

Interpretable features in vP-ellipsis: On the licensing head

Remus Gergel

The present article offers theoretical and empirical motivation for the licensing of verb-phrase ellipsis. It puts forth an interface-based generalization according to which a necessary condition in spelling out a phrasal ellipsis site in a minimalist taxonomy is derived from anchoring it to a formal and interpretable feature of the licensing head. Positive consequences of the modeling used are discussed drawing on various domains. The specifics of the proposal are developed for the clausal T(ense) head; it offers a unified analysis not only of transparent vPE cases involving temporality (*have/be* licensors), but also of apparent exotic licensors (English modals and Slovenian clitics), as well as some combined cases of licensing heads.

1. Introduction

The licensing process of verb phrase ellipsis (vPE; cf. (1)) surfaces as a clear requirement in elliptical sentences in languages such as Modern or Middle English.

- (1) a. I think we should try that little row row row your boat again.
I think we **should** [_{vP} _] too. (MICASE)
b. for he coupe not selle and undo his cloop as a womman **schulde** [_{vP} _] (PPCME2)
because he could not sell and undo his clothes as a woman should

In cases like (1), the overt auxiliary head c-commanding the ellipsis site is typically taken to be the licensor.¹ In this connection, *licensing* means the term standardly used in the syntactic ellipsis literature, viz. the characterization of the configuration under which a vPE site occurs (cf., e.g., Johnson 2001 for an overview). Consequently, the present focus is *one* main necessary ingredient within the wider issue which can be formulated as: “What does it take to (vP-)elide?” – How come, for instance, ellipsis is a legitimate process in (1b) above or, for that matter, in (2) below, where well-noticed sloppy-identity readings obtain?

¹ See, e.g., van Gelderen (2003) for a recent proposal on the structural position of the modals in earlier English; cf. Warner (1993); Gergel (2004) on the auxiliary status of the premodals and the issue of ellipsis.

- (2) Thought dead for four years, Chuck discovers that his fiancée (Helen Hunt) has moved on with **her** life and now he **must** [_{VP} ~~move on with his life~~], too. (Filmforce.Ign.Com)

One apparent problem in such cases is that the antecedent and the corresponding (“reconstructed”) ellipsis site are not identical. A first step towards a solution to the more general question raised above is to acknowledge that there are two distinct processes involved. Thus, on the one hand, a strong line of research to the latter issue says that one condition on vPE necessitates the antecedent and the ellipsis site to stand in a parallelism relationship to one another, which is generally less strict than full identity, as, e.g., seen above and noticed in the literature. This condition may itself dovetail an entire set of various requirements, for which syntax-semantic formulations and their appropriate information-structural set-up have preoccupied much research from various perspectives (see, among many others, Rooth 1992; Fox 1999; Winkler 2005). Moreover, specialized conditions on the antecedent-ellipsis relationship have been designed to allow for sloppy identity, vehicle change and further surfacing mismatches while aiming to preserve parallelism (cf. Fiengo & May 1994; Hoji 2003).² On the other hand, however, vPE also depends on syntactic factors (Lobeck 1995; Johnson 2001; Merchant 2001), on the motivation of which I elaborate below. It is essential to distinguish between these two types of conditions – summarized in (3) and (4) – when one approaches the broader issue of what contributes to giving rise to (vP) ellipsis.³

- (3) vPE(PAR): An ellipsis site needs to be “parallel/isomorphic” to an antecedent vP.
 (4) vPE(LIC): An ellipsis site needs an appropriate (local) syntactic configuration.

Beyond vPE(PAR), there is a large and interesting line of research, as mentioned. Though also intensely researched in the past, vPE(LIC) may appear from today’s perspective as a plain “condition” on the surfacing string; moreover, one which is still not well understood theoretically. The specific aim of this paper is to propose a specific kind of motivation for vPE(LIC). I am not concerned with vPE(PAR), but I will discuss where I think the two might interact in the theory of grammar assumed here and show some beneficial results under such assumptions. The main idea of the claim is schematically rendered in (5).

- (5)
- | | |
|----------|-------------------------------|
| Licenser | ellipsis (/deaccenting site?) |
| [iT] | vP |

The straightforward configuration in (5) says that a vPE site is constrained by ultimately interface-bound requirements not only with regard to the relationship to an antecedent, but that the c-commanding overt head itself also contains a formal and interpretable feature which is crucially in charge of licensing. Theoretically, I will therefore focus on features that are both formal and interpretable in MP parlance (Chomsky 1995, 2001), though the paper does

² Given that the relationship between antecedent and ellipsis is not what this paper focuses on (but rather what precisely is in charge within the head vPE is anchored to – licensing applying notably to *all* vPE cases), I don’t have anything interesting to say about cases without linguistic antecedents; see Pullum (2000); Merchant (2004), and the references there for issues relating to such cases.

³ I thank Sigrid Beck for the perspicuous formulation.

not subscribe to the unidirectionality of the probe-goal relationship (for similar theoretical conclusions drawing on different empirical domains than ellipsis, see Zeijlstra 2004; von Stechow 2005, a.o.).

