ABSTRACT: This paper investigates the use of traditional dialect forms in a community in Shetland, northern Scotland. Specifically, we seek to establish whether the younger generations’ patterns of language use signal rapid dialect obsolescence or bidialectalism. We compare recordings where audience design is manipulated - the addressee is either an insider or an outsider – across a range of lexical, phonological and morphosyntactic variables. Results show that only some of the younger speakers are bidialectal: the remaining speakers use virtually no dialect forms. We suggest these findings may signal dialect shift, and predict a further move from local to standard in the coming generations. We further explore the linguistic details of the bidialectal speakers language use through a qualitative and quantitative comparison of forms across the different recordings. We find that the use of the two varieties operates on a continuum, where rates of use differ, but constraints remain the same across the two speech styles. We discuss these findings against the backdrop of bidialectalism and the process of dialect obsolescence in the British Isles and elsewhere.

INTRODUCTION. A number of studies in recent years have demonstrated dialect levelling in the British Isles, “a process whereby differences between regional varieties are reduced, features which make varieties distinctive disappear, and new features emerge and are adopted by speakers over a wide geographical area” (Williams & Kerswill,
In this scenario, supralocal features replace local features, which may finally lead to dialect obsolescence in traditional varieties of English. A case in point is the variety spoken in the Shetland Islands in Northern Scotland. The dialect spoken in the main town of Lerwick is said to be undergoing rapid dialect levelling, with loss of distinctive features in the younger speakers (e.g. van Leyden 2004, Tait 2001). Our previous research on change across three generations in this community (Smith & Durham 2011) suggested that dialect obsolescence may be well-advanced in this previously relic dialect community. An analysis of a number of vernacular features gleaned from sociolinguistic interviews revealed that all of the older speakers used similar rates and patterns of use of the local forms. With the younger speakers, in contrast, half used the local forms in line with the older generations while the other half used standard variants almost exclusively. We suggested that these results may reflect the pivotal generation in dialect obsolescence, often signalled by extreme linguistic heterogeneity across a group of historically homogeneous speakers (e.g. Dorian 1994). However, there may be an alternative explanation for the use versus non-use of the dialect in the younger speakers. Bidialectalism, where an indigenous variety operates alongside more widespread norms in a community of speakers, is said to have “increased so much that monolingual speakers of non-standard dialects have become the exception” (Cornips and Hulk 2006:355). In Shetland, “knappin”, the use of Scottish Standard English in place of the local variety, is assumed to be increasingly prevalent, leading Melchers (2004a:37) to observe that it is “difficult to find truly monolingual speakers of the traditional dialect today”, even with families who have lived there for generations. Instead, speakers “have access to a choice of two discrete, definable forms of speech: ‘English’ vs. ‘Shetland’” (ibid:37). If this is the case, it has important implications for the interpretation of our findings: our results may not indicate rapid dialect obsolescence per se, but merely reflect differing code choice in the sociolinguistic interview setting.

In this paper, we explore this possibility by returning to the community in question to conduct further interviews with the younger speakers. In these recordings, the “dialect speakers” in the original recordings are interviewed by an “outsider” and the “standard speakers” recorded with a dialect-speaking peer in order to manipulate audience design (Bell 1984). We replicate our previous analysis of a number of lexical,
phonological and morphosyntactic variables in this additional dataset across a range of linguistic variables. This will allow us to test whether the inter-speaker variability we found in the younger speakers is the result of “command of two regional or social dialects of a language, one of which is commonly the standard language” (OED s.v. *bidialectal*) or indicative of dialect obsolescence. The paper also has a second aim. If we do find that these younger speakers switch codes in these different settings, does this mean that they are bidialectal? Hazen (2006) points out that “no sociolinguistic study has directly addressed this supposed ability”, thus defining bidialectalism in the first place may be problematic if we do not know the linguistic details of this process. We contribute to this question through further analyses of the conditioning factors operating in the different speech contexts. In doing so, we hope to uncover some of the process involved in putative bidialectalism in the Shetland Isles, the British Isles and elsewhere.

We first provide information on the research site and our previous findings.

*The Community.* The Shetland Isles is situated in the North Sea, between Norway to the east and Scotland to the south (Figure 1).
For this study, we concentrate on the main town of Lerwick (Figure 2), the commercial and industrial centre of Shetland (see detail in Smith & Durham 2011). It has a population of approximately 7,500 and is the UK’s northernmost town.
The socio-historical context of this area has had a profound effect on the dialect spoken in Shetland. It was invaded by the Vikings in the 9th century, and with these invaders came the Scandinavian language of Norn. This language largely eradicated the indigenous languages of the time and was spoken in Shetland for over 800 years (e.g. Barnes 1998:2) until it started to be replaced by Scots from the 16th century. A situation of bilingualism is said to have existed in the following period (e.g. Smith 1996) and by the beginning of the 18th century Norn as a first language was rare and had largely died out by the end of that century (e.g. Barnes 1998:27, Knooihuizen 2005, 2010). The present day Shetland dialect is described as a variety of Scots, with elements from both Older Scots and the Norn substratum still in evidence (e.g. Melchers 1991, Tait 2001:10). This results in a number of traditional lexical, morphosyntactic and phonological forms, some of which are said to result from vestiges of Norn and others from Scots. van Leyden (2004:17) points out that “There is no Scottish Standard English speaking middle class and virtually all native speakers, from manual workers to university graduates, employ the local dialect in their everyday speech” (see also Johnston 1997:449). However, it is claimed that socio-economic, cultural and demographic changes arising from a highly developed infrastructure in recent decades have led to “an unprecedented levelling of the
local varieties in recent years” (van Leyden 2004:18), particularly in the main town of Lerwick. Our previous findings on change in Lerwick support this (Smith & Durham 2011), as we demonstrate below.

**PREVIOUS FINDINGS.** In our initial sociolinguistic study of change in the Lerwick dialect, 30 speakers stratified by age (17-21, 45-55, 70+) and sex were targeted in order to assess change in “apparent time” (e.g. Bailey 2002). Our original recordings (henceforth 1st recordings) were conducted by natives of Shetland in 2007 using classic sociolinguistic interview techniques (see detail in Smith & Durham 2011).

