

Comparing the syllable in English and Japanese and the problems it may cause for second language learners

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Introduction

“Syllables govern the World” (Selden, 1689, as quoted in Crystal & Crystal, 2000 : 7)

The syllable is a very important unit. Most people seem to believe that...they can count how many syllables there are in a given word or sentence. (Roach, 2004 : 70)

The focus of the following study upon a single, seemingly rather narrow topic raised the question of whether or not there would be sufficient material for a paper of this length. However, in the course of initial research it soon became apparent that the subject of ‘the syllable’ demanded close and extensive examination, not only to establish its true meaning, as discussed theoretically in the first section, but also to understand its actual position in the phonology of the two languages, providing the analytical content of the second section, and finally to predict the difficulties that different characteristics might create for non-native speakers, which is the practical concern of the third section.

1. The Syllable

By far the most widely discussed phonological suprasegmental is the syllable. While the study of the syllable has a long uninterrupted history...typically three questions...arise...(1) how does one define the syllable? (2) how does one determine syllable boundaries? and (3) is the syllable a necessary concept?" (Hyman, 1975 : 188)

1.1 Evidence

Most academic discussion of the syllable appears to agree that there is considerable historical evidence for its relevance, with syllabaries preceding alphabets chronologically. Ancient Greek provides the sole example of a language involving the systematic division of words into syllables and the allocation of separate symbols to consonant and vowel (concepts later adapted and developed in Hebrew, Arabic, and other alphabetic languages), while Chinese is presented as a language where each symbol still represents a single syllable (Ladefoged, 1975 : 217).

Fundamental differences in the basic structure of languages give rise to what can be interpreted as further confirmation of the syllable's conceptual existence, Dalton & Seidlhofer, among others, noting that people with no experience of an alphabetic writing system "find it easy to syllabify words but difficult to segment them into sounds" (2001 : 35). They continue with another quite different but equally widespread argument for the existence of the syllable; slips of the tongue (spoonerisms) which, rather than being random errors, invariably involve an exchange of initial syllables (for example, mistakenly saying 'par cark' instead of 'car park').

Some research, as Hyman notes, may have shown a "reluctance to accept the syllable as a viable phonological unit" (Op. Cit. : 192), to the extent that certain

authors even question its application in the field :

All phonological processes which can be stated in a general way with the use of syllable boundaries can also be stated without them (Vennemann, 1972, as discussed *ibid.* : 193)

Nevertheless, a consensus appears to have been reached, whereby those concerned, however reluctant their acknowledgement of its significance, now tend to focus their attention on attempts to define the syllable and analyse its influence.

1.2 Definitions

...everybody seems to have an intuitive sense of what it is. Everybody, however, finds it notoriously difficult to define it exactly...definitions depend very much on our view of what the syllable 'does' in language... (Dalton & Seidlhofer, *Op. Cit.* : 34)

Defining the syllable is a challenge that has been taken up by most studies, with varying degrees of success. Even if the results may often appear inconclusive, their division into two groups is at least relatively clear ; on the one hand, those with a basis in phonetics, describing the nature of the sound and the manner of its production, and on the other, those rooted in phonology, concerned with the combination of vowels and consonants in forming various sequences (Richards & Schmidt, 2002 : 531).

As in much of the literature, Ladefoged prefaces his examination of the former group by acknowledging that “there is no agreed phonetic definition of a syllable”, only a number of theories described as “not entirely adequate” (*Op. Cit.* : 217). These can, in turn, be divided into those related to the properties of sounds as heard by the *listener*, in terms of sonority and prominence, and those related to the physiology of their production by the *speaker*, in particular the concept of the chest pulse.

