Chapter 18

Pronunciation and miscommunication in ELF Interactions:
An analysis of initial clusters

Ishamina Athirah Gardiner and David Deterding
Universiti Brunei Darussalam

Introduction

It is nowadays well established that not all features of pronunciation are equally important in maintaining intelligibility in ELF interactions, and Jenkins (2000) has proposed a Lingua Franca Core (LFC) of the features of English phonology that are essential for avoiding misunderstandings in international communication in English. Jenkins (2007) further notes that, for features of pronunciation that do not cause misunderstandings to occur, variation in their realisation can contribute to the distinct accent of speakers, allowing them to maintain their own identity without too much danger of affecting intelligibility. However, further research involving more data in a wide range of different environments is needed to establish with greater confidence which features of pronunciation really are important for ensuring intelligibility in ELF settings.

Jenkins (2000) claims that it is important for initial consonant clusters to be maintained, while there is scope for some simplification of final clusters without too much impact on intelligibility, and Deterding (2013) confirms these suggestions, showing that simplification of initial clusters such as /kl/ and /pt/ can often give rise to misunderstandings, while omission of a final /t/ in phrases such as mashed potatoes or a /d/ in bend back, is less likely to affect intelligibility. Indeed, speakers in Britain routinely omit /t/ and /d/ in phrases such as this (Cruttenden, 2014, p. 314), and Wells (2008, p. 145) suggests that any /t/ in Christmas is only present ‘in very careful speech’, so it would seem strange to expect ELF speakers to produce these sounds.

The current study investigates ELF conversations that took place in Brunei, looking at initial clusters in more detail in order to determine the extent to which simplification or substitution occurs and focusing on the degree to which accurate production of initial clusters is important for maintaining intelligibility.

Data

Recently, a corpus of misunderstandings has been collated from ELF conversations that took place in Asia (Deterding, 2013). The corpus is based on nine recordings collected as part of
the ACE project (Kirkpatrick, 2010), eight of them involving two speakers and one involving four speakers. Just the eight recordings involving two speakers are analysed here. All of the speakers in these eight recordings come from places in Southeast and East Asia: Brunei (Br), China (Ch), Hong Kong (Hk), Indonesia (In), Japan (Jp), Laos (Ls), Malaysia (Ma), and Taiwan (Tw). In addition, data from a second corpus is also analysed in this paper, with ten recordings of between 20 and 25 minutes each, all involving a Bruneian being interviewed by someone from elsewhere (Ishamina and Deterding, 2015). The non-Bruneian speakers in this second corpus come from China (Ch), France (Fr), Korea (Ko), the Maldives (Md), Oman (Om) and Vietnam (Vn). In both sets of data, the two speakers in each recording do not share a common first language, so the data fits the definition provided by Seidlhofer (2011, p. 7) that ELF involves ‘any use of English among speakers of different first languages for whom English is the communicative medium of choice, and often the only option’. In total, about 9 hours and 20 minutes of speech is investigated.

The speakers are labelled with F or M (to indicate their gender) followed by a two letter code to indicate their place of origin. In cases where there is more than one participant of the same gender from a country, they are numbered, so for example the six female speakers from Brunei are labelled FBr1 to FBr6. Even though FBr6 and FCh5 are from the first corpus that was recorded, they are labelled with a high number, in order to ensure consistency with the labelling in other analyses (e.g. Ishamina and Deterding 2015).

A total of 3,313 words with initial clusters have been identified in the data, 64 with three consonants, mostly /str/ (e.g. strong, stress) and /stj/ (e.g. student), while the remaining 3,249 tokens have two consonants in the cluster. Of the two-consonant initial clusters, 983 involve /s/ plus another consonant, particularly /st/ (e.g. study, still), /sk/ (e.g. school, skill) and /spl/ (e.g. speak, spicy), while the other 2266 involve a consonant other than /s/ together with a liquid /r/ (e.g. from, friend), /pr/ (e.g. probably, primary), /pl/ (e.g. place, play) and /kl/ (e.g. class, close), or a consonant other than /s/ together with an approximant /w, j/, such as /kw/ (e.g. quite, question), /fj/ (e.g. few, future) and /mj/ (e.g. music, museum). The clusters with the fewest tokens are /slf/, with just a single token of sphere, and /fr/, with two tokens of shrimp.

