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A Fake Diphthong in English

Abstract: English is generally agreed to have true diphthongs: vowel-glide sequences contained within the same syllable nucleus. There is evidence that it also has at least one fake diphthong, in which the glide falls outside the nucleus: the /ow/ that occurs post-tonically in words such as *yellow*, *tomorrow*, *potato*.

At stake here is the wider question of whether we can maintain the otherwise robust generalisation that stress in English is quantity-sensitive, one symptom of which is that diphthongs render a syllable heavy and thus attract stress. Post-tonic /ow/ appears to breach this pattern. If it were a heavy diphthong, quantity-sensitivity would require it to bear subsidiary stress (e.g. **yéllòw*). However, evidence to be reviewed here clearly points to /ow/ being unstressed in this position.

The apparent contradiction is resolved if we treat unstressed /ow/ as a fake diphthong, consisting of a short nucleus followed by a non-nuclear position (i.e. VC). Metrically, this makes *yellow* just like *rabbit*: in both cases, the final consonant is extra-metrical, meaning that the preceding syllable is light and unstressed, in accord with quantity-sensitivity.

Keywords: English phonology, true vs fake diphthongs, quantity-sensitive stress, extrametricality

1 Introduction

English is generally agreed to have true diphthongs, i.e. vowel-glide sequences contained within the same syllable nucleus. There is evidence that it also has at least one fake diphthong, in which the glide falls outside the nucleus: the /ow/ that occurs post-tonically at the end of words such as *yellow*, *tomorrow*, *potato*.¹

At stake here is the wider question of whether we can maintain the otherwise robust generalisation that stress in English is quantity-sensitive. One symptom of quantity-sensitivity is that diphthongs render a syllable heavy and thus attract stress. Post-tonic /ow/ appears to breach this pattern. If it were a heavy diph-

¹ There may be one or two other fake diphthongs in English. Another prime suspect is post-tonic final /uw/, e.g. in *value*, *curlow*, *curfew*. (On the reasons for describing this vowel as an upgliding diphthong rather than a long monophthong /u:/, see Lindsey (2012).)

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<https://doi.org/10.1515/9783110730081-003>

thong, quantity-sensitivity would require it to bear subsidiary stress (e.g. *y^éllòw). However, phonological evidence to be reviewed here clearly points to /ow/ being unstressed in this position.

The apparent contradiction is resolved if we treat unstressed /ow/ as a fake diphthong, consisting of a short nucleus followed by a non-nuclear position (i.e. VC). Metrically, this makes *yellow* just like *rabbit*: in both cases, the final consonant is extrametrical, meaning that the preceding syllable is light and unstressed, in accord with quantity-sensitivity.

§2 reviews the difference between true and fake diphthongs. §3 considers what the stress status of final post-tonic /ow/ means for quantity-sensitivity in English. §4 presents several pieces of evidence confirming that post-tonic /ow/ is unstressed. §5 shows how post-tonic /ow/ started life as a fake diphthong. §6 explains how a VC analysis of the diphthong saves the generalisation that stress in English is quantity-sensitive. §7 cautions against treating all diphthongs in English as fake.

2 Diphthongs: How to Spot a Fake

The term DIPHTHONG was originally used to describe a sequence of two vowel letters in alphabetic writing. Since the term came to be applied to the description of vowel sounds, it has often been used to refer to any sequence of vocalic segments written as two phoneme characters. From a phonological viewpoint, this usage is at best vague and at worst downright misleading. It can obscure the different ways in which vocalic sequences are syllabified in different languages. For this reason, it is useful to draw a distinction between what can be called true and fake diphthongs.

IPA-style phonetic transcriptions are of little help in establishing the syllabification of vocalic sequences. First, being fundamentally alphabetic, they typically do not represent syllable structure. Second, conventions vary with respect to whether vocalic sequences should be transcribed with vowel or glide characters, e.g. [au] versus [aw]. As shown in (1a), a true diphthong can be defined as a vocalic sequence ($\omega\omega$) that is contained within the same syllable nucleus (N). A fake diphthong can take one of two forms. One, shown in (1b), is where the two vocalic units belong to separate nuclei and thus to separate syllables. The other, shown in (1c), is where one unit belongs to a nucleus and the other to a neighbouring non-nuclear position; whether the latter is a coda (Co) or an onset (O) is not immediately relevant here.

