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## Perseids Project - Treebanking Tools



## Perseids Project - Treebanked Commentaries at Tufts University

## https://perseids-project.github.io/harrington_trees/

Here you can access texts fully diagrammed and analyzed sentence by sentence, where every word, clause, and phrase is morphologically identified, syntactically labeled, and connected to the word or structure that it modifies: a treebank. This is a resource for making even the most complex Latin transparent, allowing students of the language at all levels to work toward a full appreciation of the semantic nuance of the texts.

There are links to instructions on how to use the treebanks and grammars of Latin and Greek optimized for clarity.

## Perseids Project - Treebanking Tools

http://sosol.perseids.org/sosol/signin
Here you can access the tools for creating your own treebanked texts for pedagogical experimentation/play within the classroom, or even to complete treebanks for publication.

Questions? Feel free to contact: Matthew Harrington, Senior Lecturer in Classical Languages and Archaeology matthew.harrington@tufts.edu

| BASIC | PRED | Predicate |
| :---: | :---: | :---: |
|  | PRED-HORT | Hortatory Subjunctive Predicate |
|  | PRED-DELIB | Deliberative Subjunctive Predicate |
|  | PRED-POTENT | T Potential Subjunctive Predicate |
|  | PRED-OPT | Optative Subjunctive Predicate |
|  | AUX | (Auxiliary words) |
|  | AUX-C | Subordinating Conjunction |
|  | AUX-P | Preposition |
|  | AUX-V | Auxiliary Verb |
|  | AUX-Y | Sentence Adverbial |
|  | AUX-G | Bracketing Punctuation (' ") |
|  | AUX-K | Final Punctuation (. ! ?) |
|  | AUX-X | Comma (or other non-final punctuation , ; :) |
|  | ATR | Attribute (i.e. adjectival modification) |
|  | ADV | Adverb (i.e. true morphological adverbs and indeclinable adverbials) |
|  | COORD | Coordinating Conjunction or element |
|  | APOS | Apposition |
|  | INTRJ | Interjection |
|  | PARENTH | Parenthesis (i.e. an aside to the audience external to the syntax of the sentence) |
| Nominative | N-SUBJ | Subject Nominative |
|  | N-PRED | Predicate Nominative |
| Genitive | G-POSS | Genitive of Possession |
|  | G-PART | Partitive Genitive |
|  | G-OBJEC | Objective Genitive |
|  | G-DESC | Genitive of Description |
|  | G-CHAR | Genitive of Characteristic |
|  | G-VALUE | Genitive of Value |
|  | G-MATER | Genitive of Material |
|  | G-CHARGE | Genitive of the Charge |
| Dative | D-IO | Indirect Object |
|  | D-INTER | Dative of Interest |
|  | D-POSS | Dative of Possession |
|  | D-REFER | Dative of Reference |
|  | D-AGENT | Dative of Agent |
|  | D-PURP | Dative of Purpose |
| Accusative | A-DO | Direct Object |
|  | A-INTOBJ | Interior Object |
|  | A-PRED | Predicate Accusative |
|  | A-SUBJ | Accusative Subject |
|  | A-ORIENT | Accusative of Orientation |
|  | A-EXTENT | Accusative of Extent |
|  | A-RESPECT | Accusative of Respect |
|  | A-ADVERB | Adverbial Accusative |
|  | A-EXCLAM | Accusative of Exclamation |


| Ablative | AB-ORIENT | Ablative of Orientation |
| :--- | :--- | :--- |
|  | AB-SEPAR | Ablative of Separation |
|  | AB-CAUSE | Ablative of Cause |
|  | AB-AGENT | Ablative of Agent |
|  | AB-ABSOL | Ablative Absolute |
|  | AB-COMPAR | Ablative of Comparison |
|  | AB-LOCAT | Ablative of Location |
|  | AB-RESPECT | Ablative of Respect |
|  | AB-ACCOMP | Ablative of Accompaniment |
|  | AB-DESCRIP | Ablative of Description |

## I. DEPENDENCY GRAMMAR

In essence, Latin words and constructions have one modification: one syntactic relationship with another word or structure within the sentence: e.g. an adjective modifies its noun, a nominative subject modifies its verb, a result clause modifies a verbal form in its main clause, et cētera. A form is dependent on the word or structure that it modifies, and this dependency is visualized by hanging (dēpendere) the word from the word or structure that it modifies.