We analysed a number of linguistic variables gleaned from these interviews. Here we review four, taken from different areas of the grammar: lexical (1), phonological (2) morphosyntactic (3) and phonetic (4). The variables are differentiated in terms of proposed Scots and/or Norn roots: two of the variables are found in mainland Scots varieties (1 and 2) and the other two are not (3 and 4) leading some scholars to conclude that these features are relics from the Norn substratum (see detail in Smith & Durham 2011). In each of these variables, there is variation between a local/traditional variant and a Standard (Scottish) English variant.

**ken vs. know**
Use of *ken* for *know* as in (1) is a stereotype of Scots. Although it has been around since the 1300s (OED s.v. *ken*), it is still used widely in vernacular Scots today (e.g. Miller 1993).

1. a. You’d sit in and you’d *ken* a’ the tunes.
   b. And I was like brilliant, do you *know* what I mean (both Lisa)

**hoose vs. house**
The second variable is the alternation between the diphthong [ʌʊ] and the monophthong [u:] as in (2), herein referred to as the *hoose* variable.

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1 In our 2011 paper, the phonological variable analysed was Scots l-vocalisation. Lack of data in our 2nd interviews precluded further analysis here, thus we substitute the *hoose* variable.
2. a. And it was right enough, you heard it more [u:]tside the h[u:]se
   b. They tracked d[ʌn] instruments (both Jake)

This lexically conditioned variable belongs to the OUT (au) class (Wells, 1982) in words that have the orthographical form <ow> or <ou> as in *now, house, and down* (e.g., Johnston, 1997:474) and involves the variable use of two phonemes in a restricted lexical set. The monophthongal variant is a relic, which is considered stereotypical of Scots or more northern varieties of English (e.g., Stuart-Smith, 2003)\(^2\).

**be perfect**

In the Shetland dialect, *be* can appear in perfect contexts where Standard English appears with *have* (e.g. Pavlenko 1997, Robertson & Graham 1991:11, Melchers 2004b:39, Millar 2007:75), as in (3):

3. a. I’*m no* been in Imelda’s in a start.
   b. By the time you’ve come home...
   c. But I *was stayed* with one of my friends
   d. Did you have to listen to what we’d said (all Joanne)

*Be* perfect is described as “perhaps the most striking structural feature” of the Shetland dialect (Millar 2007:75) and its use is more productive when compared to either the historical record (e.g. Kytö 1997) or present day varieties of English elsewhere (e.g. Wolfram 1996, Tagliamonte 2000). This has led to considerable debate surrounding its provenance - a reflex of a Norn substratum or remnant from the history of English (e.g. Pavlenko 1997, Melchers 1996:291, 2004a) - but whatever its roots, it is not found in mainland Scots.

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\(^2\) The analysis for *hoose* is auditory. The standard and local variants are said to be discrete, rather than forming a continuum of use from monophthong to diphthong (e.g. Macafee 1997: 521, Macaulay 1991). Our initial analysis confirmed this, thus coding decisions were largely unproblematic. However, to ensure consistency of coding across different transcribers, each transcript was spot-checked by the first author.
The next feature we analyse is the use of so called th- stopping (Wells 1982:565-6) where /ð/ and /θ/ are realized as stops rather than fricatives, as in (4).

4. Like /ð/at one there /d/at we did. (Mark)

The use of [d] and [t] for /ð/ and /θ/ in word initial and medial positions “is a general feature of Shetland speech” (van Leyden 2004:20), especially amongst “traditional dialect speakers” (Millar 2007:62). Melchers (2004b:42) goes as far as to say that it is “…categorical in Shetland accents, unless adapted to outsiders”. As with be perfect, there is debate regarding its etymology (see e.g. Barnes 1998, Melchers 2004a:42), but like be perfect, it is also not found in mainland Scots varieties. For this analysis, we concentrated on contexts of voiced dental fricatives only.

When we analysed these variables across the three generations of speakers, perhaps not surprisingly, we found that there was a decrease in use of the traditional form in apparent time, as shown in

Figure 3:

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3 The analysis of th- stopping was auditory. However, in contrast to the hoose variable, we recognise a cline of variants exist with this variable. For the current analysis, we divide the data into two main categories - stops and fricatives but see Smith, Holmes & Durham (in progress) for a more detailed breakdown of variants.
Figure 3: Overall rates of 4 variables by age.

Closer analysis of individual use within each age cohort demonstrated that with the older and middle aged speakers, there was generally homogeneity of use: each individual demonstrated intra-speaker variation, and allowing for statistical fluctuation, had similar rates of the local forms. However, the younger speakers demonstrated a different pattern of use. Figure 4 shows the use of the four variables across the younger cohort, divided by individual speaker.

Figure 4: Rates of local forms across 4 variables in the younger speakers
Figure 4 shows that, in sharp contrast to older generations, the younger speakers are characterised by heterogeneity and inter-speaker variability (the exception to this pattern is *th*- stoppping, which we return to below). We interpreted these results as indicative of rapid dialect obsolescence, with the replacement, at least with some speakers, of one variety by another in the space of one generation. However, we also suggested that “the results from this research may lend themselves to an entirely different – and apparently more upbeat - interpretation. Instead of dialect attrition, the younger speakers are bidialectal” (Smith & Durham 2011, footnote 9). In this scenario, the results we found do not point to obsolescence, but are merely a reflection of speaker choice of one code or another in the context of the sociolinguistic interview. In order to test this possibility, we returned to the community for further research.

