Fitting our labeling system to the universal dependency (UD)

1. **nsubj** a nominal phrase which is syntactically a subject to a verb.
   1. Adopting this would mean that we have to abandon the distinction of Agent and Subject for VTA and VAI/VII/VTI verbs.
   2. If we need to, we can specify: **nsubj:sbj** (for vai, vii, vti, etc.) and **nsubj:ag** (for vta).
2. **csubj** same as **nsubj** but only with clauses (complement clauses).
   1. Same: **csubj:sbj** and **csubj:ag**.
3. **nsubjpass** a nominal phrase which is syntactically a subject for passive and middle voice.
4. **csubjpass** a clausal passive subject.
5. **dobj** entity acted upon. Any single object of transitive verb.
   1. Problem: This can make our secondary objects of ditransitive verbs into objects (but they are not expressed morphologically on the verb). Needless to say, all of the undergoers of the vta verbs would be that.
   2. Again, we can specify: **dobj:obj** (vti) and **dobj:ug** (vta)
6. **iobj** indirect object, an argument which is not a subject or a direct object.
   1. A benefactive (when another object is present), or a secondary object of a ditransitive verb.
7. **ccomp** clausal complement, a dependent clause that is a core argument (**dobj** or **iobj**)
   1. Similar to our COCL.OBJCT, COCL.OBJSE, COCL.OBJIM...., but now we don’t need to specify the exact dependency relation.
8. **~~xcomp~~** ~~open clausal complement without its own subject. Subject must be inherited from a fixed position in the higher clause. Also used for secondary predicates.~~
   1. ~~In our corpus, xcomp will neatly substitute the PRED role and sometimes SUCL.~~
9. **nmod** nominal modifier; a noun or NP functioning as a non-core (or oblique) argument – an adjunct.
   1. For us, pretty much all of the **adjct** would become **nmod**. But also, **objad**, **objim** & **instr**.
   2. We can add a marker for implied objects (vai.o/t and incorp): **nmod:impl**
10. **advcl** adverbial clause modifier. Must be a clause, depends on the predicate of the main clause.
    1. Our SUCL.
11. **advmod** adverbal modifier is an adverb or phrase that serves to modify the meaning of the word (not the whole clause as with advcl).
    1. In our data, PART and sometimes SKIP (iini’/uuni’ type constructions), but it may be worth distinguishing them. SKIP better fits the category of **compound**.
12. **~~neg~~** ~~negation modifier, depends on the content word that it modifies.~~ 
    1. ~~It is not really useful in our data because morphologically and syntactically it is just the same thing as either~~ **~~advmod~~** ~~or~~ **~~compound~~**~~.~~
13. **vocative** identical to ours.
14. **discourse** interjections and other discourse particles; dependent of the root.
    1. Unlike our DISC, this label includes interjections and fillers in addition to the discourse markers.
    2. Having indicated that our DISC depend on roots and interjections (UH) depend on the proceeding word, we can specify: **discourse:disc** (for markers like “wotii” and “’oh”) and **discourse:uh** (for interjections like “nihii”).
15. **~~expl~~** ~~expletive or pleonastic nominals (appear in argument position of a predicate but do not satisfy any of the semantic roles).~~
    1. ~~This is what our TOPIC does now.~~
16. **~~cop~~** ~~copula for “to be” relations. It is not root, but a dependent of the lexical predicate. Copula puts two subjects together.~~ 
    1. ~~It may be a more eloquent way of tagging the predicate (PRED) type relationships with such words like~~ **~~nee’ees~~** ~~or~~ **~~niiyou~~**~~.~~
17. **punct** punctuation relationship that attaches to the content words and never have other dependencies of its own.
    1. Jena suggests to add those automatically after-the-fact.
18. **nummod** numeric modifier for nouns.
    1. Since numbers are verbs in Arapaho, they shouldn’t be treated in this type of dependency. However, when we have number+iini’, we can use this label.
19. **appos** same as ours but the dependency is to the other noun, not the verb.
20. **acl** adjectival clause (modifier of a noun). The head is the noun that is being modified, dependent is the head of the clause.
    1. This is what our RLCL label does.
21. **det** determiner relationship between the noun and the determiner, same as ours.
22. **case** any case-marking element, dependents of the nouns or clauses that they attach to or introduce.
    1. some particles and instrumentals can be analyzed as this, but right now they are labeled as dependents of verbs, and nouns and clauses are labeled as their dependents. Taking up this label clarifies the OBJAD and INSTR category – now they will all be **nmod**.
23. **compound** used for noun compounds, number compounds or phrasal verbs.
    1. For us, the best use will be with detached adverbs and verbs: nih’iini’ wonwo’teno’ [1-2; compound].
    2. Also possessors can be used this dependency. So maybe have two different ones: **compound:detach** and **compound:poss**
24. **name** proper nouns consisting of multiple nominal elements. Just the relation between parts of a name not constituting dependency. All words in the name modify the first one in the chain.
    1. Will be useful for American names especially, but some Arapaho names will still need to be analyzed as dependencies according to this model.
25. **mwe** fixed multiword grammatical expression where each following unit is a dependent of the first word in the chain.
26. **foreign** the relationship between all of the foreign words. The head of the chain is the first one. The head is attached to the clause as per usual dependencies.
27. **goeswith** the dependency between two or more words that need to be one. Used when the text is poorly edited.
28. **conj** is the relationship between entities that are coordinated by a conjunction.
29. **cc** is the relationship between the first entity in the coordination and the conjunction.
    1. These are different than what we have, but they make better sense for the instances when the conjunction is missing.
    2. Veni, vidi, vici (1<--2; 1<--3: conj)
    3. Also should be used with separate clauses.
30. **dislocated** the relationship between the word and the predicate in cases when the word appears in an unusual argument position at the periphery.
    1. Since it is clearly defined as “not topic”, we may not need this label.
31. **parataxis** relation between a word and another element placed side-by-side without explicit coordination.
    1. Our ROOTP and CITE are this. To disambiguate, we can say **parataxis** and **parataxis:cite**
32. **remnant** the relation with the words of elided or gapped heads. Use this to avoid reconstruction (undesireable for dependencies).
    1. Instead of using empty root category, we can start using this. E.g., Marie went to Paris and Miriam to Prague [“went” is elided in the second clause, so Prague to Paris is remnant].
33. **reparandum** to indicated speech disfluencies, same as our REPR.
34. **root** Same. Can only be one per sentence.
35. **list** the chain of comparable items. All of the items modify the first one. Shouldn’t be used in cases of coordination. -???