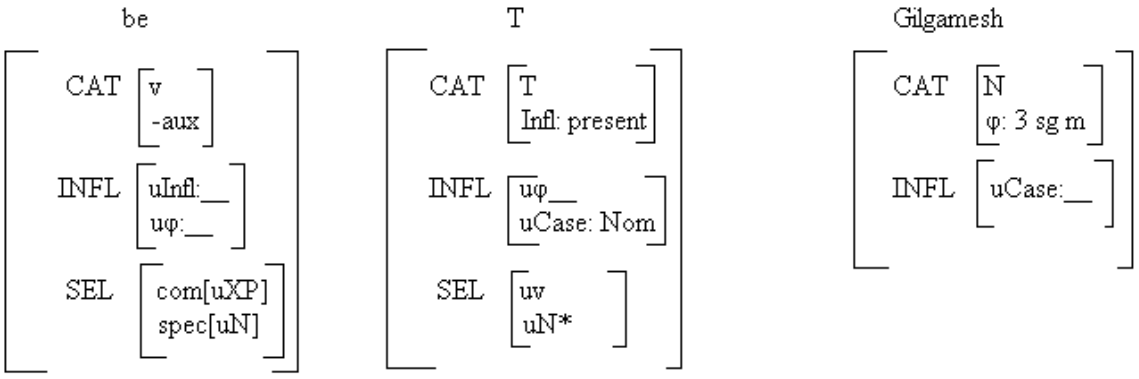
Copula Assignment

The purpose of this assignment is to investigate the role the copula plays in the derivation of TPs. To begin, let us look at the following sentences:

1. Gilgamesh is in the dungeon
2. Shamash is a dangerous sorcerer
3. Tiamat is extremely evil

If we assume that "be" is version of little *v*, taking as its specifier the subject, and as its complement the PP, NP, or AP that follows, we can produce the following derivation. Since we are interested in the role that "be" plays, we will not pay much attention to the complements of it, and simply present them as given.[1] We will begin with the following numeration.

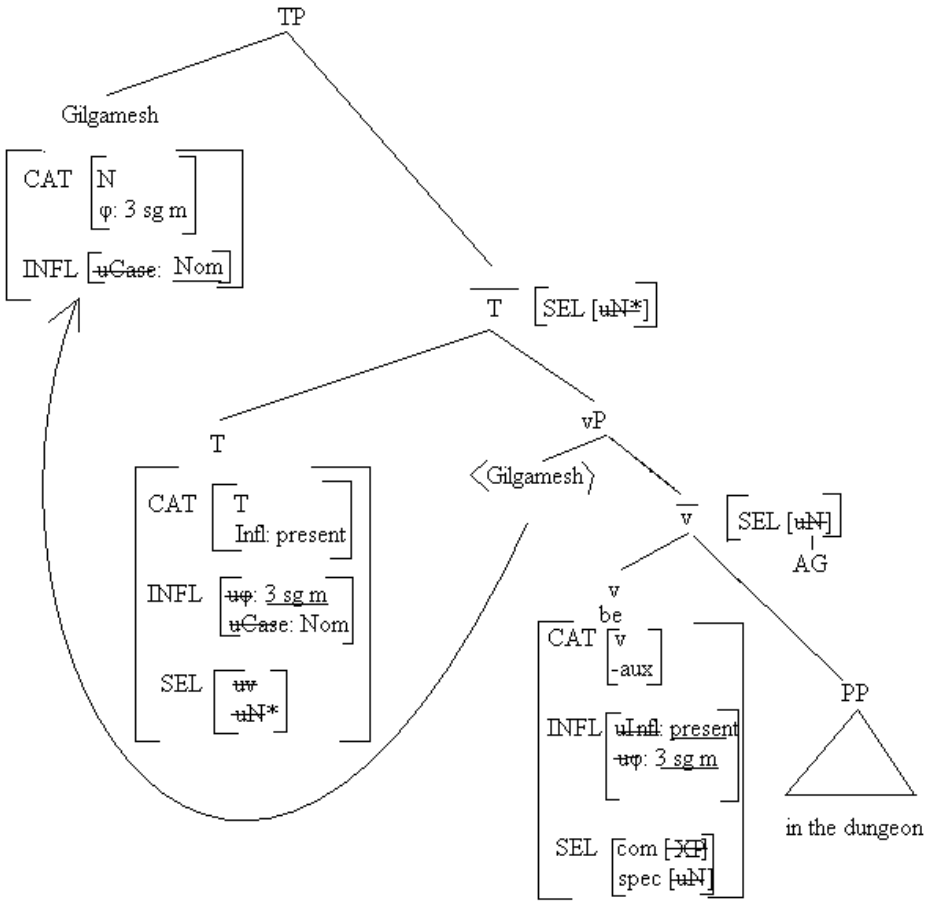
4.



