University of Montana
ScholarWorks at University of Montana

September 2023

## 16. Intro to Linguistics 2 (D, P)

Pat Shaw
Adrienne Tsikewa

Follow this and additional works at: https://scholarworks.umt.edu/colang2022_workshops Let us know how access to this document benefits you.

## Recommended Citation

Shaw, Pat and Tsikewa, Adrienne, "16. Intro to Linguistics 2 (D, P)" (2023). CoLang 2022 Workshops. 7. https://scholarworks.umt.edu/colang2022_workshops/7

This Article is brought to you for free and open access by the CoLang 2022 at ScholarWorks at University of Montana. It has been accepted for inclusion in CoLang 2022 Workshops by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact scholarworks@mso.umt.edu.


## Introduction to Linguistics II

Patricia A. Shaw \& Ray Huaute
2022-06-20


Recap: What's in a grammar?

minimall unit of meaning $=$ morpheme
minimal unit of sound $=$ phoneme

The Phonetics-Phonology Interface:
Phonology: what patterns are significant in a phonological system?

1. What sounds are in the inventory?
2. Phonemes:

Which sounds can create a contrast in meaning?
3. Phonotactics:

What constraints are there in terms of the sequences that sounds can occur in?

How do C inventories vary cross-linguistically?

- Number of distinctive/contrastive C phonemes

English (Indo-European) $=24$ (= 1)
Cree (Algonquian) $=11 \mathrm{C}$
Blackfoot (Algonquian) $=12 \mathrm{C}+$ length on 8
N4e?kepmxcin (N. Interior Salish) $=43 \mathrm{C}$
Tlingit $(\mathrm{Na}$-Dene $)=44 \mathrm{C}(+3)$

- Places of articulation

Nłe?kepmxcin: pharyngeals! 9 glottalized resonants!!

- Manners of articulation

Tlingit: Ejective Fricatives!!! very rare!!

Articulatory Chart of English Consonants: 24 ( +1 in some dialects) 「+ predictable [c] \& [ y ]

|  | LAB | Coronal |  |  |  |  | Dorsal |  |  | LAR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Place: <br> Manner: | Labial | Dental | Alveolar | Lateral | Alveo- <br> Palatal | Velar | Labio- <br> Velar | Uvular | LabioUvular | Glottal |
| Obstruents |  |  |  |  |  |  |  |  |  |  |
| Stops: <br> voiceless voiced | $\begin{aligned} & \mathrm{p} \\ & \mathrm{~b} \end{aligned}$ |  | $\begin{aligned} & \mathrm{t} \\ & \mathrm{~d} \end{aligned}$ |  |  | $\begin{aligned} & \mathrm{k} \\ & \mathrm{~g} \end{aligned}$ |  |  |  | $?$ |
| Affricates: voiceless voiced |  |  |  |  | $\begin{aligned} & \check{c}=t \jmath \\ & \mathrm{y}=\mathrm{t} 3 \end{aligned}$ |  |  |  |  |  |
| Fricatives: voiceless voiced | v | $\begin{aligned} & \theta \\ & \text { б } \end{aligned}$ | $\begin{aligned} & \mathrm{s} \\ & \mathrm{z} \end{aligned}$ |  | $\begin{aligned} & \check{s}=\int \\ & \check{z}=3 \end{aligned}$ | [ç] |  |  |  | h |
| Resonants: |  |  |  |  |  |  |  |  |  |  |
| Nasals: vd | m |  | n |  |  | [y] |  |  |  |  |
| Liquids: vd |  |  |  | 1 | r |  |  |  |  |  |
| Glides: vd voiceless |  |  |  |  |  | $y=j$ | $\begin{gathered} \text { w } \\ (\mathrm{w}) \\ \mathrm{o} \end{gathered}$ |  |  |  |

## Cree (Algonquian) consonant inventory: 11 C



Woods Cree: Ballard, Elaine \& Donna Starks. 2004. Liquids: Laterals and Rhotics, or Much More? Proceedings of the 2004 Conference of the Australian Linguistic Society.

Nłe？kepmxcin consonant inventory：
（a．k．a．Thompson River Salish：N．Interior Salish）
43 consonants： 29 not in English！

|  |  |  |  |  | $\begin{aligned} & \text { 券 } \\ & 0 \end{aligned}$ |  | $\frac{\text { 霛 }}{3}$ |  | $\begin{aligned} & \text { ⿹凶ㅇ } \\ & \text { en } \\ & \text { E } \\ & \text { 플 } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Obstruents：voiceless stops／affricates | p | t | C̣ č |  | k | $\mathrm{k}^{\mathrm{w}}$ | q | $q^{W}$ |  |  | ？ |
| ejective（glottalized） stops／affricates | $\stackrel{\rightharpoonup}{\mathrm{p}}$ | $\mathfrak{t}$ | $\stackrel{\text { č }}{ }$ | ̇＇ | k | $\vec{k}^{\mathrm{w}}$ | q | $\dot{q}^{\mathrm{w}}$ |  |  |  |
| voiceless fricatives |  |  | S $\mathrm{S}_{\text {S }}$ | \＄ | X | $\mathrm{X}^{\mathrm{W}}$ | $\chi$ | $\chi^{\text {w }}$ |  |  | h |
| Resonants：plain | m | n | Z y | 1 | $\gamma$ | W |  |  | ¢ | $¢^{W}$ |  |
| glottalized | m | n | $z^{\prime}$＇ y | 1 | ¢ | W |  |  | $¢^{\prime}$ | $G^{\prime}{ }^{W}$ |  |