(1) (a) True	(b) Fake I	(c) Fake II		
σ	σ σ	σ	σ	σ
		\		
N	N N	N Co	N	O
\		\		
ω ω	ω ω	ω ω	ω	ω ω

There are various ways of telling when we are dealing with a true diphthong. For one thing, it exhibits prosodic integrity: it counts as a single landing site for stress or tone, and in languages with quantity-sensitive stress it defines a single domain of weight. For another, since a true diphthong forms a single nucleus, its phonological distribution parallels that of monophthongs. For example, if a language allows word-final consonants, they can be preceded by any vowel, be it a monophthong or a diphthong. Both of these criteria are met by up-gliding diphthongs in English, including the /ow/ of the GOAT lexical set, the vowel we are interested in here. /ow/ belongs to a single syllable unit for the location of stress and the calculation of weight. It can also appear before a word final consonant (e.g. *rope*, *loaf*, *loan*), just like monophthongs can (e.g. *step*, *deaf*, *ten*).

Compare this behaviour with that of fake diphthongs. A vocalic hiatus split over two syllables, as shown in (1b), presents two separate landing sites for stress or tone. For example, in Saramaccan each vowel in a vocalic sequence potentially bears its own tone, giving rise to contrasts such as /léi/ ‘learn’ versus /seí/ ‘ant type’, /pái/ ‘father-in-law’ versus /paí/ ‘give birth’ (McWhorter and Good 2012). A vocalic sequence split between a nucleus and, say, a coda (as in (1c)) is subject to the same phonotactic restrictions as hold of VC sequences. For example, in French, fake diphthongs such as /aj, ej, uj/ (e.g. in *paille* ‘straw’, *veille* ‘eve’, *grenouille* ‘frog’) cannot be followed by a word-final consonant because of general restrictions on final consonant clusters (Dell 1995).

As I’ll try to show here, there is good evidence that post-tonic /ow/ in English is a fake diphthong of the type shown in (1c), where the two vocalic units are split between a nuclear and a non-nuclear position, i.e. VC. Towards the end of the paper, I will argue that /ow/ only has this structure when it is post-tonic. There is no reason to suspect that it is anything other than a true diphthong when tonic. As depicted by the contrast between *below* and *bellow* in (2), this means that syllabically there are actually two /ow/ vowels in English.

(2) (a) Tonic /ow/: *belów* (b) Post-tonic /ow/: *béllow*

The precise syllabic status of the upglide is left undetermined in (2b), in acknowledgement of a diversity of opinion among phonologists about whether word-final C is syllabified as a coda or not (see Harris and Gussmann (1998) and van der Hulst and Ritter (1999) for discussion of the different views). For the purposes of the analysis to be defended here, all that matters is that the glide in post-tonic /ow/ falls outside the nucleus.

It might seem odd to suggest that a language can accommodate both true and fake diphthongs. However, there are good precedents, perhaps the best studied of which are to be found in Frisian and Dutch (Booij 1989, 1999). There are clear parallels here with consonant clusters. Consonants forming a genuine cluster can be defined as syllabically adjacent, one symptom of which is that they are subject to systematic phonotactic restrictions (such as a steeply rising sonority slope within complex onsets, e.g. [pl, tr, kw]). Consonants forming a fake cluster show no such restrictions, an indication that they are not syllabically adjacent, which can be captured by assuming they are separated by a silent nucleus. As with diphthongs, we can find true and fake consonant clusters within the same language, as Harry van der Hulst (1984) has shown for Dutch.