From this set of feature bundles, we can construct the phrase structure that fills in the unvalued features and checks the uninterpretable features, yielding the grammatical sentence in (1).

[1] For the diagrams of the other sentences, simply replace the PP "in the dungeon" triangle with either the NP "a dangerous sorcerer" or the AP "extremely evil;" and Gilgamesh with either "Shamash" or "Tiamat."

(5)



In (5), note that underlined feature specifications indicate originally unvalued features, shown in (4), while crossed-out features are those that have been checked. We see that the PP 'in the dungeon' is Merged with *v*, which is here realized as a form of "be." Little *v* has [-aux] and [*v*] as its Category features, and the un-valued [uInfl:___], [uφ:___] in its Inflectional features. In addition, little *v* selects a complement of optional value (XP) and a specifier that must be an N. Its complement Selectional feature is checked when it Merged with the PP "in the dungeon," but its specifier Selectional feature, which selects for an Agent, is passed up to *v*-bar. Little *v*-bar then Merges with the NP "Gilgamesh," thus checking the specifier Selectional feature on *v*. However, *v* still has unvalued [uInfl:___] and [uφ:___] Inflectional features to be valued. These values are supplied by T and "Gilgamesh," respectively.

T has two Selectional features: [u*v*] and [uN*]. The feature [u*v*] is checked by Merging T onto the completed, but unvalued for [Infl:__] and [φ:__], *v*P "Gilgamesh [be] in the dungeon." The strong [N*] Selectional feature is passed up to T-bar, and is finally checked by Moving the NP "Gilgamesh" from its position as a specifier of *v* to a position as a sister to T.

At this point, a number of different Agreement operations take place, to satisfy all the various unvalued features. The Category φ-features of "Gilgamesh" trigger agreement with both T's and *v*'s unvalued [uφ:__] Inflectional features, checking them

6. Agree (Gilgamesh, T; φ)
7. Agree (Gilgamesh, *v*; φ)[2]

At the same time, the [uCase: Nom] Inflectional feature on T, which shows that the subject of the sentence must be in the nominative case, but is as yet uninterpretable to the morphology, triggers agreement with the unvalued [uCase:___] Inflectional figure on Gilgamesh.

8: Agree (T, Gilgamesh; Case)

The [Infl: present] Category features on T also trigger agreement with the unvalued [uInfl:__] Inflectional features on *v*:

9: Agree (T, *v*; Infl)

The result of all these agreement operations is that all unvalued features are now valued, and thus checked and interpretable to the morphology. On "Gilgamesh," [uCase:__] has become [~~uCase~~:Nom]. On T, [uCase: Nom] and [uφ:__] have become [~~uCase~~: Nom] and [~~uφ~~: 3 sg m]. On *v*, [uInfl:__] and [uφ:__] have become [~~uInfl~~: present] and [~~uφ~~: 3 sg m]. The final, grammatical sentence of (1) is the end result.