While the correspondence of peaks of sonority to peaks of syllabicity might explain the general agreement upon the number of syllables in most words, this is still seen as a coincidence of limited relevance rather than a theory able to encompass all variations and differences in interpretation. Similarly, dependence on both relative *and* actual stress, length, and pitch is seen as a reason to discount prominence as a “completely subjective affair”, unsuitable as the basis for any general definition of the syllable. The last of the three main phonetic theories, that of the chest-pulse, concentrates upon what would seem a more universal physiological aspect of sound production, namely the contraction of muscles that accompanies an increase in air pressure, subsequently released. However, little evidence has been found for the claim that every syllable is initiated in this manner (ibid. : 221). While again providing some explanation for the widespread agreement on the validity of the syllabic unit, too many vagaries remain :

The classical physical definition... ‘chest-pulse-theory’ ...explains why the syllable is intuitively sensed by speakers of all languages. However, not everyone locates syllable boundaries at the same place. (Dalton & Seidlhofer, Op. Cit. : 35)

Phonetic elements will feature prominently in the detailed analysis of syllable structure which follows, but before narrowing the focus of this study, mention should be made of the phonological view which seeks to define the syllable by means of phonotactics, the examination of the possible phoneme combinations of a language (Roach, 2004 : 71). This will also play a key role in later discussion, but in relation to the above theories there is a noteworthy contrast between the physical elements of sound and movement explored thus far and the more conceptual approach taken by phonologists:

...syllables may be considered to be abstract units that exist at some higher level in the mental activity of a speaker...necessary...in the organisation and production of

utterances. (Ladefoged, Op.Cit. : 221)

1.3 Explanations

Roach (Op.Cit. : 70) gives a phonetic description of the syllable as:

...consisting of a centre which has little or no obstruction to airflow and which sounds comparatively loud ; before and after this centre...there will be greater obstruction to airflow and/or less loud sound.

This represents the starting point for a logical progression through four basic syllabic combinations, namely the minimum syllable of “a single vowel in isolation...preceded and followed by silence” (e. g. words like ‘are’ **a:** ‘or’ **ɔ:**, plus individual sounds such as **m** expressing agreement and **ʃ** requesting quiet) ; the addition of an ‘onset’ preceding the vowel ‘centre’, also referred to as the ‘nucleus’ or ‘peak’ (‘car’ **ka:** ‘four’ **fɔ:**) ; the addition of a ‘coda’ rather than an onset (‘arm’ **a:m** ‘auk’ **ɔ:k**) ; and finally, the addition of both onset and coda (‘calm’ **ka:m** ‘fork’ **fɔ:k**). Phonotactics then extrapolate this process of onset and coda addition from single consonants to, in the case of the English syllable, up to three and four at beginning and end respectively, giving it a maximum phonological structure of:

C₀₋₃ V C₀₋₄ (C = consonant, V = vowel)

as found in one transcription of the word ‘strengths’ **strenkθs**.

The second of the preceding four syllable types represents what has been labelled the Preferred Syllable Structure : a single consonant followed by a vowel (CV):

This is the only syllable type which is found in all languages...it is the first which is learned in child language acquisition, even in languages having other syllable types.

(Hyman, Op. Cit. : 161)

It is the presence of other syllable types in addition to this universal structure that

creates problems determining syllable boundaries in many languages.

In the early seventies, attempts were made to establish universal principles that might be applied to this difficult process, in particular the work of Pulgram (1970, as discussed in Hyman, *ibid.* : 189) who proposed the following sequential constraints :

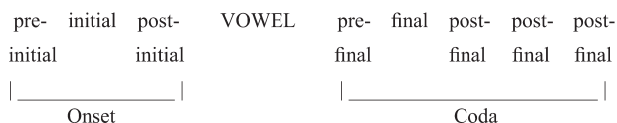
- 1) “Maximal Open Syllabicity”, requiring the insertion of a syllable boundary after every vowel (or diphthong) in a word ;
- 2) “Minimal Coda” and “Maximal Onset”, over-riding principle 1), whereby only as many consonants as necessary to create a permissible coda should be transferred from the onset of the following syllable (thus **mis.tə** instead of **mi.stə**), while as many consonants as possible should be attached to the second of two syllables (**em.plɔɪ** rather than **e.mplɔɪ**) ;
- 3) “Irregular Coda”, shifting the bulk of any irregularity resulting from the transfers undertaken in 2) to the coda rather than the following onset, which would account for longer consonant sequences at the end, as opposed to the beginning of syllables in many languages.

