日本語: Hiragana (ひらがな)

- Several ways to describe hiragana, the main kana script:
  - Using rōmaji (romanization of Japanese script)
  - Using the IPA system to describe sounds
  - Using hiragana itself (metaphysical)
  - Using kanji, a more advanced script

<table>
<thead>
<tr>
<th>Rōmaji</th>
<th>IPA</th>
<th>Hiragana</th>
<th>Kanji</th>
</tr>
</thead>
<tbody>
<tr>
<td>hiragana</td>
<td>[ciragana]</td>
<td>ひらがな</td>
<td>平仮名</td>
</tr>
</tbody>
</table>

Table 1: Writing the word hiragana in various scripts.

- Hiragana forms the core of the Japanese sound system/written system
  - But NOT omnipresent (i.e. see extra sounds in katakana)
  - Each symbol in hiragana represents one Japanese mora
    - Mora: A unit of sound that determines where the syllables/stresses/weights go in the phonology of a language (pl. morae)
  - Linguistic constructs used in hiragana: monographs, diacritics, digraphs, digraphs with diacritics
    - Monographs (hiragana: こじゅうおん, rōmaji: gojūon):
      - A single syllabographic character (one symbol)
    - Diacritics (hiragana: こじゅうおんはんだくてん, rōmaji: gojūon (han)dakuten):
      - Marks added to monographs to indicate different pronunciations than the ones they are usually given
    - Digraphs (hiragana: ようおん, rōmaji: yōon):
      - Two juxtaposed syllabographic characters (side-by-side)
    - Digraphs with diacritics (hiragana: ようおんはんだくてん, rōmaji: yōon (han)dakuten):
      - Marks added to digraphs to indicate different pronunciations than the ones they are usually given
    - Each digraph (with or without diacritics) generally corresponds to one mora

- Thus, learning hiragana comprises learning all the possible Japanese sounds (exceptions: certain katakana sounds)
- Ignore kanji for now: Much more complex stroke order (often requiring between 10 to 15 strokes)
  - cf. hiragana (and katakana, actually): No kana requires more than 4 strokes!
- Hiragana characteristics:
  - Smooth, curvy (similar to cursive in English)
  - Fluid, can be written down quickly if stroke order is correct
- Simplicity of the syllabary’s sound system
  - Don’t even need to know how to pronounce all 46 basic characters
  - Just need to know the pronunciation of 5 vowels (important to get these correct immediately, as it builds)
  - All consonant sounds are based off of the vowel sounds: consonant = ◯ + corresponding vowel (e.g. ka = k + a)
  - Unlike English, a (あ) is always [a] in hiragana, for example (convenient pronunciation rules arise as a result)
• All vowels are short unless marked otherwise
  – We will learn marks for long vowels later on
  – Interlingual differences: Some sounds may be different than in English
  – Intralingual differences: Some sounds may be compressed, others may not be compressed
  – This is why IPA is important!
    ○ Need to specify the differences and subtleties in sound voicings
    ○ Need to show what is actually the same despite different appearances/romanizations (i.e. rōmaji ≠ perfect)

• Approach to learning/practicing hiragana:
  – Study approximately 20 per day (4 sets of 5 hiragana syllabograms each)
  – Memorize using the mnemonics, practice by making a chart like this for each set of 5 (notice the stroke order):

![Table of Hiragana Vowels]

Figure 1: An outline of how we should set up our notebooks for practicing kana stroke order.

  – Make this table, write down the stroke order, reproduce the kana five times while covering up order/appearance
  – Eventually break the associations with the mnemonics/pictures, move to pure recognition/reproducibility
  – Learn the correct stroke order using the documentation on stroke order—very important!!

• So without further ado, let’s introduce all the characters! A lot of sets of 5 kana will have exceptions in the ‘i’ and ‘u’ columns (using stronger sounds instead of the expected weaker sounds). Monograph symbols, rōmaji, mnemonics.

Monographs (ごじゅうおん)

![Monographs]

Figure 2: The five vowels in hiragana. The pronunciations/order is different from English, however. Note that the ‘u’ is a compressed sound, like in the Japanese name Tsubaki-chan or in the English word hood.
Figure 3: The five $k$-* hiragana syllabograms. No exceptions in pronunciation.

Figure 4: The five $s$-* hiragana syllabograms. Note that there is an exception for $shi$ (not $si$).