**Consonant omission**

Of the 64 words that begin with three consonants, the middle plosive is omitted in six words: MHk omits the /p/ in one token of split and the /t/ in one token of stroke, while MBr3 omits the /t/ in three tokens of stress and MBr2 omits the /t/ in one token of stressful. In all the other 58 cases, all three consonants are produced.

Of the 3,249 words that begin with two consonants, the cluster is simplified in 136 tokens. In all cases, it is the second consonant that is omitted apart from two tokens: in one, /bl/ is omitted from black by FCh5 who pronounces the word as [brː]; and in another case, FVn omits the initial /fl/ in free, pronouncing the word as [riː]. The most common simplifications are: 31 tokens of /tr/ omitted from /pr/ in words such as probably (5 tokens) and project (3 tokens); 19 tokens of /tl/ omitted from /frl/ in a range of words including fry/fried (5 tokens), free/freedom (4 tokens) and from (3 tokens); 16 tokens of /tl/ omitted from /brl/, especially in brunei (10 tokens) and breakfast (5 tokens, all by MLs); and 15 tokens of /l/ omitted in /pl/, including play (5 tokens by MLs) and plastic (4 tokens by MHk). The only omission of consonants other than liquids and approximants involves /tl/ which is absent from /st/ in 13 tokens, including 4 tokens of start/started.
Consonant change

74 words exhibit a change in the initial cluster. 5 tokens exhibit both change and simplification, with the /bl/ at the start of black pronounced as [r] by FCh5 (as mentioned above), and 4 tokens beginning with ‘thr’ pronounced as [f], 3 tokens of three and one of throw, all by MHk.

Of the 69 words in which there is a change in the consonant cluster but no simplification, a common change involves the 25 words beginning with ‘thr’: in 10 tokens the initial cluster is pronounced as [fr] by MHk, in 10 tokens it is pronounced as [tr] by a range of speakers, and in 5 tokens it is pronounced as [sr], 4 by FTw and one by MFr. However, given that variable realisation of voiceless TH is often regarded as acceptable in ELF interactions (Jenkins, 2007) and also that use of [t] for voiceless TH is widespread throughout Southeast Asia and might even be emerging as the norm in the region (Deterding and Kirkpatrick, 2006), it is questionable whether these words involving initial voiceless TH should be classified as involving consonant change in an ELF setting.

The remaining 44 words mostly involve /l/ being pronounced as [r]: there are 19 tokens in which /pl/ is pronounced as [pr], especially in words such as play and place(s) by various speakers from China, and 17 tokens in which /kl/ is pronounced as [kr], particularly 10 tokens of class starting with [kr] by FJp. There is just a single token of /rl/ in a cluster being pronounced as [l]: MLs pronounces brother with [bl] at the start. It seems that, while /l/ is sometimes omitted and sometimes pronounced as [r], in contrast /rl/ may be omitted but is rarely pronounced as [l].

Misunderstandings

Kaur (2009) makes a valuable distinction between a ‘misunderstanding’, in which the listener thinks they know what is said but gets it wrong, and a ‘non-understanding’, in which the listener is unable to guess what is said. However, in reality, it is often hard to make this distinction, so here we refer to all words that are not understood as misunderstandings.

Only a small percentage of misunderstandings are signalled in the recordings, as many speakers, including speakers of ELF, have a tendency to adopt the ‘let-it-pass’ strategy (Firth, 1996) in the hope that a few misunderstood words will not matter in the long run. Deterding (2013, p. 113) estimates that only about 11 per cent of the instances of misunderstanding in the ELF interactions in his data are signalled by means of such strategies as asking for clarification or when the interlocutor makes an inappropriate response, and in the overwhelming majority of cases, the interlocutor keeps quiet or provides some kind of back-channel to pretend that they actually do understand.