Crucially, word order in Latin is both semantic and syntactic, so the Latin must be constructed with the left to right sequence foremost, with each syntactic expectation resolved by connection to the needed form in sequence within its own clause or level of subordination. ${ }^{1}$ Similarly, the semantic force of verbal (and other) forms directs the reading of many of the forms that modify them: e.g. only certain verbs will construe with a Complimentary Infinitive; an infinitive modifying a verb that is not from this set of verbs would thus not be a Complimentary Infinitive, no matter how similar the syntax appeared.

It is important to realize that many of the terms for case usages or types of construction also describe the semantic force of the construction, not just the syntax:e.g. Direct Object and Interior Object are both accusative (morphologically) adverbial modifiers (syntactically), but their semantic force is distinct, and thus requires a different descriptive tag.

## II. TAG-SET INSTRUCTIONS

A. Substantives (nouns, pronouns, and adjectives functioning as nouns) are labeled with the appropriate tag for their particular case usage: e.g. an accusative adjective functioning as a Direct Object uses the A-DO tag.

Adjectives that modify other words - use the ATR (attribute) tag in the "BASIC" pull-down menu. The adjective is just agreeing with its head; it is not the Direct Object, for example. ${ }^{2}$
B. Subordinated Clauses (nominal, adjectival, and adverbial clauses) are labeled on the highest verbal form in the clause ${ }^{3}$ with the appropriate tag for their particular clause usage: e.g. a Purpose Clause uses the ADVPURP tag. Nominal clauses must also be labeled with the appropriate functional tag in the second (right hand) pull-down menu (_OBJ, _SBJ,_PRED ): e.g. an Indirect Statement functioning as an Object uses the NOMINDSTAT tag with the _OBJ modifier in the second (right hand) pull-down menu.

Subordinating Conjunctions - use the AuxC (subordinator) tag in the "BASIC" pull-down menu: e.g. cum, dummodo, etsī, modo, nē, nisi, quam, quamquam, quamvīs, quand̄, quasi, quia, quod, quoniam, sī, sīn, sìve, tametsī, tamquam, unde, ut, utī, velut. Note that some words can be used as prepositions AuxP or as subordinators AuxC: e.g. cum.
C. Coordination - coordinating conjunctions are labeled with the COORD tag in the "BASIC" pull-down menu. The elements that are so coordinated (linked under the coordinator) are labeled with the _CO tag in the second (right hand) pull-down menu, in addition to their own proper tag in the first (left hand) pull-down menu: (e.g. conjunctive: et, atque, ac, -que; adversative: sed, at; disjunctive: aut, vel, -ve). In the case of the

[^0]combined forms (ne)-que, (ne)-c, the ne is adverbial (ADV) typically modifying a verbal form, and the enclitic $q u e,-c$ functions as a coordinator (COORD).

Asyndeton - frequently, Latin authors do not use coordinating conjunctions. In these instances, the editor of the text has usually added commas, which can be used in place of conjunctions in the tree and labeled with the COORD tag in the BASIC pull-down menu. If no commas are available, add an ellipsis with the coordinator $e t$ within parentheses (cf. section E below) to represent the coordination: i.e. (et).

Polysyndeton - frequently, Latin authors use more coordinating conjunctions than strictly required. The "extra" coordinators have an adverbial force, conveying something like "and even" or "also." In these instances, the "extra" coordinators are adverbial in function and should be labeled with the ADV tag in the "BASIC" pull-down menu: e.g. the second and third coordinators in "et... et... que."
"Nested" Coordination - frequently, Latin authors create larger structures (often balanced) using coordinating conjunctions to group some elements of the coordination more closely than others. In these instances, the "extra" coordinators are dependent on another coordinator and function as true coordinators (COORD) of other coordinated elements: e.g. A et B aut C et D ( A is directly coordinated to $B$, but not to $C$; the unit $A B$ is coordinated to the unit $C D$ ).

Differential Emphasis in Coordination - The various coordinators do not have the same semantic force, particularly in the case of atque/ac, which conveys more the sense of "and indeed" than the unmarked "and" conveyed by et. For example, the earlier (often two) elements will be coordinated by et, while the final (often more elaborated) element will be coordinated with atque/ac: the first two elements are coordinated, and that combined unit is coordinated with the more strongly emphasized (by atque/ac) final element.