Figure 5: The five $t$-* hiragana syllabograms. Note that there are exceptions for $chi$ and $tsu$ (not $ti$ or $tu$).
Figure 6: The five な- Hiragana syllabograms. No exceptions in pronunciation.

(a) H: な, R: na, IPA: [na]  
   mnemonic: nun praying

(b) H: に, R: ni, IPA: [ni]  
   mnemonic: needle

(c) H: ぬ, R: nu, IPA: [nu]  
   mnemonic: noodles

(d) H: ね, R: ne, IPA: [ne]  
   mnemonic: neko (cat)

(e) H: の, R: no, IPA: [no]  
   mnemonic: no smoking

Figure 7: The five ひ- Hiragana syllabograms. Note that ひ is palatalized and ふ is an exception (not フ).

(a) H: は, R: ha, IPA: [ha]  
   mnemonic: Looks like ha

(b) H: ひ, R: hi, IPA: [çi]  
   mnemonic: he looks sad

(c) H: ふ, R: fu, IPA: [fu]  
   mnemonic: hula dancer

(d) H: へ, R: he, IPA: [he]  
   mnemonic: Mt.St.Helens

(e) H: ほ, R: ho, IPA: [ho]  
   mnemonic: headless guy!

Figure 8: The five み- Hiragana syllabograms. No exceptions in pronunciation.

(a) H: ま, R: ma, IPA: [ma]  
   mnemonic: monster

(b) H: み, R: mi, IPA: [mi]  

(c) H: む, R: mu, IPA: [mu]  
   mnemonic: Cows say moo

(d) H: め, R: me, IPA: [me]  
   mnemonic: me (eye)

(e) H: も, R: mo, IPA: [mo]  
   mnemonic: more fishies
Figure 9: The three y-keyup hiragana syllabograms. No exceptions in pronunciation. Note that yì and ye do not exist (nor have they ever), as i and e are near-perfect approximants of the same sounds (i.e. they have always been used in their place).

(a) H: Ψ, R: ya, IPA: [ja]  
    mnemonic: yak
(b) H: ϕ, R: yu, IPA: [ju]  
    mnemonic: unique fish
(c) H: φ, R: yo, IPA: [jo]  
    mnemonic: yo wtf!

Figure 10: The five r-right hiragana syllabograms. The ‘r’ sound in Japanese is a tricky one to master. It requires a flap of the tongue (hence the name for the corresponding phoneme: retroflex flap). The result has aspects of the English ‘r’, ‘d’, and ‘l’.

(a) H: ら, R: ra, IPA: [ɾa]  
    mnemonic: DJ rapping
(b) H: り, R: ri, IPA: [ɾi]  
    mnemonic: two reeds
(c) H: る, R: ru, IPA: [ɾu]  
    mnemonic: route 3
(d) H: れ, R: re, IPA: [ɾe]  
    mnemonic: retching
(e) H: ろ, R: ro, IPA: [ɾo]  
    mnemonic: third road

Figure 11: The four w-right and the n’ hiragana syllabograms. The ‘w’ is a compressed sound. Note that wi and we are very rare, as modern Japanese (i.e. the post-World War II dialect) uses i and e in their place. They are mostly obsolete outside of Okinawan dialects of Japanese (southern islands, near Taiwan). There is no wu in Japanese.

(a) H: わ, R: wa, IPA: [wa]  
    mnemonic: wasp
(b) H: わ, R: wi/e, IPA: [we]  
    mnemonic: we are 2gether
(c) H: わ, R: we/e, IPA: [we]  
    mnemonic: looks like we
(d) H: わ, R: wo, IPA: [wo]  
    mnemonic: whoa!
(e) H: ん, R: n’, IPA: [n]  
    mnemonic: looks like n
Table 2: Table of monographs (ごじゅうおん, or gojūon) in hiragana. This is meant as a summary.

### Diacritics (ごじゅうおんはんだくてん)

- The monographs form the basic sounds/written scripts of hiragana
- Can make things slightly more complicated in multiple ways
  - Combining sounds through variational marks (diacritics)
  - Combining symbols through juxtaposition (digraphs)
  - Simple in principle if the gojūon are understood well
- The **dakuten** are **voicing marks** used as diacritic signs
  - Indicates that the corresponding modified consonant is voiced instead of unvoiced (using the vocal chords to vibrate/articulate the sound)
- There are also **handakuten**, for **semi-voiced** consonants (**plosives**)
- We should know how to write these in hiragana by now, as we can write them using gojūon:
  - Dakuten: だくてん
  - Handakuten: はんでくてん
- Denotation of diacritics (○ represents an arbitrary consonant monograph):

```
○

dakuten
```

```
○°

handakuten
```

- Basic idea of how diacritical marks/voicing principles work:

```
○ ○°

は ば ぱ
```

Table 3: An example using the diacritical marks. Here, **ba** is with a voiced *b*, and **pa** is with a semi-voiced *p*. The **h-** kana are the **only** ones with semi-voiced consonants available (handakuten) in addition to the voiced consonants (dakuten).