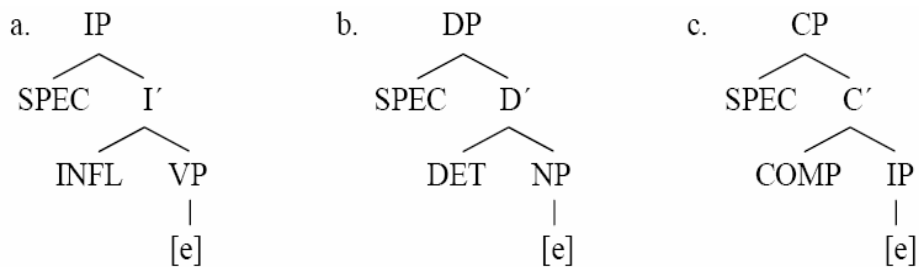
The remainder of the paper has the following structure: In section 2, I sketch the relevant insights from previous literature on licensing together with some of their problems. I suggest a remedy to some of the problems by capitalizing on the type of feature that is involved in licensing. In section 3, I develop the claim by going through apparently different subcases of vPE which display some of the relevant properties – i.e. “specialized” tempo-aspectual licensers, modals, clitics, and some combined licensers – and present evidence how tense features are involved in each of them. Section 4 explores some further related theoretical considerations; section 5 concludes the article.

2. Basics of vPE(LIC)

To a large extent the stepchild of ellipsis research over the last decade, vPE(LIC) appears on a first take as a simple condition imposed on the relationship between a remnant (i.e. in the sense of an element with PF representation and not of a necessarily evacuated part of structure) and an ellipsis site. The first question one could raise is why not simply dispense with it, given that it is *prima facie* an additional requirement. One could perhaps imagine vPE(LIC) falling syntactically out of syntactic coordination constraints (cf., e.g., te Velde 2003), semantic givenness (Merchant 2001), or perhaps other mechanisms. Important as such conditions are in numerous aspects of ellipsis theory, it becomes crucial, however, not to confuse the two main types of conditions involved introduced in section 1. For instance, the impasse with the application of a coordination-based approach to vPE is a notorious issue on empirical grounds: unlike phenomena such as gapping or arguably stripping, vPE is by far not restricted to coordination and occurs in a significantly broader variety of syntactic environments (Hankamer 1979; Johnson 2001 a.o.). The element in the relevant auxiliary position, typically immediately c-commanding the deletion site (e.g., an auxiliary or a raised verb in some languages) is a prominent hallmark in the grammatical process of vPE. Consequently, this simple fact needs an account (even neglecting the question, for the moment, whether it should be derived from something else or not). It will also be clear that vPE(LIC) cannot by itself follow from the question of vPE(PAR), though the latter is an important necessary condition as mentioned above. Else we would also universally predict vPE sites wherever the parallelism conditions are met. Moreover, there are cases in which vPE becomes unacceptable even in languages which allow vPE, as is the case with at least some epistemic modals in English and other languages (cf. section 3.2). Therefore, something more than an “auxiliary-position” requirement has to be (i) properly stated within the grammar, (ii) refined accordingly; and (iii) ideally, explained.

Lobeck’s work (e.g., Lobeck 1993, 1995) figures most prominently among the previous approaches to the licensing question (cf. also in particular Zagana 1988). Consider, for the time being, (6).

(6) VPE, NPE and sluicing (Lobeck 1993)



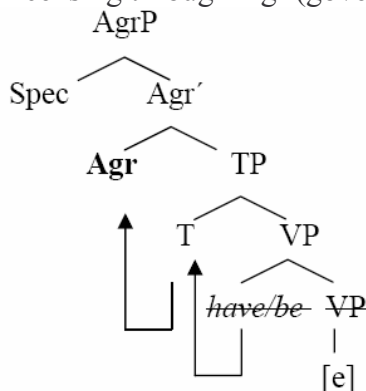
Equipped with the schema in (6), in which a “functional” element such as Infl, Det, or Comp governs a lexical phrasal ellipsis site, Lobeck proposes the well-known interesting generalization for the licensing of ellipsis processes of various sorts, viz. accounting for the familiar pattern in (7) which includes vPE, NP ellipsis and sluicing; cf. Lobeck (1993:789).⁴

- (7) a. Because Domingo couldn't, they asked Pavarotti to sing the part.
 b. Although John's friends were late to the rally, Mary's arrived on time.
 c. We want to invite someone, but we don't know who.

In Lobeck (1995:146), the further question what exactly governs and licenses vPE within a richer functional structure (Pollock's 1989 Split-Infl Hypothesis) is addressed. The answer offered, is Agr (and not T), though the role of tense is also interestingly discussed in a way to which I will return, and essentially offer evidence for, in the non-governmental framework. Capitalizing essentially on the agreement properties of (English) *be/have*, this line of argument (Lobeck 1995 and extensive previous work) is able to account for ellipsis in sentences such as (8) and proposes the phrase structure in (9).

