# (Standard) French Phonology

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# Vowels

| | | Front | | Central | Back |
|---|---|---|---|---|---|
| | | unrounded | rounded | | |
| Close | oral | i | y | | u |
| Close-mid | oral | e | ø | ə | o |
| Open-mid | oral | ɛ (ɛː) | œ | ə | ɔ |
| Open-mid | nasal | ɛ̃ | (œ̃) | | ɔ̃ |
| Open | nasal | | | | ɑ̃ |
| Open | oral | | | a | (ɑ) |

Examples:

| /i/ | fini | [fini] | 'finished' |
|---|---|---|---|
| /y/ | chute | [ʃyt]̪ | 'fall' |
| /u/ | où | [u]̪ | 'where' |
| /e/ | beauté | [bote̞] | 'beauty' |
| /ø/ | peu | [pø] | 'few' |
| /ə/ | je | [ʒə]̪ | 'I' |
| /o/ | réseau | [ʁeˈzo] | 'net' |
| /ɛ/ | bête | [bɛt]̪ | 'beast' |
| /ɛː/ | fête | /fɛːt/ | 'party' |
| /œ/ | sœur | /sœːʁ/ | 'sister' |
| /ɔ/ | sort | /sɔːʁ/ | 'fate' |
| /ɛ̃/ | brin | /bʁɛ̃/ | 'sprig' |
| /œ̃/ | brun | /bʁœ̃/ | 'brown' |
| /ɔ̃/ | son | /sɔ̃/ | 'his' |
| /ɑ̃/ | sans | /sɑ̃/ | 'without' |
| /a/ | sa | /sa/ | 'his'/'her' |

# Vowel Constraints:

1. *[+syl +nasal -front -back]
   a. No central nasal vowels
   b. English does not have nasal vowels as part of its base phoneme inventory

2. *[+syl +low +front]
   a. No front low vowels
   b. English has at least one front low vowel: /æ/

3. *[+syl +back -round]
   a. Back vowels are all rounded
   b. English has at least one unrounded back vowel: /ʊ/ (and possibly /ʌ/ and /ɑ/ as well)

# Consonants

**Consonant phonemes of French**

| | | Labial | Dental/ Alveolar | Post-alveolar | Palatal | Velar | Uvular |
|---|---|---|---|---|---|---|---|
| **Nasal** | | m | n | | ɲ | (ŋ) | |
| **Plosive** | voiceless | p | t | | | k | |
| | voiced | b | d | | | g | |
| **Fricative** | voiceless | f | s | ʃ | | (x) | |
| | voiced | v | z | ʒ | | | ʁ |
| **Approximant** | plain | | l | | j | | |
| | labialised | | | | ɥ | w | |

## Examples

| Phoneme | IPA | French | English |
|---|---|---|---|
| /p/ | /pu/ | pou | 'louse' |
| /b/ | /bu/ | boue | 'mud' |
| /t/ | /tu/ | tout | 'all' |
| /d/ | /du/ | doux | 'sweet' |
| /k/ | /ku/ | cou | 'neck' |
| /g/ | /ɡu/ | goût | 'taste' |
| /f/ | /fu/ | fou | 'crazy' |
| /v/ | /vu/ | vous | 'you' |
| /s/ | /su/ | sous | 'under' |
| /z/ | /zo/ | zoo | 'zoo' |
| /ʃ/ | /ʃu/ | chou | 'cabbage' |
| /ʒ/ | /ʒu/ | joue | 'cheek' |
| /m/ | /mu/ | mou | 'soft' |
| /n/ | /nu/ | nous | 'we, us' |
| /ɲ/ | /aɲo | / agn | eau 'lamb' |
| /ŋ/ | /paʁ kiŋ/ | parking | parking 'parking lot' |
| /l/ | /lu/ | loup | 'wolf' |
| /ʁ/ | /ʁu/ | roue | 'wheel' |

# Consonant Constraints:

1. *[-cont -str -nas -ant +cor +dist]
   a. No palatal stops
   b. English also does not have palatal stops

2. *[-ant +cor -cont -str]
   a. All post-alveolars are fricative
   b. English has non-fricative post-alveolars: tʃ and dʒ

3. *[-cont +stri +del. rel.]
   a. No affricates
   b. English has two affricates: tʃ and dʒ

# Distributions:

Allophony: vowel length

Length is allophonic in French. Vowels are lengthened before voiced fricatives.

Example:
rate /ʁaat/          vs.          rage /ʁaːʒ/
rue /ʁu/             vs.          rouge/ʁuːʒ/

The general constraint for this distribution is:

*[+long, +syl]

Which means assign one violation for every long vowel

The contextual constraint for this distribution is:

*[-long,+syl][-syl, -cont, -son, +str, +vce]

Which means assign one violation per short vowel before a voiced fricative

The ranking of the constraints would be:

contextual   >>   general   >>   faithfulness

*[-long,+syl][-syl, -cont, -son, +str, +vce] >> *[+long, +syl] >> Faithfulness

English vowels, like French vowels, can be lengthened in certain environments. Unlike French, English vowels are lengthened in front of all voiced consonants.

Allophony: palatalization

Because there are no affricates in the French language, the phonemes /k/ and /g/ become palatalized in front of front vowels and the central vowel /a/. Below is an example:

Qui [ci]　　　　vs.　　　Que /kə/

The general constraint for this distribution can be characterized by this feature:

*[-ant +cor +dist]

Which means one violation for each palatal sound.

The contextual constraint for this distribution can be characterized by these features.

*[-ant -cor +back][+syl -back -round]

Which means one violation for each velar sound that comes before an unrounded, non-back vowel.

The ranking of the constraints for this distribution would be

contextual　>>　general　>>　faithfulness

*[-ant -cor +back][+syl -back -round]　>>　*[-ant +cor +dist]　>>　Faithfulness

Palatalization is not common in English -- instead affricates emerged over time. However, palatalization does occur in French, probably due to the fact that French does not have affricates.

# Citations

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## Distributions:

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