3 Post-tonic /ow/: Stressed or Not?

For various reasons, I will follow the tradition of symbolising diphthongs in English as vowel plus glide rather than the vowel-plus-vowel notation that is usual in British dictionaries. For the GOAT lexical set, this means /ow/ in preference to something like /əʊ/. (The decision to use [o] to represent the quality of the first element of the diphthong is largely a matter of accent choice: besides being characteristic of General American, it happens to be a broadly accurate reflection of Harry van der Hulst's pronunciation (not to mention my own).) A more important criterion lies behind the choice of the off-glide notation. The historical pedigree of this format runs from Thomas Gataker (1646), through Henry Sweet (1877) and the American Structuralists (Trager and Bloch 1941), up to the present day in the form of the

Current British English online dictionary (CuBE).² The off-glide design embodies a more insightful analysis of the English vowel system than the vowel-vowel design of /əʊ/. For detailed arguments in favour of this analysis, see Lindsey (2012) and Szigetvári (2016). Harry van der Hulst (1984) offers similar arguments for a parallel analysis of diphthongs in Dutch. Moreover, vowel-plus-glide more readily accommodates the specific phonological analysis of /ow/ that I will try to defend below.

Like all long monophthongs and diphthongs in English, /ow/ can appear in syllables bearing a main stress, e.g. *go*, *road*, *token*, *below*. It can also appear after a main stress in words such as *yellow*, *tomorrow*, *potato*, *photo*, *bellow*. Does this post-tonic /ow/ bear a subsidiary stress, or is it unstressed? Stress in English is generally agreed to be quantity-sensitive, one implication of which is that heavy syllables must bear some degree of stress. Since a diphthong in English makes a syllable heavy, this would lead us to expect that post-tonic /ow/ in words such as *yellow* and *photo* should bear a subsidiary stress. However, there is plenty of evidence, to be reviewed below, which indicates that it is unstressed. On the face of it, this undermines the claim that stress in English is quantity-sensitive: at least some heavy syllables can apparently be unstressed in English.

Describing post-tonic /ow/ as unstressed accords with transcriptions found in most current dictionaries of English. Not that this is much of an endorsement: post-tonically, dictionaries tend to be quite inconsistent in marking a distinction between unstressed and subsidiary-stressed syllables. This is in spite of good evidence that the distinction is perceptually real (Mattys 2000) and can be phonologically and lexically sensitive, not just in English (Pater 2000) but also – as Harry van der Hulst's work amply demonstrates – in other languages as well (1996, 2012; see also Bogomolets, this volume). In what follows, we can take the *Cambridge Dictionary* as representative of this inconsistency.

Two-word compounds provide us with a useful check on the inconsistency, since the routine pattern in English is for the first word to bear main stress and the second to bear subsidiary stress, as in *seagull*, *towpath*, *pinecone*. That is, in compounds we have a reference point against which to judge whether a post-tonic syllable bears subsidiary stress or not. The *Cambridge Dictionary* lists both *yellow* and *hedgerow*, for example, without a stress on the final syllable. Since *hedgerow* is a compound, we know that its second syllable in fact bears a subsidiary stress: *hédgeròw*. The problem is that, since the dictionary ignores the subsidiary stress in *hedgerow*, we could be left wondering whether it has also ignored a subsidiary stress in *yellow*.

Not marking a distinction between post-tonic unstressed and subsidiary-stressed syllables has its roots in the British phonetic tradition of classifying English vowels

² <http://cube.elte.hu>.

into a ‘full’ set (the maximal inventory of contrasts) and a ‘reduced’ set (Jones 1950). Reduced vowels only occur in unstressed syllables, while full vowels occur in syllables that may or may not be marked for stress. The unrecorded distinction between subsidiary stress and lack of stress can be partially reconstructed by drawing on this classification: if a vowel unmarked for stress belongs to the full set, there is a good chance it actually bears a subsidiary stress. This certainly works for compounds. For example, we know that the full vowel in the second element of *greenhouse* bears a subsidiary stress, even though *Cambridge* does not mark it. This contrasts with the second syllable of *Venus*, where the schwa quality of the reduced vowel confirms it as unstressed. Rhythmically, there is a very clear difference between the two words: *gréenhôuse* with two stresses (and thus two feet) versus *Vénus* with one stress (and thus one foot).

