LING 730, Fall 2026
Oct 15, 2026

# Tone assignment in Hong Kong English

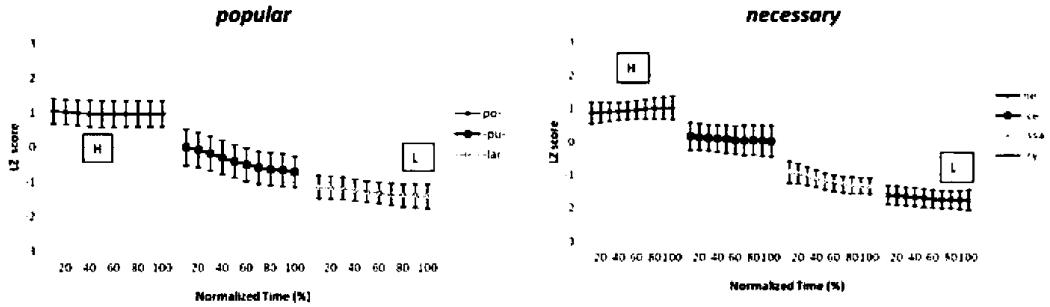
based on Wee, Lian-Hee. 2016. *Language* 92(2): e67–87.
Presented by Roger Cheng-yen Liu

## 1. Tonal patterns in Hong Kong English (HKE)

### 1.1 Word tones

| Syllable count | Example | Tone type | Gussenhoven (2012, 2014) | |
|---|---|---|---|---|
| 1σ | ˈ*plan* | H**L** | H | (ˈ*tea*) |
| 2σ | ˈ*apple* | H-**L** | | |
| | ˈ*some-*ˌ*times* | H-H**L** | H-H | (ˌ*Chi*ˈ*nese*) |
| | *cre*ˈ*ate* | M-H**L** | | |
| 3σ | ˈ*yesterday* | H-o-**L** | H-L-L | (ˈ*character*) |
| | ˈ*run-a*ˌ*way* | H-M-H**L** | | |
| | ˈ*kid-*ˌ*napper* | H-H-**L** | | |
| | ˈ*under-*ˌ*sold* | H-h-H**L** | cf. H-H-H-L | (ˌ*conver*ˈ*sation*) |
| | ˈ*kanga*ˌ*roo* | H-h-H**L** | | |
| | *pro*ˈ*hibit* | M-H-**L** | M-H-L | (*Sep*ˈ*tember*) |
| | *a*ˈ*larm-*ˌ*clock* | M-H-H**L** | | |
| | ˌ*intro*ˈ*duce* | M-m-H**L** | | |

- **H** is lexically assigned, obligatory, and non-culminative. **[primary & secondary stress]**
- **M** appears initially, in both simple words and compound members. **[initial unstressed]**
- **L** is an utterance-final boundary tone. (**h** and **m** are spread tones; see HO§1.2).
- Post-**H** syllables in HKE are toneless (indicated as "**o**"), e.g., *popular*, *necessary*.



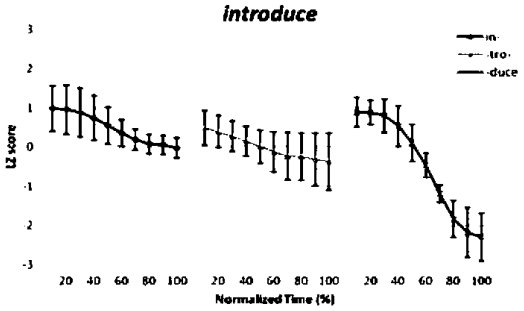

  - 4f4m; (speaker-intrinsic) f0 normalization: log-*z* = ($f0_i$ – $\mu_{speaker}$) / $SD_{speaker}$
  - processed using `NormalizedTimeF0` (nowadays `ProsodyPro`) by Yi Xu

## 1.2 Tone spreading

- Alternation and neutralization in **utterance-final** (**L%**) vs. **non-final** (**H**) positions (10)
- It is **H**-spread, not interpolation (11), contra Cheung's (2009) treatment.