- So the general idea of diacritics have been laid out:
  - Easy once monographs are known, as these are just modification marks
  - Simple voice shifts using standard phonetic phenomenon from linguistics (i.e. IPA knowledge should guide us)
  - Pronounce each consonant through vibration of the mouth rather than air from back of mouth
• We will establish the official phonetic shifts as a result of this voicing process now:

<table>
<thead>
<tr>
<th>gojūon</th>
<th>dakuten</th>
<th>handakuten</th>
</tr>
</thead>
<tbody>
<tr>
<td>k-</td>
<td>k-</td>
<td>g-</td>
</tr>
<tr>
<td>s-</td>
<td>s-</td>
<td>z-</td>
</tr>
<tr>
<td>t-</td>
<td>t-</td>
<td>d-</td>
</tr>
<tr>
<td>h-</td>
<td>h-</td>
<td>b-</td>
</tr>
</tbody>
</table>

Table 4: Only some consonants can be voiced (the other ones are already voiced). These are natural phonetic shifts due to voicing. Sometimes, linguists use ng- as a handakuten for k-, but this is not ever used in the Japanese language itself.

• What about kana with exceptions in pronunciation in the gojūon?
  - e.g. ɕ (shi). Is ɕ pronounced zi? Isn’t that a “weaker”/semi-voiced sound?
  - No: Need to observe IPA for these exceptions and determine how to voice them based on natural vibrations
  - e.g. ɕ is pronounced ji, not zi (subtle difference, but is important in understanding voicings of exceptions)
  - ...that is, exceptions breed exceptions (no exceptions to this rule!)

• The complete table of (han)dakuten for the gojūon is shown below with the corresponding rōmaji/IPA:

<table>
<thead>
<tr>
<th>-a</th>
<th>-i</th>
<th>-u</th>
<th>-e</th>
<th>-o</th>
</tr>
</thead>
<tbody>
<tr>
<td>g-</td>
<td>が</td>
<td>き</td>
<td>く</td>
<td>け</td>
</tr>
<tr>
<td>z-</td>
<td>ざ</td>
<td>じ</td>
<td>ず</td>
<td>ぜ</td>
</tr>
<tr>
<td>d-</td>
<td>だ</td>
<td>ぢ</td>
<td>づ</td>
<td>で</td>
</tr>
<tr>
<td>b-</td>
<td>ば</td>
<td>び</td>
<td>ぶ</td>
<td>べ</td>
</tr>
<tr>
<td>p-</td>
<td>ぱ</td>
<td>ぴ</td>
<td>ぷ</td>
<td>ぺ</td>
</tr>
</tbody>
</table>

(a) The official table of dakuten and handakuten, using rōmaji to characterize each sound.

<table>
<thead>
<tr>
<th>-a</th>
<th>-i</th>
<th>-u</th>
<th>-e</th>
<th>-o</th>
</tr>
</thead>
<tbody>
<tr>
<td>g-</td>
<td>[ga]</td>
<td>[gi]</td>
<td>[gu]</td>
<td>[ge]</td>
</tr>
<tr>
<td>z-</td>
<td>[za]</td>
<td>[dzi]</td>
<td>[zu]</td>
<td>[ze]</td>
</tr>
<tr>
<td>d-</td>
<td>[da]</td>
<td>[dzi]</td>
<td>[zu]</td>
<td>[de]</td>
</tr>
<tr>
<td>b-</td>
<td>[ba]</td>
<td>[bi]</td>
<td>[bu]</td>
<td>[be]</td>
</tr>
<tr>
<td>p-</td>
<td>[pa]</td>
<td>[pi]</td>
<td>[pu]</td>
<td>[pe]</td>
</tr>
</tbody>
</table>

(b) The official table of dakuten and handakuten, using IPA to characterize each sound.