The present study. For this follow-up research, we conducted further sociolinguistic interviews with the younger speakers (henceforth “2nd recordings”). In the case of potential bidialectalism, “code choice is usually made based on the presumed dialect…of the interlocutor” (Anderson 2011:222), thus with these recordings, the interviewers differed in order to manipulate insider vs. outsider effects on addressee speech (e.g. Douglas-Cowie 1978, Thelander 1982). The “dialect speakers” from the 1st recordings (Figure 4: Joanne, Valerie, Jake, Stewart, Lisa) were recorded by an “outsider” in a formal situation and the “standard speakers” (Figure 4: Mark, Rory, Sean, Michelle) were recorded with a high school friend in a more casual setting. One of our initial “dialect speakers”, Lisa, conducted the interviews with the “standard speakers”, either in their home or in a local pub. The “dialect speakers” were recorded by the second author, Mercedes, who is Swiss-American, in a hotel in Lerwick. Due to timing constraints, Lisa was recorded by the first author. We were unable to locate one of the original speakers, Erika, hence there are nine rather than the original ten speakers. The speakers are shown in Table 1:
Table 1: Speaker sample for 2nd recordings.

<table>
<thead>
<tr>
<th>Dialect speakers</th>
<th>Standard speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joanne</td>
<td>Mark</td>
</tr>
<tr>
<td>Valerie</td>
<td>Rory</td>
</tr>
<tr>
<td>Jake</td>
<td>Sean</td>
</tr>
<tr>
<td>Stewart</td>
<td>Michelle</td>
</tr>
<tr>
<td>Lisa</td>
<td></td>
</tr>
</tbody>
</table>

The interviews with Lisa were characterised by local gossip and “catching up” as demonstrated in Extract 1.

Extract 1: Lisa as interviewer
Lisa:  It was just ridiculous how it all started in the first place.
Sean:  Yeah I know.
Lisa:  It was like one minute he was like-
Sean:  It was just absolutely goody two shoes, never touched a drink until he was eighteen.
Rory:  We used to go to Halls when we were like fifteen, sixteen, he wouldn’t drink anything like.
Sean:  Yeah, yeah. He wouldn’t even touch it.
Lisa:  Next thing you're like “whoa”.
Sean:  Yeah.
Rory:  It was unbelievable like.

The data collected by Mercedes (Extract 2) was characterised by a slightly more formal style, given that she was an outsider with a North American accent.

Extract 2: Mercedes as interviewer
Joanne:  And then they have Up Helly Aas in the country like peerier Up Helly Aas. And some of them are really good, I've been to a few. But the Lerwick one's really good.
Mercedes: So how do you think it's different, for the-, cos it's the men that are in the, squad- guizer.

Joanne: The men is, in the jarl squad and then the squads are- in Lerwick just men and then, all the women and that go to the halls. And I think it should stay like that because the country ones has men and women.

Mercedes: Yeah.

Joanne: Like I dinna think they’re discriminating- nating against.

Mercedes: It's having- it's just how it's done.

Joanne: Yeah and I think- they shouldn’t change it to women because, seeing they've got so many country ones that has men and women that the Lerwick one just wouldna be the same.

Mercedes: Um-hum.

Joanne: But some lasses probably disagree and think that they should have women. But I totally think that they should just stick with the men.

A portable Marantz PMD671 Digital Audio Recorder was used with lapel microphones. The data are fully digitised and transcribed using Transcriber, software which allows speech to text synchronization. The corpus from the 2nd recordings totals just over 75000 words.

TESTING BIDIALECTALISM. Research on bidialectalism has largely focussed on educational and speech pathology concerns (e.g. Baratz 1969, Papapavlou 2004, Yakioumetti 2006). However, as Hazen (2001) points out, “we do not know the qualitative and quantitative linguistic and sociolinguistic constraints for potentially bidialectal speakers”. The term bidialectal is said to arise in analogy with bilingual (OED s.v. bidialectal) and occurs in situations where there are two dialects in contact, normally an indigenous variety in parallel with a more standardized form. Despite the implied link to bilingualism in the label, and the fact that the term has been in use since the 1950s⁴, “no-one has seriously

⁴ According to the OED, it first appears in the following quote from Weinreich (1954): A ‘diasystem’ can be constructed by the linguistic analyst out of any two systems which have partial similarities (it is these similarities make it something different form the mere sum of two systems). But his does not mean that it is always a scientist’s construction only: a ‘diasystem’ is experienced in a very real way by bilingual
investigated whether humans are capable of maintaining two dialects in the same ways they can maintain two languages” (Hazen 2001:89). If bidialectalism is truly parallel to bilingualism, Hazen (2001) maintains that the speaker must not only produce the same qualitative and quantitative features as monodialectal speakers, but do so without overlap. Empirical analyses suggest that this is not the case. For example, Houston (1969:602) states that “control by Black speakers of both Black and White English…has never been observed by the present writer” even by children cited by teachers as “prototypic examples of bidialectal speakers”. Instead she finds “the possession of two or more linguistic registers [which] belonged to the same linguistic genus”. Labov (1998:140) also suggests that instead of two discrete systems, speakers of AAVE have “a continuum of styles and an intimate mixing of different values of the variants” (see also e.g. Cornips and Hulk 2006, Irvine 2008, Lippi-Green 1997, Sharma 2011). In contrast, a more recent study of “Rachel”, a Pennsylvannia Dutchified English (PDE) and Standard English speaker (Anderson 2011), showed zero rates of PDE features in her speech when interacting with non-PDE speakers. This leads Anderson to conclude that “bidialectals are fully capable of maintaining and skillfully wielding two distinct systems of linguistic features” with no “bleeding” between systems (Anderson 2011:241).^5

Although there is a dearth of research on bidialectalism, the majority of findings suggest that it may be rather different from bilingualism. So what is it? Both rates and constraints are implicated in disentangling this question. In an attempt to position bidialectalism within already established norms, Hazen (2001:93) suggests that it may appear at the “extreme ends of the style-shifting continuum” or “the opposite pole from monolectalism”, as demonstrated in Figure 5 (adapted from Hazen 2001).