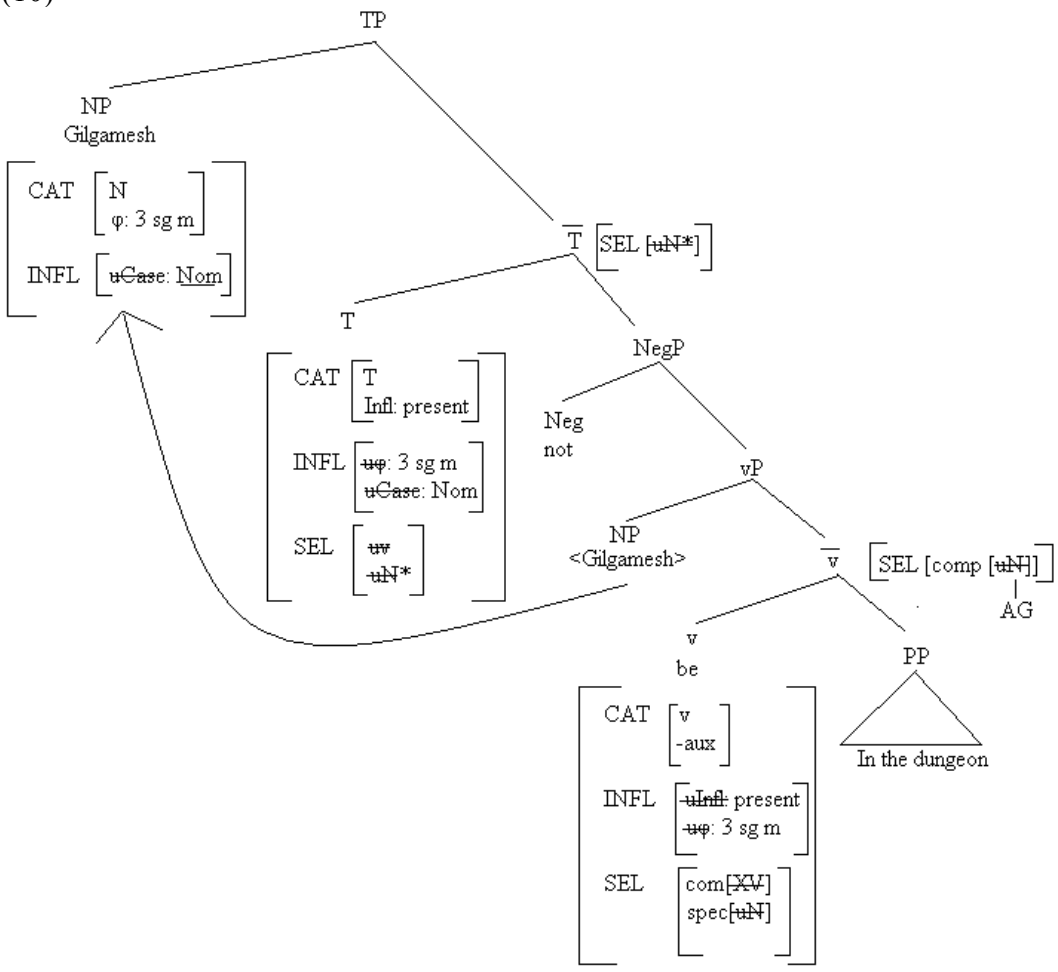
This derivation yields the structure shown in (9) when the sentence is negated.

[2] It is also possible that the now-valued [~~uφ~~: 3 sg m] feature on T is responsible for triggering agreement with *v:*

7a: Agree (T, *v* ; φ)

However, since that feature has already been checked, I find it preferable to say that it has simply become inactive, and Gilgamesh's category features are simply passed down.

(10)



In this derivation, the complete set of checkings and agreements has acted the same way it did in (4).[3] However, this structure yields the following ungrammatical sentence:

11. *Gilgamesh not is in the dungeon.

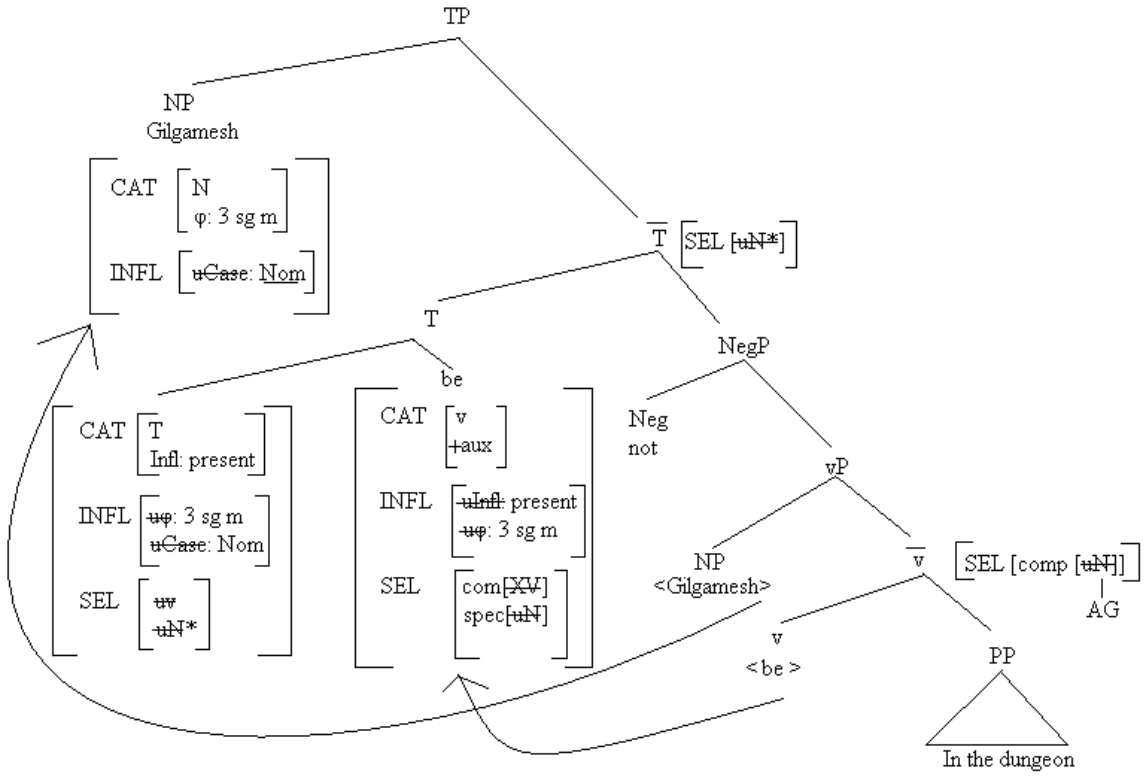
In the text, we are told on page 180 that main verbs—that is, verbs under *v*—have weak inflectional features, and thus do not need to be local to T to be valued by them for their [uInfl:__] Inflectional feature. Presumably they do not need to be local to the subject to have their [uφ:__] Inflectional features valued, either. This assumption is what prevents the even worse ungrammatical sentence