Table 5: The table of dakuten/handakuten for gojūon. Notice that the pronunciations of ji/dzi and zu/dzu are similar.

• Some authors also voice the vowel u to vu with the dakuten diacritical mark (mostly uncommon)

**Digraphs (ようおん)**

• We have changed sounds through voice shift and semi-voicings
  - ...but can we combine sounds?
  - ...but can we combine symbols?

• The yōon are palatalization marks as mora signs
  - Similar to how the dakuten are voicing marks used as diacritic signs

• Indicates that the corresponding modified consonant has a palatalized central phoneme
  - i.e. contractions, dipthongs, etc. in English

• In hiragana: ようおん (yōon)... we will talk about why it is “youon” later, similar to how gojūon is romanized “gojuuon” from the hiragana ごじゅうおん (these are the foretold long vowels)

• Construction: Standard i-column consonant prefix with a smaller-sized ya, yu, or yo kana annexed on
• Denotation of digraphs (○ represents an arbitrary consonant monograph):

○や ○ゆ ○よ

-yya -yu -yo

• For comparison in size with the regular-sized ya, yu, or yo kana in juxtaposition (these are not digraphs!):

○や ○ゆ ○よ

• Basic idea of how diacritical marks/voicing principles work:

○ ○や ○ゆ ○よ

ki kya kyu kyo

Table 6: An example using digraphs for the k- kana. Here, the ki is merged with the a, u, and o sounds.

• So the general idea of digraphs have been laid out:
  – Managed to develop a way to combine certain sounds through juxtaposition of symbols (glide/palatalization)
  – More complicated model of our hiragana syllabary—complex combination kana based on existing characters
  – However, again easy once monographs are known, as these are just modification marks too
  – Need to be careful: SMALLER versions of the y- kana are used! (i.e. get better at size discrimination)
  – e.g. kyo (digraph) is not the same as kiyō (def.: skilled): きよ v. きよ (subtle difference in size)
  – Doesn’t make sense to have digraphs for y- kana: ya, yu, yo are reproduced anyways

• Again, exceptions breed exceptions, so shi would create sha, shu, sho, not sya, syu, syo (stronger sounds)
  – Similarly for chi: digraphs are cha, chu, cho, not tya, tyu, tyo (again, stronger sounds, not weaker ones)

• The complete table of yōon is shown below with the corresponding rōmaji/IPA:

<table>
<thead>
<tr>
<th>-ya</th>
<th>-yu</th>
<th>-yo</th>
</tr>
</thead>
<tbody>
<tr>
<td>k-</td>
<td>きゃ</td>
<td>きゅ</td>
</tr>
<tr>
<td></td>
<td>kya</td>
<td>kyu</td>
</tr>
<tr>
<td>s-</td>
<td>しゃ</td>
<td>しゅ</td>
</tr>
<tr>
<td></td>
<td>sha</td>
<td>shu</td>
</tr>
<tr>
<td>t-</td>
<td>ちゃ</td>
<td>ちゅ</td>
</tr>
<tr>
<td></td>
<td>cha</td>
<td>chu</td>
</tr>
<tr>
<td>n-</td>
<td>にゃ</td>
<td>にゅ</td>
</tr>
<tr>
<td></td>
<td>nya</td>
<td>nyu</td>
</tr>
<tr>
<td>h-</td>
<td>ひゃ</td>
<td>ひゅ</td>
</tr>
<tr>
<td></td>
<td>hya</td>
<td>hyu</td>
</tr>
<tr>
<td>m-</td>
<td>みゃ</td>
<td>みゅ</td>
</tr>
<tr>
<td></td>
<td>mya</td>
<td>myu</td>
</tr>
<tr>
<td>r-</td>
<td>りゃ</td>
<td>りゅ</td>
</tr>
<tr>
<td></td>
<td>rya</td>
<td>ryo</td>
</tr>
</tbody>
</table>

(a) The official table of yōon, using rōmaji to characterize each sound.

<table>
<thead>
<tr>
<th>-ya</th>
<th>-yu</th>
<th>-yo</th>
</tr>
</thead>
<tbody>
<tr>
<td>k-</td>
<td>[kʰa]</td>
<td>[kʰu]</td>
</tr>
<tr>
<td>s-</td>
<td>[ca]</td>
<td>[cu]</td>
</tr>
<tr>
<td>t-</td>
<td>[tca]</td>
<td>[t̚u]</td>
</tr>
<tr>
<td>n-</td>
<td>[n̑a]</td>
<td>[n̑u]</td>
</tr>
<tr>
<td>h-</td>
<td>[ca]</td>
<td>[cu]</td>
</tr>
<tr>
<td>m-</td>
<td>[m̑a]</td>
<td>[m̑u]</td>
</tr>
<tr>
<td>r-</td>
<td>[ȓa]</td>
<td>[ȓu]</td>
</tr>
</tbody>
</table>

(b) The official table of yōon, using IPA to characterize each sound.