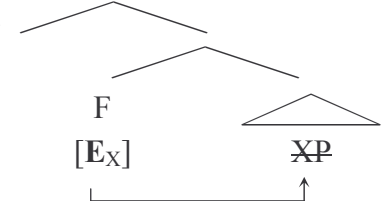
- (8) Mary has found a place to stay and John has _ too.

(9) Licensing through Agr (governing elided VP; Lobeck 1995)



⁴ As Lobeck equally carefully shows, there are interesting exceptions to the neat general panorama according to which a functional Deg(ree) head allows its lexical complement to elide under government. For instance, under the common syntactic assumption that a functional Deg(ree) head dominates the adjective phrase (cf., e.g., Kennedy 1999 for an overview), the generalization does not go through since a Deg head does not license AP ellipsis; cf. also Merchant (2001) for discussion.

Lobeck (1999) adapts the licensing approach to initial versions of the minimalist framework and proposes feature-checking in a Spec-head relation. This line of argument is, however, refuted by Merchant (2001) mainly on theoretical grounds. With the GB framework no longer available (for independent reasons), the theoretical space becomes somewhat different. Clearly, both Lobeck's general thrust from the earlier work with regard to phrasal ellipsis as well as the idea of feature checking from the later work are not only valid points but at the heart of more recent takes on the issues. As a next step in pursuing the vPE(LIC) issue, one may understand the move towards feature checking as a general simplification of the theoretical apparatus from the government and binding framework towards the minimalist concerns: cf., e.g., López & Winkler (2000) and Merchant (2001).⁵ Here, I will briefly introduce Merchant's approach, which follows Lobeck's line in its generality of coverage (cf. also Merchant 2004 and Johnson 2004 for discussion). In Merchant (2001) and related work, a feature called E is in charge of phrasal ellipsis: (10a). Its phonology consists in allowing the deletion of the complement of E, as in (10b), while its semantics is determined by E-givenness, cf. (10c), where a constituent α is E-given iff there is a salient β such that the existential closure of β entails the existential closure of α and vice versa.

- (10) a. 
- b. phonology of E: $\phi TP \rightarrow \emptyset / E_$
- c. semantics of E: E-givenness
 $\llbracket E \rrbracket = \lambda p.p$, where p is E-GIVEN

Thus, (10a) is a standard licensing configuration for phrasal ellipsis. The condition (10b) encapsulates the clear phonological effect of ellipsis, i.e. deletion. While (10c) is equally essential for vPE, it is somewhat harder, however, to see its predictive power on vPE licensing since it is a relationship between an antecedent and an ellipsis site. Although it is useful for many cases of vPE, as far as their antecedents go, it clearly refers to the parallelism condition rather than to licensing itself. The idea for our purposes is to keep the feature approach, but also to decompose the “ellipsis feature” E into more explanatory syntactic primitives with an impact that is able to capture cases of vPE licensing in particular. A good start and inspiring line of thought in this connection is Merchant's discussion of sluicing, where E_S (the sluicing variant of the E feature) is given a translation into more familiar features from the standard inventories of grammar (for instance, *wh*- and question-features in that case).

⁵ A discussion of the co-licensing role of polarity is beyond present scope (see Laka 1990; López 1995; Depiante 2000; López & Winkler 2000). Notice, however, that polarity is compatible with an interpretability-based approach. There are three main ways how polarity could be approached in a theory pursuing it from the licensing perspective: The first venue would be that polarity is an independent licenser. At the same time, many cases of ellipsis licensed by polarity heads cross-linguistically may involve the stripping-style of ellipsis rather than vPE. A second possibility is that suggestions on the aspectualizing role of negation (see, e.g., Giannakidou 2000 for discussion) affect the relationship between the tempo-aspectual domain and polarity. This might support a hypothesis based on tempo-aspectuality, but it also has the complicating side of referring in its standard version to internal (*aktionsart*) rather than to external aspect. A third suggestion may be that polarity does not syntactically license vPE, but that it represents an effect of the focusing conditions holding between the ellipsis or deaccented site and the licenser; see Winkler (2005) for a discussion on the role of information structure in ellipsis under consideration of various types of focalization and Dvořák & Gergel (2004, in prog.) for some *verum* focus effects in Slovenian vPE, which is licensed by tense, as discussed in section 3.4.

Before doing something similar in spirit for vPE, let me mention a further problematic aspect of basing the weight of licensing on diacritics such as Agr or E alone. The way both Agr and E are understood in the pertinent works making use of them for ellipsis is as non-interpretable features at LF. In a (phase-based) minimalist framework they will standardly not survive further than up to the next strong-phase level. However, as is well known, (a) antecedent-ellipsis relationships are a matter of fact in most productive patterns of vPE (cf., e.g., Rooth 1992; Pullum 2000; Merchant 2004); and (b) they are not clause-, and hence not phase-bounded (cf. Hardt 1993, Lobeck 1995, a.o.). Sentences of the types in (11) exemplify this through distant as well as cross and split antecedents.

