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THE ROLE OF WORD STRESS IN ENGLISH AS A LINGUA FRANCA

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Jennifer Jenkins, in numerous publications (e.g., 2000; 2002; 2006), has proposed a syllabus for teaching English pronunciation that takes into consideration the new role of English as an International Language (EIL), or English as a Lingua Franca (ELF). In these publications, she proposes a "lingua franca core" in which some pronunciation features are considered core, or necessary for intelligibility, and some features are considered non-core, or not necessary for intelligibility. She proposes that word stress not be considered part of the core for three reasons: because word stress does not pose intelligibility issues, because word stress is too complex to be teachable, and because word stress patterns are variable among Native Speaker (NS) dialects of English. This paper will argue from other research that each of these issues may be seen as an argument for rather than against word stress being considered a core feature, thus suggesting a more important role for word stress in ELF.

INTRODUCTION

Jenkins' Lingua Franca Core

As Jenkins (2000) points out, research shows that the number of Non-Native Speakers (NNS) using English for international communication now outnumbers its NSs (Jenkins, 2002, p. 83). This is changing the way that people view teaching English. Pronunciation is of particular importance in this discussion because Jenkins' research suggests that while pronunciation errors are not the only causes of communication breakdowns in NNS-NNS communication, they are the most common and the hardest to overcome (Jenkins, 2002, p. 87) and for many students obtaining a native-like pronunciation is unlikely. Instead of trying to get students to match a NS pronunciation, the focus of ELF is mutual intelligibility. In order to maintain mutual intelligibility, Jenkins recognizes that NNSs must still conform to some standards of pronunciation, and that variations in pronunciation around the world cannot be unbounded if speakers are to be able to communicate successfully. Thus, Jenkins wanted to establish which aspects of pronunciation were most important for intelligibility in order to form her own model, the lingua franca core, or LFC.

To determine which aspects of pronunciation were most important for the LFC, Jenkins examined interactions between NNSs (NNS-NNS). Specifically, over a three-year period she did observations of casual speech and classroom situations, as well as recording information exchanges between participants. The participants were fairly high level English language speakers who had passed the Certificate of Advanced English (CAE) qualification (http://www.cambridgeesol.org/exams/cae/index.html), a globally recognized exam that indicates preparedness for university study in English.

For her data analysis, she located miscommunications between the NNSs and analyzed the reasons behind them. She found that mistakes in pronunciation were the most common cause of communication breakdowns (Jenkins, 2002, p. 87). Analyzing the different types of

pronunciation errors that caused breakdowns led to her formation of the LFC. Some of the core features were the distinction between tense and lax vowels, all consonants except /θ/, /ð/, and/ɬ/, aspiration of voiceless plosives, nuclear stress and contrastive phrase stress (Jenkins, 2002, p. 96-97). She found seven commonly taught pronunciation topics to be non-core, or not necessary for mutual intelligibility. Among those were /θ/ and /ð/, reduced schwa in function words, features of connected speech (such as assimilation), stress-timed rhythm, pitch movement, and placement of word stress (Jenkins, 2002, p.98).

These non-core pronunciation features were also argued to be un-teachable or un-acquirable (Jenkins, 2002, p. 97). Word stress in particular was mentioned as being too complex because of the many rules involved and the numerous exceptions (Jenkins, 2000, p. 39). She also said that word stress is variable across NS varieties and yet communication across dialects is possible (Jenkins, 2000, p. 40), suggesting that word stress is not essential.

Her argument, however, does not stand up to close examination. As the teaching of ELF increases across the globe, it is important to reconsider the role of word stress in English as Lingua Franca. In the following sections, I will examine word stress based on the three reasons that Jenkins claims it should be non-core, and I will argue instead that word stress should be core.