Table 7: The table of yōon in hiragana.

• Side note: myu is very rare, only occurring naturally in the family name Omamyūda, or おまみゅうだ (小豆生田)
• We have successfully combined symbols and sounds, but there is still a problem:
  
  – Two systems of changing/modifying the hiragana characters:
    o Diacritics: For voiced/unvoiced consonant shifts
    o Digraphs: For combining sounds into less fundamental units of sound (merging vowels)
  
  – Can we somehow combine them and cover all of the bases?
    o Yes, by using **digraphs with diacritics**

**Digraphs with Diacritics (ようおんはなんだてん)**

• Let us consider the relationship between the four types of syllabograms now:

![Diagram showing the relationships between monographs, diacritics, digraphs, and digraphs with diacritics in Japanese.](image)

Figure 12: The relationships between the monographs, diacritics, digraphs, and digraphs with diacritics in Japanese. The solid lines represent direct (explicit) relationships, while the dashed line represents an indirect (implicit) relationship.

• We now just need to combined voiced sounds with the merged-vowel sounds (i.e. diacritics and digraphs combined)
• Simple enough: Use the dakuten/handakuten symbol to voice the consonant, then merge with **y-** kana like before
• As usual, **exceptions breed exceptions**, so some kana will be “unusual”
• The complete table of (han)dakuten for the **yōon** is shown below with the corresponding rōmaji/IPA:

<table>
<thead>
<tr>
<th>-ya</th>
<th>-yu</th>
<th>-yo</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>g</code>-</td>
<td><code>gya</code></td>
<td><code>gyu</code></td>
</tr>
<tr>
<td><code>z</code>-</td>
<td><code>ja</code></td>
<td><code>ju</code></td>
</tr>
<tr>
<td><code>d</code>-</td>
<td><code>dzya</code></td>
<td><code>dzyu</code></td>
</tr>
<tr>
<td><code>b</code>-</td>
<td><code>bya</code></td>
<td><code>byu</code></td>
</tr>
<tr>
<td><code>p</code>-</td>
<td><code>nya</code></td>
<td><code>nyu</code></td>
</tr>
</tbody>
</table>

(a) The official table of dakuten and handakuten, using rōmaji to characterize each sound.

<table>
<thead>
<tr>
<th>-ya</th>
<th>-yu</th>
<th>-yo</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>g</code>-</td>
<td><code>[gʰa]</code></td>
<td><code>[gʰy]</code></td>
</tr>
<tr>
<td><code>z</code>-</td>
<td><code>[dza]</code></td>
<td><code>[dzu]</code></td>
</tr>
<tr>
<td><code>d</code>-</td>
<td><code>[dza]</code></td>
<td><code>[dzu]</code></td>
</tr>
<tr>
<td><code>b</code>-</td>
<td><code>[bʰa]</code></td>
<td><code>[bʰy]</code></td>
</tr>
<tr>
<td><code>p</code>-</td>
<td><code>[pʰa]</code></td>
<td><code>[pʰy]</code></td>
</tr>
</tbody>
</table>

(b) The official table of dakuten and handakuten, using IPA to characterize each sound.

Table 8: The table of dakuten/handakuten for **yōon**. Notice the **similarity** in pronunciation of **ja/dzya**, **ju/dzyu**, **jo/dzyo**.