- (11) a. We had to make as many shapes as we could _ . (H. Hamilton, *Speckled People*)
 b. He doesn't want to have to fight a war, but he's resigned to the fact that he just might _ and understands the reality of it. (*Daily Mississippian*, Feb./19/2003)
 c. I cooperated and the police said they'd note it in the report.
 No, you didn't _ , and no, they won't _ . They will note that you lied. Frequently.
 (forum.freeadvice.com: Unusual Marijuana Possession Charge)
 d. Sally should take out the dog for a walk and Bob should do the dishes, but neither of them must _ .

Such sentences are well familiar in their patterns from the ellipsis literature (cf. especially Hardt 1993 for relevant discussion) even though the role of the modals is typically not considered. What they show in the present connection are at least two problematic facets for standard theories. First, they remind us of pronominal properties of ellipsis, into which I cannot go in more detail here (cf. Hardt & Romero 2002 and references on a discourse-based application to this end and see Wasow 1979; Winkler 2005; Gergel 2005 for suggestions on how to reconcile pronominal properties of ellipsis with deletion-approaches). Second, they show that we arrive at a paradoxical situation with the approaches considered so far: by the time antecedent and vPE site should have been matched, the local feature which in some models is precisely introduced to thoughtfully take care of the antecedent-ellipsis relationship will have long been erased from the derivation, thus precluding the two sites from being compositionally matched with one another. Plainly put, the question is: how does the local head/feature putatively know that it has a green light (with respect to an appropriate antecedent) to effectively license deletion if it cannot connect to anything beyond the phase? For concreteness, we may assume a derivational bottom-up account of ellipsis at this juncture (cf. Fox 1995 for evidence), but the problem arises in a left-to-right model as well, as in probably also other systems that assume some version of phases or, for that matter, related locality concepts, but preclude the information from passing through (*qua* non-interpretable).⁶

As an alternative venue in view of such problems, I suggest that the licenser be interpretable. More specifically, I propose the hypothesis in (12).

⁶ A processing-based (“left-to-right”) model might circumnavigate the problem for those cases in which the antecedent precedes the ellipsis but, alas, vPE is well known not to care about precedence (modulo the Backwards Anaphora Constraint, of course). Since I am not concerned with processing, I will not engage into the issue further, but once the problem with preceding ellipsis is overcome, extensions in the spirit of Phillips (2003) and more specifically Murguía (2004) might bring further insight and ideally decide the relationship of the two types of approaches to one another.

- (12) Interpretability Hypothesis (IH):
- (i) A grammaticalized licenser is defined within C_{HL} in terms of interface-legibility conditions;
 - (ii) The set of potential licensers for phrasal (vP) ellipsis is a subset of the formal and interpretable features within the clause;
 - (iii) vPE in English and perhaps other languages is licensed through formal [T].

While part (12i) yields what I take to be a general condition for syntactically bound ellipsis, parts (12ii-iii) are the specific application of the hypothesis to vPE (with possible extensions to other cases of surface anaphora). In the next section, I motivate this view from different case studies focusing mostly on vPE in English. Before doing so, let's mention one further theoretical benefit of changing E through an interpretable feature. As is well known, once vPE(PAR) and vPE(LIC) hold, vPE is in most cases optional. If E is to agree or check in any sense with the vP domain, it is dependent on the very condition that vPE takes place in order for it to be eliminated. This requirement is plausible, E being an ellipsis feature, but it seems also somewhat circular. On the other hand, [T], which will invariably be present in the syntax of an English derivation, will be able to check uninterpretable Tense on v, and will not depend on it – thus yielding precisely the optional character (as far as narrow syntax goes) of vPE.

A slightly technical note in this connection is that one can maintain the view of the feature on v (rather than on vP) entering the relationship with T. *Prima facie* this might strike one as odd since received wisdom has it that one of the key features of vPE is precisely its phrasal nature. On closer inspection, however, the view has advantages, and, counter to appearances, it does not forfeit phrasal integrity, as we will see in a moment. Notice first that also from a morphological point of view it is easiest to assume that in English it is the verb that checks (is probed by) Tense. Now syntactically, the phrasal nature of vPE can indeed also be obtained. More specifically: On a first try, some version of head-to-phrase percolation might perhaps be stipulated to also resolve the dilemma, not an uncommon mechanism from other domains. Notice, however, that recent findings through which the phrasal nature of vPE is independently obtained (cf. in particular Johnson 2004, 2005) can in effect derive the result of phrasal integrity. While discussing the full-scale focus-projecting approach and its motivation at length here would take us to far afield, we may note that its net effect consists in projecting the silenced site from within, crucially from v. Combining syntactic properties with the argument projecting approach (cf. Selkirk 1984 and related work), Johnson's focus-projection results in particular support the conclusion that a(n arguably parametric) head v derivationally produces the elided phrase, i.e. vPE.⁷