Word Stress and Intelligibility

Jenkins' argument is mostly based on the fact that for the NNS-NNS interactions in her study word stress misplacement alone did not seem to create communication breakdowns. This presents three major problems. First, Jenkins has made assumptions about the meaning of intelligibility within the data analysis. Also, she bases her claim for NNS-NNS intelligibility on a very small amount of interaction data. Finally, although Jenkins claims that NSs are not relevant to her ELF model, with limited research on the impact of word stress errors for NS listeners it becomes increasingly important to consider the research that does exist, research with NS listeners.

When analyzing her data, Jenkins found that word stress misplacement caused no communication breakdowns. She therefore concluded that word stress was not a core feature. One main problem in this conclusion, however, is the criterion that, to be considered a problem, the language feature must be capable of creating a complete communication breakdown, or what Munro and Derwing (1995) call a loss of intelligibility. Jenkins' data did not account for the extra processing energy or effort it may have taken listeners to figure out what word was being said, or what Munro and Derwing (1995) call a loss of perceived comprehensibility. Cutler and Clifton (1984) showed that misplaced word stress can slow processing times for NS listeners. Slowed processing of mis-stressed words means that parts of the message will be lost as the listener works to decode the mis-stressed word.

In addition to the problems with assumptions that underlie her data analysis, Jenkins based her arguments on a limited amount of data: five classroom or social interactions in which there was a communication breakdown, five information exchange tasks, and recorded social exchanges. Although it is not clear how much time this data actually encompasses, it is possible that it is as little as a couple of hours of total recorded interaction time. Basing an entire syllabus on such little data is suspect. To support her claims, Jenkins and other researchers would need to duplicate the findings that word stress errors do not impede intelligibility. Instead, recent research seems to be pointing in the opposite direction. Field (2005) used two syllable words

recorded with standard stress, shifted stress, and shifted stress with a vowel change (from weak to full vowel.) Overall, NSs and NNSs reacted to stress changes in surprisingly similar ways. For example, Field found that a shift in stress, without an accompanying vowel shift, lowered intelligibility almost 20% for both the NSs as well as the NNSs. In contrast to Jenkins' results, this study shows that word stress can have an impact on the intelligibility of words, even for NNSs.

More importantly, however, Jenkins' data is limited in a much more profound way by her lack of native speakers in the data. Because Jenkins' research is based on such a limited amount of data and there is such void of research on NNS listeners (regarding word stress errors), research from NSs may help illuminate this issue, especially in light of Field's work which showed that NNSs reacted in similar ways to NSs regarding word stress issues. Findings from research on the effects of word stress for NSs show a clear and heavy reliance on word stress. Cruz (2003), in a study of Brazilian English learners' pronunciation errors, found that the only statistically significant determinant of intelligibility for NS listeners was word stress. Similarly, Anderson-Hsieh, Johnson, and Koehler (1992) examined pronunciation scores from the SPEAK test for 60 subjects from 11 different language backgrounds and found that errors in word stress were found to highly correlate negatively with the pronunciation score as well as the global speaking ability score. Also, research studies have also looked at ratings of intelligibility by NSs and noticed that improved word stress led to improved intelligibility scores (Derwing, Munro, & Wiebe, 1998; Liu, 2007).

The reason word stress is so important to native speakers seems to be that when faced with a hard to understand word, NS listeners rely heavily on word stress. Zielinski (2008) recorded non-native speakers speaking at length on educational topics, then used to recordings to cut segments out of the recordings that contained pronunciation errors, and then asked native speakers to transcribe those segments (an intelligibility task, in Munro & Derwing's terms). The researcher found that in every sample where the word was difficult to determine, the transcribers tried to use word stress and the number of syllables to determine what the word was. Similarly, Benrabah (1997) found that when words were mis-stressed by NNSs, NS listeners used their knowledge of word stress patterns to try to determine the words instead of listening to the segments. This usually led to the inaccurate identification of the word even when the segments were accurate which led Benrabah to conclude that if speakers want to be intelligible they need to stop focusing on getting every sound right and start working on their word stress. This finding highlights the importance of word stress in ELF intelligibility.