• Note that the **j-** kana and the **dz-** kana are **not** interchangeable despite same IPA! But it’s a bit more complicated than that:

  – **Rendaku voicing**: sequential voicing in Japanese morphophonology that governs how consonants are voiced if they reappear in sequence
  – Example of rendaku voicing: **hito** (person), **hito + hito = hitobito** (person + person = people): ひと v. ひととひと
  – Another one: **ori** (fold), **kami** (paper), **ori + kami = origami** (fold + paper = paperfolding): おりがみ
  – In other words, there is an unexpected voicing on the initial syllable of the joined/annexed word
  – Mostly an advanced concept, governed by lexical rules (Lyman’s law, etc.)—more on this later
  – If the first two syllables of a word consist of one syllable without dakuten marks followed by the same syllable with dakuten marks, then the same hiragana is used to write the sounds, presumably
- chijimeru (def.: to boil down, to shrink): ちじめる, not ちじめる
- tsuzuku (def.: to continue): つづく, not つづく
  - But if one of the syllables has rendaku voicing, then the original hiragana is used:
  - hana (nose), chi (blood), hanadzi (nosebleed) by rendaku: はなち, not はなじ
  - Adding to the agony: On the other hand, ちゃ/ちゅ/ちょ are possible in rendaku, but rarely used (cf. じゃ/じゅ/じょ)
  - Again, advanced concept, so we will revisit this in the future
  - Bottom line, though: Cannot just claim that we use the j-* kana and the dz-* kana interchangeably

- We have successfully combined symbols and sounds, and we have covered all of our bases:
  - Complete model of hiragana now, built from the ground-up
  - Also examined from the top-down: Looked at existing words and understood how they fit into these patterns
  - Very complex combination kana based on 46² basic hiragana characters
  - Can represent a range/multitude of sounds based off of 5 very simple ones
  - We will use these sounds to represent classical Japanese concepts
  - What about foreign loanwords that utilize sounds not present among these 107³ characters?
    - We need to use katakana for this purpose! Need to introduce additional sounds on top of the existing ones (since foreign languages also use these sounds)
    - Thus, the sounds of hiragana ARE the sounds of Japanese
    - Pitfalls: Misusing hiragana/katakana for certain “reborrowed” words: e.g. waifu (ワイフ v. わいふ)

### Functional Marks and Other Aspects of Hiragana

- Similar to (small) ゃ/ゅ/ょ, there exists a つ character (as opposed to つ) in hiragana
- This so-called “small tsu”, or つ, is used as a geminate in hiragana
  - Geminate: Consonant elongation where the consonant is spoken for audibly longer than the short version
  - Called sokuon in Japanese (そくおん), used for reduplication purposes
  - Similar to ‘kk’ in English, e.g. in bookkeeping (slightest pause between k’s)
  - e.g. a good way to think about it is book’keeping, where the apostrophe signifies a pause
- Affects rōmaji through “twinning” of the affected consonant
- Denotation of sokuon (○ represents an arbitrary kana—could be monograph, diacritic, digraph, or digraph+diacritics):

```
 つ○
  sokuon
```

- That is, the sokuon mark comes before the affected kana:

| いた | ita | かった | kattea (won) |
| いった | (cf.) itta | さっか | sakka (writer) |
| けっこう | kekko | はっぱ | happa (leaf) |
| けっこう (cf.) kekkou | ぎっし | zasshi (magazine) |

Table 9: The left column shows geminated v. ungeminated words, while the right column shows common uses of the sokuon.

- However, to have the geminate effect for the n-* kana, we need to use the ン instead of the sokuon
- Solution:
- Has the same effect as the sokuon:

```
さんねん | sannen (three years) | あんない | annai (guide)
```

---

2 If we paid attention closely, we’d see that it is actually 48, but we did not use two of them beyond an introduction.
3 109, as noted above.
For digraphs, only the first consonant is duplicated, except for ch, which duplicates as tch.

These techniques won’t work for vowels, though:
- If we could reduplicate vowels, we would end up with a way to develop a long-vowel system.
- Similar to English... is there a way to just juxtapose two vowels with the intention of conveying “long vowel”?
- Yes, can use a technique similar to how we twinned the n-† kana.

We will explore the technique via example:
- When to double with the same vowel, when to use other vowels instead to simulate “doubling”
- Does it affect meaning which way we double? Yes...

There are some exceptions, as usual (mostly historical reasons, another recurring theme in Japanese language study)

- **aa**
  - おばあさん (obaasan, or grandmother) vs. おばさん (obasan, or aunt)

- **ii**
  - おじいさん (ojisan, or grandfather) vs. おじさん (ojisan, or uncle)

- **uu**
  - すうじ (sūji, or number)

- **ee**
  - Hiragana usually achieves ee with ei, as in せんせい, or sensei (master)
  - えいが (eiga, or movie) uses ei, but おねえさん (oneesan, or sister) is true ee

- **oo**
  - Hiragana usually achieves oo with ou, as in ありがとう, or arigatou (thanks)
  - ほうりつ (hōritsu, or law) uses ou, but とお (too, or ten) is true oo

Note that these are not pronounced like in English either, e.g. ee is eh-eh, not like the letter ‘E’ in English.