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^5 There may also be a difference between receptive and productive bidialectalism. Weener’s (1969:199) study of Detroit youths finds that “the child who is regularly exposed to two dialects…may develop bidialectal comprehension skills but speak only one of the two dialects”. Hazen (2001) too finds a difference in reception vs. production: of the self-identified bidialectal speakers in his Morgantown, West Virginia study, most could identify and understand dialect features, but none demonstrated an ability to match both qualitatively and quantitatively in the production of these forms across the two dialects.
Figure 5: Hazen’s “potential theoretical space for bidialectalism”

The positioning of bidialectalism on this continuum has important implications for determining linguistic outcomes. Sociolinguistic research has demonstrated that all speakers have a variety of styles at their disposal in their everyday repertoire, with these employed according to setting, topic, interlocutor and frame (e.g. Bell 1984, Labov 1966, Schilling-Estes 1998). If placed at this extreme end of styleshifting, bidialectal speakers would be expected to switch between very high and very low rates of the vernacular form, as opposed to the more compressed adjustments shown for attention to speech models (e.g. Trudgill 1972) or even those much larger shifts demonstrated in audience design models (e.g. Bell 1984). Sharma’s (2011:481) research on British-born Asians in London demonstrate that some speakers have “sharp differentiation” across different speech styles, while others show “mixed traits”. In other words, significant individual differences exist. Further, the vast body of research on styleshifting has shown that it generally involves purely quantitative adjustments in the rates of use of a particular variable (e.g. Labov 1966). Within a single grammar, constraint weights remain constant. However, Lim & Guy (2005) argue that ranking differences in different social contexts of use may provide evidence for establishing a difference between style shifting and bidialectalism. In a study of Singarporean English speakers, they find different constraint rankings on (t, d) deletion across formal and informal styles, leading them to suggest that the speakers use “contrasting grammars” across the two styles, rather than simply being “mono-dialectal style shifters” (ibid:166). They conclude that such speakers’ behaviour “cannot be modeled by a single grammar” and that “contrasting constraint rankings can serve as a diagnostic for…bi-dialectalism” (ibid:170). In these data, the variables are different to (t, d) deletion as they involve a qualitative difference in variants from
standard to vernacular. However, we hypothesise that if there is some use of the vernacular forms in the 2\textsuperscript{nd} recordings, and these maintain constraint rankings found in the 1\textsuperscript{st} recordings, then we conclude that the same grammar is in operation.

Taking as a starting point some of the findings above, we now investigate in detail our current dataset. In the following analyses, we consider both rates and constraints on use across the four linguistic variables in both recordings in order to test putative bidialectalism.

**RESULTS FROM PRESENT STUDY**

**Rates**

If bidialectalism is situated at the far end of the stylistic continuum (Hazen 2001), we might expect to find significantly different rates of use across the two interviews with our younger speakers. Figure 6 shows a stylised graph which predicts language use across the two recordings in the present study.

Figure 6: Stylised graph showing bidialectal speech

![Figure 6](image)

Figure 6 shows that for the 1\textsuperscript{st} recording there are high rates of the local form with the dialect speakers and low rates with the standard speakers. This was the actual case in our initial research, as demonstrated in Figure 4. In the 2\textsuperscript{nd} recording, however, we see the
hypothetical reverse: lower rates of the local form with the dialect speakers as they move
to a more standard code in conversation with an outsider in a rather formal context, and
higher rates of the dialect variants in the standard speakers as they converse with a school
friend in a relaxed context. If the speakers have access to two discrete codes, we may find
no use of the vernacular variants at all with the dialect speakers and vice versa with the
standard speakers.

We first analyse use of *ken* for *know* in Figure 7.

**Figure 7:** Use of *ken* across younger speakers in 1\textsuperscript{st} and 2\textsuperscript{nd} recordings

![Graph showing use of ken across younger speakers in 1\textsuperscript{st} and 2\textsuperscript{nd} recordings]

Figure 7 shows two main points: the dialect speakers drop their rates of the non-
standard form as predicted\(^6\). The standard speakers on the other hand, do not use higher
rates of the local form, despite speaking to a highly dialectal peer. We conclude that with
this variable only Joanne, Valerie, Jake, Stewart and Lisa have access to, and use, two
codes. The remaining speakers use one code only: the standardised variety. Note
however, that with the exception of Lisa, there are no “discrete…forms of speech, but

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\(^6\) A chi square test comparing the rates of the dialect speakers’ first recordings with their second
recordings is statistically significant at \(p < 0.001\) (\(df = 1, \chi^2 = 129\)). The low rate of the dialectal
variant makes it impossible to test for statistical significance for the standard speakers in this and
subsequent variables. Chi square tests were chosen in this paper because the number of speakers
made t-tests inappropriate.
rather something of a continuum” (Melchers 2004a:37), with a “mixing of styles” (Labov 1994:180) in the different contexts of use.

Figure 8 shows the results for *hoo*e vs. *house*.

Figure 8: Use of *hoo*e across younger speakers in 1st and 2nd recordings

Figure 8 mirrors the results for *ken*, with the first five speakers using higher rates of the standard variants when compared to their 1st recording, but the remaining five speakers using the standard form near-categorically in the 2nd recording also.

We now turn to the morphosyntactic variable where *be* is used for *have* in perfect contexts.

Figure 9 shows the results.

Figure 9: Use of *be* perfect across younger speakers in 1st and 2nd recordings

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7 A chi square test comparing the rates of the dialect speakers' first recordings with their second recordings is statistically significant at $p < 0.001$ ($df = 1, \chi^2 = 132$).
Figure 9 shows that Joanne, Valerie, Jake, Stewart and Lisa significantly decrease their rates of the local forms in conversation with Mercedes. In fact, Lisa and Valerie have zero rates of the local form in the 2nd recording. For the standard speakers - with Mark, Sean, Rory and Michelle - there remains virtually no use of the vernacular form at all\(^8\).

Lastly, Figure 10 shows use of *th*- stopping across the two recordings.

Figure 10: Use of *th*- stopping across younger speakers in the 1st and 2nd recordings.