⁷ A final and further-going question that one could raise is whether the projecting approach cannot substitute the licensing approach altogether. While having one mechanism (say, the one based on argument projection alone) would be cheaper and hence more attractive than two, on the distributional and theoretical considerations I have been able to check so far, this does not seem to be a warranted conclusion, however. On the minimalist assumptions discussed, there would be a reason to anchor vPE sites to interpretability in a derivation. Perhaps not less compelling is the empirical evidence for licensing: vPE sites in languages like English appear under the scope of (grammaticalized) licensing auxiliaries only (cf. also Johnson 2001; cf., e.g., Gergel 2004 on quantitative and qualitative results for Middle English, where modulo certain shifts in the auxiliary system compared to ModE, a striking synchronic uniformity of the licensing class also obtains). Further evidence is that, conversely, even in languages like (Modern) English, sites that *lack* an appropriate licenser are not felicitous. A possible probing case are, e.g., bare-infinitives, i.e. infinitives without the functional layer on top of the vPs. English is standardly thought to have such (at least impoverished) structures in the complement positions of perception verbs. Returning to ellipsis theory and (its) economy, if the elegant v-based approach were also a sufficient condition, then **Mary saw [John leave the house] but they claimed Bill saw [John leave the house]*

3. Analysis of licenser types

In this section, I consider four environments for licenser types of vPE which are different on the surface and show how the interpretability hypothesis introduced in the previous section applies to them. I will argue that although agreement may naturally surface from morphological facts of a given language and share the syntactic locus of licensing, what matters for vPE licensing are not Agr-projections in a syntactic sense, but projecting [T].

The choice of licensers is guided by the fact that the proposal is based on morphosyntactic but also semantically interpretable properties of the licensers. That means that while we have gained a good deal of insight about the morphosyntax of ellipsis licensing from the point of view of licensers that can, to a large extent, unselectively re-merge to the relevant positions in the Infl domain in various languages (cf. McCloskey 1991; Ngonyani 1996, among others, for insightful discussion), additional evidence is needed for an argument which tries to tease apart the possible contributions of agreement or tense. The verb-movement type of vPE is in most cases compatible with both candidates since the verbs in point usually show various agreement patterns in conjunction with tense inflection. Such cases do not make a T-analysis less likely, but do not favor it either over an Agr account. Therefore, the idea will be to look at temporal licensers in general and then at such licensers which make an Agr-based analysis unlikely. Conversely, we will test for potential counterexamples to the present claim; more specifically, by searching for cases which seem to favor an analysis based on non-interpretable, e.g., Agr-elements alone.

3.1 Extensional licensers

An immediate case to check is whether lexical elements which represent tempo-aspectual markers in a given language ever develop into licensers of vPE. Given perhaps certain typological tendencies of auxiliaries to develop into bound morphemes or to cliticize (cf., e.g., Heine 1993 for further discussion of some of the typological issues), let alone the cross-linguistic quirks of vPE, one might, ironically, end up not finding evidence of this first relevant type. It turns out, however, that, for instance, English or Portuguese allow tempo-aspectual auxiliaries to license vPE; cf. (13) and (14), cf., e.g., Cyrino & Matos (2002) on the latter case whose data and analysis I borrow here for illustration.

- (13) a. Of course, I've heard all the rumors, so I suppose you have _ too.
 b. Abdellah is taking the train to Marseille and Rana is _ too.
- (14) a. A Ana já tinha lido o livro à irmã mas a Paula não tinha _.
 the Ana already had read the book to-the sister but the Paula not had
 'Ana had already read the book to her sister but Paula had not'
 b. O João é simpático para todas as pessoas e a Ana também é _.
 the João is nice for all the people and the Ana too is
 'João is nice to everybody and Ana is, too.'

should be expected to produce the right silenced site. For the time being, I conclude that while the projecting approach fills in an essential (theoretical) gap and crucially explains the internal syntax of vPE, licensing is, I believe, still needed to account for its external anchoring into the remnant structure and perhaps (trans-)sentential grammar.

For English, with which I am mainly concerned, let me clarify the background a little.⁸ While I assume that Modern English modals are essentially first-merged in T (see the qualifications below) and thus distinct from English aspectual auxiliaries, I assume with Emonds (1994) that *have* and *be*, based both on morphological and syntactic motivation, are not full verbs (i.e., on this point in departure in particular from the classical view going back to Emonds 1970). They are first-merged in a projection distinct from Tense and structurally equivalent to Aspect (cf., e.g., van Gelderen 2003; Gergel 2004). From this position they can undergo movement under the well-known appropriate conditions. Further, I follow Demirdache & Uribe-Etxebarria (2000, 2004) on the view that aspect is syntactically an embedded type of lower tense with the properties of an ordering predicate. Thereby aspectual heads have the same type of feature encoded; in short, T.

A note on the putative “meaningless” character of *have* and *be* is in order here. Although *have* and *be* may perhaps be considered “light” in terms of theta-roles, they are not meaningless in terms of their semantics *pace* their grammaticalization history and shifts. First, they form minimal pairs in terms of their meaning as pointed out, e.g., by Kayne (1993). If the elements of such pairs mean different things, then at least one of them cannot be vacuous. Second, and more importantly here, they typically are precisely carriers of the grammaticalized tense and aspect information of a sentence. With this in mind, a further clarification pertains to the point that vPE in English is licensed at the position of first-merge in the case of *have* and *be*, as also in the further cases studied below. Of course, this is not natural necessity; cf. in particular some of the cases in the languages in which a full verb raises to the relevant functional projection and licenses vPE. But for English at least, the first-merge position even coincides with the relevant licensing position. While a lot more could be said with regard to the morphosyntax of *have* and *be*, for present purposes suffice it to say that in the standard cases they can be linked to T in terms of licensing.