Sentence Connecting Coordinators - Latin sentences often begin with the coordinators et or sed functioning to join the sentence to the ideas of the previous sentence. In these instances, that coordinator is placed directly under the ROOT and should be labeled with the COORD tag in the BASIC pull-down menu. The predicate is placed under the sentence connecting coordinator.
D. Apposition -When two (or more) elements are in apposition (the element(s) later in sequence rename the first element) they are labeled with the _AP tag in the second (right hand) pull-down menu, in addition to their own proper tag in the first (left hand) pull-down menu: e.g. A-DO_AP

Nota Bene - in Latin, there is no word that signals apposition, and thus there is nothing specific from which to hang the forms in apposition. In these instances, if the editor of the text has added a comma, this can be used to join the elements in apposition in the tree and the comma is labeled with the APOS tag in the "BASIC" pull-down menu. If there is no comma that can be used, it is necessary to create an ellipsis (cf. section E below) using a pair of square brackets with a single space between them to stand for an appositional node: i.e. [ ].
E. Ellipsis - Latin authors frequently do not repeat verbs that would be used in parallel clauses, they omit forms of esse, or do not use coordination. These instances are not mistakes; the forms are just not necessary, and would even harm the stylistics of the author - were they present. For the sake of clarity, however, such forms are represented in the tree with an ellipsis character. (DO NOT ADD UNNECESSARY ELLIPSES.)

Add an Ellipsis character:

1. Click the "aT" tab at the top right of the editor window;
2. click the "Create" button;
3. click the cross-hairs button under "Insertion Point";
4. select the word or punctuation next to the place where the "elided" word would have been, and click the arrow at right to select in front of or behind the selected word;
5. fill in the appropriate form within parentheses: e.g. (est), (et), or [ ] for an apposition or coordination;
6. click the "Add Token" button;
7. link the ellipsis character to the tree as if it were the "missing" element.
F. Modification of a Coordinated Structure - When an adjective, Subject Nominative, or other modifier modifies all parts of a coordinated structure, it is dependent on (hangs under) the coordinator, indicating that it modifies all of the coordinated forms hanging under the coordinator and marked with the _CO tag.

Ablative Absolutes - the noun is placed under (hangs from) the verbal adjective; both are labeled with the ABASOL tag in the "ablative" pull-down menu: e.g. Caesare dīcente - Caesare is placed under dīcente. If there is no participle, place the adjective or title under the name or pronoun: e.g. me consule - consule is placed under me; Caesare v $\bar{\imath} v \bar{o}-v \bar{\imath} v \bar{o}$ is placed under Caesare.

Adjectives with "Unusual" Cases or Constructions - There are a few Latin adjectives and participles that routinely attract standard uses of specific cases or constructions, exemplī gratiā:
dignus - typically attracts an Ablative of Respect AB-RESPECT to express in respect to what factor something is worthy
parātus - typically attracts a Complimentary Infinitive INF-COMP to express what something is prepared to do

Adverbs and Adverbials - use the ADV (adverbial) tag in the "BASIC" pull-down menu. Use this tag for true morphological adverbs like sevērē or tristiter, as well as for words of obscured origin like diū and fossilized adverbial accusatives like sensim: e.g. adeo, etiam, ita, item, nec, non, nondum, numquam, nunc, omnino, praecipue, quantum, quasi, quoque, statim, tantum, tunc, and umquam. ${ }^{4}$ Adverbial forms most frequently modify verbal forms, but they may modify adjectives, nouns, and even other adverbial forms.

Clause of Comparison - The clause of comparison will be dependent on the comparative form within its main clause, or it will be dependent on the verbal form that it compares the manner of action with. Use the AuxC (subordinating conjunction) tag in the "BASIC" pull-down menu for the subordinator: e.g. tamquam, quasi, quam. Use the ADV-COMPAR (Clause of Comparison) tag for the highest verbal form within the clause; note that a clause of comparison usually does not have an explicit verbal form within it; it is commonly necessary to add the appropriate verbal form that is understood from the context by adding a form in parentheses (e.g. (est) ) using the procedure in section E. (In addition to comparative adjectives and adverbs, there are many other forms that have an idea of comparison: e.g. aliter, alius, ante, post, et cētera.)

Correlatives - The indefinite correlative (and its clause) is dependent on the demonstrative correlative: qualis is dependent on talis. The Q form explains the exact semantic force of the T form.

