**I. LANGUAGE DIVERSITY** Moodle

1. 1. Despite the sameness of human mind and its basic cognitive machinery, why diversity of languages?

2. Isn’t it also taxing for one’s mind to handle multiple languages?

3. What cognitive reasons back up acquisition of multiple languages?

 *Mind configured for diverse strs*

 *L prepared to function in diverse environs*

4. Despite cognition opting to deliver thoughts efficiently (compositionality), why do we speak in diverse languages?

5. What are the mind principles supporting acquisition of the human language i.e., of what does the “basic cognitive machinery” for language consist? How come that other communication systems don’t need these features?

 Intention-seeking/ joint attention

 Statistical learning

 Arbitrary patterning of sound…

 Compositionality

 Duality of p., recursion, etc.

 *Meaningless sounds > meaningful words*

 *Complex groupings of words arranged into abstract notion of str rather than just word order or…*

 Memory

2. 1. How diverse can language SYSTEMS be?

Sets of phms, WOs, lex items coding info, word forming…

2. Is learning a language w. rare and unusual features more demanding for the mind?

3. Does the mind impose limits on languages, despite mind adaptability to language environments and brain’s plasticity?

 *Suggested by the universals*

 *………….. by experiments w. placement of suffixes*

4. Define “language diversity”: very different systems coding gr. And lex meanings in unpredictable ways

3. 1. Could cultural values/mentality determine particular linguistic features and ways of thinking? / Could they be “stamped” into the language?

 2. Could our language constrain how we think and shape thinking of new learners? *Intergenerational transmission happens by processing the input*

4. Why does Marc Pagel tie language diversity to the spread of agriculture, cca 10,000 yrs ago?

 Ls were first linked to isolated settlms/ stable highly specialized environms > spread and invasion through agricult: settling down and adopting Ls of agric innovators

 Movement and contact

5. 1. In what way is industrialization and habitat extinction linked to language loss, if at all?

2. Where on earth does diversity prosper?

 Profusion of both wildlife and Ls – distinctive habitats w highly specialized traits that get named in diverse ways > highly specialized cultures

 3. Can language loss be stopped by people retreating back into self-contained habitats? Is the current pandemic, in this sense, an opportunity?

4. What’s the purpose behind revitalizing languages? Is it the way to enforce diversity?

 Hebrew, Maori, Irish…

**II. LANGUAGE UNIVERSALS**

1. **Are they cognitively meaningful/ explained by cognition and limits on learning?**

 Basic Us (on the basis of 30 languages surveyed by J. Greenberg in 1963 cf. M. Dryer in 1992): In VSO Ls, Adjs follow nouns

 Implicational Us: If Su or O noun agrees w verb in gender, t adj alw agrees w noun in gender

 Outlier languages violating the universals (Piraha or…)

478-9, Fig.12.2

1. Why bother w considering universals?

 To mark boundaries of H mind, and identify biases and limitations

3. From how many languages did Joseph Greenberg draw data for his universals in 1963 cf. Michael Dryer in 1992?

4. What are the genetically-based biases and limitations of language learning that determine what sort of language can our brain handle? Can they explain why are languages like-minded?

 what’s easier to perceive and learn may be aligned w common L traits

5. **Strong word order correlations**: What’s their origin?

e.g. if L place the verb bf O, it also h prepositions, and v.v. – what L uses postposs?

…explained by (1) inborn settings that constrain choices – perception, focus, order

(2) preferences of L processing that suggest ease of processing (stable freq strs and pressure to communicate crit points quickly) e.g. when word order occurs in patterns that are consistent

6. Do easy-to-learn patterns correlate with these word order settings?

Where do they occur geographically? 479-81, Fig. 12.3

7. How common are the easy to-learn-patterns across languages?

8. What experiments were carried out to test it?

e.g. where are morphemes that change word meaning the most added, the front or back of words?

 Proto-IE L clusters showing prep/postpositions or both, and SVO / SOV or both WOs

 Rare: free WO pp. 480-1

Geogr clusters due to contact or ling lineage

1. Or, are strong word order correlations merely a reflection of shared history/family rather than nature of human mind (Michael Dunn 2011)?

**III. LEARNING BIASES of our cognition are evident in TYPOLOGY and in speakers’ choosing structures easier to produce because they also get remembered easier**

**Prevalent verb-object ordering patterns p. 479**

…reveal a LEARNING BIAS… our mind is not neutral and doesn’t learn whatever but is bent by “nature” to learn what’s accessible, salient, easy to perceive, stable and regular

Rare, weird (“difficult to learn”) features correlate with how babies and chi progress in mother language-learning; exceptional features (e.g. dual #) take longer to learn (since rare)… typically made *regular and then learned (statistical learning and memory storage)*

EXPERIMENT: Children and adults learning an inconsistent pattern of determiner + noun in an artificial language (the study quoted on p. 482)
*> making it regular* so that the determiners occurred only in certain patterns

* **gaps between patterns in the input that learners process and their output**

> not all patterns h t same status in t mind

EXPERIMENT: Applying Greenb’s U #18 - if Adj precedes N, the numeral will precede N, too, but this is only a prevalent tendency and all t poss WO combins occur among Ls Culbertson’s review!