(10) a. /H-o/ and /H-H/ neutralize to [H-H]
greeted /H-o/ ~ greeted [H-H] him [H]
outsell /H-H/ ~ outsell [H-H] him [H]
b. /M-H/ alternates between [M-F] and [M-H]
before [M-F] ~ before [M-H] him [H]
c. /H-o-o/, /H-H-o/, and /H-H-H/ neutralize to [H-H-H]
beautiful /H-o-o/ ~ beautiful [H-H-H] girl [H]
newspaper /H-H-o/ ~ newspaper [H-H-H] vendor [H-o]
overwrite /H-H-H/ ~ overwrite [H-H-H] this [H]
d. /M-H-o/ and /M-H-H/ neutralize to [M-H-H]
prohibit /M-H-o/ ~ prohibit [M-H-H] alcohol [H-o-o]
alarm clock /M-H-H/ ~ alarm clock [M-H-H] dealer [H-o]
e. /H-M-H/ alternates between [H-M-F] and [H-M-H]
runaway [H-M-F] ~ runaway [H-M-H] bride [H]
f. /M-M-H/ alternates between [M-M-F] and [M-M-H]
recommend [M-M-F] ~ recommend [M-M-H] him [H]

(11) a. overhead + projector → overhead projector
H-o-o M-H-o H-H-H M-H-L%
b. beautiful + before → beautiful before
H-o-o M-H H-H-H M-HL%
c. glory + newspaper → glory newspaper
H-o H-H-o H-H H-H-L%




- **M**-spread in **M**-**m**-**H**(**L**) patterns in (ˌ)*intro*ˈ*duce*, (ˌ)*compre*ˈ*hend*, etc.
- Generalization: both **H** and **M** spread rightward, except the utterance-final **H**.
- Principles of tones in HKE (Wee 2016: (12) on page e75)
  a. Syllables in HKE are underlying specified for **H**.
  b. Associate **M** to any word-initial that is not underlying **H**.
  c. Associate **L%** to utterance-final position.
  d. **H**-spread: Except for the **H** nearest to the utterance-final boundary, spread **H** rightward to an adjacent toneless syllable.
  e. **M**-spread: Spread **M** rightward to all pre-**H** syllables.
  f. Except for the utterance-final syllable, HKE bans contour tones.

## 1.3 Tones on function words

- Gussenhoven (2012), following Luke (2000): M on function words
- Wee (2016): some function words lack the obligatory **H**, but they have at least a **M** tone.
  - Note: there are no positional alternants as described in Selkirk (1996).

| | | |
|---|---|---|
| H-toned | argument pronouns | *him, her, he, she, it, they, them, theirs, mine, hers* |
| | demonstratives | *these, those, that, this* |
| | negator | *not* |
| | negation clitic | *=n't* (assigns **H** to its host) |
| | disyllabic prepositions | *under* (**Ho**), *between, across, beside, along, against* (**oH**) |
| H-less | possessive pronouns & determiners | *his* (__ NP), *my, her, a, an, the* |
| | modals | *may, might, can, could, shall, should, must, will, would* |
| | monosyllabic prepositions | *in, on, with* (exception: *through*) |

# 2. Issues

## 2.1 The nature of L

- Luke (2000) reports **H**-**L**-**L** in *holiday*; this is acoustically refuted in Fig 2 (HO§1.1).
- Luke (2000) reports no **F** at all and an **H** tone in all monosyllabic words, but these words all end with obstruents, which could lead to truncation of f0 (and thus obscure **H** and **F**).
- Gussenhoven thus argues that **L** is lexically assigned (or as a part of **H*L**).
- Wee suggests that L in HKE is better understood as a boundary tone.

## 2.2 Intonational boundary tones

- Declarative (*Tea* **Ø**) vs. emphatic declarative (*Tea!* **L%**) vs. interrogative (*Tea* **H%**), reported by Gussenhoven (2012, 2014, 2018)
  - In Gussenhoven's analysis, it is **H*L** that is associated with the last stress in the IntP.

(16) a. *tea* H  b. *tea* H L%  c. *tea* H H%

(17) a. *apple* H L  b. *apple* H L L%  c. *apple* H L H%

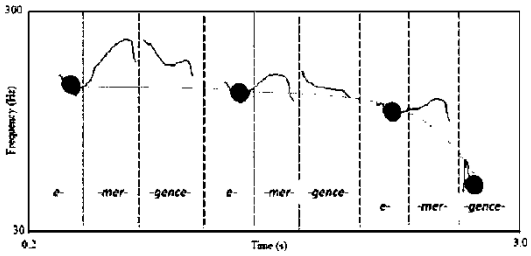
- Wee's replication and extension (*tea*, *apple*, *yesterday*)
  - (a–c): free variation in tone; durations differ.
  - (d–f): degrees of emphatic intonation trigger exaggerated versions (paralinguistic?).
  - (g): Interrogative is marked by a **RISE%** or **LH%**, rather than **H%**.