Therefore, in order to identify misunderstandings that are not signalled, we depended on feedback from the participants. We asked them about what they did not understand, and in some cases, we asked them to transcribe a few words in a selected extract which we suspected might have been problematic. There are two limitations to this methodology. First, we cannot be sure, on the basis of a subsequent failure to transcribe some words accurately, that a misunderstanding did actually occur, as it is possible that, in the context of the conversation, everything was understood perfectly well, and it was only later, when listening to the recording, that some words were not clear. And second, we have almost certainly missed some tokens of words that were not understood. It would be ideal to get both participants in all the conversations to transcribe the whole recording, but transcribing speech is tedious and time consuming, and it is clearly not feasible to ask all participants to do this.
Altogether we identified 321 misunderstandings. We then attempted to classify the factors that caused them, and in many cases more than one factor is implicated. For instance, in Example 1, FTw does not understand meal plan, and she hears view pen instead. (In these examples, the location from the start of the recording is shown in seconds. Short pauses are shown as ‘(.)’ while the duration in seconds of longer pauses is indicated inside the brackets. Misunderstood words are bold and underlined. In this case, FTw also does not understand dorm, but here we will just focus on meal plan.)

Example 1: MHk + FTw (Location: 1969)

Context: MHk is talking about the cost of tertiary education in America.

1 MHk you send the kid you know to the university (1.3) tuition is a major part of it
2 you know (. ) all the (. ) you know (. ) **dorm** (. ) **the meal plan** (. ) just killing
3 FTw view pen what is that
4 MHk yeah meal you know eating you know
5 FTw ah meal

There are two key factors that cause this misunderstanding of meal plan to occur: first, MHk omits the /l/ in plan; and second, FTw is not familiar with the term meal plan to refer to a schedule for university students in the USA to pay for their meals. So we classify this as involving both pronunciation and unfamiliar lexis.

The classification of factors causing the 321 tokens of misunderstandings to occur is shown in Table 18.1, in which the figures do not add up to 100 per cent because of cross-classification.

Clearly, pronunciation is the biggest factor in causing misunderstandings to occur, confirming the claims of Jenkins (2000) that pronunciation is crucial in international interactions in English, though unfamiliar lexis can also cause a problem. Bruneians sometimes use lexical items that are unfamiliar to speakers of English from elsewhere, including in our data words such as turrets, shawl, starchy and wharf and phrases such as acquired taste, for good, role playing and cooperating teacher, and they also occasionally use Malay terms such as ugama (‘religion’) and sekolah rendah (‘primary school’), forgetting that their interlocutors may not know these words. While such unfamiliar lexis and code-switching by the non-Bruneian speakers also sometimes causes misunderstandings, such as hotpot by FCh5, knuckle of pork by FTw, and pehin menteri ugama (‘the honorable minister of religion’) by MIn, most of the instances of misunderstanding involving lexis and code-switching in our data are by the Bruneian speakers.

Grammar is implicated in just over 20% of misunderstandings, though both Deterding (2013) and Ishamina and Deterding (2015) suggest that it usually only plays a minor role and is rarely the main factor in causing misunderstandings to occur.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Misunderstandings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pronunciation</td>
<td>237 (73.8%)</td>
</tr>
<tr>
<td>Lexis</td>
<td>106 (33.0%)</td>
</tr>
<tr>
<td>Grammar</td>
<td>66 (20.6%)</td>
</tr>
<tr>
<td>Code-switching</td>
<td>17 (5.3%)</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>8 (2.5%)</td>
</tr>
</tbody>
</table>
One further point should be made about the frequency of misunderstandings involving pronunciation: in some cases in which it is implicated as the main factor, it is actually the listener’s pronunciation that causes the problem. For example: MKo hears neuro-linguistic spoken by MBr3 with initial /ŋ/ as ‘nearer linguistics’ because he is most familiar with an American accent in which words which start with neuro would not generally have /ŋ/ (Wells, 2008, p. 537); and FVn hears shrimp spoken by FBr2 as ‘trip’ even though the /ʃr/ at the start sounds perfectly clear. FVn subsequently confirmed that she knows the word shrimp, and we conclude that this misunderstanding may have occurred because Vietnamese has no /ʃ/ (Hansen, 2006), so FVn has problems differentiating /t/ from /ʃ/. We should remember that understanding is a cooperative venture by both parties, and phonological failures cannot always be attributed to the speaker (Smith, 1992).

