

Bery Good is Very Good in More Ways than One: The Intelligibility of /b/ or /β/ Phoneme Substitutions for the /v/ Phoneme in Japanese & Chinese Non-native English Speaker Conversations

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Abstract

This is a qualitative study of the intelligibility of /b/ or /β/ phonemes that substituted for the /v/ phoneme in conversations between Japanese non-native English speakers and Chinese non-native English speakers. Adopting a conversation analytic definition and measurement of intelligibility, this study argues that an intelligible utterance should be defined as an utterance that does not necessitate repair, and that an unintelligible utterance should be defined as an utterance that necessitates repair. Furthermore, using a corpus of recorded Skype conversations between Japanese non-native speakers of English and Chinese non-native speakers of English, all of whom are students at the same Japanese university, this study demonstrates that the substitution of the /v/ phoneme for the /b/ or /β/ phoneme in conversational praxis is both fully intelligible and interactionally normative: the speakers in the corpus were intelligible both when they articulated the standard /v/ phoneme in lexemes, and when they substituted the /v/ phoneme with either the /b/ phoneme or the /β/ phoneme in lexemes. This study concludes that the approximate articulation of the /v/ phoneme is sufficient to maintain intelligibility between Japanese non-native English speakers and Chinese non-native English speakers.

Keywords: Intelligibility, Conversation Analysis, English as a Lingua Franca, Japanese Speaker of English, Chinese Speaker of English, Labiodental Fricative, Allophone

1 Introduction

This is a qualitative study of English as a Lingua Franca (ELF) that analyzes

interactions between non-native English speaker (NNS) college student dyads of different nationalities at a Japanese university. Using Conversation Analytic sequential analysis, this study examines which pronunciations are intelligible between the NNS dyads and lead to successful communication (Firth 1996; Schegloff, Koshik, Jacoby, & Olsher 2002; Matsumoto 2011; Szczepek Reed 2012). This article focuses primarily on intelligible ELF pronunciation between Japanese NNSs and Chinese NNSs, following Jenkins's existing studies (e.g., 2000, 2002). Jenkins (2000) points out the general lack of empirical research on phonology in ELF settings, and one setting that is lacking is conversations between Japanese NNSs and Chinese NNSs.

Most ELF pronunciation research focuses on pronunciations that necessitated repair and negotiation to establish mutual intelligibility (Jenkins 2000; Matsumoto 2011). This paper, however, studies deviant pronunciation—“deviant” defined as deviance from pronunciation dictionary citation forms based on English native speaker (NS) models—that did NOT necessitate either repair or negotiation. That is, the phonetic articulations under study in this paper are deviant pronunciations only in the sense that they are not proximate to NS models, but are nonetheless oriented to by the conversation participants as fully intelligible. In particular, this study focuses on the intelligibility of utterances with lexemes containing /b/ or /β/ phonemes in positions pronunciation dictionary citation forms mandate a /v/ phoneme, and seeks to answer the following two questions: Is phonetic deviation from the /v/ phoneme consequential in NNS-NNS English conversations? Does the substitution of the /v/ phoneme with other phonemes affect intelligibility in NNS-NNS English conversations? This study attempts to answer both questions, as well as contribute to a larger project of identifying a Lingua Franca Core of pronunciation features for Japanese speakers of English as a Lingua Franca.

2 Previous Studies

This section has three goals: Section 2.1 will introduce the term intelligibility, briefly review previous research on intelligibility, and then propose a new conversation analytic definition of intelligibility; Section 2.2 will assess the scant previous research on the relationship between the /v/, /b/, and /β/ phonemes and intelligibility; Section 2.3 will introduce the Lingua Franca Core, which is a set of phonological features that are claimed to make NNS pronunciation more intelligible (Jenkins 2000, 2002; Walker 2010).

2.1 Intelligibility in Interaction

The term “Intelligibility” is usually discussed alongside another term: comprehensibility (Munro & Derwing 1995a, 1995b; Derwing & Munro 2005). Intelligibility refers to the amount of a speaker’s message that was actually understood by their interlocutor (Munro & Derwing 1995a, 1995b, 2011). Comprehensibility, on the other hand, refers to how subjectively difficult or easy it is for the interlocutor to understand a speaker’s message (Munro & Derwing 1995a, 1995b, 1998; Isaacs & Trofimovich 2012). Many studies have demonstrated that intelligibility and comprehensibility are not necessarily correlated or even related (Munro & Derwing 1995a, 1995b, 1998; Derwing & Munro 1997). This study focuses only on intelligibility because comprehensibility is just a measure of an individual’s opinion of a speaker’s pronunciation, and not a measure of how much an interlocutor understood. As such, comprehensibility is not a measure of communicative effectiveness, but rather is usually a measure of similarity to the interlocutor’s own pronunciation (Munro & Derwing 1995a; Isaacs & Trofimovich 2012). Accordingly, a study of opinions of NNS pronunciation is not as valid a research topic.

Scholars have measured intelligibility in various ways. The most common means to measure speaker intelligibility is to use a dictation task in which listeners are asked to write what they hear in standard orthography. The number of accurately transcribed words equates to an index of speaker intelligibility (Gass & Varonis 1984; Bent & Bradlow 2003; Derwing & Munro 1995a; Munro, Derwing, & Morton 2006). Other scholars have used comprehension questions, cloze tests, and tests to determine the truth-value of a statement in order to ascertain the intelligibility of speech.

However, such measurements of speaker intelligibility are laden with problems. Jenkins (2000), Seidlhofer (2004), and Canagarajah (2006, 2007) justifiably criticize most of the previous research methods because all of the previous assessments of intelligibility imply that intelligibility is completely dependent on the speaker. This is a significant problem because, as Jenkins (2000) states, “intelligibility is dynamically negotiable between speaker and listener, rather than statically inherent in a speaker’s linguistic forms” (79). Indeed, as Munro et al. (2006) themselves claim, echoing Jenkins critique, “the most valuable information about whether a particular speaker is intelligible is likely to come from the people with whom the speaker seeks to interact” (115). Accordingly, the best instrument with which to assess speaker intelligibility is the speaker’s interlocutor, not some artificial and hermetically sealed lab experiment.