Jenkins' decision to classify word stress as non-core may make EIL significantly less intelligible to NSs. Therefore, a model of ELF that lists word stress as non-core may not be as successful when confronted with the real-world ELF situation, which includes NSs.

Word Stress and Teachability

As part of Jenkins' claim that certain elements of pronunciation should be non-core she points out that many of the non-core elements are not teachable (Jenkins, 2002, p. 97). This does not seem to be based on empirical research. On the contrary, there is evidence that word stress is teachable (Liu, 2007; Murphy, 2004; Sardegna, 2009; Tanner & Landon, 2009). The main reason that Jenkins finds word stress un-teachable is due to its complexity (Jenkins, 2000, p. 39). Although it may be true that the word stress system is complex, Dauer (2005) points out that 85% of the polysyllabic words in English can be accounted for by a limited number of rules.

Dickerson (1994) makes the even more impressive claim that, "the stress of nearly every word in English can be assigned by using one of four simple rules" (p. 25).

Jenkins continues by pointing out that although she is aware of people claiming to be able to break down word stress into a limited number of rules, "[No pronunciation teaching manual] that [she is] aware of, though, provides '10 powerful word stress rules.' This is probably because many of the rules have multiple exceptions and/or are far too complex for mental storage by students and teachers alike" (Jenkins, 2000, p. 39). On the contrary, many materials exist that attempt to share these rules with students (although not all textbooks manage it in 10 or fewer rules). For example, Hahn and Dickerson (1999) package word stress into the four previously mentioned rules. Other texts that also teach word stress through manageable rule based systems are Dauer (1993) and Grant (1993). Such rule based teaching strategies have been successfully put into action within Dickerson's pronunciation classrooms, and research by Sardegna (2009) shows that following Dickerson's model students are able to significantly improve their word stress through the use of covert rehearsal. The use of predictive rules has also found support in others' work, such as Liu (2007) who conducted a one-month intervention for word stress placement with sixty Chinese college students who were able to improve their stress placement and intelligibility. These research studies suggest that not only is word stress *teachable*, but it is also *learnable*.

Of course, teaching prediction rules is not the only way to teach word stress. Murphy (2004) suggests developing a system of talking about the syllables and word stress of new vocabulary. In his own classes he teaches students to assign numbers to each new word they learn, the first being the number of syllables, the second being the number of the syllable that receives the major stress (as indicated by the dictionary.) Thus a word such as, "unbelievable" would be a 5-3. Students, then, learn to not only focus on the consonants and vowels of new words, but also the syllables and stress placement. He found that 86% of students considered this method helpful for learning the stress of new words.

Even technology has been employed in the attempt to teach word stress. Tanner and Landon (2009) have found that through the use of computerized tasks students were able to improve their word stress placement over the course of thirteen weeks. They measured improvement through a pre- and posttest and found significant improvement in both the perception and production of word stress.

From these studies, it is possible to infer that the students were acquiring these pronunciation features through teaching. Despite the complexity of the word stress system, numerous teachers and researchers are successfully teaching word stress and finding that it is teachable and learnable.

Word Stress and Teachability of Other Language Features

Not only do Dauer and Dickerson claim that word stress is teachable, they also point out that word stress affects a number of other important features, such as vowel quality and length, aspiration, and nuclear stress. All of these features are listed as core features in Jenkins' proposal and were thus shown within her data to impact intelligibility. If Jenkins uses un-teachability as a reason to relegate features to the non-core category, it would seem she views the core features as teachable. Many of the core features, however, cannot be successfully produced without accurate word stress.

For example, whether or not a syllable has stress determines the vowel quality of that vowel. “Vowels have no sounds unless they are embedded in a spelling environment and are accompanied by stress information” (Dickerson, 1994, p. 22). Dickerson uses the example words, “slate” and “pirate.” Despite the similar spellings “ate”, the vowel quality is different because it is determined by the word stress. Jenkins states that the contrasts between short and long vowels should be maintained. Given that vowels are determined by stress, to predict a vowel sound correctly stress must fall on the correct syllable(s).