**Misunderstanding of words with simplified initial clusters**

A total of 52 words that are misunderstood start with an initial cluster. In 19 of these tokens, there is no simplification or change in the cluster, so in most of these tokens the problem is lexical, not phonological. Examples include starchy, freshies, spinning (top), squash (the game) and stranded by various Bruneian speakers and great in the phrase ‘great leap forward’ by FTw. In other cases, the issue is phonological but connected with something other than the initial cluster. For instance, there is no simplification of the initial /sp/ in spade (in ‘garden spade’) said by MHk, but the word is misunderstood by FTw because the final /dl/ is missing and she subsequently transcribed ‘garden spade’ as ‘gardens where’ with no final consonant; and pressure said by MIn has an initial /pr/ that is not simplified, but the word is misunderstood by FTw, probably because the medial consonant is voiced, though it is hard to be certain as in her transcription she was unable to make a guess about the word.

In 29 words that are misunderstood, the initial cluster is simplified. 20 of these tokens are spoken by MHk. 18 tokens with simplified initial clusters uttered by him are not understood when he is talking to FTw and 2 are not understood by FMa. 9 tokens involve /l/ omitted from /pl/: plastic (4 tokens), plough (2 tokens), plant, planting and plan (1 each). Example 2 illustrates that even in the common phrase ‘plastic container’ in the context of talking about pollution, FTw hears past instead of plastic as a result of the omitted /l/.

**Example 2: MHk + FTw (Location: 1564)**

Context: MHk is talking to FTw about wastage and pollution.

1. **MHk** how long you know for the (.) nature you know to digest this plastic container

MHk also omits the /l/ from /kl/ in two tokens of close and one of class, though the biggest problem with this last one is the absent final /s/, and he omits the /l/ from /fl/ in one instance of flaming (to be discussed below in Example 3), and one of floating. In addition, there are five words spoken by MHk that are misunderstood because of omission of /l/: 3 tokens of process and one each of provide, phrase and three, the last of which is produced with an initial [f].

Even when simplification of the consonant cluster seems to be the main issue, it is not always the sole factor. In line 1 of Example 3, FMa understands freezing perfectly well, even though the /l/ is omitted, because ‘freezing cold’ is a common phrase; but when the /l/ is omitted from flaming, she hears fuming instead of flaming, largely because ‘flaming hot’ is not a common phrase. So we can conclude that this token of misunderstanding occurs because of unexpected lexical usage as well as the simplified consonant cluster at the start of flaming.
Example 3: MHk + FMa (Location: 1211)

Context: MHk is discussing why he does not like relocating.

1 MHk because every time when i relocate you know. either really cold freezing cold
2 FMa mm
3 MHk or flaming hot

The eight misunderstood words with simplified initial consonants spoken by participants other than MHk are listed in Table 18.2. (In cases in which the listener, in subsequent feedback, was not able to make a guess, or in which, in the recording, the listener appears completely puzzled, the entry in the ‘Heard as’ column is shown as ‘?’.) In black spoken by FCh5, the initial /b/ is omitted, and in free by FVn, /f/ is omitted. In all other cases, it is the second consonant that is omitted.

In the context in which they occur, some of these misunderstandings are surprising, but they were all confirmed either by feedback from the participants or occasionally they are signalled in the recording. An instance of the latter is shown in Example 4. Clearly FBr2 does not understand FVn as a result of the missing /f/ from the start of free, as in line 2 she says pardon, even though we might expect ‘free time’ to be understandable from context. (In this example, ‘?’ indicates rising intonation.)

Example 4: FBr2 + FVn (Location: 1211)

Context: FVn is asking FBr2 about her hobbies.

1 FVn yeah erm and how about what do you often do in your free time?
2 FBr2 pardon?
3 FVn what do you usually do in your free time?
4 FBr2 well erm (.) i like to (.) mmm (2) play games?

Clearly, simplified initial consonant clusters can be problematic. Of the 142 tokens with a simplified initial cluster, 52 (37 per cent) are misunderstood. It is not true that simplification of initial clusters always leads to misunderstandings, and for instance the /l/ in brunei is omitted on 9 occasions by a range of different speakers but this word is never misunderstood, as there is not much else that [buːni] could refer to. Nevertheless, simplification of initial clusters does quite often have an impact on intelligibility.