[^1]Dates - The date may be expressed simply by an Ablative of Location arranged before a prepositional phrase with ante and an Accusative of Orientation using Kalendae, Nōnnae, or Īdūs: e.g. tertiō diē ante Kalendās Iānuāriās or elided as tertiō Kalendās Iānuāriās. (The names of the months are adjectives that depend on the Kalendae, Nōnnae, or $\bar{I} d \bar{u} s$ and are tagged with ATR.) Similarly, prīdiē and postrīdiē are used as Ablative of Location followed by an Accusative of Orientation: e.g. prīdiē Kalendās Iānuāriās. The standard formulation of the date in many authors is effectively ungrammatical and may result from transpositions of ante coupled with reanalysis of diē into diem: e.g. ante diem III Kalendās Iānuāriās. The element [ ante diem ] functions as an indeclinable phrase, even being employed as "object" of other prepositions: e.g. ex ante diem III Kalendās Iānuāriās (from the third day before the January Kalends).

Genitive describing/specifying - The adjectival force of the Genitive may be foremost, with the effect of describing or specifying what type of thing it limits: e.g. liber lēgum Genitive of Description G-DESC. When the genitive word describes the material from which the limited object is made, the more specific Genitive of Material G-MATER is used: e.g. annulus aurī. Some examples of this use of the genitive are sometime termed a genitive of definition or specification.

Indirect Speech (sustained or implied without a subordinating verbal form) - In extended speeches, it is typical to not repeat the subordinating verbal form as the Predicate: e.g. dīcit. In these instances, the last explicit verbal form should be carried forward as an ellipsis in the following sentences, using the procedure in Section E: e.g. (dīcit) as the Predicate.

Infinitives - use the appropriate tag in the "infinitive uses" pull-down menu to label these neuter, verbal nouns:
INF-COMP Complimentary Infinitives (functioning as the Direct Objects of certain verbs)
INF-HIST Historical Infinitives (functioning as the Predicate)
INF-EXPL Explanatory Infinitives (modifying certain adjectives)
INF-PURP Infinitives of Purpose (functioning as the Direct Objects of certain verbs) N-SUBJ Subject Infinitives (functioning as the Subjects of certain verbs, especially of impersonal verbs.)

Interjections - Distinct from sentence adverbials (e.g. inferential particles like igitur ), interjections are somewhat separate from the syntactic structure of the sentence, much like a Vocative form: e.g. attatae, ecce, en, euge, eugepae, euhoe, hahahae, hem, heu, papae, st, vae. Interjections typically hang from the predicate, or sometimes a subordinated verbal form. Use the INTRJ (interjection) tag in the "BASIC" pulldown menu to label the interjection. Note that Accusative forms used as interjections (e.g. malum ) are accusatives of exclamation and are labeled with the A-EXCLAM tag, and Vocative forms invoking a god (e.g. Hercule, mehercule) are labeled with the V-VOC tag.

Locatives - use the L-LOCAT tag in the pull-down menu. A noun in the locative case functions like an Ablative of Location. Locative forms were in common use only for the names of cities, islands, and [ dom $\bar{\imath}$, humī , rūr̄, forīs , mīlitiae , bellī , animī ]; Locative forms indicating time were [ herī , vesperī , temperı̄ ].

Names - use the ATR (attribute) tag in the "BASIC" pull-down menu to label praenomina and cognomina, which hang from the nomen. The nomen is labeled based on its case function. Any period after the abbreviated praenomen is labeled with AuxG and hangs from the praenomen. (The nomen is typically an adjective, but the praenomen is a noun, as is sometimes the cognomen. Thus the Basilica Iülia is the Julian Basilica, not the Basilica of Julius: i.e. Basilica Iūlī̄.) When the author does not include the nomen, it should be added using the ellipsis procedure in Section E above: e.g. Ti. Neronem becomes Ti. (Claudium) Neronem, and both the praenomen Ti . And the cognomen Neronem hang from the nomen (Claudium).

Negation - use the ADV (adverbial) tag in the "BASIC" pull-down menu: e.g. nōn, nē, or ni-. Note that some words can be used as negation (ADV) or as subordinators (AuxC): e.g. nē.
ne quidem - use the ADV (adverbial) tag in the "BASIC" pull-down menu to label both the ne and the quidem; the $n e$ is dependent on the quidem, which is dependent on whatever work is emphasized: i.e. the word between the ne and the quidem.

Ordinal Numbers used Adverbially - use the A-ADVERB tag in the "accusative" pull-down menu, indicating that these accusative, neuter, singular forms modify adverbially: e.g. consul tertium id fēcit (while being consul the third time he made it); tertium does not agree with consul or modify fécit, but it modifies the verbal idea of being consul.

