Today's topics:

- **Informative losers**
- **Valid ranking arguments**
- **Markedness and faithfulness constraints**

Background preparation:

- Prep qns: OT tableaus and W/L marks

0. Today's objectives

After today's class, you should be able to:

- Identify informative losing candidates
- Use W/L notation to make valid ranking arguments
- Add additional relevant candidates and constraints to analyze further aspects of a language's ranking
- Explain the difference between markedness and faithfulness constraints, both as general concepts and how they are formally distinct in our model

1. Warm-up: W/L marks and informative losers

Practice exercises

- Tibetan: Add * and W/L marks to the tableau

/rgubd͡ʒu/ ‘ninety’	NoCoda	NoOnsetCluster
(a) [gu.bd͡ʒu]		
→ (b) [gub.d͡ʒu] WINNER		

- What constraint ranking can we prove?

1. Warm-up: W/L marks and informative losers

- ***Review:*** A **comparative tableau** shows "W" and "L" marks in the row for **each loser**
  - Compare the winner to **each loser**, one at a time
  - For **each constraint**, ask:
    - Does it prefer **the winner**? If so, add **W**
    - Does it prefer **this loser**? If so, add **L**

/rgubd͡ʒu/ 'ninety'	NoCoda	NoOnsetCluster
(a) [gu.bd͡ʒu]		*
→ (b) [gub.d͡ʒu] WINNER	*	

1. Warm-up: W/L marks and informative losers

- Tibetan: What's another losing candidate we need to consider? Add * and W/L marks here too.

/rgubd͡ʒu/ 'ninety'	NoCoda	NoOnsetCluster
(a) [gu.bd͡ʒu]		
→ (b) [gub.d͡ʒu] WINNER		

- **What candidate is currently predicted by our analysis to win?**

1. Warm-up: W/L marks and informative losers

- Consider candidate (c): What new constraint would solve the problem?

/rgubd͡ʒu/ 'ninety'	NoCoda	NoOnsetClust	
(a) [gu.bd͡ʒu]			
→ (b) [gub.d͡ʒu] WINR			
(c) [gu.d͡ʒu]			

- Add *, W/L, and report any newly proven rankings

2. More practice with informative losers

- How to develop an analysis in OT:
  - What are some of the **other ways** that the winning candidate could have avoided violating any constraints that it does violate?
  - What constraints do we need to rank so that these other output candidates do not win?
- This is a typical research strategy for both…
  - determining **how constraints are ranked** in a given language
  - determing **what the set of constraints** itself is

2. More practice with informative losers

- How many candidates do we need to **show** in a tableau when we are doing an OT analysis?
  - Focus on **informative losers** — losing candidates that show us something about **how constraints are ranked**
    - Remember "LOVE vs. MONEY"?
  - Informative losers can also tell us something about **what the universal constraints are**
    - Some constraint has to *make* them lose!

2. More practice with informative losers

- Why is (d) an informative loser? (Two reasons!)

/rgubd͡ʒu/ 'ninety'	NoCoda	NoOnsetClust	NoDeletion
(a) [gu.bd͡ʒu]	L	* W	*
→ (b) [gub.d͡ʒu]	*		*
(c) [gu.d͡ʒu]	L		** W
(d) [rgub.d͡ʒu]			

2. More practice with informative losers

/rgubd͡ʒu/ ‘ninety’	NoCoda	NoOnsetClust	NoDeletion
(a) [gu.bd͡ʒu]	L	* W	*
→ (b) [gub.d͡ʒu]	*		*
(c) [gu.d͡ʒu]	L		** W
(d) [rgub.d͡ʒu]	*	* W	L

- We know (d) is an **informative loser** because…
  - It does **better** than the winner on NoDeletion
  - It is identical to the input (= it is **faithful**)

2. More practice with informative losers

- What's another **loser** that is important to consider?

/rgubd͡ʒu/ '90'	NoCod	NoOnsCl	NoDel	
(a) [gu.bd͡ʒu]	L	* W	*	
→ (b) [gub.d͡ʒu]	*		*	
(c) [gu.d͡ʒu]	L		** W	
(d) [rgub.d͡ʒu]	*	* W	L	
(e)				

2. More practice with informative losers

- What new **constraint** should we propose?

/rgubd͡ʒu/ '90'	NoCod	NoOnsCl	NoDel	
(a) [gu.bd͡ʒu]	L	*W	*	
→ (b) [gub.d͡ʒu]	*		*	
(c) [gu.d͡ʒu]	L		** W	
(d) [rgub.d͡ʒu]	*	* W	L	
(e) [ri.gu.bi.d͡ʒu]	L		L	

3. More practice with valid ranking arguments

- What is our **final ranking** for Tibetan?