Does the full-vs-reduced classification help determine whether the vowel at the end of *yellow* bears a subsidiary stress or not? Since /ow/ belongs to the set of full vowels, this suggests it bears a subsidiary stress in *yellow*. However, we will now examine several pieces of evidence that clearly point to it being unstressed.

4 Final Post-tonic /ow/ Is Unstressed

4.1 Foot Binarity

The first piece of evidence has to do with the requirement that feet in English are minimally binary. If a post-tonic syllable containing /ow/ bears subsidiary stress, it and the preceding tonic syllable must belong to separate feet (represented here in parentheses), e.g. (*phó*)(*tò*), (*wín*)(*dòw*). The problem here is that, in many of the relevant words, the tonic is light, i.e. monomoraic: it contains a short vowel in an open syllable, e.g. *yellow*, *marrow*, *pillow*, *minnow*, *widow*. Being monomoraic, the tonic is thus too small to form an independent foot, since feet in English are minimally bimoraic (Hayes 1995). To satisfy foot binarity, the /ow/ needs to be co-footed with the tonic syllable, i.e. as the weak syllable of a bisyllabic trochee: (*yéllow*), (*márrow*). This forces the conclusion that post-tonic /ow/ in these words is unstressed.

4.2 /ow/ and Schwa

The next piece of evidence points to a close affinity between post-tonic /ow/ and word-final schwa in English.

In many varieties, post tonic /ow/ reduces to a weak vowel – a vowel independently known to be unstressed. Most often this is schwa, reflected in folk spellings such as *fella* and *yella* for *fellow* and *yellow*. Weak outcomes of reduction that are regionally more restricted include rhotic schwa (e.g. *feller* for *fellow*, *yeller* for *yellow*) and /-i/ (e.g. *swally* for *swallow*) (Wright 1898–1905). One interpretation of this effect is that the post-tonic syllable is changed from having subsidiary stress to having no stress, which in turn triggers vowel reduction. Another is that reduction is evidence that the post-tonic syllable is already unstressed, which then encourages a more typically weak vowel to emerge in its place. For reasons that will emerge below, the second of these explanations is much more plausible than the first.

If vowel reduction suggests schwa makes a good match for post-tonic /ow/, history tells us that the relationship also works in the other direction. Word-final schwa has had something of a chequered history in English. Once firmly enconced in Old English, by mediaeval times it had been ejected from the system by apocope, e.g. /bi:tə/ > /bi:t/ (later > /bajt/) *bite* (Jespersen 1909; Lass 1992). It has since re-infiltrated the system by various routes. One has been via borrowings of words, especially proper names, spelt with final *-a*, e.g. *idea*, *Belinda*, *Shakira*. Another is via the loss of final /r/ in non-rhotic accents. At the time when final schwas were being apocopated, all of English was rhotic, and the /r/ in final-/ər/ words like *better*, *letter*, *latter* shielded the schwa from deletion. Later loss of /r/ then triggered a new influx of final-schwa words in non-rhotic accents. A historical connection with /r/ has been retained in those non-rhotic accents that allow it to re-emerge before a vowel in a cross-word linking /r/ environment; hence r-less *tear* down versus r-ful *tea*/r/ *up*. The extension of linking /r/ to novel final-*a* words produces non-etymological ‘intrusive’ /r/, e.g. *Pizza*/r/ *Express*.

What has all this to do with post-tonic /ow/? Well, the initial stages of final schwa’s re-entry into English were far from straightforward. The earlier apocope of schwa meant there was no indigenous vowel to adapt the incoming words to. One alternative that was taken up was to use final /ər/ as a stand-in. This has produced intrusive pronunciations such as *idea*/r/, where the /r/ appears as [ə] in some regional rhotic accents and as linking /r/ in non-rhotic accents. But an alternative substitute was also made use of: /ow/. Now obsolescent, this pronunciation is attested in some earlier vernacular varieties of the southern United States. It shows up as dialect spellings such as *hammo* (*hammer*) and *Saro* (*Sarah*) in folksongs, a well-known repository of archaic accent features.³ Since final schwa is unstressed, this adaptation suggests that final post-tonic /ow/ is itself also unstressed.