*10 alien names w 5 properties and 5 numerals:*

> normal and common patterns seem to affect regularization

> learners resist generalizing patterns defying the typological grain/ CROSSLINGUISTIC frequency

**Examples and summary p. 483-5 and Figure 12.4**

Imbalance in frequencies could put t L on t path of crystallizing a bias > only the favored alternative ends up as acceptable: SVO in E from both alternating strs in Old E

SVO/Subject first WO is the most common (it works even under production pressure and is easy to produce): learners prefer SVO and regularize it because they hear it most often in the input

OVS or OSV are rare

Cognitive demands of **producing L on the fly** can lead sps to systematically favor some ling forms over others that mean the same (SVO patterns over SOV) as evident in…

…spitting out 1st what’s on your mind (e.g. Su of t story or as Agent) to stop clogging memory and move on w t rest

…if 2 participants, Su goes 1st as Agent

 …pass voice serves t purpose of putting Su 1st if animate

Because what’s primed by going first or what’s visually salient (concrete Os) turned out to be the easiest to retrieve from memory

Cross-linguistically are there more structures that are easy to produce than strs that are cognitively taxing?

* Cognitive preference/ ease of learning seems aligned w universal distribution of features - p. 486

**Figure 12.6, p. 489 – distrib of all t 6 poss WO strs of SOV crosslingly on a map**

**Ouf of t 1377 Ls studied only 4 place O bf Su**

**Web 13.2:**

Ted Gibson et al. 2013 invoked this argument to explain the prevalence of certain word orders over others. Step-by-step, their logic goes like this:

1. Production constraints help to explain why it is far more common to see SUBJECT before the object word orders (but cannot explain why SOV and SVO orders are so much more common than VSO orders).

2. When creating a linguistic system from scratch, people seem to gravitate toward SOV as , as seen in newly-emerging languages like NSL or ABSL, as well as in research on gesturing.

3. The default SOV order can be overridden by speakers’ tendencies to insert a verb between the subject and object in order to preserve important information in the event that the linguistic signal gets corrupted in some way: Suppose you utter an SOV sentence like*the girl the boy kicks* but noise prevented hearing both NPs, so that only heard *the girl kicks* or *the boy kicks* where both the subject and object come before the verb, so who did the kicking is unclear.

But if uttered an SVO *the girl kicks the boy*, and one of the noun phrases is lost to noise, so that I hear *the girl kicks.*I may not know who or what the girl kicked, but I know that she is the one doing the kicking. Similarly, if I hear *kicks the boy*, I do not know who kicked the boy, but I do know what role he plays in the kicking event. Therefore, more information is preserved under noise with the SVO order.

But, are speakers really sensitive to these possibilities?

Experiment: people watched videos of simple events, and then communicated their content verbally and then by gesture. The events either involved two animate participants (a fireman kicking a girl) or an inanimate direct object (a rollerskater kicking a ball). When the event involved one inanimate participant, the pressure to avoid information loss by inserting a verb between the subject and object would be less severe because it would be easy for the addressee to infer which participant was doing what (the ball could not be doing the kicking). Therefore, when using gestures, they should be more likely to default SOV. But for events involving two animate entities, they should be more likely to use the information-preserving SVO order.

**EXPERIMENT:**

**What’s responsible for the fact that languages prefer marking inflectional info (tense, gender, etc.) by suffixing rather than prefixing?**

Speakers judge morpheme sequences to be “similar” (as when constituting a word as inflectional mrphms do) if attached to word-end;

sps see morpheme sequences as changing the word meaning entirely if attached to the beginning (as prefixes do).

Could this search for easier strs cause an **intergenerational language shift** (since new learners are already bent to overregularize the input they hear) causing the “harder” structures to drop out eventually and the easier strs to be preserved?

**IV. Communicative efficiency**

… speakers exploit options that make processing the input easier

… desire to avoid communicative breakdown

by avoiding ambiguities (if detected) and taking the hearer into account

e.g. Germ disambiguates by marking case and gender of the Noun on its article

vs. in Sinhalese case-marker is used only in potentially ambig situations - animate nouns could be either Subjects or Os

**What assumes the disambiguating fct in the given L?**

 WO in E > case marking system has eroded

CONCLUSION: Selective presence of **disambiguating** markers (e.g. inflection) suggests that Ls come to their full potential if sps are freed of unnecessary complexity and steered by t GR to provide enough info to avoid confusion

 Selective presence of inflect markers during Lt > Rom ls transition when only **markers that carry info kept**

**EXPERIMENT p. 492: artif L with SOV or OSV strs** + optional case-markers to mark both in/anim Os (but not preferring to mark anim nouns even if ambiguous interpretation could result):

 4 training sessions

 Q: Will learners reproduce a GR based solely on the input or redistribute the case-markers to be helpful and informative?

Garden-path sents and ways out of ambiguity

 Ambig of prons or of cert advs