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\(^8\) A chi square test comparing the rates of the dialect speakers' first recordings with their second recordings is statistically significant at \(p < 0.001\) (\(df = 1, \chi^2 = 43\)).
Figure 10 reveals that \textit{th}- stopping is differentiated in two ways from the preceding variables. First, \textit{all} speakers have at least some use of the local variant, hence the variable exhibits intra- rather than inter-speaker variation. Second, there is no clear cut more to less hierarchy across the two recordings as with the other variables. In the dialect speakers group, Joanne, Valerie and Lisa have statistically significant style shifting, but Jake and Stewart do not\textsuperscript{9}. The same is true in the standard speakers: Sean shows a statistically significant difference between the two recordings but Mark, Rory and Michelle do not\textsuperscript{10}.

These initial results comparing 1\textsuperscript{st} and 2\textsuperscript{nd} recordings reveal a number of findings:

1. Only half the speakers switch styles according to the different interlocutor: if a speaker uses the dialect in these younger generations in Lerwick, they also have at their disposal a more standardised variety when talking to outsiders. With the remaining speakers, they only have a standardised variety in their repertoire, even when talking to a peer.

\textsuperscript{9}A chi square test comparing the rates of Joanne's first and second recordings is statistically significant ($p < 0.05$ df = 1, $\chi^2 = 7.8$), as is Valerie's ($p < 0.001$ df = 1, $\chi^2 = 13.1$) and Lisa's ($p < 0.05$ df = 1, $\chi^2 = 10.4$). The test for Jake is not statistically significant ($p > 0.05$, df = 1, $\chi^2 = 0.34$) and neither is Stewart's ($p > 0.05$, df = 1, $\chi^2 = 0.22$).

\textsuperscript{10}A chi square test comparing the rates of Sean's first and second recordings is statistically significant at $p < 0.05$ (df = 1, $\chi^2 = 5.7$). The test for Mark ($p > 0.05$, df = 1, $\chi^2 = 1.9$) and Rory ($p > 0.05$, df = 1, $\chi^2 = 0.2$) is not statistically significant. Although Michelle's rates of \textit{th}- stopping and her overall number of tokens make it impossible to test for statistical significance, the rates between the first and second recording are within one percent of each other which suggests no difference.
2. The overall rates for the dialect speakers demonstrate a mixed system in the 2nd recordings. With the exception of Lisa, there is a decrease in use of the traditional variants, rather than a 100% switch to standard forms. However, the decrease is substantial.

3. There are vestiges of dialect forms in the very standardised speakers, but these are focussed solely on the phonetic variable *th*-stopping. The remaining lexical, phonological and morphosyntactic features are all but absent in their speech.

4. Related to (3), across all dialect speakers, there is a decrease in use of the traditional variants across the lexical, phonological and morphosyntactic variables, but with *th*-stopping, there is no simple split between dialect and standard speakers. Individual use differs within these groups.

While these initial overall rates of use may be indicative, the constraints on use may be even more insightful in pinpointing possible bidialectalism. Specifically, in the switch from vernacular to standard, do the linguistic constraints of one system perdure in the other as with styleshifting more generally? Or do ranking differences exist which may suggest a more fundamental difference between styleshifting and bidialectalism (cf. Lim & Guy 2005)? We now turn to a more detailed analysis of the bidialectal speakers’ use of forms across the two contexts of use in order to contribute to these questions.

CONSTRAINTS.

*Ken vs know*

In our previous analysis, we found a difference between use of *ken* vs. *know* as a main lexical verb (5) or discourse marker (6): discourse markers had 100% vernacular use across the variable speakers while the verbal use of *ken* had lower rates.¹¹

5. You’d sit in and you’d *ken* a’ the tunes. (Lisa)
6. Like Americanisms and kind of *ken* peerie sentences (Lisa)

¹¹ A chi square test between the two contexts shows a statistically significant difference at $p < 0.001$ ($df = 1, \chi^2 = 16.2$).
Figure 11 plots these results from the 1\textsuperscript{st} recording with the new dataset. Lisa is removed from the analysis as she had no use of the non-standard form in this 2\textsuperscript{nd} recording.

Figure 11: Use of *ken* as a discourse marker or verb in the 1\textsuperscript{st} and 2\textsuperscript{nd} recordings.

![Graph showing the use of *ken* in 1\textsuperscript{st} and 2\textsuperscript{nd} recordings.]

Figure 11 shows that the more to less hierarchy is maintained in the 2\textsuperscript{nd} recording, with a decrease in use across both linguistic contexts\textsuperscript{12}.

*Hoose vs. house*

Our analysis of the 1\textsuperscript{st} recordings showed that lexical item had an effect on the use of the monophthong vs. diphthong.

Figure 12 compares the results for this constraint across the two recordings. We separate lexical items that appeared more than 30 times across the recordings. With the exception of *how* (N=175), the lexical items appear between 31-46 times each (overall mean = 54). The remaining lexical items are grouped as ‘other’. As with *ken*, Lisa is excluded as she used the standard form categorically in the 2\textsuperscript{nd} recording.

\textsuperscript{12} A chi square test between the two contexts shows a statistically significant difference at p < 0.001 (df = 1, $\chi^2 = 21.8$).
Figure 12: Use of *hoose* across individual lexical items in the 1\textsuperscript{st} and 2\textsuperscript{nd} recordings

![Chart showing the use of *hoose* across individual lexical items in the 1\textsuperscript{st} and 2\textsuperscript{nd} recordings.]

Figure 12 shows that with the exception of *south*, which categorically retains the monophthongal variant, the shift from vernacular to standard is fairly orderly, with a decrease in use of the monophthong across all lexical types\textsuperscript{13}.

We now move to the morphosyntactic variable, *be* perfect. In our previous analysis, we found that the strongest linguistic constraint on use was tense: present tense was highly favoured and past tense disfavoured. Figure 13 shows the results across the two recordings. Both Lisa and Valerie use only the standard form in the 2\textsuperscript{nd} recording and thus are excluded.

Figure 13: Use of *be* perfect across past and present tense in 1\textsuperscript{st} and 2\textsuperscript{nd} recordings.