Stress can also affect consonants, specifically plosives. Celce-Murcia, Brinton, and Goodwin (2010) point out that the plosives /t/, /p/, and /k/ are aspirated before a stressed vowel, but not before an unstressed vowel. They give the example of “rapid” versus “rapidity”(p. 79). The /p/ in rapidity is aspirated because the stress falls on the following “i” but not in rapid because the stress in this word is on the first syllable. Voiceless plosives that are not aspirated, when aspiration is required, are more likely to be heard as their voiced counterparts, /d/, /b/, and /g/, which could easily lead to misunderstandings. Jenkins claims that proper aspiration on voiceless plosives is a core feature. Students would need to know word stress in order to correctly determine whether a voiceless plosive should be aspirated.

Finally, nuclear stress is also affected by word stress. Jenkins claims that nuclear stress is critical for intelligibility. It is impossible, however, to produce proper nuclear stress on multisyllabic words without proper word stress. Words receiving nuclear stress carry that stress on the primary word stress (Couper-Kuhlen, 1986, p. 39). Therefore, a student that does not understand word stress could misplace nuclear stress even if he knows which word needs to receive it. Jenkins, however, tries to separate the issues of nuclear stress and word stress. In reality, nuclear stress is heavily dependent on word stress, and nuclear stress cannot be considered core if word stress, its basis, is not core.they should not be considered separate issues.

Leaving word stress out of the core features makes prediction or use of the other dependent features impossible. For students, being able to predict features of the language can be very useful. “Learners no longer have to wait for the teacher to teach them, nor do they have to confine their learning to the classroom, because prediction skills empower learners to teach themselves at any time in any location. They have the tools with which to become self-instructors” (Dickerson, 1994, p. 29). Teaching the rules of word stress, then, would help students not only predict correct word stress, but also predict the other core features that are dependent on word stress.

Word Stress in Varieties of English

Another way that Jenkins justifies word stress as non-core is by saying that word stress is variable across dialects of NS Englishes. She says, “Word stress patterns differ quite markedly among L1 varieties of English, most notably RP and GA, with no subsequent loss of intelligibility (though admittedly, familiarity with these accents is likely to have a role in this)” (Jenkins 2000, p. 40).

First of all, this argument is unsound. The fact that variation exists for some words across dialects of English does not mean that word stress does not make a difference for all of the other words. Granted, variability is a documented fact (Kingdon, 1958). But while it is clear that variability does exist, it is likely that this affects a rather small percentage of the words in English. Variability also occurs for many consonants, but they still remain part of the LFC.

Whether or not the word stress differences affect many words or only a few, Jenkins claims these differences cause no loss of intelligibility, but she does not back this claim up with evidence. More research on the affect of word stress variability on both native speakers and non-native speakers would be needed in order for Jenkins to be able to support her claim. Without such evidence, however, this argument should not be used to exclude word stress from the LFC.

CONCLUSION

While an image of the role of word stress in intelligibility is emerging for NNSs, one of the findings of this investigation into the role of word stress in ELF was simply that further research is needed. Because Jenkins bases her finding that word stress is not important for intelligibility on a lack of data (lack of misunderstandings due to word stress) instead of a preponderance of data, more research needs to be conducted on the impact of word stress misplacements on NNS listeners.

Although more research is needed, the three main reasons that Jenkins offered for word stress' placement into the non-core category (intelligibility, teachability and variations across L1s) have been shown through other research to be questionable.

Jenkins' proposal for ELF is a fresh and realistic take on pronunciation. Her model steps away from past practices which required students to attempt to match a native speaker norm and attempts to create a manageable system that allows for NNS variation. It has fallen short, however, by delegating word stress to the category of non-core. Based on this investigation, word stress should be included in the core features of Jenkins' proposed ELF. By reassigning word stress to the core features, Jenkins would make her version of ELF more usable not only to NNSs, but also to the numerous NSs involved in international communication.

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