Therefore, this study adopts a conversation analytic perspective towards the assessment of speaker intelligibility. Intelligibility is assessed according to whatever the participants orient to as intelligible within the interaction (Wagner 1996). Intelligible utterances would be oriented to without any turbulence or manifestation of interactional trouble. As such, this study defines “intelligible utterances” as utterances that are not subject to repair. Intelligible pronunciation is assumed to be present in intelligible utterances. Inversely, unintelligible utterances would be oriented to as trouble in the interaction and would entail repair sequences (Schegloff, Jefferson, & Sacks 1977; Schegloff 1992, 1997, 2000). Accordingly, this study defines “unintelligible utterances” as utterances that necessitate repair, from which unintelligible pronunciation can be determined.

Repair is a communicative mechanism that functions when speakers problematize phenomenon that are impeding the maintenance of mutual intelligibility. Repair can be defined as the treatment and resolution of any problem in the interaction so that the interaction can be continued (Schegloff et al. 1977). Of course, if repair is defined this way, phonological problems will not be the only interactional phenomenon subject to repair. Conversational troubles can be anything that the participants orient to as an impediment to their communication; repair can be performed on anything that constitutes a trouble source for the participants (Seedhouse 2005; Schegloff et al. 1977).

The two examples below will demonstrate that the NNSs in this study’s corpus are fully capable of manifesting intelligibility and unintelligibility through the presence or absence of repair. First, we examine an example that exhibits mutual intelligibility. In Example 1, a French college student named Francine, a pseudonym, and a Japanese college student named Takuya, also a pseudonym, discuss their weekend plans. Neither student is a native speaker of English, and neither student engages in repair in the extract below.

- Example 1: French-Japanese 101
- 1 Takuya: I will go kaneko .hhh
 - 2 Francine: oh kane[ko
 - 3 Takuya: [oh you know
 - 4 Francine: I know yes I know. I I ate there uh (1.0) tarekatsu
 - 5 Takuya: yeah yeah yeah

In the above example, Takuya tells Francine where he will go for dinner, mentioning the name of a restaurant. Francine initiates her response with the receipt

token *oh*, which represents a claim of understanding (Heritage 1984; Wong 2000), all of which socially manifests that Francine has understood Takuya's utterance in line 1. In other words, line 1 was intelligible to Francine, and her response in line 2 signifies this. Furthermore, Takuya's retort in line 3 demonstrates that Francine's response in line 2 was intelligible. Takuya responds to Francine's utterance in overlap, which means that he begins to respond before Francine even finished her utterance. Again, this reveals that Takuya understood Francine's utterance in line 3, which socially indicates full intelligibility. In line 4, Francine orients to Takuya's response as a question, which necessitates a response, and she provides a simple answer and a reason as to why she knows about the restaurant. This, in turn, demonstrates that Takuya's utterance in line 3 was intelligible to Francine. Lastly, Takuya responds in line 5 and that establishes that he found Francine's utterance in line 4 intelligible. This example shows that intelligibility is manifest in the details of interaction; analysts can determine what is intelligible by examining how interlocutors orient to previous utterances.

By the same token, unintelligibility is equally manifest in the details of interaction, and is therefore visible to the analyst. In the following example, a Japanese college student named Daisuke, a pseudonym, converses with a Chinese college student named Zhang, also a pseudonym, about their hobbies over Skype, but the progression of the conversation halts briefly as the participants attempt to reestablish mutual intelligibility through repair. Pursuant with Matsumoto's (2011) modifications to the standard Jeffersonian conversation analytic transcription system, trouble-sources that are subject to repair have been transcribed into the International Phonetic Alphabet (IPA) with the relevant diacritics.

- Example 2: Chinese-Japanese111a
- | | | |
|----|----------|--|
| 1 | Daisuke: | [(giggles) eh uh my eh my hobby is eh ice /h̄oʔke/ |
| 2 | Zhang: | i ice what exs- excuse me |
| 3 | Daisuke: | ah ice /h̄oʔke/ |
| 4 | Zhang: | ice /h̄oʔke/ wha- what is that? |
| 5 | Daisuke: | andu skate [it is skate |
| 6 | Zhang: | [ah skate skate |
| 7 | Daisuke: | hai yes skate and /h̄oʔke/ |
| 8 | | (0.3) |
| 9 | Zhang: | ah /'ha.ki/ [oh |
| 10 | Daisuke: | [ah yeah /haki/ yes |

In the example above, Daisuke mentions that his hobby is “ice /h̄ɔke/” in line 1, but Zhang orients to the utterance as unintelligible in line 2. Zhang manifests trouble in understanding Daisuke’s utterance in line 1 when she says the first diphthong in “ice” once, followed by the full word. This demonstrates that Zhang found the word “ice” to be intelligible, but after stating the word “ice”, Zhang says “what”, which indicates exactly which word of the previous utterance was unintelligible: /h̄ɔke/. Zhang finishes her turn in line 2 with “excuse me”, to which Daisuke orients as a request for repetition, and in line 3 he reiterates the same pronunciation again (ice /h̄ɔke/), which demonstrates that he understood exactly which lexemes Zhang oriented to as unintelligible and problematic.

However, in line 4, Zhang orients to the pronunciation of “ice /h̄ɔke/” as unintelligible a second time: Zhang explicitly asks Daisuke to explain what “ice /h̄ɔke/” is. In lines 5, 6, and 7, Daisuke and Zhang co-construct a definition of the central ideas in the concept “ice /h̄ɔke/”, and after a brief pause in line 8, Zhang finally demonstrates that she understands “ice /h̄ɔke/” in line 9 when she produces the tokens “ah” and “oh”, which demonstrates that she has moved from a state of not-knowing to a state of knowing (Heritage 1984), and then produces an alternative candidate pronunciation for the previously unintelligible /h̄ɔke/ lexeme: /ha.ki/ (hockey). It is also important to observe that Zhang places heavy stress on the first syllable of /ha.ki/, which seems to indicate that she found the phonemes in the first syllable to be the source of unintelligibility. In line 10, Daisuke orients to Zhang’s alternative pronunciation for the lexeme under repair as the intelligible pronunciation of the word. This can be seen because he mimics the pronunciation and confirms it with a couple of confirmation tokens (yeah & yes). This example exhibits that participants in conversations are perfectly capable of socially manifesting “unintelligibility” in their interactions.