Parenthetical Statements - Parenthetical statements are complete statements that are not joined to the sentence using coordination or subordination (a grammatically independent structure within another sentence); they are frequently an aside from the speaker embedded within another sentence, much like an Interjection. Hang the Parenthetical Statement from the first punctuation that separates it from the sentence, and hang the punctuation from the structure in the sentence that occasions the aside - usually a verbal form and often the Predicate. Label the connecting punctuation with the PARENTH tag in the "BASIC" pull-down menu the highest verbal form with the appropriate PRED tag in the "BASIC" pull-down menu. Many apparent asides are, however, abbreviated or atypical Causal Clauses or the like: i.e. they actually explain or otherwise modify the main clause, despite not using a common subordinator.

Periphrastic Verbal Forms - the auxiliary verbal form is taken as being dependent on (hangs under) the verbal adjective in the periphrastic forms. Use the AuxV (auxiliary verbal form) tag in the "BASIC" pull-down menu for finite verbs and infinitives used in a periphrastic verbal form: e.g. futūrus est, amātum esse, or amanda sit. ${ }^{5}$ Note that the Future Passive Infinitive uses an accusative supine expressing purpose (AOrient), which is dependent on the infinitive $\bar{r} r \bar{\imath}$ : e.g. nocitum $\bar{\imath} r \bar{\imath}-n o c i t u m$ is dependent on $\bar{i} r \bar{l}$.

Predicate - if they are indicative, the verb or verbs of the independent clause are labeled with the PRED tag in the "BASIC" pull-down menu; if they are subjunctive, use the tags in the pull-down menu within the PRED tag:

PRED-HORT hortatory subjunctive
PRED-DELIB deliberative subjunctive
PRED-POTENT potential subjunctive
PRED-OPT optative subjunctive
The predicate may be coordinated, like any other structure.
Prepositions - use the AuxP (preposition) tag in the "Aux" pull-down menu located in the "BASIC" pull-down menu: e.g. $d \bar{e}, a d$, or inter. Note that some words can be used as prepositions or as adverbials: e.g. "ante". Remember that the case use attracts certain prepositions; the prepositions do not cause the case. Prepositions may themselves be modified by adverbial forms: e.g. in "иsque ad oppidum", usque (all the way) modifies the idea of "ad" (towards), in "unā cum cēterīs", un̄̄ (at one) modifies the idea of "cum" (with). Label the substantive under the preposition with the appropriate tag for its particular clause usage, almost always Accusative or Ablative and usually matching as below:

[^2]| ad | Accusative of Orientation | inter | Accusative of Extent |
| :---: | :---: | :---: | :---: |
| adversus | Accusative of Orientation | per | Accusative of Extent |
| adversum | Accusative of Orientation | trāns (motion) | Accusative of Extent |
| ante | Accusative of Orientation |  |  |
| circā | Accusative of Orientation | cōram | Ablative of Orientation |
| circum | Accusative of Orientation | dē | Ablative of Orientation |
| cis/citrā | Accusative of Orientation | palam | Ablative of Orientation |
| contrā | Accusative of Orientation | procul $\bar{a} / \mathrm{ab}$ | Ablative of Orientation |
| ergā | Accusative of Orientation | tenus | Ablative of Orientation |
| extrā | Accusative of Orientation |  |  |
| in (motion) | Accusative of Orientation | a/ab/abs A | lative of Orientation |
| īnfrā | Accusative of Orientation |  | lative of Cause (more rare) |
| intrā | Accusative of Orientation | E/ex $\quad A$ | lative of Orientation |
| iūxtā | Accusative of Orientation |  | lative of Cause (more rare) |
| ob | Accusative of Orientation |  |  |
| penes | Accusative of Orientation | in (location) | Ablative of Location |
| post | Accusative of Orientation | prae | Ablative of Location |
| pōne | Accusative of Orientation | prō | Ablative of Location |
| praeter | Accusative of Orientation | prōpe | Ablative of Location |
| prope | Accusative of Orientation | sub (location) | Ablative of Location |
| propter | Accusative of Orientation | subter (location) | Ablative of Location |
| secundum | Accusative of Orientation | super (location) | Ablative of Location |
| sub (motion) | Accusative of Orientation |  |  |
| subter (motion) | Accusative of Orientation | cum Ablati | tive of Accompaniment |
| super (motion) | Accusative of Orientation | Ablative of Manner (more rare) |  |
| suprā | Accusative of Orientation |  |  |
| trāns (position) | Accusative of Orientation | absque Ablativsine | lative of Separation |
| ultrā | Accusative of Orientation |  | ve of Separation |
| versus | Accusative of Orientation | Abla | ve of Manner (more rare) |
| apud | Accusative of Extent | tenus | Objective Genitive |

Pronouns (used adjectivally) - Pronouns that adjectivally modify another word are tagged with ATR: e.g. eōdem modō.