Table 18.2 Tokens with simplified initial clusters that are not understood

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Listener</th>
<th>Word</th>
<th>Heard as</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>FBr1</td>
<td>FMd</td>
<td>grandparents</td>
<td>?parents</td>
<td>my late grandparents erm are</td>
</tr>
<tr>
<td>FBr3</td>
<td>FCh2</td>
<td>studied</td>
<td>said</td>
<td>was in korea like i i studied there right?</td>
</tr>
<tr>
<td>FCh3</td>
<td>FBr4</td>
<td>trick</td>
<td>tick</td>
<td>and trick the mosquitoes</td>
</tr>
<tr>
<td>FCh5</td>
<td>FBr6</td>
<td>black swan</td>
<td>rex one</td>
<td>yes i just saw the (.) black swan, i liked it.</td>
</tr>
<tr>
<td>MLs</td>
<td>FBr6</td>
<td>break</td>
<td>bake</td>
<td>the food they serve in (.) coffee break or</td>
</tr>
<tr>
<td>MLs</td>
<td>FBr6</td>
<td>treaty</td>
<td>?</td>
<td>when we discussions er the treaty agreement</td>
</tr>
<tr>
<td>MLs</td>
<td>FBr6</td>
<td>present</td>
<td>?</td>
<td>i saw: some present from er: my former</td>
</tr>
<tr>
<td>MLs</td>
<td>FBr6</td>
<td>present</td>
<td>?</td>
<td>the former prime minister present to your</td>
</tr>
<tr>
<td>FVn</td>
<td>FBr2</td>
<td>free</td>
<td>?</td>
<td>what do you often do during your free time?</td>
</tr>
</tbody>
</table>
Table 18.3  Misunderstood words with changed initial clusters and no simplification

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Listener</th>
<th>Word</th>
<th>Heard as</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>FJp</td>
<td>FBr6</td>
<td>fluently</td>
<td>poetry</td>
<td>to study abroad? can: speak English <strong>fluently</strong></td>
</tr>
<tr>
<td>FCh5</td>
<td>FBr6</td>
<td>club</td>
<td>crowd</td>
<td>the president of er international <strong>club</strong> they talk to</td>
</tr>
<tr>
<td>FCh5</td>
<td>FBr6</td>
<td>trekking</td>
<td>(checking)</td>
<td>er rafting? and <strong>trekking</strong></td>
</tr>
<tr>
<td>MIn</td>
<td>FTw</td>
<td>three</td>
<td>three?</td>
<td>i have three children (..) how many you have</td>
</tr>
</tbody>
</table>

**Misunderstanding of words with changed initial clusters**

Of the 74 words with a changed consonant in the initial cluster, just 6 are misunderstood. Two of these have already been mentioned because they also involve simplification: **black** with initial [r] by FCh5, and **three** with initial [f] by MHk. The remaining four tokens are shown in Table 3.

In the first token, **fluently** has [fr] at the start, and FBr6 subsequently indicated that she mis-heard it as **poetry**. In the second token, **club** starts with [kr], and after the recording FBr6 stated that she heard it as **crowd**. The third misunderstanding involves **trekking** pronounced with initial [f], and the wider context is shown in Example 5. Although there is no evidence from the recording that a misunderstanding has occurred, in FBr6 subsequently transcribed the word as ‘(checking)’ to indicate that she did not know what the word was.

Example 5: FCh5 + FBr6 (Location: 1415)

Context: They are talking about outdoor exercise, such as walking through the forest.
Temburong is a rural district in Brunei, with lots of forest.

1  FBr6  so what did you do in temburong
2  FCh5  er rafting? and **trekking**
3  FBr6  oh wow

We might note that **trekking** as [tʃəkn] is actually quite similar to the way that someone from the UK might say the word, as initial /tr/ is often pronounced as [tʃr] (Wells, 2011). It seems that mimicking native patterns of speech is not necessarily effective in maintaining intelligibility in ELF interactions.

Finally, there is the misunderstanding of **three** because of the initial [tr], one of the very rare instances in our data in which use of a sound other than [θ] for initial voiceless TH seems to cause a problem, and we might note that variation in the pronunciation of TH is one of the key areas of variation which are seen as acceptable in the LFC (Jenkins, 2000). The context is shown in Example 6 (in which overlaps are shown with <1> and <2>, and laughter is shown with ‘@’).