Let’s try an initial evaluation of the licensing account so far. While the types of licensers considered in this section are to some extent naturally expected to carry temporal features, they are at the same time prone to two potential objections. A first possible counterargument may be that the evidence thus far is not entirely illuminating since we took the elements that developed into the lexical elements which can carry temporality as free morphemes to illustrate the point on temporality. While that was a first necessary step, we then need further evidence. Moreover, another potentially blurring point regarding the nature of the relevant features involved is that *have* and *be* could also be argued to be compatible with an agreement-based analysis in view of their morphology.⁹

⁸ While I concentrate on English in the paper, for the licensing issue in Portuguese, I adopt, in essence, the analysis of Cyrino & Matos, as mentioned. According to these authors, vPE is licensed by Tense in European Portuguese and (lower) Aspect projections in Brazilian Portuguese. As is well known a number of potentially interfering syntactic processes are different in Portuguese from English. See below for some relevant remarks to the present course and concerns.

⁹ A reviewer raises the issue whether *have* and *be* are actual counterevidence to the T-based approach precisely due to the properties I had mentioned above. While *have/be* have been sketched because they represent an important licenser class, what is probably crucial here is that they do not offer *sufficient* evidence for a projecting T feature. In my simple-minded understanding of the logic at stake, compatibility does not generally exclude one of the terms involved. In more words: carrying both morphological agreement and tense morphology (none of them quite regular incidentally, as we know; cf. *has*≠/*have*+/s/ and *had*≠/*have*+/ed/), it may be perhaps even motivated at some level to posit both agreement and tense *features* on such auxiliaries. But solely because they might have both features does not mean that tense and agreement should be assumed as two syntactic (licensing) projections resulting out of such single lexical items. Much less does it mean that if we project any of them, then tense is the wrong projection. Economy of Projection for one thing might even make it unlikely that isomorphism is involved, i.e. that each single feature on a lexical item should have its own

3.2 Intensional licensers: The case of the English modals

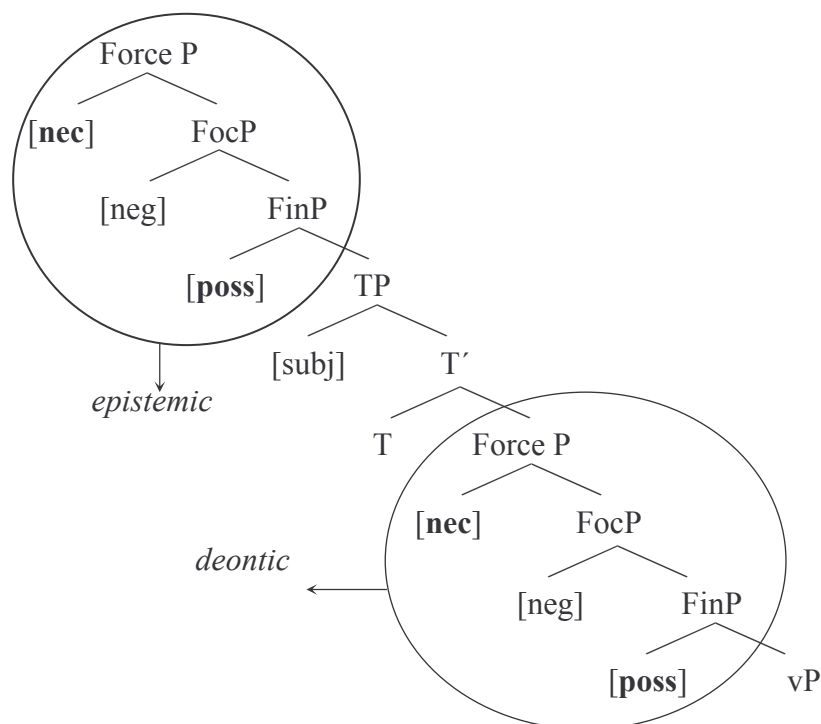
The English modals are traditionally taken to lack tense properties altogether. I claim in this section that, on closer inspection, they have active T features and that it is precisely these features that are in charge of vPE. In order to do so, we will need to outline a few basic notions of modality at the syntax-semantics interface.