/rgubd͡ʒu/ '90'	NoCod	NoOnsCl	NoDel	NoEpenth
(a) [gu.bd͡ʒu]	L	*W	*	
→ (b) [gub.d͡ʒu]	*		*	
(c) [gu.d͡ʒu]	L		** W	
(d) [rgub.d͡ʒu]	*	* W	L	
(e) [ri.gu.bi.d͡ʒu]	L		L	** W

3. More practice with valid ranking arguments

- What is our **final ranking** for Tibetan?
  - (a) shows NoOnsCl » NoCoda
  - (c) shows NoDel » NoCoda
  - (d) shows NoOnsCl » NoDel
  - (e) shows NoEp » NoCoda **and** NoEp » NoDel

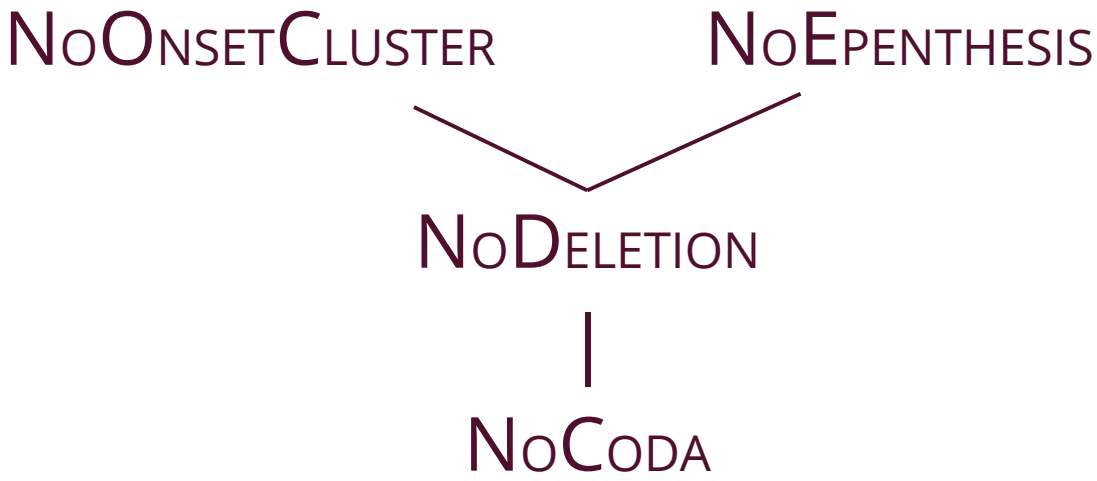
4. Hasse diagrams

- A **Hasse diagram** summarizes rankings
  - Include all constraints in the diagram
  - Connect two constraints if they are crucially ranked: higher position means higher ranking
  - No connecting line means no ranking is claimed

- Draw a Hasse diagram for our Tibetan analysis
  - (a) shows NoOnsCl » NoCoda
  - (c) shows NoDel » NoCoda
  - (d) shows NoOnsCl » NoDel
  - (e) shows NoEp » NoCoda **and** NoEp » NoDel

4. Hasse diagrams

- Hasse diagram for our Tibetan analysis
  - (a) shows NoOnsCl » NoCoda
  - (c) shows NoDel » NoCoda
  - (d) shows NoOnsCl » NoDel
  - (e) shows NoEp » NoCoda **and** NoEp » NoDel



5. Markedness and faithfulness constraints

- We have seen from our discussion of Tibetan that
  - we need a constraint **against deletion**
  - we need a constraint **against epenthesis**

- How can we define these constraints?
  - Assign one * for every …

5. Markedness and faithfulness constraints

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  - we need a constraint **against deletion**
  - we need a constraint **against epenthesis**

NoDeletion — Assign one * for every segment in the input that is not in the output

NoEpenthesis — Assign one * for every segment in the output that is not in the input

- Are these plausible constraints?
  - Is avoiding deletion/epenthesis a plausible goal?

5. Markedness and faithfulness constraints

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  - Is avoiding deletion/epenthesis a plausible goal?
- Having the **output** (SR) **be like the input** (UR) is a plausible goal
  - It should make it easier to find the UR in your lexicon on hearing the SR if the two are identical
  - Epenthesis and deletion are two ways for SRs *not* to look like URs

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- Having the **output** (SR) **be like the input** (UR) is a plausible goal
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5. Markedness and faithfulness constraints

Two general types of constraints

- Constraints that **compare outputs to inputs** and require them to be **identical** (in some way) are **faithfulness constraints**
- Constraints evaluating only **properties of outputs** (surface forms) are **markedness constraints**
  - Often based on phonetic or typological evidence
- What are examples of each type?
- Handout - Markedness and faithfulness constraints

6. For next time

- We will add some additional constraints on syllable structure
- More practice with tableau notation, W/L marks, and Hasse diagrams