[3] Actually, there is a complication when it comes to Meging T with the NegP, in that the Merge is triggered by a Selectional [u*v*] feature. Since what is being Merged is not a *v*P, but a NegP, either the Selectional [u*v*] is checked because what it Merges with contains a *v*P, or else the NegP can be instead written as some sort of Neg*v*P, thus checking the Selectional [u*v*] features on T that way. In the first case, however, there is nothing to prevent T from merging with the *v*P *before* the NegP. We are told in the text that T must Merge after the NegP, because negatives in English come after T in the linear realization of the sentence, but we are given no mechanism to make that happen. Perhaps this problem could be resolved by making the [u*v*] Selectional feature on T include two options: either [u*v*] or [uNeg].

12. **Gilgamesh not be in the dungeon.

However, the position of ‘be’ in the sentence, whether it is strong or weak, is still unacceptable. We know that for the sentence to be grammatical, “be” must be raised to occur before the negation. It must be moved to T. However, as a main verb, it cannot do that. If, on the other hand, it were re-analyzed as an auxiliary, it is possible for the proper grammatical structure to be obtained, as shown in (12)

13.



Here, we can see that ‘be,’ as an auxiliary, is Moved up to become a sister to T. Its inflectional features are now weak, rather than strong, which means that they cannot be valued by T unless they are local to it. However, this also means that it is allowed to move past the negation that would otherwise block the ability of T (and Gilgamesh) to value “be”’s now weak unspecified Inflectional features.

Further evidence of “be”’s status as an auxiliary is furnished by examining its role in structures involving do-support. Consider the following sentence.

14. *Gilgamesh doesn’t be in the dungeon.

In most dialects of English, this sentence is ungrammatical. To understand why it is ungrammatical, it is first important to know that do-support only applies in sentences that contain main verbs with no modals or auxiliaries. In such sentences, the Infl: value on main verbs is weak, and so the v cannot be moved up to. It is unnecessary for them to be

local, and since they do not move, they remain pronounced after the negation. In English, this from by itself is unacceptable. A sentence like

15: Gilgamesh lives not in the dungeon.

cannot be grammatical, even though all originally unvalued features have been valued and checked. In modern Standard English, the form that is valued by T must precede the negation. Since the main verb with its weak Inflectional features cannot move, do-support kicks in, and adjoins the auxiliary "do" as a sister to T. "Do," as an auxiliary, has strong Inflectional features, which, now local to T, may be valued and checked. Since the φ-features on the subject are not uninterpretable, it is possible to say that they also trigger Agreement with the unvalued φ-features on the main verb, but that this agreement is unrealized without an Inflectional Agreement with T giving the verb a tense value to change it out of its bare form. Since that feature on T has been checked by the presence of "do," it cannot value the main verb, which simply remains in its bare form.

It is also possible to assume that some property of negation simply blocks all agreement below it. In this interpretation, the addition of "do" is not simply to have an agreeing, inflected auxiliary come *before* the negative, but also to have *something* to spell out T's features. If, "be" in itself is an auxiliary, then it *can* move up to T, receive its values there, and check T's uninterpretable features. It will be pronounced before the negation, and bleeds the use of do-support.