The above two examples show that intelligibility and unintelligibility are visible to the analyst because conversation participants orient to utterances as either intelligible or unintelligible as the case may be. If utterances are intelligible, conversation participants orient to them as such. If utterances are unintelligible, conversation participants manifest that in the details of their interaction as well. Accordingly, analysts can determine utterance intelligibility and unintelligibility by observing how interlocutors orient to previous utterances (Firth 1996, 2009a, 2009b; Dewey 2009, 2012).

However, one might claim that a conversation analytic measurement of intelligibility is superficial. Indeed, House (1999, 2002) claims that superficial consensus can simply

obfuscate trouble at a deeper level of communication. But claiming problems exist even when the participants do not orient to any risks inserting the bias of the analyst into the data, which is always a dangerous proposition because claiming problems exist even when none are salient to the participants themselves implies the analyst subscribes to a deficit view of communication—the speakers are assumed to be unintelligible until proven otherwise. This study explicitly rejects such a view.

Another concern one might have with a conversation analytic measurement of intelligibility is that NNSs might avoid difficult pronunciations, which would render phonological phenomena relevant to intelligibility opaque and therefore impossible to analyze. Indeed, Schachter (1974) and Derwing & Munro (2005) claim that observing only natural interactions may shroud pronunciation difficulties behind learner avoidance strategies. But this is hardly a good reason to dispense with naturally recorded data: the Second Language Acquisition (SLA) concept of “Avoidance” is extremely problematic, even anachronistic, to begin with. “Avoidance” is the idea that NNSs avoid conformity to NS norms because they are too difficult, or too complex, or do not yet understand them (Brown 2006). Yet, as the examples in section 3.1 will demonstrate, conformity to NS pronunciation norms is not a prerequisite for successful communication—not at all. NNSs are perfectly capable of making themselves well understood without recourse to NS pronunciation norms. Indeed, “Avoidance” is little more than another facade of the deficit view of communication masquerading as impressive-sounding SLA jargon, but it is even more insidious: “Avoidance” implies that all NNSs want to, and should, mimic NS speech, and until they do, NNSs are doomed to the status of error-prone interlanguage users, rather than language users. This study also rejects the implications of the SLA concepts “Avoidance” and “Interlanguage.” Accordingly, this study adopts a strict emic perspective toward the corpus data: no unintelligibility is assumed until manifest in the details of the interaction.

2.2 The /v/, /b/, and /β/ Phonemes & Intelligibility

Next, we examine the relationship between specific phonemes and intelligibility in previous research. Although the relationship between speaker intelligibility and certain phonemes, in particular the /ɪ/ and /l/ phonemes, has received much scholarly attention (see Saito & Lyster 2012), very few studies have investigated the relationship between intelligibility and the substitution of the /v/ phoneme for the /b/ or /β/ phonemes. Indeed, when scholars do address the relationship between intelligibility and the substitution of the /v/ phoneme for the /b/ or /β/ phonemes, they often do so

tangentially, and usually in reference to intelligibility with only NSs (e.g., Yasushi, Dantsuji, & Kawahara 2004). Some scholars have claimed or implied, some just off-handedly or just as an aside to the main focus of their papers, that the substitution of the /v/ phoneme with the /b/ phoneme attenuates intelligibility (Harris 2012; Thompson 2001; Yasushi et al. 2004; Dauer 2005). Others have claimed that the substitution of the /v/ phoneme with the /b/ phoneme is one of the phonological characteristics that marks Japanese speakers of English as learners rather than users of English (Thompson 2001). Even the one study that investigates the intelligibility of the substitution of the /v/ phoneme for the /b/ or /β/ phonemes in situations in which NNSs interact with other NNSs, Jenkins (2000), suggests that substituting the /v/ phoneme for the /b/ or /β/ phonemes weakens intelligibility. Accordingly, a number of studies claim that the exact articulation of the /v/ phoneme is important to the maintenance of intelligibility.

However, the methodologies, ideologies, and findings of the all the previous research are rife with problems: 1) some studies only use native speakers to assess intelligibility, or explicitly link the purpose of using English to speaking with only native speakers of English, which is very problematic when one considers that English is used to communicate with non-native speakers more than native speakers (e.g., Yasushi et al. 2004); 2) many studies do not make a meaningful distinction between intelligibility and comprehensibility (e.g., Yasushi et al. 2004; Harris 2012); 3) most of the studies fail to address the issue of whether teaching the distinction between the /v/, /b/, and /β/ phonemes is even worthwhile, even though two of the studies (e.g., Yasushi et al. 2004; Dauer 2005) imply that it could be important. Even the conclusions of the one study that investigated the substitution the /v/ phoneme for the /b/ or /β/ phonemes in NNS-NNS interactions, Jenkins (2000), which claims that the accurate pronunciation to the /v/ phoneme is important, is based on data that seems founded more on an outsider's perspective than on the reactions of the conversational participants themselves. Therefore, one should approach the claims of all of the previously mentioned studies with a healthy measure of doubt.

2.3 The Lingua Franca Core

The Lingua Franca Core (LFC) is “a core of pronunciation features which occur in successful NNS-NNS communication and whose absence leads to miscommunication” (Jenkins 2007: 25). The main phonological characteristics of the Lingua Franca Core consist of all of the following features: 1) plosives are essential to intelligibility, and voiceless plosives need aspiration; 2) the British English /t/ is more intelligible than the

North American English inter-vocalic /t/, which is often pronounced as the flap /ɾ/; 4) /l/ can replace /ɫ/ without ill effect on intelligibility; 4) the North American English retroflex approximant r, /ɻ/, is preferred to the British English post-alveolar approximant r, /ɹ/, for intelligibility; 5) vowel additions between consonants (vowel epenthesis) are acceptable, but consonant cluster simplification is not; 6) distinguishing the vowel /ɜ:/ from other vowels is important; 7) appropriate vowel length before voiceless and voiced consonants aids intelligibility; 8) pitch accents, which Jenkins calls nuclear stress, are important to the maintenance of intelligibility as well (Jenkins 2000, 2002; Walker 2010). As can be seen, the core features of the Lingua Franca Core are mostly segmentals, although some suprasegmentals are also prominently featured.

