> (formed through colloquial contraction and consonant writing, and used twice) and <yh> (consonant writing, used once). Of course, these forms are likely used outside our study, although the fact that the forms do not appear in published studies such as Tagg (2012) suggest they may be unusual or new forms, likely extended through mimesis from more established forms (Deumert 2014). The same may be true of <ur> for 'your' or 'you're' (also used by these young men), a form present in Tagg's (2012) earlier study but which seems to build in an unpredictable way on the homophones <u> and <r>.

In general, the men's frequent use of slang, vocatives and discourse markers is in line with other male users, although (in contrast to wider gender patterns) they use greetings relatively infrequently. They use six slang terms: *spliff* (used by LOB-38), *bro* (used by both), *shit* (LOB-37), and *enit* (LOB-37). This is one slang term every four messages, which is relatively frequent compared to men in general (who use slang in every tenth message). They use four vocatives (*buddy* and 3 instances of *bro* used by both texters), which is in line with the male users more generally, as is their use of two discourse markers (*enit* and *like*, both used by LOB-37). Of interest is the fact that both discourse markers are informal, stigmatised, and respelt. There is only one greeting (*Oi*, which is fairly informal, even impolite) and no sign-offs. This is low in comparison to the wider corpus, and closer to women's usage than men's. The lack of sign offs and greetings suggests the men are treating their exchange as an ongoing conversation.

Also of interest is the men's use of marked grammatical forms, which we had not tagged in the wider corpus, but which seemed to index a highly casual style. These included:

- Omission of 'BE' in 'Bro he coming', 'He gna' (LOB-38) and 'I paying' (LOB-37) (yet note elsewhere LOB-37 writes 'It's' – including BE and inserting an apostrophe);
- Omission of 'HAVE' in 'U got'
- Invariant plural (*spliff*)

LOB-38 employs forms of repetition, namely structural parallelism and assonance, which add to the sense of playful, creative and conversational banter. The assonance may be incidental, but it is interesting that in his interaction with the unnamed friend, LOB-37 repeatedly respells the sound [oʊ] as <o>: <bro> (twice); <tho> ('though') and <Uno> ('you know'). Structural parallelism occurs across two turns: 'He gna be fingering her' and 'Ur gna be fingering me' with an interesting transformation in terms of the change in pronouns as well as in meaning: the former structure means that the third man will be touching a woman's body, while the latter means one friend will be expecting the other to pay (the other responds 'I paying for me n u'). Thus these related but distinct activities are brought together through structural parallelism, as LOB-38 exploits the affordances of the medium – whereby messages can be send in chunks and presented in parallel – to make a colourful point.

Both men chunk their turns in ways which have the effect of heightening the speech-like rhythm of their informal exchange. The turns are broken up in interesting ways:

1. Greeting + request ('Oi' + 'How many spliff')
2. Abstract + response ('It's long bro' + 'Uno the warranty they give u')
3. One move divided up ('how many spliff' + 'U got' + 'Quick')
4. Set up and reveal ('Bro he coming to ur cinema date' + 'Ur jus paying')
5. Highlighting parallelism ('Ur gna be fingering me' + 'He gna be fingering her')
6. Move + tag question/discourse marker ('But ur clean shit' + 'Enit')

7. To check understanding and allow for interlocutor response ('Uno the warranty they give u' + 'U go online')

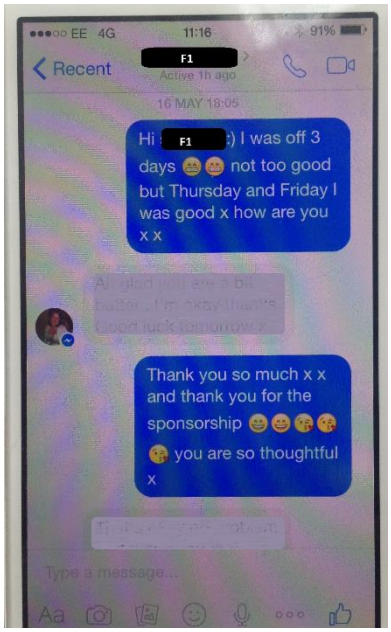
Digital interactions are quasi-synchronous in the sense that interlocutors do not have access to message production (Garcia and Jacobs 1998) until the sender hits 'Send'. Chunking utterances in this way allows the receiver to process the message in something more like real-time, synchronous interaction. Although this is a widely-used practice reported elsewhere (Baron 2010), chunking is not typical of this corpus and seems to be exploited here for particular effects – to add to the construction of a clipped, rhythmic style and the feel of a spoken conversation, all of which feeds into their apparent identity performance. We speculate that this identity is to some extent a gendered one – as indicated by the way in which their linguistic choices resonate with those made by male users across the corpus – but that gender may also intersect with other categories, including youth, socio-economic background and their individual histories. Without a greater understanding of these individuals' backgrounds and motivation, we cannot draw more confident conclusions about their intentions, but the findings so far point to an interesting avenue for future, more ethnographically-informed research.