Punctuation - When not otherwise needed to stand for coordination or apposition within a syntactic tree:

1. Commas (AuxX) and quotation marks (AuxG) are hung from the highest verbal form of the clause that necessitates their existence: e.g. a comma separating a Purpose Clause from the main clause hangs from the highest verbal form of the Purpose Clause, since the comma would not be there except to separate that clause from the Main Clause. (Do not hand them from the AuxC.)
2. Commas between elements in coordination are hung from the coordinator and retain their AuxX tag.
3. Final punctuation (.!?) remains hanging on the ROOT and retains its AuxK tag.
4. Colons and semicolons (;:) that separate clauses or other structures but do not end the sentence (e.g. in a list of statements) are marked with the AuxX tag.
5. Parentheses, brackets, and hyphens are labeled with the AuxG tag

Relative Clause - In most instances, a Relative Clause just functions as an adjectival modifier of its antecedent,
in which case it is labeled with the ADJ-RC tag; however, a Relative Clause frequently stands without an
antecedent as an object or subject of a verbal form. In these cases, use the _OBJ or _SBJ modifier in the second (right hand) pull-down menu.

Relative Pronoun - The Relative Pronoun is tagged with the case tag specific to its role within its clause. It hangs from whatever form it is dependent due to its particular case usage.

Sentence Coordinators - Coordinators (e.g. et, sed, ac, atque, autem) are often used to link sentences semantically rather than to link structures within a particular sentence. These coordinators often come first in sequence and depend on the ROOT. The predicate hanging under such a sentence coordinator is not marked with the _CO tag.

Verbs with "Unusual" Cases - In addition to intransitive verbs (those that do not take an accusative Direct Object), there are a few Latin verbs that routinely attract standard uses of other cases or constructions; these case usages are congruent with the semantic force of the Latin verb - not the syntax of the verb in any potential English translations: exempl̄ gratiā:
auferre - typically attracts a Dative of Interest D-INTER to express who is harmed by the removal of the Direct Object (the dative case cannot express motion away from something; there is no dative of separation)
bibere - sometimes construed with an Ablative of Orientation (with or without a preposition) to indicate from what vessel something in drunk.
decet - most frequently used in an impersonal manner with an infinitive or a nominal clause as the Subject. clause as the subject and attracts a Direct Object (person) A-DO to indicate for whom an action is fitting. doceō - typically attracts a Direct Object (person) A-DO with an infinitive Interior Object A-INTOBJ to express what content the person is being taught; may occur without the Direct Object (person) A-DO being explicitly stated.
frū̄ - attracts an Ablative of Means AB-MEANS or other instrumental ablative - to enjoy oneself by means of something
imperāre - typically attracts a personal Dative Indirect Object D-IO - to give a command to
iubēre - typically attracts a personal Direct Object A-DO and an infinitive Interior Object A-INTOBJ - to order X to do Y , in the passive X (nominative) is commanded to do Y (still infinitive Interior Object); sometimes attracts a substantive noun clause as Interior Object.
libet - impersonal usage with a nominative demonstrative or relative pronoun, or an infinitive or substantive noun clause as the Subject. Attracts a Dative of Reference D-REFER to indicate for whom something is pleasing.
licet - attracts a Dative of Reference (person) D-REFER and an infinitive as its Nominative Subject
memminisse - attracts the Objective Genitive G-OBJEC - to be mindful of
miserārī - in poetry often attracts an Objective Genitive instead of a Direct Object
miserēre - attracts an Objective Genitive and/or a Direct Object (person)
oportet - takes an Indirect Speech as its Subject
paenitet - a Direct Object (person) A-DO with an Objective Genitive to express what the regret concerns
parcere - attracts a Dative of Interest D-INTER to indicate in whose interest mercy is shown
parēre - typically attracts a Dative of Interest D-INTER - to render obedience unto
piget - cause someone - Direct Object A-DO - to have a disgust of something - Objective Genitive GOBJEC
placet - attracts a Dative of Reference (person) D-REFER and an infinitive as its Nominative Subject taedet - attracts a Direct Object (person) A-DO with an Objective Genitive G-OBJEC to express what the regret concerns
utī - attracts an Ablative of Means AB-MEANS or other instrumental ablative - to set oneself to work by means of
vidērī - attracts a Dative of Reference D-REFER to indicate to whom X seems to be Y
Vocatives - use the V-VOC tag in the pull-down menu, indicating that they are not part of the syntactic structure of the tree. A vocative normally depends on the main verbal form of the independent clause.