Segmental and suprasegmental features that are not at all essential to intelligibility are considered non-core features. Non-core features do not aid intelligibility, and sometimes they even inhibit intelligibility (Jenkins 2000, 2002; Walker 2010). Segmental and suprasegmental characteristics that are specifically designated non-core include all of the following features: 1) the exact articulations of the /θ/ and /ð/ phonemes are not vital to intelligibility, and can be replaced with /f/ and /v/ respectively; 2) exact vowel quality is not essential; 3) pitch movement, except for pitch accents, is not necessary to intelligibility, nor is it even very teachable; 4) word stress is unimportant; 5) stress-timing is not necessary; 6) vowel reduction and weak forms inhibit intelligibility; 7) certain features of connected speech like assimilation, palatalization, and coalescence do not actually aid intelligibility.

Although the list of segmental and suprasegmental features in both the core and non-core is very specific, Jenkins (2007) did not intend the LFC as a monolithic foundation for a new English pidgin. Quite the contrary, the LFC can be, and should be, adapted to local conditions and local needs as they arise. As Jenkins (2007) states, NNSs are “entirely free to adjust even the core features if this suits local communication needs. The point of the LFC is that the pronunciation norms in any given interaction are determined by ELF users themselves” (26). In other words, the LFC is an extremely variable set of features that can be, and often are, reconstituted in every NNS-NNS interaction. In fact, the examples in the following section will show that NNSs demarcate new core and non-core pronunciation features during interaction, which is a manifestation of the variable characteristics of the LFC in interactional communicative praxis.

3 Methodology & Data

This study adopts a Conversation Analytic approach to the assessment of intelligibility in NNS-NNS conversations (Schegloff 2007; Matsumoto 2011). Unless the participants in the conversation orient to a pronunciation as problematic or unintelligible, then this study does not make a claim that the pronunciation was unintelligible to the participants regardless of how far the pronunciation might deviate from pronunciation dictionary citation forms. Furthermore, this study adopts the Jeffersonian transcription conventions of Conversation Analysis (Schegloff 2007), but alters them in accord with Matsumoto's (2011) amendments to allow for a detailed phonological analysis. Specifically, this study renders lexical items of interest in the transcripts in IPA transcription with relevant diacritics, but the rest of the lexical items in the transcript follow standard Jeffersonian transcription conventions.

The corpus of data utilized in this study was collected between September 2010 and February 2011 at a major Japanese university. The corpus contains forty-four recorded English conversations over Skype between Japanese NNSs and non-Japanese NNSs. All names that appear in the transcripts below are pseudonyms. The Skype recordings were student homework in the researcher's English class. Students who agreed to allow their conversations to be used as research data received some extra class credit. Although the recordings are the result of obligatory conversation homework assignments about topics specified beforehand that all students had to produce, the recordings are still considered a valid research data set because it is unlikely that the obligatory nature of the homework affected the relationship between intelligibility and pronunciation.

3.1 Intelligible Sequences with /b/ or /β/ Allophones

In the corpus, utterances with lexemes containing substitutions of the /v/ phoneme for the /b/ phoneme or the /β/ phoneme are never problematized by the participants, with one exception (see section 3.2). Because speakers often used the /b/ phoneme or the /β/ phoneme in positions that pronunciation dictionaries mandate a /v/ phoneme, and because participants often oriented to these pronunciations as both unproblematic and intelligible, many speakers oriented to these articulatory variations as allophones, which are a set of possible phonemes that can be used to represent one sound. Although the standard definition of allophone references native speaker acceptability of two phonemes to represent the same sound, such a standard is impossible to apply to this

corpus: no one in the corpus is a native speaker of English. Accordingly, the definition of allophone in this study differs from the standard definition of allophone. In this study, any phoneme that deviates from the pronunciation dictionary citation form of the lexeme and is within an utterance that is still oriented to as unproblematic and intelligible by the participants is considered an allophone.

We begin with an examination of an ELF interaction in which the /b/ phoneme is deployed in a position in which pronunciation dictionaries mandate a /v/ phoneme, but the participants do not problematize the pronunciation, and indeed orient to the pronunciation as both intelligible and interactionally inconsequential. Indeed, the participants orient to the /b/ phoneme as an allophone of the /v/ phoneme. In the example below, Yan, a Chinese student, and Yuko, a Japanese student, discuss their winter holiday activities, which in Japan is an affair laden with cultural significance. The lexeme of interest appears in IPA transcription in line 3.

- Example 3: First Semester Sound File 14
- 1 Yan: yeah yeah. hm so:: uhm what did you do in winter holiday?
- 2 Yuko: Uh let's see:: I went on New Year's day. I went to Yahiko shrine and after that I
- 3 /bɪzɪtɪd/ my grandfather's house.
- 4 Yan: ahhhh::: uhm had- had you had many delicious food
- 5 Yuko: ah yes (laughs)
- 6 Yan: I think so
- 7 Yuko: I enjoyed typical Japanese style winter holiday.
- 8 Yan: ah::

The example above begins with Yan's utterance in line 1, to which Yuko orients as an information request in line 2: after the deployment of an expression designed to indicate that she intends to answer the question (Uh let's see::), Yuko states that she went to Yahiko shrine on New Year's day, and visited her grandfather's house (lines 2 ~ 3). Right after that, Yan manifests that she understood Yuko's rejoinder to her question: Yan deploys one elongated receipt token (ahhhh:::), which makes a claim that Yan has moved from a state of not-knowing to a state of knowing (Heritage 1984; Wong 2000). Of course, claiming understanding is not the same as real understanding, as Wong (2000) has demonstrated, but Yan's claim of understanding is substantiated in line 4. Yan deploys another question that reveals that she understood the cultural significance of Yuko visiting her grandfather's house: during New Years in Japan, families gather

together and celebrate the New Year with a feast. Yan's second question in line 4 demonstrates both that she understood Yuko's utterance for its cultural significance and that Yan found Yuko's articulation of "visit" as /bɪzɪtɪd/ intelligible.