Extending linguistic resources through mimesis

WAL-4 is a woman who was born in 1969 (aged 45/46) in Cannock. She now lives in Hednesford and is a Learning and Development coach at Walsall College. She has also lived in Brownhills. At the time of data collection, she had an iPhone. We took 9 screenshots of her phone, which included 19 messages (around 327 words). The messages included:

- 4 to her mother using SMS
- to a work colleague using Facebook Messenger
- 3 to her daughter, using WhatsApp
- 3 to her neice, using Whatsapp through her sister's phone.

Figure 4 Facebook messages sent to a work colleague



Comparison with the wider repertoire and its realisation by other women suggests that WAL-4 makes a particularly creative and mimetic use of emoji and kisses. There were only seven respellings across 19 messages which is very low compared either to the group as a whole or to women's respelling frequency (although it is in line with the observation that men respelt more than women). Of these, over half are letter repetitions which can be seen as interpersonally-motivated and a predominantly female practice. Parallels can be drawn with her relatively frequent use of expressive punctuation ('Oooohhhhh yes can't wait…….' and 'your get weren't right!!!!!'), another strategy more often adopted by women. In line with what we might expect from the general repertoire, she does not use slang or languages other than English and she uses discourse markers sparingly ('Ok' and 'Awwww'). She uses more greetings than we might expect from the general corpus ('Hi' three times and 'Hellllo') and more vocatives: 'Awwww mom', 'Hi F1' (x 3), 'That's ok F1'. Vocatives in general tend to be a male rather than a female practice, and it is interesting to note that, in addressing women, WAL-4 uses their names rather than a generic vocative. Also notable is WAL-4's use of 16 emoji, over twice as many as we might expect from the corpus. Most of WAL-4's emoji occur in lengthy strings of emoji (only two occur on their own). She is not alone in doing this (14 messages in the corpus have strings of two or more emoji, and only 28 emoji occur on their own).

Figure 5 Emoji sent by WAL-4 to 'Mom', Friday 26th June 2015 at 16:49pm

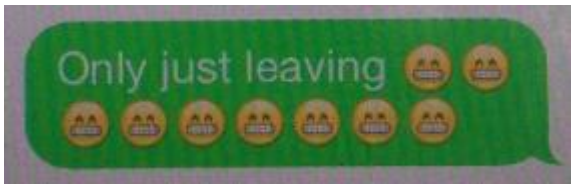
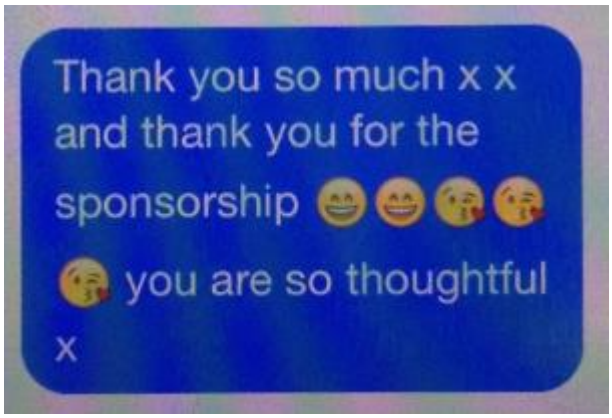


Figure 6 Emoji sent by WAL-4 to a work colleague, 16th May 2015



However, most striking is her relatively frequent use of kisses, which she inserts 27 times into 19 messages (1.42 per message compared to 0.34 per message in the whole corpus). What distinguishes WAL-4's practices is the placing of kisses in mid-position throughout a message, rather than (or as well as) at the end:

> Double sausage and egg mc muffin meal x caramel frappe x [RETURN] M1-DIM is asleep , so he can have sausage and egg bagel meal x caramel frappe x x
>
> Ok x I'll pick them up in the morning x x x x sorrrrrrry x
>
> Awwww mom x you don't need to x x x love you x
>
> That's ok F1 x x we all do it x I was jelly before mine x

Headache is ok x x I'm glad she took them off you x your get weren't right!!!!!

