## English consonants

## ASSIGN BUSTER

Most analyses agree that there are 24 consonant sounds in English. However, it is valuable to consider in some detail a few issues that affect the status of these consonants.

First, we can think about why the affricates $t$ and $d$ are treated as single consonants rather than sequences of two consonants.

Second, one might discuss why it is that $w$ and $j$ are classified as consonants rather than vowels. Third, there is the possibility of a voiceless counterpart of w that, for some speakers, differentiates which from witch. And finally, there is the question of whether the velar nasal is actually an allophone of $n$. After considering these issues, most people will still conclude that there are 24 consonants in English. However, the discussion can help us gain a deeper understanding of English phonology.

## Introduction

How many consonant sounds do you think there are in English? Of course, most of us know that there are 20 consonant letters in our alphabet (or 21 if you include ' $y$ '), but here we are talking about sounds, not letters. And there is a mismatch between sounds and letters: sometimes two letters combine to represent one sound, so that ' $s$ ' + ' $h$ ' combine to represent the sound and ' $t$ ' + ' $h$ ' combine, and sometimes one letter is pronounced as a sequence of two sounds, as ' $x$ ' is usually ks. So the number of consonant letters in our alphabet is irrelevant when considering the number of consonant sounds (phonemes) in English.

The basic answer to the original question is that there are 24 consonant sounds in English:
plosives: p btdk
fricatives: f v s z
affricates: t d
nasals: m n
lateral-approximant: |
approximants: w j r

However, things are never quite as simple as that in the study of languages, and there are a number of issues that we might consider in more depth: $q$ Why are t? d regarded as single phonemes and not as sequences of two phonemes? Why are w and j regarded as consonants and not vowels? q Do those people who distinguish which from witch have one extra phoneme, a voiceless equivalent of $w$. Should really be regarded as a separate phoneme?

Or can it be analyzed as an allophone of $n$ ? The status of $t$ and $d$. The two affricates are each written as a sequence of two symbols, so why do we regard them as single consonants? Why do we not, for example, analyze cheese t? I z as having two consonants at the start. The answer is that t behaves phonologically as a single sound, even if phonetically it is rather similar to a plosive followed by a fricative. In analyzing its behavior, we need to think about the patterns of distribution, so we should consider what sequences of sounds can occur together, particularly at the start of a syllable. English allows quite complex syllable onsets, such as str in the string and SPL in splash, but it does not generally permit a plosive followed
by a fricative, so pf k, ts, and k p are not possible words of English. (In the few cases where the spelling does suggest a plosive followed by a fricative at the start of the word, such aspsychology, the plosive is actually silent. ) But note that chip t and check t? Ek is a perfectly good word of English. So if we treated $t$ as a sequence of two phonemes, we would have to make a special exception to the rule that an English word cannot begin with a plosive followed by a fricative. Note that t can also occur at the end of a word, as with catch kt and rich $\mathrm{r}, \mathrm{t}$, and there are no other instances where can occur after a plosive at the end of a word, as kk and r? p? are not possible words in English. The situation with d provides even stronger evidence. If they sound like vowels, why do we classify w and j as consonants? Sometimes it is valuable to make a distinction between a contoid and a consonant: contoids are articulated with an obstruction in the vocal tract, but consonants are sounds that can occur at the edge of a syllable. In other words, contoid is a phonetic term that describes the articulation of a sound, while consonant is a phonological term which describes its behavior within a syllable.

From the phonetic perspective of articulation, we find that plosives, fricatives, nasals, and the lateral approximant I are all contoids because they all involve a constriction in the vocal tract, but $j$ and $w$ (and maybe $r$ as well) are not contoids. But now we should consider phonological behavior and thereby determine which sounds should be classified as consonants. Let us think about what can occur before /et/ to create a monosyllabic English word. We have words such as bet /bet/, pet /pet/, set /set/, net /net/, and debt /det/, but not / t/ or / et/, so we regard/b p s n d/ as consonants because they occur at the edge of a syllable, but are vowels. However, note that we can
also have wet /wet/ and yet /jet/. This confirms that /w/ and /j/ are consonants. In one other aspect of behavior, we can consider the distribution of the indefinite articles a and an: a occurs before consonants, while an occurs before vowels, and this depends on the pronunciation and not the spelling, so it is an hour, not an hour because /a / begins with a vowel (the ‘ $h^{\prime}$ is silent).

But note that we have waste and a year, not * waste and a year, and notice that once more this is based on pronunciation and not on spelling, as it is a university (which begins with /j/) and not a university. So again we see that /w/ and /j/ behave as consonants, not as vowels. In standard phonemic analysis, we assume that if the occurrence of a sound can be predicted from the surrounding sounds, it is regarded as an allophone and not as a phoneme. So, for example, we treat [ ], the dark /I/ sound that occurs at the end of a word such as fill, as an allophone of /I/ because we can specify that it only occurs in the coda of a syllable (or as a syllabic consonant in words such as bottle), unlike its clear counterpart which occurs before a vowel.

## Reference

1. Deterding, D. (2004).
2. How many vowel sounds are there in English? STETS Language \&CommunicationReview, 19(10): 19-21. Deterding, D. \& Low, E. L. (2001).
3. The NIE corpus of spoken Singapore English (NIECSSE). SAAL Quarterly, 56: 2-5. Ladefoged, P. (2001).
4. A course in phonetics (4th edition). Fort Worth: Harcourt College Publishers. Laver, J. (1994).
5. Principles of phonetics. Cambridge: Cambridge University Press. Lim, S. H. \& Deterding, D. (2005).
6. Added final plosives in Singapore English. In D. Deterding, A. Brown and E. L. Low (Eds. ), English in Singapore: Phonetic research on a corpus, pp. 37-42. Singapore: McGraw Hill. Mugglestone, L. 2003).
7. ' Talking proper': The rise of accent as a social symbol (2nd edition). Oxford: Oxford University Press. Roach, P. (2000).
8. English phonetics and phonology: A practical course (3rd edition). Cambridge: Cambridge University Press. Setter, J. \& Deterding, D. (2003, August).
9. Extra final consonants in the English of Hong Kong and Singapore. Paper presented at the International Conference of Phonetic Sciences, Barcelona. Wells, J. (1982).
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