The above example demonstrates that both Yan and Yuko oriented to the articulation of "visit" as /bɪzɪtɪd/ as an intelligible pronunciation of the lexeme "visited." Yan does not subject the lexeme to repair. In fact, Yan orients to the utterance in which it was deployed as normative in context. Indeed, the only thing Yan finds "commentable" about the utterance in which /bɪzɪtɪd/ was articulated is the message itself. Furthermore, Yuko does not subject her own articulation of "visited" as /bɪzɪtɪd/ to self-repair, and indeed, there is no reason she should have: Yan oriented to her utterance as intelligible in the first place. Therefore, this example proves that the /v/ phoneme can be substituted with the /b/ phoneme without inhibiting intelligibility. In other words, the /b/ phoneme can be used as an allophone for the /v/ phoneme in NNS interactions.

The articulation of a /b/ phoneme in locations that pronunciation dictionaries mandate a /v/ phoneme is fairly common in the corpus, and is certainly not limited to the articulation of the lexeme "visited" as /bɪzɪtɪd/. Indeed, the next example also demonstrates that the /v/ phoneme can be substituted with the /b/ phoneme without inhibiting mutual intelligibility. In the following extract, a Chinese student named Zhan and a Japanese student named Mika talk about their job prospects: Mika wants to find a job in Tokyo after she graduates from her university. The lexeme of interest appears in IPA in line 5.

Example 4: Chinese-Japanese 111

- | | | |
|----|-------|---|
| 1 | Mika: | and Tokyo is::: so (.) so I came from:: |
| 2 | | (0.5) |
| 3 | | eh sai- Saitan prefecture. its near (.) its very near from Tokyo so:: |
| 4 | | (0.5) |
| 5 | | if get anh Tokyo is /bɛ.i/ huge area |
| 6 | Zhan: | yeah= |
| 7 | Mika: | =and there are many people ma- monies:: ((laugh voice)) an
many companies so |
| 8 | | (0.5) |
| 9 | Zhan: | [it wil |
| 10 | Mika: | [so |

11 Zhan: it will be more opportunities [in Tokyo right?

12 Mika: [yes

The extract above begins with Mika's explanation of where she wants to work after she graduates: Tokyo. She explains that she wants to work in Tokyo because it is close to her home (lines 1~3) and because Tokyo is a more economically advanced area (lines 5 & 7). Zhan orients to Mika's utterance as a long explanation, and only deploys a single continuer once (line 6), which cedes her turn to Mika so that she may continue. After both speakers self-select as next speaker, which results in a brief overlap (lines 9~10), Mika cedes the floor to Zhan, who utters that the Tokyo area contains more opportunities for job-hunters in line 11, to which Mika orients as a question obligating an answer in line 12. Mika, misreading the location of the next turn transition relevance point as the first point of grammatical completion of the clause, answers what she believes is a question in line 12 in overlap with Zhan, who had not actually reached the culmination of her question.

The episode above is successful because Mika completes her explanation as to why she wants to work in Tokyo, and Zhan orients to Mika's explication as intelligible. However, displaying understanding of previous utterances is not necessarily the same as actually understanding previous utterances (Wong 2000). But Zhan's follow up question shows that she did indeed understand Mika's explanation: Zhan asks Mika a question that is premised on her understanding of the previous utterance, and indeed the question in line 11 would have only been possible had Zhan understood Mika's English. Accordingly, one can see that Zhan understands Mika, regardless of the fact that Mika articulates the lexeme "very" as /bɛ.i/. That is, both Mika and Zhan orient to the articulation of "very" as /bɛ.i/ like it was both fully intelligible and unproblematic. Therefore, one can claim that the substitution of the /v/ phoneme with the /b/ phoneme was oriented to as intelligible, quotidian, and unproblematic.

Another example will show that the substitution of the /v/ phoneme with the /b/ phoneme is unproblematic in ELF interactions because the participants will orient to the /b/ phoneme as an allophonic variant of the /v/ phoneme. The participants will orient the same way to lexemes articulated in two different ways: the lexeme "very" will be articulated both as /vɛ.i/ and /bɛ.i/, and the interlocutor will orient to both allophonic pronunciations as intelligible. In the extract below, Wei, a Chinese student, and Mika, a Japanese student, discuss what they did the previous weekend. The lexeme "very" appears three times in the transcript (lines 7, 9, and 15), but the lexeme "very" in line 9

does not contain the /v/ phoneme. Substituting for the /v/ phoneme, the /b/ phoneme manifests in the articulation of the word instead.

Example 5: Chinese-Japanese 6

- 1 Wei: how about you?
2 Mika: kay
3 (1.0)
4 Wei: how about you?
5 Mika: how about uh in this weekend?
6 Wei: Anytime is okay
7 Mika: okay so:: last night I I played my computer game an (laughs). I'm
very enjoyed but the
8 (1.0)
9 the:: time passed. Uh and I sle- go to bed /bɛ.ri/ lately so::
10 Wei: oh::
11 Mika: Today:: I have uh promise to met our friend but I got up too late so
I can't meet them
12 Wei: oh man
13 Mika: yeah
14 Wei: so she:: would be angry
15 Mika: yes very angried (laughs)
16 Wei: oh (giggles)

The extract above begins when Wei attempts to ask a question in line 1, but Mika just deploys the receipt token *okay* (*kay*) once in line 2, which seems to indicate that Mika believed Wei's utterance in line 1 was something other than a question, possibly an announcement of some sort that required a brief acknowledgement. However, after a second of silence (line 3), Wei begins repair, and repeats the same question again in line 4, which retrospectively affirms that the utterance in line 1 was intended to be a question. In line 5, although Mika finally ascertains that the utterance in line 1 was a question and orients to it as such, she still does not understand exactly what the question is about. Mika counters Wei's question with her own question in order to clarify Wei's line of inquiry at the end of line 5. In line 6, Wei orients to Mika's counter as a question and responds accordingly: he does not specify exactly which timeframe Mika is to talk about in her response.