AuxY (sentence adverbials) - many adverbial forms (not generally true morphological adverbs) most often emphasize the sentence (independent clause) as a whole, rather than a particular word within the sentence: e.g. alias, consequens, certe, contra, enim, ergo, ideo, igitur, inde, ita, item, num, praeterea, propterea, sane, tamen, unde, utrum, and vero. Note that most adverbial forms can be used in multiple manners, although Aux Y may predominate. The AuxY most typically depends on the highest verbal form or coordinator, since it usually modifies the entire sentence.

## III. MORPHOLOGY INSTRUCTIONS

A. Label a word based on its morphology, not its function: e.g. a substantive adjective is morphologically an adjective, NOT a noun. (Most of the names of ethnicities/peoples are adjectives: e.g. Rōmānī.)
B. Know what you are looking for before selecting the morphological analysis. (Multiple distinct forms may derive from the same or similar roots; check the dictionary entries to be certain of the correct form.) If the precisely correct form is not present, you must create a new form: (DO NOT ADD UNNECESSARY FORMS.)

Create a new morphological analysis:

1. In the "Morph" tab at the top right of the editor window;
2. click the "Create new form" button;
3. in the "Lemma" box add the first word of the dictionary entry: e.g. Caesar instead of Caesare (in the case of abbreviations, use the complete word: e.g. M. would be Marcus);
4. select the part of speech in the "Part of Speech" pull-down menu (participles, gerundives, gerunds, ${ }^{6}$ supines, ${ }^{7}$ and infinities are lumped under "verb" and differentiated in the "Mood" drop-down menu);
5. select the properties of the word in the drop-down menus that appear;
6. when all properties are complete, ${ }^{8}$ click the "Save" button.
C. Make sure that the selected morphology and the syntactic TAG are in agreement: i.e. do not label consule $\mathrm{AB}-\mathrm{ABSOL}$ and then identify the morphology as the dative of consul. (Check in both directions.)
D. Relative pronouns are derived from the form [ qui2 ], and interrogative adjectives are derived from the form [ qui2 ]. Interrogative pronouns are derived from the form [ quis2 ].
[^3]| BASIC | PRED <br> AUX $\begin{aligned} & \text { AUX-C } \\ & \text { AUX-P } \\ & \text { AUX-V } \\ & \text { AUX-Y } \\ & \text { AUX-G } \\ & \text { AUX-K } \\ & \text { AUX-X } \end{aligned}$ <br> ATR <br> ADV <br> COORD <br> APOS <br> INTRJ <br> PARENTH | PRED-HORT <br> PRED-DELIB <br> PRED-POTENT <br> PRED-OPT <br> (Auxiliary words) <br> Subordinating Conjunction <br> Preposition <br> Auxiliary Verb <br> Sentence Adverbial <br> Bracketing Punctuation ( ${ }^{\prime \prime}$ ) <br> Final Punctuation (.; ) <br> Comma (or other non-final punctuation , : - ) <br> Attribute (i.e. adjectival modification) <br> Adverb (i.e. true morphological adverbs and indeclinable adverbials) <br> Coordinating Conjunction or element <br> Apposition <br> Interjection <br> Parenthesis (i.e. an aside to the audience external to the syntax of the sentence) |
| :---: | :---: | :---: |
| Nominative | N-SUBJ <br> N-PRED | Subject Nominative Predicate Nominative |
| Genitive | G-POSS <br> G-PART <br> G-OBJEC <br> G-DESC <br> G-VALUE <br> G-MATER <br> G-CHARGE <br> G-TIMEWW <br> G-ORIENT <br> G-SOURCE <br> G-SEPAR <br> G-CAUSE <br> G-AGENT <br> G-ABSOL <br> G-COMPAR <br> G-ACCOMP | Genitive of Possession <br> Partitive Genitive <br> Objective Genitive <br> Genitive of Description <br> Genitive of Value <br> Genitive of Material <br> Genitive of the Charge <br> Genitive of the Time Within Which <br> Genitive of Orientation <br> Genitive of the Source <br> Genitive of Separation <br> Genitive of Cause <br> Genitive of Agent <br> Genitive Absolute <br> Genitive of Comparison <br> Genitive of Accompaniment |
| Dative | D-IO <br> D-INTER <br> D-POSS <br> D-REFER <br> D-AGENT <br> D-LOCAT <br> D-RESPECT <br> D-ACCOMP <br> D-MEANS <br> D-MANN <br> D-DEGDIF | Indirect Object <br> Dative of Interest <br> Dative of Possession <br> Dative of Reference <br> Dative of Agent <br> Dative of Location <br> Dative of Respect <br> Dative of Accompaniment <br> Dative of Means <br> Dative of Manner <br> Dative of Degree of the Difference |
| Accusative | $\begin{aligned} & \text { A-DO } \\ & \text { A-INTOBJ } \\ & \text { A-PRED } \end{aligned}$ | Direct Object <br> Interior Object <br> Predicate Accusative |