## Tlingit consonants: 44(+3) Note full series of Ejective Fricatives

|Articulatory Chart of Tlingit Consonants: 44 (+3)

|  | LAB |  | COR=Coronal |  |  |  |  | DOR=Dorsal |  |  | LAR |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Labial | Labiodental | Dental | Alveolar | Lateral | AlveoPalatal | Palatal / Velar | LabioVelar | Uvular | Labio- <br> Uvular | Pharyngeal | Glottal/ <br> Laryngeal |
| Obstruents: |  |  |  |  |  |  |  |  |  |  |  |  |
| Stops \& Affricates: <br> voiceless aspirated voiceless unaspirated ejective implosive voiced |  |  |  | $\left\lvert\, \begin{array}{ll} \mathrm{t}^{\mathrm{h}} & \mathrm{ts}^{\mathrm{h}} \\ \mathrm{t} & \mathrm{ts} \\ \mathrm{t} & \mathrm{ts} \end{array}\right.,$ | tth <br> t <br> t ${ }^{\prime}$ |  | $\begin{aligned} & \mathrm{k}^{\mathrm{h}} \\ & \mathrm{k} \\ & \mathrm{k}^{\prime} \end{aligned}$ | $\begin{aligned} & \mathrm{k}^{\mathrm{wh}} \\ & \mathrm{k}^{\mathrm{w}} \\ & \mathrm{k}^{\mathrm{w}} \end{aligned}$ | $\begin{aligned} & \mathrm{q}^{\mathrm{h}} \\ & \mathrm{q} \\ & \mathrm{q} \end{aligned}$ | $\begin{aligned} & q^{w h} \\ & q^{w} \\ & \text { q'q} \end{aligned}$ |  | ? ${ }^{\text {w }}$ |
| Fricatives: voiceless ejective |  |  |  | $\begin{aligned} & \mathrm{S} \\ & \mathrm{~S}^{\prime} \\ & \hline \hline \end{aligned}$ | $\$$ $\psi^{\prime}$ | Š | $\begin{aligned} & \text { X } \\ & x^{\prime} \\ & \hline \end{aligned}$ | $\begin{gathered} \mathrm{x}^{\mathrm{w}} \\ \mathrm{x}^{\mathrm{w}}, \\ \hline \end{gathered}$ | $\begin{aligned} & \chi \\ & \chi^{\prime} \end{aligned}$ | $\begin{aligned} & \chi^{\mathrm{w}} \\ & \chi^{\mathrm{w}} \end{aligned}$ |  | $\mathrm{h} \mathrm{h}^{\mathrm{w}}$ |
| Resonants: |  |  |  |  |  |  |  |  |  |  |  |  |
| Nasals: vd glottalized | (m) |  |  | n |  |  |  |  |  |  |  |  |
| Liquids: vd glottalized |  |  |  |  | (1) |  |  |  |  |  |  |  |
| Glides: vd glottalized |  |  |  |  |  |  | $y \quad(\ddot{y})$ | W |  |  |  |  |

## Patterns of phonetic variation: phonemes \& allophones

Criteria for classing different phonetic variants as allophones of a single phoneme:

1. Phonetic similarity
2. a. Complementary distribution: the contexts in which the variants occur are mutually exclusive. Therefore, you can predict which variant will occur in a particular context.
b. Free variation: there are no systematic constraints on the variants that may occur in a particular position.

## Identity, Heritage, Respect

"I think it's a monumental day... to have the language of the land represented in the orthography that we use" - Elder Larry Grant, Musqueam


UBC unveils First Nation street signs on Point Grey campus
UBC has unveiled Musqueam street signs across the Point Grey campus to give a bilingual experience when travelling across the institution.
globalnews.ca

Kwakwala alphabet chart (1979. U'mista Cultural Society)

Goal: use typewriter keyboard but ... several sounds not found in English.
Their solution?
underlined letters:

$$
\begin{array}{ll}
\mathrm{a}=[\mathrm{a}] & \text { vs. } \\
\mathrm{k}=[\mathrm{a}] & \underline{\mathrm{k}}=[\mathrm{p}] \\
\mathrm{kw}=[\mathrm{q}] \\
\mathrm{k} & =\left[\mathrm{k}^{\mathrm{w}}\right]
\end{array} \quad \underline{\mathrm{kw}}=\left[\mathrm{q}^{\mathrm{w}]}\right]
$$

etc.



hengeximen alphabet 2


Recap: What's in a grammar?

minimall unit of meaning $=$ morpheme
minimal unit of sound $=$ phoneme

A morpheme is a minimal unit of meaning. Words are often derived through multiple layers of prefixes, suffixes, and/or infixes added to a root.

```
prefix- root -suffix root
```

figure
con- figure
re- con- figure
con- figur -ation
re- con- figur -ation
root

infix
bound vs. free: Hyphens mark where a morpheme is "bound" to the stem it attaches to.

## Allomorphy

Morphemes may have variant forms

- called allomorphs - in different contexts.
e.g. English plural formation: some allomorphs are predictable based on the phonological properties of the preceding segment:
cats kæt-s -s after a voiceless segment
desks desk-s
dogs dag-z -z after a voiced segment
days de-z
roses roz-əz -əz after $\mathrm{s}, \mathrm{z}, \mathrm{s}$, ž
bushes buš-əz = alveolar \& alveopalatal fricatives \& affricates


## Allomorphy

but not all English plural allomorphs are predictable from their phonological environment:

- "Regular" plural suffix plus root-final C change:
wife wives house houses
wayf wayv-z haws hawz-əz
- Root-internal vowel change = "ablaut":

| foot feet mouse mice |  |
| :--- | :--- | :--- |
| fut fit | maws mays |

- NO suffix or root-internal V change: Ø allomorph

| deer | deer | fish | fish |
| :--- | :--- | :--- | :--- |
| dir | dir | fiš | fiš |


"I don't like large groups. I can never remember what our plural is."