| Punctuation | | *tea* | *apple* | *yesterday* | Vertical | Horizontal |
|---|---|---|---|---|---|---|
| a. | X | H ~ HL | H-L | H-H-H ~ H-o-L | | |
| b. | X... | H ~ HL | H-H ~ H-L | H-H-H ~ H-o-L | | longest |
| c. | X, | H | H-H ~ H-L | H-H-H ~ H-o-L | | longer |
| d. | X. | HL | H-L | H-o-L | | |
| e. | X! | HL | H-L | H-o-L | sharp fall | |
| f. | X!! | HL | H-L | H-o-L | sharpest fall | |
| g. | X? | H↑H | H-LH | H-o-LH | | |

## 2.3 H and M tones in HKE

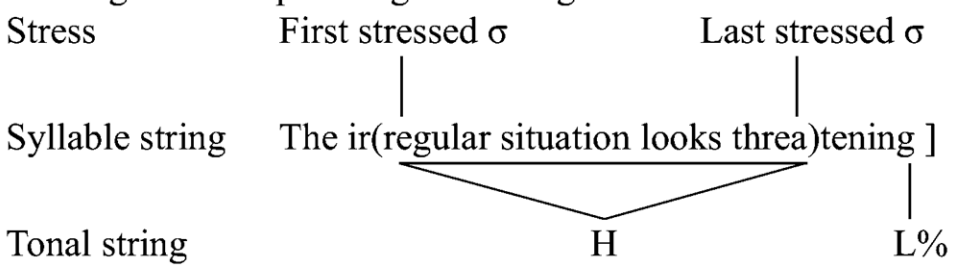
- **M** and **L%** are in complementary distribution, but they are not the same.
  - Function words are either **H**- or **M**-toned.
  - **L%** is limited to the utterance-final position, while **M** and **H** can occur consecutively.

(14) a. The situation looks better.
M H HH H H H L%
b. John is in the house.
H M M M H-L%




  - **L%** is not likely to be the down-drifted **M**. (Fig 4: *Emergence, emergence, emergence*) ⇒
- Cheung (2009) treats **M** as a default pitch for toneless syllables.
  - Wee: **M** can actually block **H**-spreading ($o^{H}ver^{h}head^{h}\ pro^{M}jec^{H}tor^{L\%}$; functional words).
- Cheung (2009) treats **H** as indication of stress. All syllables sandwiched between **H** tones receive **H** through spreading, applying across words and phrases but blocked by **L%**.

(16) Stress-guided H-spreading in Cheung 2009




- Wee suspects whether the **H** directly means stress in HKE.

"Even if the **H** tone might have historically come from a transparent mapping of English stress, the pitch patterns in modern HKE behave in ways that require an analysis that is not reminiscent of a stress language." (p. e82)

  - H may violate culminativity and stress clash, e.g., *sometimes* **H-H**.
  - Many HKE speakers are unable to identify which syllables are stressed.
  - HKE speakers do not apply vowel reduction or diphthongization automatically, even with stress-attracting suffixation, e.g., *theatricality* [ti$^{H}$.e.tɹi.kə.li.ti$^{L}$].
  - Tones can spread, but not stress.
    - Contrastive stress/accent in HKE is expressed by intensity and duration: $the^{M}\ \underline{prin^{H}ces^{h}}\ yelled^{HL\%}$, $not^{H}\ the^{M}\ \underline{prin^{H}ces^{h}}\ yelled^{HL\%}$.

# 3. Connections

## 3.1 HKE tones & Cantonese tones

- **H** in HKE matches Cantonese tone 1 (high flat), **M** sometimes matches tone 3 (mid flat), but **L** doesn't correspond to either tone 4 (low dipping) or tone 6 (low flat) (Wee 2013; Wee & Liang 2015).
  - Because **H** is a lexical tone, **M** is a word-level tone, and **L** is an υ-level tone.

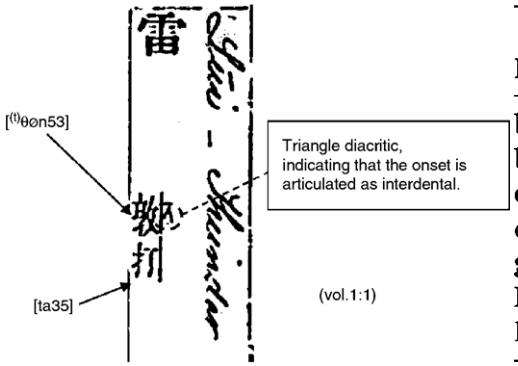
## 3.2 HKE tones and (British) English stress

- It's possible that **H** in HKE corresponded to the stresses of a particular English pronunciation, perhaps depending on when the word enters HKE.