As is becoming clear from the discussion thus far, it is difficult to explain ‘the syllable’ as a term without quickly becoming embroiled in complicated questions of analysis upon which there often appears to be little agreement in the literature. Having explored the concept of the syllable and the various views of its existence and relevance, this study will now focus in more detail on a comparison between the highly contrasted syllabic structure and characteristics of two languages, English and Japanese.

2. Comparing syllabic structure and characteristics

2.1 English – analysis

In the previous section the maximum phonological structure of the English syllable was represented as $C_{0-3} V C_{0-4}$. Further detail can be added to this formula by labelling the constituent parts of the potentially three and four-part onset and coda :



(Roach, Op.Cit. : 76)

Roach (ibid. : 71-6) precedes this summary by analysing all possible combinations, from a vowel as the ‘zero onset’ at the start of a syllable (or as the ‘zero coda’ at the end) through the expanding range of feasible consonant clusters either side of the central vowel.

The simplest form of ‘initial onset’ is a single consonant (any, other than **ŋ** or **ʒ**), two-consonant clusters then consisting of either ‘pre-initial’ **s** + ‘initial’ **p/t/k/f/m/n** or initial **p/t/k/b/d/g/f/θ/s** + ‘post-initial’ **l/r/w/j** (with the long vowel **u:** as the centre **ʃ** followed by **r** is also possible, and **h/v/m/n/l** followed by **j**), and the maximum three-consonant cluster (pre-initial + initial + post-initial) limited to **s** + a few combinations of **p/t/k** + **l/r/w/j**. Examples of each basic type would be:

əʊk ‘oak’	sməʊk ‘smoke’	preɪ ‘pray’	spreɪ ‘spray’
(zero onset)	(pre-initial+initial)	(initial+post-initial)	(pre-initial+initial+post-initial)

Codas can be extended from a single ‘final’ consonant (any other than **h/r/w/j**, through two consonants as ‘pre-final’ (**m/n/ŋ/l/s** only) + ‘final’ (as before) or ‘final’ + ‘post-final’ (**s/z/t/d/θ** only, often separate morphemes), three consonants as pre-final +

final + post-final (**l/n/ŋ** + **d/f/k/p** + **s/t/z/θ** in certain combinations only – **ld** + **z**, **lf** + **θ**, **lp** + **t/s**, **lk** + **t**, **ŋk** + **t/s**, **nd** + **z**) or final + 2 post-finals (such as words ending in - **fθs** ‘fifths’, - **kst** ‘next’, - **pst** ‘lapsed’), and finally the maximum four-consonant cluster, usually analysable as pre-final + final + 2 post-finals (e. g. - **lfθs** ‘twelfths’ or - **mpts** ‘tempts’) but occasionally as final + 3 post-finals (as in ‘sixths’ or ‘texts’, designating **θ** or **t** as post-final 2 between **ks** + **s**).

Significantly, in spite of the analytical detail already displayed in the preceding examples, the focus has yet to progress beyond monosyllabic words, some indication of the complexity of syllable properties in English, as noted by Akmajian et al. (1990 : 106). Moving on to polysyllabic constructions, it has already been shown how the Maximum Onset Principle divides consonant clusters “so that the syllable on the right ends up with the *maximal allowable number that satisfies the conditions of English syllable onsets*” (ibid. : 107), while also permitting the assignment of a consonant to the left syllable to avoid ending with a short vowel. The existence of ambisyllabic consonants, somehow belonging to *both* syllables (like the **t** and **r** in the analysis of ‘better’ and ‘carry’ as **bet.ə** and **kær.i**), has been noted in this context (Roach, Op.Cit. : 78).