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\textsuperscript{13} A one-tailed paired t-test comparing the percentages of the various lexical items across the two recordings is statistically significant at $p < 0.001$. 
Figure 13 shows that this constraint is much attenuated in the 2\textsuperscript{nd} recording. However, closer analysis shows that only Joanne uses *be* in past tense contexts: Stewart and Jake show no use at all (although we note very small Ns in this context: Joanne 4, Stewart 5, Jake 11). This suggests that even with extremely low rates of use, constraints may continue to operate, although small Ns preclude further statistical analysis.

\textit{Th- stopping}

We noted in Figure 4 that *th-* stopping looked somewhat different from the other three variables in terms of rates: there was intra- rather than inter-speaker variability and no dramatic decrease in use of the vernacular variants across the bidialectal speakers. We now test for constraints. As noted earlier, we concentrate on voiced contexts only. Our previous analysis revealed that there were higher rates of the standard variant with content words (7) compared to function words (8).

7. She went the *o/d/er* day
8. So I think *o/d/e*y just let him have */d/e* drum shop. (both Michelle).

Figure 14 compares this constraint in the 1\textsuperscript{st} and 2\textsuperscript{nd} recordings. For these results, we include all 9 younger speakers as they were all shown to retain the use of the non-standard variants. However, we separate the groups into the now familiar dialect vs. and standard speakers to assess further their similarities and differences.
Figure 14: Use of *th*-stopping across content vs. function words in the 1\textsuperscript{st} and 2\textsuperscript{nd} recordings

Figure 14 shows that there is no difference in patterns of use across the datasets. The use of the stop variant is higher with function words than with content words throughout\textsuperscript{14}. Thus there is no change in constraints on use with this variable in either speaker cohort.

The analysis of constraints on use reveal that across the two recordings:

1. Despite much lower rates of use, the constraint rankings for *ken*, *hoose* and *be* perfect in the 1\textsuperscript{st} recordings are maintained in the 2\textsuperscript{nd}. The same is true for *th*-stopping,

2. For *th*-stopping, although the shift is less uniform across individual speakers, this variable too demonstrates maintenance of constraints from 1\textsuperscript{st} to 2\textsuperscript{nd} recording.

DISCUSSION. How can these results be interpreted? We suggested in our 2011 paper that our results showing dialect vs. non-dialect use in the younger speakers could well be the product of bidialectalism. However, Sharma (2011) notes that while sociolinguistic interviews “may capture a subset of natural speech styles…they do not routinely capture bidialectal or multilectal ability if it exists in a community”. Our 2\textsuperscript{nd} recordings were an attempt to capture that ability. This further study demonstrated that only half the younger speakers had access to, and used, both standard and dialect forms. The other half were

\textsuperscript{14} Chi square tests comparing the difference between contexts is highly statistically significant for all groups and recordings (p < 0.0001 in all cases, df =1).
monodialectal, using the standard variety only. We believe that this qualitative split amongst these speakers supports our initial interpretation of language change in Lerwick: dialect obsolescence is well advanced in this community. Just as bilingualism is a necessary condition for language shift and an integral part of the process (e.g. Fishman 1964), we suggest that the same is true for bidialectism and dialect shift. Presumably access to, and use of, the standard is a relatively recent phenomenon in Shetland, but Melchers (1983) has noted bidialectal use in Shetland in her 1983 study, a full generation before the younger speakers in our sample. What we suspect has happened over the intervening 30+ years is that there has been a further shift amongst some younger speakers to a form of Scottish Standard English only. In her study of dialect death in South Central Pennsylvania Dutchified English, Anderson (2011) characterises the younger speakers in this community as the “generation of choice”. She states that this group grew up with PDE speaking parents, but exposure to Standard English through sources such as schooling and peer group led them to make one of three “choices” in their language use:

1) to retain the vernacular
2) to use both standard and dialect i.e. to be bidialectal.
3) to shift to Standard English

We suspect that the same is true in Lerwick, and our findings lead us to propose a trajectory of language use across the generations. In the older generations, only 1) and 2) are possible: in the middle-aged generations, this choice is reduced to 2); in the younger generations, the choice includes both 2) and 3). This results, in Anderson’s (2011:330) words, in the “unravelling” of a dialect as the younger generations lose consistency in which “features they use and how to use them”. Our 2011 paper showed that the younger dialect speakers match older speakers’ constraints on use, i.e., there is maintenance of constraints. With this trajectory, however, we hypothesise that these constraints will also “unravel”, and the dialect will suffer further obsolescence in the coming generations. Only 3) will remain a viable option in the further breakdown of form and function, or “dedialectalisation” (Trudgill 1996) of the vernacular. The “generation of choice” may
well become the generation of no choice.

As we discuss in Smith & Durham (2011), what has caused this dramatic trajectory is most probably a combination of factors: standardising norms, globalisation, speaker attitude, in-migration and a host of other factors known to influence language change. However, the intriguing split among the younger speakers, where half have “chosen” a standardised variety and the other half bidialectalism, remains a vexing question, especially in the light of the fact that all of our younger speakers’ parents used the dialect (see Smith & Durham 2011). Although we may not currently have an answer to this, perhaps more importantly, the available evidence suggests that our original interpretation of the Lerwick dialect being at a “tipping point” (Smith & Durham 2011) remains plausible.