³ Listen for example to Huddie ‘Lead Belly’ Ledbetter’s version of *Take this Hammo* or Hedy West’s version of *Pretty Saro*.

4.3 Suffixing -o

The inventory of segments appearing in English word-level suffixes is quite limited, e.g. *-(e)s*, *-(e)d*, *-er*, *-est*, *-y*, *-ly*, *-ness*, *-ish*. With few exceptions, consonants are coronal, and vowels are drawn from a reduced set that, depending on the accent, includes some selection from /i, ɪ, ɪ, ə, ə/. Note that all of these vowels are unstressed. Some of these suffixes attach to monosyllabic stems created by truncative morphology, such as /-i/ in *Jenny, Andy, Marty*.

The fact that these suffix vowels are unstressed is significant when we consider that there is a full vowel that can also appear as a word-level suffix in English: /ow/. It attaches to stems that are already monosyllabic (see (3a)) or become so via truncation (see (3b)). It is a favoured suffix in truncative morphology when the written form of the stem contains *-o* (see (3c)).

- (3) (a) Deano, Ringo, Jacko, wino, weirdo, whacko, cheapo, pinko, sicko, kiddo, doggo, fatso
 (b) Robbo, Tommo, journo, muso, ammo, combo, aggro, defo
 (c) condo, limo, promo, hippo, rhino, psycho, porno, paedo

In its suffixing behaviour, /ow/ patterns with weak unstressed vowels, indicating that it too is unstressed in this position

4.4 *t*-lenition

Lenition of /t/ in English is sensitive to stress, so it provides a good test for whether post-tonic /ow/ is stressed or not. Leaving aside certain segmental details, we can summarise the lenition environments as follows (see Harris (1994) for a summary of the large literature on this topic). In tapping (or flapping) accents, postvocalic /t/ lenites to [ɾ] (a) before an unstressed vowel within the same word (e.g. in *better, city, Rita*) or (b) word-finally before any vowel regardless of stress (e.g. in *gét a, gèt ón*). In glottalling accents, postvocalic /t/ lenites to [ʔ] (a) before an unstressed vowel within the same word (e.g. in *better, city, Rita*) or (b) word-finally (e.g. in *get*). Word-internally, both tapping and glottalling are blocked before a vowel with any level of stress, whether this be main (e.g. *retáin, curtáil, betíde*) or subsidiary (e.g. *détàil, pròtèin, quárantìne*).

What of post-tonic /ow/? Tapping and glottalling occur here too, e.g. in *potatò, tomato, photo*. The evidence from /t/-lenition is thus pretty clear: post-tonic /ow/ is unstressed.

5 Post-tonic /ow/: A Short History

It's worth looking at the history of post-tonic /ow/ in more detail, because it not only sheds light on the stress status of the vowel but also flags it up as a potentially fake diphthong.

The commonest spellings of post-tonic /ow/ are *-ow* and *-o*. Let us first examine the *-ow* words, all of which are inherited from Germanic:

- (4) (a) *-llow* bellow, billow, callow, fallow, fellow, follow, gallows, hallow, hollow, mallow, mellow, pillow, sallow, shallow, swallow, tallow, wallow, willow, yellow
 (b) *-rrow* arrow, barrow, borrow, burrow, farrow, furrow, harrow, marrow, morrow, narrow, sorrow, sparrow, tomorrow, yarrow
 (c) *-nnow* minnow, winnow
 (d) *-dow* meadow, shadow, widow
 (e) window, elbow

Of the various generalisations that can be extracted from the 40 words in (4), two will turn out to have a particular bearing on our analysis of /ow/. First, all but two of these words contain a light tonic syllable (see (4a–d)). As noted above, this means they form disyllabic trochees, with /ow/ occupying the weak syllable of the foot. (The two exceptions – *window* and *elbow* in (4e), with a heavy tonic syllable – were originally compounds.) Second, in the 38 words with a light tonic, the consonants preceding /ow/ are all coronals, and most often these are liquids – see (4a) and (4b).