In his seminal work on word-stress, Fudge emphasises the importance of recognising the extent and location of syllabic division in any English word:

...not only how many syllables there are but also exactly where the syllable boundaries are to be placed...because stress-placement is often dependent on the number of sounds occurring in a particular position within a syllable. (1984. : 19)

He then provides a list of principles to help determine both syllable length and boundary placement, observing, for instance, the frequent correlation between word- and syllable-boundary (although the former may be suppressed in connected

speech to allow consonants to be carried over from one word to the next – ‘at all’ effectively becoming **a.tɔ:l**). Wong (1987 : 39) also stresses the benefits of attention to syllable length, suggesting that students of English pronunciation should be aware of the variations in syllable length arising from differences in structure and vowel type, as well as knowing that in all polysyllabic words primary stress will be placed on a particular syllable that is longer than the others. The question of stress (or prominence), and the analysis of strong and weak syllables will conclude this exploration of English syllable structure.

Most studies agree on the importance of the relationship between strong and weak syllables and its status, in combination with other prosodic features, as “essential to intelligibility” (Roach, Op.Cit. : 91). A strong syllable can be identified by the presence of a long vowel (thus excluding **ə/i/u**) as its peak, or a short vowel which *must* be followed by at least a single-consonant coda (or two-consonant coda if in word-final position). Weak syllables are marked by shorter, lower intensity vowels ; on the one hand, word-final **ə/i/u** without coda (or **ə** with coda), on the other, word-internal **ə/i/u** as peak without coda (ibid. : 81).

There are a number of weak syllable types that are of particular interest, most notably the ‘schwa’, two non-phonemic close vowels and a small group of syllabic consonants. Described as mid (halfway between close and open), central (halfway between front and back) and lax (articulated with little energy) in quality, the ‘schwa’, represented by the symbol **ə**, is the most common vowel in English, always in the context of weak syllables. Roach (ibid. : 83-4) goes on to suggest that spelling may provide some insight into appropriate usage, listing the presence of any of the following – ‘a/ar/o/or/e/er/ough/ou’ - or adjective-ending ‘-ate’, as possible indicators, even though strong pronunciation may be realised via identical spelling

within the same word (e. g. ‘character’ **kærəktə** and ‘potato’ **pətetəʊ**). The schwa will feature again in section 3 as one of the principal problematic features of English syllabic structure for learners of the language.

Additionally, there are two close vowels associated with weak syllables that are apparently outside the generally accepted set of English phonemes ; one front and unrounded, with pronunciation somewhere between **i:** and **ɪ**, the other back and rounded, between **u:** and **ʊ**. Roach (ibid. : 84-6) suggests **ɪ** and **ʊ** without lengthening marks as symbols, listing possible spelling formations such as final post-consonantal ‘-y’ (**hæpi** ‘happy’), ‘-i-’ before ‘-er/-est’ suffixes to the same (**hæpiə** ‘happier’) and also the duo-syllabic suffixes ‘-iate/-ious’ (**hɪləəriəs** ‘hilarious’), unstressed ‘-e’ in monosyllabic words such as ‘he’ or ‘be’, plus ‘the’ and the prefixes ‘re-/pre-/de-’ before vowels (**riækt** ‘react’). The less common **ʊ** can be found preceding vowels, too, when ‘you’, ‘to’ and ‘do’ are unstressed (also word-internally - **influenzə** ‘influenza’), and in ‘through’ and ‘who’ wherever unstressed.