In view of the concerns expressed at the end of section 3.1, it is worth considering the case of the English modals since they lost productive temporal inflection and entirely escape an agreement-based system (Roberts 1985). However, they usually make for fairly acceptable vPE licensers. Let's also note that a putative bleaching counterargument as the one mentioned in section 3.1 would have even less force with the modals, which are clearly not "meaningless" in any way. Though the modals underwent a process of grammaticalization and they are arguably thematically light, they have a straightforward high-type semantics (cf. von Stechow 1994 for a clearly-taken point on bleaching from a formal semantic point of view). Before getting to the syntactic proposals relevant for the modals, let's note that the background semantic assumptions are the standard modal ones elaborated on, e.g., in Kratzer (1991). Moreover, we can consider the hypothesis (to be qualified below) that the relevant factors for modal semantics (essentially, modal base and modal force) also map one-to-one in relevant respects to the syntactic structure of English; cf. Butler (2003); Gergel (2003) for further discussion within proposals inspired by Cinque (1999) and Cormack & Smith (2002). Butler discusses interesting evidence at the syntax-semantics interface stemming from domains such as the scope of quantifiers (cf. also von Stechow & Iatridou (2003), though from a different perspective) and some of the better-known quirks of the English modals, e.g., with respect to the scope of negation. Here, I will discuss evidence from ellipsis together with some of its problematic aspects and a potential solution, but to place the discussion on a concrete footing, let's next see what a phrase-structural representation taking semantic differences into account might look like. If one only restricts oneself to the syntactically often invoked distinction between epistemic and root modality (modal base) and the universal vs. existential difference (modal force), a tree mapping such distinctions between syntax and semantics could, on the basis of the mutual c-command relations and their transitive property, have the representations in (15), as proposed in Butler (2003).¹⁰

projection, unless there are compelling syntactic reasons to assume several projections (cf., e.g., Rambow & Santorini 1995; Hegarty 2005). For present purposes, suffice it to note that *have/be* provide some initial evidence for the role of tempo-aspectuality. I defer a closer decision of ruling out Agr as an empirically motivated projection to the next section when considering the present-day English modals, which will make the Agr-based system empirically entirely unmotivated (not carrying any agreement affixes) (in addition to the theoretical worries expressed against Agr in this paper and which, if on the right track, hold for all licensers).

¹⁰ Ellipsis data support the core insight of this proposal, as we will see. A simplification necessary from the point of view of ellipsis will also be proposed below.

(15) Modal syntax: cf. Butler (2003:988)



A diagram as in (15) would make available four main syntactic positions for modals. In Butler's original proposal the four individual projections, ForceP and FinP (as well as the intercalated FocP in each domain) are based on the assumption that they reflect information-structure; their particular labels can be ignored for our purposes (see Drubig 2003, forth. on a pertinent syntactic discussion on information structure). What we will consider more closely are the relative positions of the modals to one another (pair-wise). In Butler's proposal, the emerging structure in terms of the relative position of the modal heads is interesting in a number of respects. In particular, it is symmetric in that necessity c-commands possibility both in the epistemic and the root area of the clause and that epistemic modality c-commands deontic modality. While I am going to simplify the structure momentarily, of major interest next is the question whether, and how, the information contained in such a four-fold structure of the English modals might relate to vPE in the language.

A first observation in this respect is that an apparent condition that we can call the epistemic restriction, in its origins going back to Ross (1969), applies at least to some modals in English and to modals in some other languages (McDowell 1987; Depiante 2000; Drubig 2001); cf. (16) and (17).

(16) * Bob must wash his car every day and Peter must _ too. (*on the epistemic reading)

(17) * The president must have been at the meeting and the vice president must _ too.

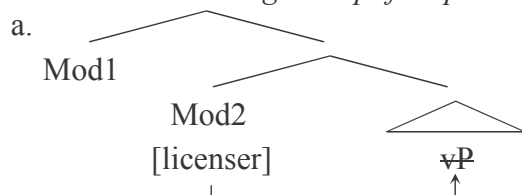
A first approximating account we can give for this kind of output is that if epistemic modals are first-merged structurally higher than modals on their root readings and in particular higher than the relevant licensing position for vPE, then the ellipsis site is not properly licensed, hence the arising problems in acceptability.

In this connection, a second note is in order, however. At least some epistemic possibility modals behave differently with regard to vPE (Gergel 2003). Although speaker judgments are not always stable, for many speakers relative judgments as in (18) and (19) obtain and attested examples as in (20) and (21) with possibility modals (sometimes including the linguistic literature which is, however, not specifically focusing on ellipsis, as in (20)) allow epistemic readings.

- (18) a. * Mary must be a successful student, and they say Frances must too.
 b. ? Mary may be a successful student, and they say Frances may too.
- (19) a. * Mary must have fallen from the old ladder and Peter must too.
 b. ? Mary may have fallen from the old ladder and Peter may too.
- (20) a. John will fly to London and Mary may _ too. (Boskovic 1994: 280)
 b. She might have been watching television more often than he might.
 (cf. Radford 1997:110)
- (21) “You have to be a real masochist to want to direct,” he says with a smile. But Fearheiley does, and Smith might_ , too. (*Gazette.Net*, Maryland, 08/29/2002)