In line 7, having reestablished mutual intelligibility after a long repair sequence,

Mika finally orients to Wei's utterance in line 1 as a question that obligates an answer: after deploying a receipt token that indicates that the repair sequence has been finished (okay), Mika informs Wei that last night she played video games, which were very fun, and as a result of such nocturnal activities, she went to bed very late (lines 7~9). Wei deploys the receipt token "oh," which claims that he has moved from a state of not-knowing to a state of knowing (Heritage 1984; Wong 2000), and orients to Mika's story as new information in line 10. Next, Mika informs Wei about the negative consequences of her late-night gaming, and Wei orients to Mika's utterance as a bad information-telling, to which Mika orients as sufficient to finish the information-telling sequence (lines 11~13). After that, Wei asks Mika about her friend's emotional state as a consequence of Mika's nocturnal gaming, and Mika orients to Wei's utterance as a question and provides an answer, to which Wei reacts as new information (lines 14~16).

The significant feature of the extract above, however, is not the interactional praxis but rather the interactional phonology. Mika produces the lexeme "very" three times, but she articulates it in two different ways: "very" is articulated as /vɛ.i/ in lines 7 and 15, but articulated as /bɛ.i/ in line 9. In spite of the lexeme "very" being articulated in two different ways, Wei orients to every utterance containing the lexeme "very" as intelligible. Wei never initiates repair in response to any of Maki's utterances containing the lexeme "very," even though the interaction in lines 1~6 show that he is fully capable and willing to start repair procedures if he deems it relevant. This is the point: Wei never initiated repair of Mika's pronunciation because he never needed to do so; Mika's articulations of the lexeme "very" were always intelligible, even though the lexeme "very" is articulated in two ways. That is, the substitution of the /v/ phoneme with the /b/ phoneme in interaction is both intelligible and interactionally normative.

The next example further demonstrates that the /v/ phoneme can be replaced with the /b/ phoneme without obstructing mutual intelligibility. The lexeme "very" is again articulated as /bɛ.i/ without causing any intelligibility problems for the participants. In the following extract, Mika and Zhan are talking about a school trip that Zhan took to a secluded mountainous area in central Japan. The lexeme of interest appears in IPA in line 5.

Example 6: Chinese-Japanese111

- | | | |
|---|-------|---|
| 1 | Zhan: | so I- we spent uh really a lot of time on bus |
| 2 | Mika: | [yes (laughs)] |
| 3 | Zhan: | [on bus] |

- 4 (0.7)
 5 Mika: .hhh yeah but it's a /bɛ.i/ nice weekend (laughs)
 6 Zhan: yeah and that place was really beautiful
 7 Mika: oh::
 8 Zhan: old temples and uhm the house- houses which uh Asian people lived
 9 Mika: yeah

In the extract above, Zhan opens with her utterance in line 1, to which Mika orients as an information telling that obligates an information-receipt displaying response in line 2: Mika deploys the receipt token “yeah,” which makes a claim that Mika indicates she found Zhan’s utterance intelligible. In overlap with Mika in line 2, Zhan subjects her own lexeme (bus) to self-repair and appends a preposition to the lexeme “bus” in line 3. After less than a second of silence, Mika orients to Zhan’s self-repair as unproblematic and does not react to it in any way, and then proceeds to launch a new sequence: Mika says that the weekend was nice in line 5, to which Zhan orients as an assessment that obligates another upgraded assessment in line 6. Mika then deploys a single receipt token (oh), which displays a claim that she has moved from a state of not-knowing to a state of knowing in line 7. In lines 8~9, Zhan and Mika complete another information telling-receipt sequence.

The phonological focus of the above example is the sequence in lines 5~7. Mika articulates the lexeme “very” as /bɛ.i/, but Zhan only finds the content of Mika’s message “commentable,” not the phonetic deviation from citation form; Zhan orients to Mika’s utterance as both intelligible and normative in this sequential context. That is, Mika’s pronunciation of “very” as /bɛ.i/ caused no intelligibility problems at all, and the sequence in lines 5~7 is brought to a successful completion. This is another example that proves that the /v/ phoneme can be replaced with the /b/ phoneme without obstructing mutual intelligibility.

The previous four examples demonstrate that the /v/ phoneme can be substituted with a /b/ phoneme without inhibiting mutual intelligibility in NNS-NNS interactions. However, the /b/ phoneme is not the only phoneme that can substitute for the /v/ phoneme without impeding intelligibility in the slightest. The next example demonstrates that the /v/ phoneme can also be replaced with the /β/ phoneme, which is a phoneme between the /b/ and /v/ phonemes, without obstructing mutual intelligibility. In the following extract, Gao, a Chinese college student, and Shun, a Japanese college student, discuss their first impressions of their teacher’s physical proportions. The lexeme

“very” appears in the extract twice, once in line 5 and once in line 11, but the articulation of “very” in line 11 deviates from the citation form. In spite of this, Gao does not orient to the utterance containing it as unintelligible or problematic, nor does Shun subject his own pronunciation to self-repair. In fact, both participants orient to the utterance in line 11, and all the lexemes contained within, as normative within its context.

Example 7: First Semester Sound File 16

- 1 Shun: .hhhh uhn so how did you feel when you (.) first look George O’
Neal
- 2 (1.0)
- 3 Gao: uh I:: I feel::: (0.5) George O’ Neal. eh me. George me.
- 4 Shun: George [Geor
- 5 Gao: [oh::: O’ Neal (laughs) is very::: uh fun:: funny
- 6 Shun: (laughs) [oh yeah yeah yeah
- 7 Gao: [uh yes yes yes yes (laughs)
- 8 (1.0)
- 9 Shun: Oh
- 10 Gao: and you
- 11 Shun: Uhm (1.0) I:: oh oh (1.0) I feel he can play baskyball /βεɪ/ well
- 12 Gao: oh (laughs)
- 13 Shun: uh
- 14 (2.0)
- 15 Gao: uh what color was your fav- first (0.5) uh cell phone?