In all the Germanic words with post-tonic /ow/, the vowel derives historically from a sequence of a short vowel followed by a separate glide (see Jespersen (1909), on which the historical aspect of the following account is based). The glide has two main historical sources: a glide that was already present in continental Germanic, or an original dorsal fricative or lenis stop that was subsequently weakened. The short vowel is historically epenthetic, inserted between the glide and a preceding heterorganic consonant. In Old English, the vowel alternates with zero depending on the morphological paradigm it finds itself in. This can be seen in the examples in (5), which includes assorted inflected forms to illustrate the alternation.⁴

⁴ Examples from Bosworth Toller's Anglo-Saxon Dictionary online (<https://bosworthtoller.com>).

(5)	OE ROOT	OE INFLECTED FORMS
shadow	sceadw-	sceadwe, sceaduwe
widow	widw-	widewe, weoduwe, widwe
winnow	windw-	windwian
yellow	geolw-	geolwe, gealewe
narrow	nearw-	nearwe

The glide in the examples in (5) originates in continental Germanic. The epenthetic effect is also seen in words that originally contained a dorsal fricative or lenis stop, which later underwent spirantisation and/or vocalisation:

(6)	lg > læg > læȝ > læw	follow, gallows, swallow
	rg > ræg > ræȝ > ræw	borrow, morrow, sorrow
	rx > ræȝ > ræw	furrow, farrow

The original sequence of liquid plus heterorganic consonant is still observable in cognate forms in English's West Germanic sisters, cf. German *folgen* 'follow', *Morgen* 'morrow', *Furche* 'furrow'. Some varieties of Dutch provide us with a present-day analogue of the vowel-epenthesis effect that was once active in Old English, cf. *vilg* /vil(ə)x/ 'willow', *merg* /mer(ə)x/ 'marrow' (Ewen and van der Hulst 2001: 190–193; Warner et al. 2001).

Armed with these historical facts, we are now in a position to explain the two generalisations we extracted from the *-ow* examples in (4a–d). Both have to do with the fact that the consonants preceding what is now /ow/ were originally codas, e.g. OE *fol.gian* 'follow', *bor.gian* 'borrow'. First, the consonants are sonorants because these made good codas in Old English. Second, the vowel of the tonic syllable is short because the codas conditioned closed-syllable shortness.

To summarise: present-day post-tonic /ow/ derives historically from a sequence of an epenthetic vowel plus an independent glide. There are two lessons to be drawn from this. First, the vowel was born as a fake diphthong, i.e. a vowel nucleus followed by an extra-nuclear glide. Second, we can be confident that it emerged in an unstressed position, since epenthetic vowels are always unstressed in Germanic (and other languages).

What of words in which post-tonic /ow/ is written as *-o*? These greatly outnumber *-ow* spellings – roughly 13 to one, according to CuBE. As far as I can tell, all are relatively recent borrowings. 20 of the most frequent are listed in (7).

- (7) video, photo, radio, info, cargo, solo, studio, zero, volcano, euro, retro, hero, patio, polo, bingo, portfolio, maestro, casino, piano, auto

The simplest assumption, in line with research on loanword phonology, is that these borrowed words were assimilated into English by adapting them to an existing syllabic pattern, namely with an unstressed fake diphthong. In support of this, we observe that reduction of post-tonic /ow/ to schwa affects high-frequency -o loans e.g. (*potato*, *tomato*) just as it does inherited-Germanic -ow words (e.g. *fellow*, *yellow*).

Note that, in some of the examples in (7), /ow/ is separated from the tonic by an unstressed syllable, e.g. *video*, *radio*, *studio*. Under an analysis where feet in English are maximally binary, this means the syllable housing /ow/ is unfooted: (*vide*)o, (*radi*)o, (*studi*)o. Since unfooted syllables are by definition unstressed, this further confirms the unstressed status of post-tonic /ow/.

Analysing present-day post-tonic /ow/ as unstressed VC remains true to the vowel's historical origins. While this is not in and of itself proof that the synchronic analysis is correct, there is no reason to suppose that post-tonic /ow/ has subsequently been spontaneously restructured so as to acquire subsidiary stress or achieve true diphthonghood. The present-day facts reviewed in §4 above speak against that. Post-tonic /ow/ is still fake after all these years.