In some syllables a consonant replaces the vowel as the peak (**l/r**/nasal, marked with a _l to indicate their syllabic status), and these are also considered as weak. What is termed the ‘dark l’ is perhaps the most evident of these in many accents, seen after alveolar consonants (**θrɒtl**, ‘throttle’), non-alveolars that lose their final ‘-e’ when the ‘-ing’ suffix is attached (**trabl** ‘trouble’ **trabliŋ** ‘troubling’) and ‘-al/-el’ word-endings following consonants (**medl**, ‘medal’ **mɔ:səl** ‘morsel’). Syllabic **n** is most frequent after alveolar plosives and fricatives - **t/d/s/z**, but not **l/tʃ/dʒ** - and the labiodental fricatives **f/v**, except initially (e. g. **kɪtn** ‘kitten’ and **ɪlevn** ‘eleven’).¹⁾ **r**

1) **m** and **ŋ** sometimes become syllabic as the result of processes such as assimilation and elision, though frequently **ŋ** or **ən** is equally acceptable (**hæpm** /**hæpŋ** /**hæpən** all possible pronunciations of the word ‘happen’) (Roach, Op.Cit. : 89)

is commonly syllabic in the ‘rhotic’ accents of most American English, though there are usually acceptable alternatives ; in careful speech, the word ‘particular’ being pronounced as **pʁ̩tɪkəlɹ̩** in the U.S., but **pəʔɪkʲələ** in the U.K. Finally, there are a number of examples where adjacent syllabic consonants will conceivably be heard, dependent upon the variety of pronunciation. These include **næʃn̩l** ‘national’, **lɪtr̩l** ‘literal’, **vɪʒn̩r̩** ‘visionary’, **vetr̩n** ‘veteran’ (ibid. : 90).

The challenge of describing the wide variety of syllabic structures in English has been shown to be a difficult and lengthy task, made none the easier by referral to the apparent myriad of interpretations to be found in the relevant specialist literature. In the following section, another, markedly different syllabic framework will be investigated, that of Japanese, while attempting to make a comparison between some key characteristics of the syllable in that particular language and, as already discussed, English.

2.2 Japanese – analysis and comparison

Alongside the use of the original Chinese characters, the Japanese developed two syllabaries...*katakana*...from the abbreviation of Chinese characters...*hiragana*...from the...cursive style of writing. (Shibatani, 1994 : 120)

The syllabic basis of the written form is a key to understanding Japanese phonology and the root of many contrasts with other languages. The preface of a guide for students notes that “in Japanese the syllable plays a different role from that in English” (Mizutani & Mizutani, 1987 : xiv), while Ladefoged observes that Japanese is “probably one of the most interesting languages in the way that it uses length” (Op.Cit. : 224). Before continuing to examine a number of unique and shared characteristics in more detail, it is necessary to establish the distinction

between two basic suprasegmental units ; the syllable, already familiar from the initial discussion, and the mora, a term originating in classical Greek.

Taking the Japanese word for newspaper, ‘shinbun’, as an example, Shibatani (Op.Cit. : 158) shows how, although clearly divisible into two syllables ‘shin’ + ‘bun’ (usually written with two Chinese characters ‘新聞’), “a Japanese speaker further subdivides the word into four units...which correspond to the four letters of kana used in the written form” (しんぶん in basic hiragana : ‘shi’ + ‘n’ + ‘bu’ + ‘n’). Although the syllables need a vowel to create the canonical CV form, these mora do not, as seen here in the moraic nasal (represented by the phoneme ‘N’ - ‘shiNbuN’) or what is known as the consonantal mora (the first of a geminate consonant, phonemically Q, as in the word ‘haQkiri’, meaning ‘clearly’).²⁾ There is a clear correlation between these forms and the syllabic nasals and consonants in English. Returning to the historical overview in the quotation opening this section, these variations on the indigenous CV base can be seen as the result of further loans from China :

As the vocabulary has been constantly enriched by borrowing throughout history, the phonological system has also been affected with the importation of new syllable types. (ibid. : 121)

However, more recent imports, with their greater variety of sound combinations and contrasts, can be seen confirming to the principles of Japanese, necessitating the insertion of vowels³⁾ between each consonant of an English word, “McDonald’s” being expanded twofold to create the six-syllable ‘makudonarudo’ (the possessive

2) Contrary to widespread belief, it is the mora, rather than the syllable, that is actually the rhythmic unit in Japanese poetic forms such as haiku, where the duc-syllabic ‘shinbun’ would account for 80% of the traditionally 5-mora first line.