**Bidialectalism and Rates of Use.** What about the remaining speakers who demonstrate use of two codes? What do their rates of use across the 1st and 2nd recordings reveal about putative bidialectalism? Figure 4 showed that the speakers have varying rates of the vernacular forms in the 1st recording as opposed to 100% use. Our previous research (Smith & Durham 2011) showed that in general, the younger dialect speakers had rates of vernacular forms in line with the older generations. Moreover, in the 2nd recordings, there is no 100% use of the standard forms but instead simply a decrease in use of the traditional variants across most variables. As Melchers (2004a:37) points out, instead of “discrete, definable forms of speech” the switch between standard and local in the speakers’ repertoire “may well be something of a continuum”, just as Labov (1998) suggests. The one exception to this is Lisa, who shows no use of either ken, hoose or be perfect in the 2nd interview. She is categorically standard across these variables. The explanation for this may lie in the fact that between the 1st and 2nd recording, Lisa moved to the mainland for university. This prolonged face-to-face exposure most probably accounts for her categorical rates of use and suggests that in fact there can be a categorical move from one dialect to the other across at least some variables and some speakers (see also Anderson 2011)\(^{15}\). We note too that Joanne had also moved to the

\(^{15}\) Also worth noting is that Lisa’s interview was conducted in Glasgow while all the others took place in Lerwick. This, too, may have had an influence on Lisa’s speech patterns.
mainland but showed no such categorical use. This raises the question of whether all
speakers can move from one system to another without overlap but simply choose not to
(see also Sharma 2011). This is the subject of further research, as discussed in the
Conclusion.

If there is no categorical use of one dialect or the other for most speakers, is there a
percentage threshold of use one dialect or the other to be considered fully bidialectal
(Hazen 2001)? A number of studies on perception in recent years have shown that
listeners are sensitive to differences in frequencies as small as 10% in assigning
sociolinguistic categories to speakers (e.g. Campbell-Kibler 2006; Labov, Ash,
Ravindranath, Weldon, Baranowski, Nagy 2011). Figure 15 shows that the difference in
rates across Valerie, Joanne, Stewart, Jake and Lisa in three of the four variables from the
1st recording to the 2nd are far in excess of 10%:

Figure 15: Difference in % of vernacular forms in 1st and 2nd recordings

The decrease in rates reported here are of a different magnitude when compared to
studies of styleshifting in the attention to speech model (e.g. Labov 1972:114, Trudgill,
1972:114) with shifts of around 10% in the move from casual to careful speech. They are
not much different, however, to the quantitative shifts based on audience design models
(Bell 1984). For example, Coupland’s (1980:7) study of styleshifting in a Cardiff work
setting show dramatic rate differences across casual and “telephone” contexts across h-
dropping, intervocalic /t/ and final consonant clusters (although not with (r) or (ə)) with an overall decrease in use of vernacular variants of around 40%. Trudgill’s (1981) study of t-glottalisation in his own speech in the sociolinguistic interview setting shows differences in rates around 70% depending on who he was interviewing. Douglas-Cowie’s (1978) study of speakers in Northern Ireland is probably the closest in design to the present study in that each speaker was interviewed by an outsider and an insider. Her results showed around 50% shift from vernacular to standard variants with some speakers across a range of variables. Sharma’s (2011) study also shows very divergent rates according to context, although again this was speaker-specific. In these data, all dialect speakers shift quite dramatically but as these previous studies show, this is not unprecedented, and may lend support to Hazen’s (2001) assertion that bidialectalism is at the extreme end of styleshifting.

How the rates differ across the four variables are also indicative. For ken and hoose, although there are much lower rates in the 2nd recording, they are still used prolifically in the 2nd recording, at around 50% of the time. For be perfect, on the other hand, two of the five dialect speakers do not use this local form at all in the 2nd recording, and of the remaining three, two show vanishingly low rates. Why might this be? We note that while ken and hoose are used on the mainland, be perfect is not. This suggests that variants used on mainland Scotland may be more “acceptable” in speech to outsiders, wherever they are from, whereas the “marked” nature of be perfect in geographic terms makes is less acceptable (e.g. Trudgill 1986, Mufwene 2001). As Melchers (2004b:40) states, “the be construction belongs to the ‘Shetland code’” (i.e. the local dialect) rather than “Shetland English” (i.e. the standardised variety). These results may also be related to who the speakers in Shetland are most used to accommodating to (e.g. Giles, Taylor and Bourhis 1973). Alignment to mainland Scots may well override the fact that their interlocutor is a Swiss-American, and could be expected to be unfamiliar with hoose, ken and other Scots forms.

Finally, Melchers (2004a:37) maintains that in Shetland “certain traditional-dialect features are stable…whereas others vary with the speaker, the situation, and the topic, such as th- stopping”. In our data, th- stopping was distinguished from the remaining

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16 Linnes (1998), on the other hand, found no statistically significant differences in her AAVE speakers.
three variables on two counts. First, it demonstrated intra- rather than inter-speech variability. All speakers used *th*- stopping some of the time, even those who were completely standard with the remaining variables. Second, use of *th*- stopping did not show the more to less hierarchy across recordings: some speakers styleshifted while others did not. Why might this be so? As speakers ability to switch styles “is related to the degree of social awareness of a linguistic variable by members of the community” (Labov 2001:85), these results suggest that *th*- stopping in particular contexts of use are below the level of consciousness for at least some of the younger speakers in Shetland. As a result, they continue to use it in the same way as they would with an insider as they do not know that they are using it in the first place. Moreover, Auer, Barden and Grosskopf (1998, 2000) suggest that the more salient a feature is, the more likely it is to be abandoned in the course of dialect contact (see also Trudgill 1986), thus this might explain why it remains in the speech of those who have abandoned all other dialect forms.

Taken together, these results in rates of use across the different variables suggest that features taken from different levels of the grammar may pattern differently across contexts, just as they do in styleshifting more generally (e.g. Bickerton 1980:43, Rickford & McNair-Knox 1994, Kerswill 1987). We should point out, however, that the differential use of variants across the 1st and 2nd recordings, and hence what might be salient, is most likely community specific (see e.g. Kerswill & Williams 2002). In our previous research on acquisition of variation in pre-school children in Buckie, a small community in north east Scotland (Smith, Durham & Fortune 2007, 2009, Smith, Durham & Richards, in press) we found that morphosyntactic variables were not salient.

17 We stress that speakers may not be aware of *th*- stopping in particular contexts of use as they clearly are aware of this variant in some contexts. For example, it is regularly represented in dialect writing and even appears in shop names. We also note that gender may play a role: four of the five non-shifters are male, while three of the four shifters are female (e.g. Labov 2001).