6 Maintaining Quantity-Sensitivity

Having established that post-tonic /ow/ is unstressed, we return to the issue of quantity-sensitivity. If the vowel were a true diphthong, it would render its syllable heavy. The existence of unstressed heavy syllables would subvert the otherwise robust generalisation that stress in English is sensitive to syllable weight.⁵

However, establishing that post-tonic /ow/ is a fake diphthong means that the quantity-sensitivity of English stress remains intact. The vowel does not constitute a heavy nucleus but is rather a light nucleus followed by a separate non-nuclear position, i.e. VC. Word-final consonants in English are extrametrical, in that they do not contribute to the weight of a preceding syllable (Hayes 1982). If the preceding syllable is thereby light, it does not attract stress; hence the penultimate stress in C-final words such as those in (8a) (extrametrical consonants marked by <>).

- (8) (a) rápi<d>, cábi<n>, métho<d>
 (b) pílllo<w>, yélllo<w>, tomórrro<w>

⁵ The British tradition of English phonetics is only accidentally right in not marking a stress on post-tonic /ow/, since it also doesn't mark post-tonic subsidiary stress. To be fair, this tradition has rarely troubled itself with the question of whether English stress is quantity-sensitive or not.

Since the /w/ of final post-tonic /ow/ is C, it too is extrametrical, just like any other final consonant. The nuclear portion of the sequence (V) is light, with the result that stress defaults to the penult in words such as those in (8b).

7 Not All Diphthongs Are Fake in English

Having established that post-tonic /ow/ is VC, we might be tempted to extend the analysis to all instances of /ow/, including in stressed position in words such as *road*, *go*, *blow*, *token*. Stretching this point even further, we might go on to propose that all diphthongs in English are VC (and maybe in other languages for that matter), as for example Szigetvári (2016) has proposed. Let me outline just one of several reasons that this would risk throwing the baby out with the bathwater.

The advantage of the VC analysis of unstressed /ow/ lies in prosodically decoupling the glide from the preceding nucleus. This is exactly the result we want for post-tonic position: it ensures the glide is extrametrical, thereby leaving the preceding syllable light and therefore not stress-attracting. However, consider the consequences of extending the VC analysis to diphthongs in stressed position. In particular, consider the consequences for consonant phonotactics in the most relevant environment: post-vocalic position. Here clusters of two consonants are subject to quite strict sonority and place constraints. Very broadly speaking, there is a clear preference for a falling sonority slope across syllable boundaries (e.g. *after*, *winter*, *filter*) or at the end of a word (e.g. *graft*, *stint*, *guilt*).

Generalising a VC analysis to stressed diphthongs suddenly increases the length of the consonant clusters involved in these patterns by one. One effect of this is to create internal complex codas where none are otherwise attested, e.g. internal VCC.CV in *shoulder*, *council*, *oyster*, or word-final VCCC# in *bold*, *bounce*, *moist*. Moreover, under this analysis, it's a surprise that the initial glide consonant is largely insulated from the tight phonotactic restrictions that hold over the following two consonants. Under a traditional analysis, this falls out from the fact that the glide and the following consonants are in different syllabic constituents. There are probably ways of reconfiguring syllable theory so as to enable a generalised VC analysis of diphthongs to accommodate the phonotactics of three-consonant clusters. But at the very least this will inevitably make the theory more complex than anything required by a true-diphthong analysis.

8 Conclusion

There are actually two /ow/ vowels in modern English. One occurs in stressed syllables, e.g. *goat, hope, go, own, token*. This is a true diphthong: the two vocalic units of which it is composed are contained within the same syllable nucleus. The other occurs in post-tonic unstressed syllables, e.g. *yellow, borrow, photo, potato*. This one is a fake diphthong: the off-glide lies outside the nucleus housing the first unit. Recognising this difference allows us to maintain the generalisation that English stress is robustly quantity sensitive.

If there's a lesson to be drawn from this episode, one that goes beyond English, it is this: when confronted with alleged diphthongs, beware of fakes.

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