# Today's objectives:

- WU #1 check-in
- Motivating syllables

#### Background preparation:

WU #1 (in progress)

## 0. Today's plan

- Check-in on WU #1
- English aspiration: Facts about the world
  - What are your **intuitions** about which voiceless stops are aspirated?
  - What happens when we **check**, phonetically and perceptually?

#### 0. WU #1 check-in

- Any questions about WU #1?
  - Questions about the instructions?
  - Questions about items in the data set?
  - If you have questions about how to **approach** the data set, consider reviewing:
    - the Odden reading
    - course handouts
    - other data sets we worked on in class
- Discussion: Rules and derivations from <u>Lamba</u>

- Background: Aspiration
  - Some voiceless stops are aspirated produced with a puff of air [h] after the stop release
  - Unaspirated stops do not have this puff of air

- In English, voiceless stop phonemes /p t k/ have aspirated allophones [p<sup>h</sup> t<sup>h</sup> k<sup>h</sup>]
  - How can we use our model of the phonological grammar to describe/predict/explain the environment where aspiration occurs?

#### Discussion

- Data set: <u>English aspiration</u>
  - Which of the stops in part (1) are **aspirated**?

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(a)	(b)	(c)	(d)
<b>p</b> an	s <b>p</b> an	<b>p</b> ray	s <b>p</b> ray
<u>t</u> ar	s <u>t</u> ar	<u><b>t</b></u> ray	s <u>t</u> ray
<u>k</u> in	s <u>k</u> in	<u>c</u> ream	s <u>c</u> ream

#### Discussion

- Data set: <u>English aspiration</u>
  - Which of the stops in part (1) are **aspirated**?

(e)	<b>(f)</b>	(g)	(h)
a <b>pp</b> ear	a <b>pp</b> rove	com <b>p</b> are	as <b>p</b> ire
a <u><b>tt</b></u> ach	a <u><b>tt</b></u> ract	con <u>t</u> ent	as <u>t</u> ound
a <u>cc</u> ord	a <u>c</u> ross	con <u>c</u> lude	as <u>c</u> ribe

## 2. A fun way to check for aspiration

 English voiced stops have an optional allophone in word-initial position that is voiceless unaspirated

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/b/
[b] [p] (optional if / #__)
```

- So: If we start playing audio during any stop
  - This tricks our phonological grammar into thinking we are listening to a word-intial stop
  - If it's not aspirated enough to "count" as aspirated, it will **sound** "voiced" (even if there is literally no vocal-fold vibration)

# 2. A fun way to check for aspiration

To be continued next time!