18 We note that *th*- stopping is a stable variable in many varieties of English (e.g. Labov 2006:235-238). However, Figure 3 suggests that this variant is in decline in this community (albeit at a much slower rate than the other variables). As styleshifting with this variable is much more consistent in other dialects (e.g. Labov 2001:99), the individual differences in these data may provide support for the claim that “style-shifting for variables undergoing change is different than it is for stable sociolinguistic variables” (Eckert 2001:10). We are currently conducting a more in-depth analysis of this variable which may shed more light on exactly where speakers retain this variant, and why (Smith, Holmes & Durham, in progress).

19 But see Blevins (2006) who argues that stops are the ‘natural’ default in varieties of English, with fricatives maintained as a result of prescriptive norms.
for the caregivers and thus weren’t for the children either: the vernacular form was used in both formal and informal contexts. With lexical, phonetic and phonological variables, there was styleshifting. This has implications for how bidialectalism operates across different communities: in stark contrast to Lerwick, we predict that in Buckie there would be no systematic codeswitching with some morphosyntactic variables but switching with others in the adult community. Uncovering universal vs. dialect specific constraints on bidialectalism is the subject of future research.

**Bidialectalism and Constraints on Use.** Recall Lim & Guy’s (2005) claim that change in constraint rankings for a variable may provide a good diagnostic for distinguishing bidialectalism from styleshifting. They state that “within a single grammar, constraint weights do not vary, leaving style shifting to affect only the overall rates of usage of a form. When constraint weights differ, however, different grammars are involved, and hence, the speaker who commands multiple grammars is not simply style-shifting but is multi-dialectal” (ibid:169). In our data, we hypothesized that if constraints found in one dialect were evident in another, then this would be evidence for extreme styleshifting, rather than use of a separate, discrete system. We found maintenance of constraints across the four variables we analysed. For example, *ken* vs. *know* showed the more-to-less hierarchy in verb vs. discourse marker use in both 1st and 2nd recordings, despite reduced rates. *Hoose* showed a systematic decline in use of the monophthongal variant across all lexical types. *Be* perfect had extremely low rates in the 2nd interview, yet the constraint on tense was still visible. *Th*-stopping showed no change in either rates or constraints. This leads us to conclude that these younger speakers in Shetland have one grammar, and within that grammar, two co-existent systems, where rates of use, but not constraints on use, change from one interlocutor to another. In other words, in the supposed switch from one dialect to another, there is no clean break: the constraints “travel” in the same linguistic bag.

The details of the constraints may provide further insight. In the use of *ken* for *know*, there are much lower rates of *ken* in verb function when compared to discourse marker use. The semantic weight of the verb may outweigh the pragmatic weight of the discourse marker, hence making the verb function more susceptible to standardization in
interaction with an outsider. The peripheral nature of discourse markers - they occur outside the grammar (e.g. Schiffrin 1987) - may also affect its use. For the *hoose* variable, one lexical item stands out - *south* – with 100% vernacular variant *sooth*. In this context, this lexical item designates “not Shetland” thus we suggest that it is iconic in the speech of Shetlanders: a them and us where *south* is a shift too far. An equivalent would be *toon* in Newcastle (e.g. Beal 2000), where standard *town* may mean something different. For *be* perfect, we note that past tense contexts are far fewer than present, thus making this context more susceptible to innovative forms (e.g. Bybee 2007). Thus both linguistic and social influences affect the different constraint weights in the move from insider to outsider interaction.

Perhaps most importantly, these results for constraints support claims that bidialectalism is much like styleshifting more generally (e.g. Labov 1998, Hazen 2001).

**CONCLUSION.** This research had two aims. The first was to discover whether our previous results on change in this dialect indicated obsolescence or use of different codes in the sociolinguistic interview setting. We found that only half the younger speakers in Shetland were bidialectal, leading us to conclude that the dialect in Lerwick may well be subject to dialect obsolescence. The second aim was to uncover the qualitative and quantitative patterns of use of those speakers who had access to two codes. We found that rates of use differed across three linguistic variables in conversation with two different interlocutors, but the constraints remained the same. With one variable, th- stopping, the rates of use were mixed, but the constraints remained the same. This led us to conclude that a bidialectal speaker is very different to a bilingual speaker. A bilingual speaker has two different grammars for, e.g., French and English (e.g. Roeper 1999), but a bidialectal speaker has one grammar, and within this, two dialects, resulting in a “mixing

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20 An alternative explanation is that the result is a function of frequency effects, with *house* much more frequent than *south* in discourse. In these data, *south* appears 35 times, and *house*, 45 times, thus it is unlikely that the results are due to low Ns with particular lexical items.

21 But see experimental data on how phonetic subsystems of bilinguals can converge, suggesting that there may not show clear-cut differences in constraints across languages (e.g. Flege 2007).
of variants” or “co-existent systems” (Labov 1998:140) which “bleed” into each other in everyday use\textsuperscript{22}.

What this study has not tackled is the question of intra-recording styleshifting between standard and vernacular (e.g. Moore and Podesva 2009, Sharma 2011, Schilling-Estes 2004). This may help answer our question above regarding whether all speakers have the ability to shift completely to one dialect in particular situations, as Lisa did in the 2\textsuperscript{nd} recording. This will be the next phase of data analysis. As Labov (2001:85) observes “In the course of linguistic change, children learn to speak differently from their parents, and in the same direction that their parents learned to talk differently from their own parents. To trace this post-vernacular reorganization, we will need to record the dynamic inter-play between speakers and their styles in the social settings of most significance to their life chances”. A more in-depth ethnographic study of Lerwick may help shed more light on the extreme post-vernacular reorganisation in this community of speakers as they move from vernacular to bidialectal to standard in this and the coming generations.

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\textsuperscript{22} A further test of this hypothesis would be to analyse a variable which is used in both dialects, as with Lim & Guy’s (2005) study. Candidates for future analysis include (t, d) deletion, future temporal reference and t-glottalling.
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