Example 6: MIn + FTw (Location: 1415)

Context: FTw is asking MIn about his family

1  FTw  so all your family are here?
2  MIn  yeah eventually er (.). i have **three** children (.). how many you have
3  FTw  we got two
4  MIn  oh great <1> @ @ @ </1>
5  FTw  <1> and how about </1> you. do you <2> (have three) </2>
6  MIn  <2> three i have three </2> i have three childrens yeah
In fact, FTw seems to guess correctly in line 5 (though the overlapping speech makes it hard to be sure, which is why the words ‘have three’ are shown in brackets). However, even if she does appear to guess correctly, the fact that she needs to ask for clarification after MIrn has just said that he has three children suggests that some kind of misunderstanding has taken place.

We noted above that there are 69 words in which the initial cluster is changed (excluding the 5 tokens which also exhibit simplification). Here, we find that only 4 of these 69 words (6 per cent) are misunderstood, which is much less than the 37 per cent noted above for misunderstanding the words with a simplified initial cluster. It seems that, while using [r] in place of /l/ in an initial cluster can occasionally have an impact on intelligibility, substitution of consonants in initial clusters is generally less of a problem than simplifying them.

**Discussion**

In this chapter, we have focused on misunderstandings that occurred in ELF recordings made in Brunei of conversations between speakers from different countries, and we have analysed 321 tokens of misunderstanding. This is almost certainly an underestimate, as there are likely to have been lots of words that were misunderstood but which we cannot detect in the absence of full, detailed transcripts by all of the participants, something that is not feasible in many cases. Yet, at the same time, it can also be considered an overestimate, as many of the tokens that we have identified do not represent any kind of breakdown in communication. Even if the participants may not have understood every single word in some cases, the conversations nearly always proceeded smoothly with few awkward moments. Indeed, participants in ELF interactions are generally proficient in making themselves understood (Mauranen, 2006), in accommodating to the needs of their interlocutors (Cogo and Dewey, 2012l Jenkins, 2007), and by adopting a ‘let-it-pass’ strategy under which a few misunderstood words do not matter too much (Firth, 1996). Indeed, 321 misunderstandings in 9 hours and 20 minutes represents one every 1 minute and 44 seconds, which is not very frequent, confirming the successful nature of the interactions.

Nevertheless, some misunderstandings do occur, and it is valuable to consider what contributes to them. Pronunciation has been identified as a key factor in many cases, and it seems that in more than one third of tokens in which simplification of initial consonant clusters occurs, this results in a misunderstanding. While it is not necessary to retain all consonants in every case, as omitting the /l/ in brunei is not a problem (in the context of recordings taking place in Brunei), and the occasional omission of /l/ in from is unlikely to have much impact on intelligibility, other omissions, such as the omission of /l/ in process or the /l/ in plastic can be more problematic.

**Conclusion**

Overall, the study supports the claim by Jenkins (2000) that initial consonant clusters are important in maintaining intelligibility in English interactions in international settings, but it suggests that replacement of the second consonant is less of a problem than its omission. In particularly, the current data finds that use of [r] in place of /l/ in an initial cluster is not often a problem, and this suggests that teachers should focus on maintaining the full number of consonants in initial clusters, but they might not need to worry too much about the exact nature of the second consonant. Of course, further research is needed in a wider range of contexts to confirm this conclusion, as it is likely that only some modifications are acceptable while others have a serious impact on intelligibility. However, if the result is replicated elsewhere, it has important implications for
priorities in the classroom. Furthermore, there is little evidence that use of [t], [s] or [f] for the sound at the start of words that begin with ‘thr’ has much impact on intelligibility, and this confirms the suggestion that the exact realisation of voiceless TH is not something that teachers should focus on.

**Related chapters in this handbook**

11. Kirkpatrick, The development of English as a lingua franca in ASEAN
22. Hynninen and Solin, Language norms in ELF
41. Llurda, English language teachers and ELF
42. Baird and Baird, English as a lingua franca: changing ‘attitudes’

**Further reading**


**References**