Two schools of thought on how rōmaji should look for these extended vowels:
- Both schools of thought agree that the ones with differing vowels should be written out explicitly, e.g. えいが should always be eiga, and never ēga.
- However, for the ones with the same-vowel duplications, there is a split philosophy:
  - Some people like to be consistent and write it out, e.g. おねえさん should always be oneesan, never onēsan.
  - Others like to use the macron to suggest “long vowel”: おじいさん should always be ojīsan, never ojīsan.
- What we will use: a hybrid philosophy:
  - For some words we will use the macron, for others we will not—just whatever will convey the meaning better.
  - We will also ignore the part that both schools of thought agree on: We spell it as rōmaji, not roumaji.
  - ...but we will say obaasan, ojīsan, sūji, sensei, eiga, oneesan, arigatō, hōritsu, too.

Official rules for our romanization techniques:
- **aa**: Written out as aa.
- **ii**: Written out as ii.
- **uu**: Written out as uu if at the end of some form of a verb, otherwise is indicated by a macron: ēu.
- **ee**: Written out as ee.
- **oo**: Written out as oo.
- **ou**: Written out as ou if at the end of some form of a verb, otherwise is indicated by a macron: ōu.
- **ei**: Written out as ei.
- All other combinations: Written out explicitly, without macrons.

These rules form a variation on what we know as the traditional Hepburn romanization of Japanese.
Some other basic problems related to pronunciation include how する (sureru) works:
- Full syllable in terms of length, but pronunciation varies with phoneme that follows it
- If followed by a vowel or if it ends a phrase, する indicates that the preceding vowel is nasalized (like the word “bon” in French), i.e. [n], [ŋ], or [i]:
  れんあい (ren'ai, or romance)  ぼん (bon, or book)
- When followed by n-*, l-*, d-*, s-*, or z*- kana, する is pronounced [n]:
  おんな (onna, or woman)
- When followed by m-*, b-*, or p*- kana, する is pronounced [m]:
  さんぼ (sampo, or stroll)
- When followed by k*- or g*- kana, する is pronounced [ŋ]:
  まんが (manga, or comics)
- That is, する is a nasalizer, while つ is a palatalizer

We consider the fact that sometimes we would like to duplicate entire morae, not just consonants: e.g. じじ
- We can use what is called an iteration mark (odoriji) to signify this
- For example, instead of writing じじ, we could write じゞ, where the voiced iteration mark ゞ tells us to duplicate the previous mora and voice it (notice the dakuten on the iteration mark)
- There is also an unvoiced iteration mark: ゝ
- We can take the previous mora and unvoice it with the second mark: じゝ would be じし
- Makes writing certain longer words out a bit more convenient

Other marks that are of importance include punctuation marks in Japanese:


These marks (sokuon, する, long vowels, odoriji, punctuation, etc.) are called functional marks of the language

Some exceptions in pronunciation: when certain kana are used as particles
- Particle: Part of speech that cannot be inflected, declined, or conjugated (i.e. adverbs, prepositions, conjunctions, and interjections are all particles)
- The kana わ (wa), わ (wo), and わ (he) are pronounced as wa, o, and e, respectively, when used as particles
- Other than these “standalone word” particles, Japanese is phonemically orthographic: one-to-one correspondence between kana and respective sounds
- Pitch accent is a different story, of course... requires more advanced study
- More on this later—it is a grammatical construct that we will learn in the future

Lastly, some interesting history about hiragana’s origins:
- When first developed as a simplification, hiragana was not universally accepted
- The elite and educated/scholarly few preferred to use the kanji system to write scriptures
- However, women were not allowed this level of education at the time, and thus preferred hiragana for easier use
- Thus, an alternative name for hiragana is often おんなで, or onnade (women’s writing)
- Over time, male authors began adopting hiragana for literature and unofficial writing, like personal letters
- Thus, for all syllables, there was more than one possible hiragana, due to complex kanji interactions
- In 1900 BCE, linguists simplified the system so that each syllable had exactly one associated kana
- The pre-1900 deprecated hiragana that was closer to kanji is now called hentaigana
- We will later learn about a pangram poem called Iroha-uta, which uses each hiragana character exactly once

4Technically, each mora, not each syllable.
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