The extract begins with Shun’s gambit in line 1, to which Gao orients as a question in line 3 after one second of silence (line 2), which is strongly indicative of incipient interactional troubles. Indeed, as projected by the silence in line 2, interactional trouble quickly manifests in line 3. Gao displays trouble in discerning the intent and the object of the question, and initiates other-repair towards the end of line 3. Shun orients to the other-repair at the end of line 3 with a repeat of the object of the question: Shun repeats “George” twice in line 4, the first time with a very prominent pitch accent. Gao orients to Shun’s attempt to reestablish intelligibility like she belatedly understands the intent of the question in line 1: Gao deploys the receipt token “oh” once at the beginning of her turn, which makes a public claim that she has moved from a state of not-knowing to a state of knowing (Heritage 1984; Wong 2000); furthermore, Gao substantiates her claim

of finally understanding the question posed in line 1 when she ultimately answers the question in line 5, which brings the embedded repair sequence and the base sequence to potential culmination, after which both Shun and Gao engage in multiple choral sequence closing thirds (lines 6~7).

In line 10, Gao utters “and you,” to which Shun orients as a question with the same intent as the question he posed in line 1: after a receipt token that indicates the intent to produce the appropriate pair part (uh), and a few tokens that indicate that Shun has conceived of his answer (oh), Shun uses the same verb that he deployed in line 1 and states that he feels George O’Neal can play basketball very well. However, Shun’s articulation of the first phoneme in the lexeme “very” is not the /v/ phoneme, but rather is the /β/ phoneme. Gao reacts to Shun’s answer with a simple receipt token that displays a claim that she understood Shun; that is, Gao orients to the utterance with the lexeme containing the /β/ phoneme in a location that citation forms mandate a /v/ phoneme like it was intelligible. Indeed, if Gao had not actually understood Shun, or if Shun had doubted that Gao had not actually understood his answer, any place after line 12 would be the appropriate place to display that. However, neither participant does so: after a two second silence, Gao broaches a new topic in line 15, which indicates that Gao believed that the previous sequence was sufficiently complete to the point that a new sequence opening was possible.

As one can see, all of the above examples demonstrate that the /v/ phoneme can be substituted with either the /b/ phoneme or the /β/ phoneme without inhibiting mutual intelligibility. Utterances containing lexemes with substitutions of the /v/ phoneme are often oriented to as intelligible in the corpus. However, that does not mean that interlocutors categorically oriented to every utterance containing lexemes with substitutions of the /v/ phoneme as intelligible. Sometimes they did not, and we next turn our attention to such a sequence.

3.2 Unintelligible Sequences with /b/ or /β/ Phonemes that Substitute for /v/

The previous section documented a number of sequences in which various utterances with lexemes containing allophones of the /v/ phoneme were oriented to as perfectly intelligible. But that does not mean that utterances containing lexemes with the substitution of the /v/ phoneme for the /b/ or the /β/ phonemes were never problematized by the participants—they were. Next, we examine the lone sequence in which participants oriented to an utterance containing a lexeme with a substitution of the /v/ phoneme as problematic.

In the following extract, Zhang, a Chinese student, and Daisuke, a Japanese student, are discussing what they each did last weekend. Daisuke mentions that he went to a place near the Shinkawa river and joined in a barbeque. The lexeme of interest appears three times in lines 9 and 11 in IPA transcription.

- Example 8: Chinese-Japanese111a
- | | | |
|----|----------|---|
| 1 | Zhang: | so uh what dijah do last weekend? |
| 2 | Daisuke: | uh hm last weekend eh andu I uh |
| 3 | | (0.5) |
| 4 | Daisuke: | I: (.) go to barbeque |
| 5 | Zhang: | where= |
| 6 | Daisuke: | =with my friend etto eh near near university niigata
university andu |
| 7 | | (1.0) |
| 8 | Daisuke: | uh |
| 9 | | (1.0) |
| 10 | Daisuke: | andu (laughs) |
| 11 | | (1.0) |
| 12 | Daisuke: | near /rɪβa/ sinkawa |
| 13 | Zhang: | [si |
| 14 | Daisuke: | [shi- shinkawa /rɪβa/. It is /rɪβa/. |
| 15 | Zhang: | kay that sounds interesting |
| 16 | Daisuke: | ah yes barbeque is very interesting |
| 17 | Zhang: | okay eh::: so what else did you do |

This extract begins with Zhang's utterance in line 1, to which Daisuke orients as a question obligating an answer: Daisuke tells Zhan that he went to a barbeque (lines 2~4). Zhang orients to the end of Daisuke's utterance in line 4 as a transition relevant place, and initiates a secondary follow-up question, but the fact that Daisuke seems to continue his response to the utterance in line 1 reveals that Daisuke probably did not intend the end of his utterance in line 4 to be a transition relevant place. However, Daisuke simply switches gears in line 6 and orients to Zhang's utterance as a question that obligates yet another response: Daisuke mentions that the location of the barbeque was at a place called river "Shinkawa" (lines 6~12). In response to that, Zhang utters a single sibilant syllable (line 13), to which Daisuke orients as an indication that Zhang did not understand that he went to a river called "Shinkawa," which demonstrates that

Daisuke believed Zhang initiated other-repair of a lexeme that begins with a sibilant sound, in this case “Shinkawa.” Daisuke repeats the same information as before, but repositions the words “Shinkawa” and “river,” and then concludes his turn after he states that “it is a river,” the “it” subject of the sentence an anaphoric referent to the name of the river, not the word “river.” Finally, in line 17, Zhang deploys “okay” once to indicate that the sequence begun with the “where” interrogative has reached a sufficient culmination (Schegloff 2007), and also expresses the notion that she finds barbeques interesting.

Although the sequence is successful in the sense that the information requested was the information relayed, the important aspect of the interaction above is the phonological resources that are deployed to successfully complete the repair sequence. Daisuke never articulates the lexeme “river” as the citation form /ɪvə/, continually articulating “river” as /ɾɪβə/, and that fact does not impede the interaction from reaching a successful end. Indeed, the lone utterance that Daisuke oriented to as an indication of trouble, Zhang’s sibilant and monosyllabic utterance in line 13, seems to indicate that Zhang had trouble with a lexeme that had sibilant phonemes in the last utterance, not /ɾɪβə/. That is, Zhang’s trouble-source was not /ɾɪβə/, but rather “Shinkawa,” which was probably just a place she had never heard of. The above example reveals that the participants problematized the lexeme “Shinkawa,” subjecting it to repair, not the lexeme articulated as /ɾɪβə/, to which both participants oriented as mutually understood. Daisuke even used the lexeme /ɾɪβə/ to attempt to explain “Shinkawa” in line 14. Accordingly, the troubles source was “Shinkawa,” not the articulation of “river” as /ɾɪβə/. Therefore, although the interaction in the example above runs into trouble, and the participants engage in repair to reestablished mutual intelligibility, the troubles source is not the lexeme containing the /β/ phoneme. In fact, the exact opposite is true: the lexeme containing the /β/ phoneme is used as an interactional resource to reestablish intelligibility!