3) By way of contrast, casual forms are often created via the *deletion* of vowels, as in the possessive particle ‘no’, with ‘it’s mine’ (male speech) ‘boku no da’ reduced to ‘boku n da’.

‘s’, usually dropped, would require an additional syllable ‘zu’), in this case also six-mora, being written as six kana characters マクドナルド, a clear example of Shibatani’s observation (ibid. : 144-5) that “a syllabary writing system...facilitates the borrowing of foreign words...adapted...at the phonetic level, though the original pronunciation is often grossly altered.” The discussion will return to difficulties for learners arising from such over-epenthesis later ; suffice to note here that the vowel added to break up the unacceptable consonant sequences is most commonly ‘u’ (as in the example), although ‘i’ is also found quite frequently (after palatal affricates or fricatives - Hyman, *Op.Cit.* : 146).

The crucial distinction between this fixed mora basis and the elasticity of the English syllable is summarised by the Mizutanis (*Op.Cit.* : xiv) prior to the onset of their course in Japanese :

The relatively equal length that each syllable receives is an important feature...Each hiragana symbol...is given a beat of approximately the same length...Care should be taken that no syllable is any longer or shorter than any other...The fact that each sound unit has a whole beat distinguishes the Japanese sound system from that of English where some syllables are lengthened and some shortened.

There is a limited group of phonetic units that can form mora, some of which have already been described, such as the fundamental CV plus the moraic consonants (nasal and first-part geminate, labelled N and Q). The others are a vowel in isolation (V) and the latter part of a long vowel (not weakened into a diphthong, unlike English) often given the label R (Hattori, 1991 : 9).

While questions may be raised regarding the precision of the calculation processes involved, many Japanese scholars (Narita et al., 1983 : 31 ; also Saito, 2000 : 34) point to the meagre syllable inventory size of their native language, giving the number

of possible combinations as little more than a hundred, whereas English is assigned an estimated total some thirty times larger in one study ; the exact figures are perhaps less important than the undeniable contrast. Comparing the simple Japanese CV monosyllable with the full range of monosyllabic permutations in English, from (C)VC to CCCVCCCC, the difference in complexity at the phonological level is self-evident.

3. Potential problems for second language learners

Phonological analysis, far from being a purely formal study of patterns, makes predictions about how speakers of one language will reproduce sounds of another language.

(Hyman, Op. Cit. : 21)

Given the numerous differences in the syllabic content and structure of the two languages, many of which were illustrated above, it should not be surprising to discover that much of the difficulty faced by students of either English or Japanese can be traced to such sources. In this final section, an examination of these problems for second language learners will be undertaken, although full exploration of possible solutions will remain beyond the scope of the current study.

The potential trouble caused by the frequent presence of consonant clusters in English has already been shown. While the insertion of vowels is the accepted procedure when such loan words are used in their native language, Japanese students need to be aware of the inappropriateness of transferring the same method to the pronunciation of English. Roach reminds readers :

Analysing syllable structure...can be useful...an understanding of the basic structures...will help learners to become more aware of precisely what type of consonant cluster presents...problems – most learners find some English clusters difficult, but few find *all* of them difficult. (Op. Cit. : 78-9)

While often viewed as an advanced skill, there is also an argument for the early introduction of linking phenomena to show how catenation actually helps over-ride some complexities in syllable structure by transformation towards the universally preferred (and Japanese-prevalent) CV sequence. Wong (Op.Cit. : 49) provides the restructuring of ‘watch out’, CVC + VC effectively becoming ‘wa.chout’ CV + CVC, as an example of the trend for final clusters to become initial in anything other than formal speech.