Love you all too x x c love aunty F3 x

Only three other people do this, and in one message each (LOB-6 once across 15 messages, LOB-14 once across 9 messages, and WAL-3 once across 31 messages). WAL-4 appears to use kisses to 'chunk' her messages into smaller units, where she might alternatively use punctuation or even an emoticon (in one message, she puts 'Hi F1:)'. Although we cannot make definitive statements about the intended or actual implications of her choices on her relationship, the kisses appear to act as an interpersonal feature, signalling a light-hearted tone or softening an utterance. What is interesting is the process of mimesis (Deumert 2014) in which WAL-4 engages as she reproduces the kiss in a new pattern which breaks with existing usage and thus appears to extend the established interpersonal significance of the form.

Translanguaging across registers, styles and modes

WAL-3 is female, born in 1992 (aged 22/23) in Handsworth, Birmingham and living now in Walsall. She works in Learning Support at Walsall College. She speaks and writes English and Punjabi. At the time of data collection, she had an iPhone 4S, and uses WhatsApp and Snapchat frequently, SMS and Facebook Messenger sometimes. We took 7 screenshots of her phone, including the following conversations:

- Best friend on WhatsApp (4 screenshots)
- Dad by SMS text message (1 screenshot)
- Sister on WhatsApp (2 screenshots).

We collected a total of 30 messages with 235 words (though some of these are emoticons), so an average of 7.8 words per message. This is relatively low, particularly compared to females (11.72) but also lower than men (9.27). Overall, it is striking how WAL-3 draws on a variety of different registers, modes and styles as she expresses herself and engages with her three interlocutors, particularly her best friend.

Figure 7 WhatsApp messages sent by WAL-3 to her best friend

There are 13 respellings across the 30 messages which is slightly lower when compared to the group as a whole although, as with WAL-4, this in line with the observation that men respelt more than women. Of these, three are letter repetitions (<Loool>, <Awww>, <Heeeeeeyyyyyyyyyyyy>), two are colloquial clippings (<awks> for *awkward*, <cos> for *because*), and the remaining included 4 acronyms (<lol> twice, <lmao> and <cba> ['can't be arsed']), all of which is typical of female practices across the corpus. WAL-3 also uses forms associated more strongly with men: three phonetically-motivated colloquial respellings (<ya> for *you*, <cos> for *[be]cause* and <dat> for *that*) and one example of consonant writing (<tmrw> for *tomorrow*). Interestingly, <dat> occurrs in the fixed phrase 'true dat' which is often indexically associated with Jamaican-Creole speakers in Birmingham (Chinn and Thorne 2003). Our speaker is not of Jamaican-Creole speaking background so use of this is potentially marked. Although low in frequency, we can see in WAL-3's respelling choices a diverse range of motivations, from a typically female tendency to express emotion through letter repetition to Jamaican Creole and modern internet slang (*lol*, *lmao*, *cba*). Also included in this latter category of internet slang is *awks* which is prefaced by a hashtag (#awks), a practice typical of Twitter but now used widely across offline and online spaces (Heyd 2015).

In terms of other features, WAL-3 appears to draw most closely on resources associated with informal speech, through which she can construct a sense of immediacy and intimacy characteristic of face-to-face conversations. She uses four discourse markers, which is high in relation to the corpus as a whole, but closer to women's use, including *Wow* and *OK* as well as the aforementioned *omg* and *lmao*. There are two vocatives in the sample: WAL-3 directly addresses F1-DIM twice as she attempts to mitigate potentially face-threatening acts (Biber et al 1999). WAL-3's use of vocatives is otherwise somewhat low compared to the corpus as a whole and so closer to women's usage. Some slang is used: *wicked* is used in a message to the user's father and *chill* for 'relax' to the user's best friend; and there is one potentially local or non-standard form where <text> is used as the past tense of the verb 'to text'. Finally, as discussed in section 5.3, Spanish is used when talking to the speaker's best friend about being overheard by the speaker's father ('Sorry about the padre! You were on loudspeaker and he just opened the door to my car'). WAL-3 also draws on creative forms typically associated with face-to-face conversations (Carter 2004). There is creative use of reduplication for intensification in 'Sorry F1-DIM been busy busy all day' and innovative nominalisation in *stupidness* where standard language demands *stupidity* but where the casually incorrect form appears to reflect the way in which new forms are created on the hoof in fast-paced spoken interactions. On the other hand, there are no greetings or sign offs, and nor are there as many kisses (6) as we might expect of women in the sample.