The above example is exceptionable because an utterance with a lexeme that contains a /β/ phoneme substitution for the /v/ phoneme is problematized by the participants. However, upon close inspection, the details of the interaction reveal that the troubles source was not the lexeme containing the /β/ phoneme. Indeed, the troubles source was another word. Accordingly, the /β/ phoneme substitution was not only unproblematic, it was employed along with other interactional resources to complete the repair sequence and reestablish mutual intelligibility! Therefore, one can see that both the /b/ phoneme and the /β/ phoneme can substitute for the /v/ phoneme without

inhibiting intelligibility in NNS interactions: the exact articulation of the /v/ phoneme is not a prerequisite to successful communication; proximate articulation of the /v/ phoneme is sufficient to maintain intelligibility.

4 Discussion

The results of the examination of the interactions above demonstrate both that the claim that the exact articulation of the /v/ phoneme is critical to international intelligibility is wildly overblown and that the segmental components of Jenkins' s (2000, 2002) LFC need to be amended to better represent which pronunciations features are critical and non-critical to international intelligibility between Japanese and Chinese speakers of English as a Lingua Franca. First, as all of the examples in section 3 show, NNSs are fully capable of maintaining mutual intelligibility without recourse to NS pronunciation norms. NNSs substituted the /v/ phoneme with either a /b/ phoneme or a /β/ phoneme in many lexemes, and neither participant ever oriented to the substitutions as either problematic or unintelligible; in other words, both participants oriented to such phonetic substitutions as normative in context in the sense that the phonetic substitutions were sufficient for the purpose of successfully completing interactional sequences—all of this in spite of the fact that the articulations did not match a NS standard.

The results of this study problematize the claims of some scholars who believe that exact articulation of the /v/ phoneme is necessary to the maintenance of mutual intelligibility, and that phonetic deviation from the /v/ phoneme attenuates intelligibility (e.g., Jenkins 2000; Thompson 2001; Yasushi et al. 2004). Indeed, the results of this study demonstrate that proximate articulation of the /v/ phoneme is sufficient to maintain intelligibility between Japanese and Chinese NNSs. These results render the justifications for any program of articulatory training in the /v/ phoneme less important to intelligibility.

An examination of the data suggests that the LFC for Japanese and Chinese ELF speakers should be amended. In particular, the results of this study suggest that the core segmental components of the LFC for both Japanese and Chinese English speakers should not include the /v/ phoneme. Accordingly, the /v/ phoneme should be removed from the core components of the LFC, and included in the non-core features of the Japanese and Chinese LFCs. The speakers in this study continually oriented to

utterances containing the substitution of the /v/ phoneme for the /b/ or /β/ phoneme as both normative in context and intelligible. Therefore, it is impossible to claim that the /v/ phoneme is a core component of the Japanese and Chinese LFCs.

One further issue of concern warrants comment here. The corpus only includes NNSs who study at one Japanese university, and the data samples were collected throughout the semester. Might the speakers just be used to their interlocutor's speech? One might make the claim that the corpus speech patterns represent NNSs who have grown used to each other's speech, and therefore this study's findings are not as relevant as claimed. It is not known how familiar the speakers in the corpus were to Japanese English before their arrival in Japan, so categorical statements are impossible to make. However, either way one looks at it, the fact that either the /b/ phoneme or the /β/ phoneme can substitute for the /v/ phoneme is still relevant to decisions regarding pronunciation pedagogy. If the speakers are used to each their partner's pronunciations, then the fact that either the /b/ phoneme or the /β/ phoneme can substitute for the /v/ phoneme without inhibiting intelligibility demonstrates that both /b/ and /β/ phoneme substitutions are something interlocutors can get used to easily; other facets of pronunciation pedagogy should receive superordinate status on a pronunciation syllabus because the substitutions present in this study do not cause Japanese and Chinese NNSs any salient mutual intelligibility problems. On the other hand, if the speakers are not used to each their partner's pronunciations, then the fact that either the /b/ phoneme or the /β/ phoneme can substitute for the /v/ phoneme without inhibiting intelligibility shows that these substitutions are both completely unproblematic and interactively inconsequential. Accordingly, either way one approaches the data, one thing is clear: a /b/ or /β/ phoneme can substitute for either a /v/ phoneme without inhibiting mutual intelligibility.

5 Conclusion

Pronunciation pedagogy has been subject to the vicissitudes of radical change recently—a subject too voluminous to cover in this paper. However, even within the cauldron of change, one tenet of earlier ideology still lurks in the tenets of mainstream SLA: the best way to learn any language is extensive contact between NSs and NNSs (e.g., Long 1996). This study problematizes that notion because this study demonstrates that articulatory proximity to NSs models of pronunciation is not necessary for mutual

intelligibility between NNSs. Indeed, NNSs are perfectly capable of deviating from NS pronunciation models without inhibiting mutual intelligibility, and in a world in which NNSs are far more likely to converse in English with another NNS than they are with a NS, conforming to an intelligible NNS pronunciation model rather than a NS model is much more pragmatic. Accordingly, a post-normative approach to pronunciation pedagogy that rejects the idea that NS pronunciation models are universally applicable and that accepts NNSs as full participants in determining pronunciation intelligibility is possible, warranted, and indeed justified (Jordan 2011; Dewey 2012; Kirkpatrick 2012). This study and further studies of this kind hope to contribute to that endeavor.

6 Transcripts

The transcription follows the Jeffersonian transcription conventions utilized by conversation analysts.

6.1 Transcription Conventions

The transcripts follow the modifications to the standard Jeffersonian transcription system (e.g., Schegloff 2007) made by Matsumoto (2011).

7 References

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