Conversely, it should not be forgotten that, however cumbersome the results may seem to native-speakers of English, syllable expansion of this nature will be an *aid* to comprehension when using foreign words in Japanese conversation. In addition, distinguishing long from short vowels (Osanai, 2001 : 200) and knowing whether or not to geminate consonants both cause considerable confusion for learners of Japanese, as the author can testify (though familiarity with the written form would soon reveal that, for example, the word ‘Tokyo’ requires both ‘o’ vowels to be long in order to constitute the full five mora : ‘to-o-ki-o-o’).

Perhaps the principal cause of problems arising from the syllabic characteristics of both languages is the question of stress. There is a clear correlation between correct word-stress and the intelligibility of a particular utterance, indeed some research (Grosjean & Gee, 1987, as discussed in Dalton & Seidlhofer, Op.Cit. : 39) suggesting that this may be a key to word-recognition in continuous speech:

...there is evidence that...the stressed syllable is picked out of the speech stream and is used to search the mental lexicon. Feasible candidates are selected...and are then judged by how well they fit with the unstressed syllables that appear to their left and right.

While it has been shown that Japanese syllables will generally be equal in

length due to the uniformity of their moraic constituents, duration (rather than rhythm, for example) appears to be the key discrepancy between native and non-native pronunciation of English syllables, especially where unstressed. Therein lies a paradox, with the need to focus upon something that should not, in effect, usually be worthy of notice, leading Kenworthy (1987, as discussed, *ibid.* : 111) to suggest “activities which make learners think about the *relative* importance of parts of a message” (*italics added*) in order to avoid the tendency to overstress elements (“the concern ‘not to leave anything out’”) even when it is their unstressed nature that is being taught. While an awareness of the schwa’s universality may require reinforcement (Avery & Erlich provide an amusing reminder that it is even used by the Queen and the President! 1992, as discussed *ibid.*), it should also be noted that mistaken use of the strong instead of weak form will not necessarily hinder the listener’s comprehension.

However fluent a second language learner may become, problems arising from the syllabic properties of their mother tongue will remain,⁴⁾ often in the form of what is perceived by native speakers as a ‘foreign accent’, arising from the continuing substitution of primary language sounds for those of the target language. Nonetheless, rather than merely impeding their linguistic progress, characteristics of the syllable in the student’s first language can also be viewed as useful points of reference in explaining phonological elements of the language they are studying.

4) Noting that even his most advanced students in Japan appear unable to produce the consonant cluster at the end of the word ‘clothes’, the author also acknowledges his own inability to suppress English word-stress in much of his pronunciation of Japanese.

Conclusion

This study has attempted to explain the meaning of the term “syllable” and explore its existence with reference to two languages in particular, English, and by way of comparison, Japanese. While similarities were found, substantial differences in syllabic features could be seen to present problems for learners of both languages.

Reasons for the continuing divergence of opinions regarding the definition and significance of the syllable became apparent through the varied and interesting nature of the research involved. Unfortunately, limitations of space and scope prevented natural progression of the discussion into further examination of the closely-related topic of word-stress (where the contrast between stress-accented English and pitch-accented Japanese, and beyond into tone languages such as Chinese, could justify a paper of its own) and the presentation of more recent advances in syllabic analysis enabling such discussion ; for example, the refinement of phonological hierarchy at the level of rhyme or foot.

The cyclical nature of the debate is reflected in the following summary provided by Akmajian et al. (Op.Cit. : 105), echoing the views with which this study commenced, and that provided much of its thematic content :

Although native speakers of English can determine, with a high degree of reliability, how many syllables a word has...there has been little consensus about exactly what a syllable is...the definition...that guides current research...the syllable represents a *level of organization* of the speech sounds of a particular language... “particular language” ...because languages vary in their syllabic structure.

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(*Japanese text, author's translation of original title)