Emoticons occur only three times. Interesting, all three are the disappointed emoticon :/. In each case, it appears to index genuine disappointment, since 11) and 12) below occur in a conversation about lost bookings and 13) in response to an event she missed. This emoticon is not frequently used elsewhere in the corpus (only once by another user), and is also marked by occurring twice at the start of the message, perhaps as a response token. Again this positioning is an innovative use, suggesting the development of communicative style through mimesis.

11) :/ … She only saw it now cos she was asleep

12) :/ going back to sleep booking at 7

13) Awww that sounds like fun :/

WAL-3's use of emoji is striking, not least because of her very frequent use of them (26). Furthermore, all 26 emoji occur in strings rather than in isolation. As we have seen, this is not atypical across the corpus, but it is interesting to note that, unlike other users, WAL-3 does not employ any emoji in isolation. They are used highly creatively in Figure 8. The user reported having used images of basketballs to represent Indian sweets (*jalebis*). In the second, third and fourth instances, reduplication of the emoji adds weight to their meaning. This is a common enough strategy among texters in the corpus; the sheer number of repetitions is however rarer, as is the variety of emoji-types in the second example.

Figure 8 Emoji sent by WAL-3 to her best friend

In short, WAL-3's practices are interesting not only in her use of mimesis in constructing identity, but also because they highlight the multiple registers, styles and modes available through mobile messaging apps, and the fluid ways in which users like WAL-3 exploit and move between them. Again, WAL-3's intentions and the impact that her choices have on her social relationships remains a matter of speculation.

Conclusion

Individual repertoires must be understood in the light of wider spatial and community repertoires, and with acknowledgement of people's orientation towards practices associated with social groups such as gender. Our analysis showed that differences can be identified between male and female practices, and that such patterns can be useful in contextualising individual's choices and guiding researchers' interpretations. For example, we saw with LOB-37 and LOB-38 how the young men drew on exaggeratedly male tendencies to playfully co-construct a distinctly gendered identity. As this suggests, individuals' practices are not determined by the social categories they are ascribed to, and we saw that WAL-3 and WAL-4 draw differently on gendered practices in constructing their own styles. It was also evident that an individual's repertoire can develop through mimesis, particularly in digital spaces where norms are emergent and evolving. This was illustrated above with WAL-4's use of mid-position kisses, and could also be seen in the men's use of forms such as <yh>, <gna> and <ur>; and perhaps WAL-3's use of basketballs to represent sweets. The latter make sense given the immediate context, and their use makes them available as a meaning-making resource in subsequent interactions between the pair.

Finally, our analyses highlight how the various resources that people have in carrying out identity and relational work online span a number of different languages, styles, registers and modes. We saw in particular that WAL-3 draws variously on internet slang (#awks, lmao), features of informal, intimate

spoken conversation such as discourse markers and vocatives, spellings associated with Jamaican Creole and the Spanish term 'padre', as well as expressive punctuation, emoticons and emoji. It makes little sense, when seeking to understand WAL-3's meaning-making practices, to suggest that 'padre' (a canonical example of translanguaging) is being employed in a way that differs in any substantial way to her use of emoji or internet slang, which similarly serve to index shared backgrounds, respond to social roles and expectations, and construct identity. We suggest that our data may have implications for the theoretical construct of translanguaging (García 2009, Blackledge and Creese 2010), showing that social actors who are not at any one moment engaged in canonical trans*languaging* (in the sense of drawing on resources associated with different languages) may still be, as Garcia and Wei (2014) have proposed, strategically employing a range of semiotic resources (from different modes, registers, styles) as they carry out the complex social activities of doing, knowing, relating, and being. In relation to superdiversity, we see how ethnicity provides just one source of linguistic diversity alongside other social categories, technological affordances, personal trajectories and individual choices; and we highlight the unpredictable flow of diverse communicative resources within and beyond superdiverse city neighbourhoods.

Before finishing, we should note that the extent to which we can draw conclusions regarding the social activities apparently being carried out in our data is limited by our methods, and future research will need to adopt a more ethnographically-informed approach in order to ascertain how individuals explain their linguistic choices and the effect these appear to have over time.

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