|  | A-SUBJ | Subject Accusative |
| :--- | :--- | :--- |
|  | A-ORIENT | Accusative of Orientation |
|  | A-EXTENT | Accusative of Extent |
|  | A-RESPECT | Accusative of Respect |
|  | A-ADVERB | Adverbial Accusative |
|  | A-ABSOL | Accusative Absolute |
| V-VOC |  |  |


| adjectival clause | ADJ-RC | Relative Clause |
| :---: | :---: | :---: |
| adverbial clause | ADV-PURP | Purpose Clause |
|  | ADV-RESULT | Result Clause |
|  | ADV-PROTAS | Conditional Protasis |
|  | ADV-TEMPOR | Temporal Clause |
|  | ADV-CIRCUMS | Circumstantial Clause |
|  | ADV-CAUSAL | Causal Clause |
|  | ADV-CONCESS | Concessive Clause |
|  | ADV-COMPAR | Clause of Comparison |
|  | ADV-PROVISO | Proviso Clause |
|  | ADV-RCPURP | Relative Clause of Purpose |
|  | ADV-RCRESULT | Relative Clause of Result |
|  | ADV-RCCONDIT | Conditional Relative Clause |
|  | ADV-RCCAUSAL | Causal Relative Clause |
| nominal clause | NOM-EFFORT | Object Clause of Effort |
|  | NOM-FEARCL | Fear Clause |
|  | NOM-INDQUES | Indirect Question |
|  | NOM-INDSTAT | Indirect Statement |
|  | NOM-DIRSTAT | Direct Statement |
| participle uses | CP-TEMPOR | Temporal Circumstantial Participle |
|  | CP-CAUSAL | Causal Circumstantial Participle |
|  | CP-CONCESS | Concessive Circumstantial Participle |
|  | CP-CONDIT | Conditional Circumstantial Participle |
|  | CP-FPPURP | Future Participle of Purpose |
|  | SP-SUPPL | Supplementary Participle |
| infinitive uses | INF-COMP | Complimentary Infinitive |
|  | INF-EXPL | Explanatory Infinitive |
|  | INF-IMPER | Imperatival Infinitive |


[^0]:    ${ }^{1}$ An obvious example of misconstruing syntactic connection based on reading out of sequence is the error of taking the verb of a Relative Clause as the main verb of the sentence. Much less obvious forms of error are avoided by recursively considering the word order in determining modification.
    ${ }^{2}$ Pronouns functioning adjectivally are also labeled with the ATR tag: e.g. ē̄ diē.
    ${ }^{3}$ A result clause, for example, would be labeled on the verb under the "ut", not on the "ut" itself.

[^1]:    ${ }^{4}$ For forms using productive case usages like "multo" (ablative of the degree of difference) and "multum" (adverbial accusative), use the appropriate case usage tag. A productive case usage is a case form that can be normally produced from a word in common usage. Multus, $-a$, -um normally produces both multo and multum as part of its declension.

[^2]:    ${ }^{5}$ Since forms of [esse ] are often omitted, placing the participle above them in the tree results in uniformity of arrangement between instance where they are present and when they are absent. Further, the main verbal force of the periphrastic verb is contained in the participle, with the form of [ esse ] merely supplying tense and mood, or marking the usage as infinitive.

[^3]:    ${ }^{6}$ All gerunds have no Person, but are singular, present, active/deponent; their case cannot be Nominative.
    ${ }^{7}$ All supines have no Person, but are singular, present, active/deponent; their case can only be Accusative or Ablative, with arguably a vanishingly few archaic Dative examples.
    ${ }^{8}$ All Adjectives and Adverbs should have their degree specified; "ordinary" adjectives or adverbs are in the Positive Degree.