(17) Comparison between HKE and English stress

| | HKE | WELLS (1990) BRITISH ENGLISH[13] | *OED*[14] |
|---|---|---|---|
| a. | H-o | glory, clockwise, greeted | |
| b. | H-H | sometimes, outsell, inborn | inborn |
| c. | o-H | create, giraffe, before | |
| d. | H-o-o | testify, beautiful, popular | |
| e. | H-o-H | runaway, roundabout, go-between | runaway, roundabout, go-between |
| f. | H-H-o | kidnapper, handwriting, newspaper | kidnapper, handwriting |
| g. | H-H-H | undersold, overwrite, kangaroo | overwrite, kangaroo |
| h. | o-H-o | prohibit, emergence, erotic | |
| i. | o-H-H | about-turn, Repulse Bay, alarm clock | about-turn |
| j. | o-o-H | comprehend, dislocate, recommend | comprehend |

- Wee and Cheung (2015) surveyed the lexical items in T'ong's 唐廷樞 (1862) *Chinese–English Instructor* (*CEI*) and found that in transliterations, stressed syllables, in general, do not receive lower tones than unstressed ones.




| English | CEI phoneticization | Modern HKE tone sequence |
|---|---|---|
| **ba**con | pai33.kɐn22 | 55.21 |
| **bar**ley | pa53.lɐi21 | 55.21 |
| **cli**mate | klai33.mɐt2 | 55.21 |
| des**cen**dants | ti22.sen53.tøns22 | 33.55.21 |
| **gar**lic | ka53.lik2 | 55.21 |
| **hea**ven | he33.fɐn21 | 55.21 |
| ho**ri**zon | ho21.ɹɐi33.sɐn21 | 33.55.21 |

- The stress–**H** mapping is no longer productive in modern HKE.
  - Tones appear stable even in truncated words: *bi*ˈ*ology* [**M**-**H**-**o**-**L**] ~ *bio* [**M**-**H**]; *pro*ˈ*fessional* [**M**-**H**-**o**-**L**] ~ *pro* [**M**]; *fin*(*ancial*) *sec*(*retary*) [fin$^{M}$.sek$^{H}$].

## 3.3 Singapore English (SgE) as a cousin

- SgE has a stretch of **M**s that appear to be a parallel of the spam of H's in HKE.

| Initial stress | 1σ | 2σ | 3σ | 4σ |
|---|---|---|---|---|
| Stressed | ˈsee (**H**) | ˈEnglish (**MH**) | ˈelephant (**MMH**) | ˌIndoˈnesia (**MMMH**) |
| Unstressed | | maˈchine (**LH**) | hiˈbiscus (**LMH**) | AˈmericaA (**LMMH**) |

(18) Singapore English tone patterns (adapted from Ng 2011)
   a. High tone (H) is assigned to the final syllable of the phonological word.
   b. Mid tone (M) spans all nonfinal stressed syllables.
   c. Low tone (L) is assigned to initial unstressed syllables.
   d. Remaining unstressed syllables receive mid tone by rightward spreading from stressed syllables.

## 3.4 Two additional cases

**Japanese loanwords in Taiwanese Southern Min (Hsieh 2006)**

The Taiwanese adaptations of Japanese words are deaf to accents. The corresponding tone can be predicted using a template, only sensitive to syllable types (sonorant mora) of the source.

| Source | Initial | Medial | Final |
|---|---|---|---|
| CV/CVO | **M(ʔ)** if > 2σ, otherwise **H(ʔ)** | **H(ʔ)** | **Mʔ ~ L** |
| CVV/CVN | **M͡H** if > 3σ or __ CVV/CVN, otherwise **H͡L** | **H** if > 3σ | **Mʔ ~ L** (CVV), **H͡L** (CVN) |

'sushi' 'aluminum' 'motor' 'to toast (alcohol)'

Examples: /susi/ [su$^{H}$ɕiʔ$^{M}$], /arumi/ [a$^{M}$lu$^{H}$miʔ$^{M}$], /mo:ta:/ [mo$^{H\widehat{L}}$taʔ$^{M}$], /kanpai/ [k$^{h}$am$^{M\widehat{H}}$pai$^{H\widehat{L}}$]

**Code-mixing English triggers tone sandhi in Mandarin**

At least for some Mandarin speakers, the initial unstressed syllable of English is rendered as a low tone, which can trigger the famous tone-3 sandhi.

- Normal: /xən$^{T3}$ xau$^{T3}$/ → [xən$^{35}$ xau$^{21}$] 'very good' (cf. /xən$^{T3}$ kau$^{T1}$/→[xən$^{21}$ kau$^{44}$] 'very tall')
- English: /xən$^{T3}$/ 'very' + *professor/exciting* → [xən$^{35}$] + **21-44-21**

See also: Cheng (1968); Zhang & Peng's (2013) wug test; Gao & Wu (2022) on *bù* 'not' tone sandhi

## Additional references


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