Sentences such as the ones above may indicate that the involved epistemic possibility modals are better licensers than epistemic necessity modals. Both observations gathered so far then seem at first to support the structure in (15) - namely, in a more fine-grained fashion on top of the traditional epistemic/root distinction, which we have previously seen confirmed from ellipsis through the epistemic restriction. Recall in this connection that necessity modals have been independently argued to be structurally higher than possibility modals (this is a point in which, e.g., Butler 2003 diverges from Cinque 1999, who also assumes distinctions between necessity and possibility, but not in the epistemic domain). However, the pertinent question here is: what might be a possible implementation for ellipsis of the interesting structure? On closer inspection, we run into an impasse from the perspective of ellipsis if we try to make the structural suspicions more specific with regard to licensing. There are two main problems for a largely articulated structure as the one presented above. The first issue is that such a structure is incompatible with the simplest possible feature-based approach to ellipsis. In order to make it work, various additional stipulations would be needed. The second technical problem is that licensing itself does not follow structurally from a structure as in (15) in any obvious way. In particular, there is no metric available which would predict that under such structural assumptions, say, epistemic necessity is just below the acceptability threshold and epistemic possibility should be somewhere above it. In order to cope with the licensing issue while at the same time maintaining the essential observational insight of some of the Cinqueian approaches for English, I propose a simpler structure, as given in (22a), and explicated in (22b).

(22) Modal vPE licensing – simplified phrase structure



b.

	First merge	Scope position	[+T] marking
Deontic <i>must</i>	Mod 2	Mod1	+
Deontic <i>may</i>	Mod 2	Mod 2	+
Epistemic <i>must</i>	Mod 1	Mod 1	*
Epistemic <i>may</i>	Mod 2	Mod 1	+

I use the labels Mod1 and Mod2 simply for expository reasons to refer to the distinction between two modal heads. Mod2 is in fact equal to a projecting temporal feature and thus to the head T. While having modals in T is anything but news, merging a specific subset of the modals in T becomes substantive in the present argument. I propose that it is precisely the fact that the English modals reanalyzed to T (and at least some of the epistemic modals apparently even beyond T “up the tree”) that turns them into the kind of vPE licensers they are (not) today. The structure in (22a) accounts for the kind of modal distinctions we have considered in this section, as illustrated in (22b). Further interpretable and hence potentially licensing material can be merged to the derivation if available in the starting numeration or subarray (see section 3.3 on one illustration of this possibility). However, the same general schema seems to hold. In the case of the modals, we thus capture the four-fold information in the simple two-projection system (Mod2 equaling T is a further reduction). The more crucial difference from the vantage point of the vPE(LIC) condition consists in the fact that we have an initial tool to account for vPE, namely by anchoring directly to the feature of the licensing head. This straightforward syntactic difference in the structure proposed from the perspective of ellipsis is that we capitalize on properties both of the operations move and merge. For instance, while in the grammaticalized system of English epistemic possibility is merged low and scopes high via move, epistemic necessity will scope high via first-merge. In this vein, the account matches the data inspected above. Moreover, notice that this kind of syntactic behavior of the modals seems to be corroborated by further evidence. I refer the reader especially to Butler (2003) for the relative differences obtaining on the basis of scope. What is of further interest here, however, are the differences in morphosyntactic temporal features. First, while the English modals have no agreement properties, and do not regularly inflect for tense, they are nonetheless interestingly temporally active (i.e. roughly in line with Stowell 2004a, b and von Stechow 2005, and diverging from some of the descriptions of the modals as tenseless; cf. Abusch 1997 for discussion). The difference is that the temporal feature is located on the modals themselves instead of being located on a higher head as is standardly assumed for lexical verbs. Second, the difference in vPE licensing (where epistemic possibility modals such as *might* or *could* show better results in the relevant grammaticalized contexts compared to epistemic *must*) matches the difference in residual morphological alternation. Recall in this connection that *must* does not alternate morphologically in Modern English. The alternations, in the cases in which they exist, are, however, well-known to be active in further contexts –in particular in sequence of tense (SOT) environments, in which a superordinate past predicate can occur with a morphologically past form such as *might* and

could standing in for *may* and *can*, respectively. Stowell (2004, 2005), moreover, argues that the modals show temporal effects in further contexts. Consider, for instances, cases of intensional embedding under attitude predicates in which a simultaneous reading can obtain, as in (23), taken from Stowell (2004).

- (23) a. Sam **might** say that he lived in Paris.
 b. Sam **could** claim that he knew the answer.

Examples such as (23) are then evidence to some extent mirroring the more familiar SOT effects. While in SOT the embedded modal morphologically agrees with the higher predicate, here the reversed situation obtains. Both facts show the morphological transparency of residually tensed modals. At this juncture, a further note is in order for deontic necessity, however. Deontic necessity is, in general, a valid licenser of vPE sites in English (for a simple example, consider, e.g., (16) above on a deontic interpretation). It is, however, no news that deontic modality can independently license temporal relations; cf. (24) and (25).

(24) Sue may leave the conference before it ends.

(25) Jack must take the *Unión* bus to Bilbao.

The point is that deontic modals on possibility and necessity readings typically induce future orientation of the “event time” (in Stowell’s sense) or, alternatively, $t > t_0$ obtains for the truth conditions of the vP (e.g., in a system along Kratzer’s 1998 analysis of tense). I assume here that a semantic feature has grammaticalized into a formal one, e.g., in the sense of Zeijlstra (2006), perhaps a recurrent situation in many cases in which vPE(LIC) obtains.

To summarize, in this subsection I have capitalized on some of the distinctions between the modals of English and have argued that a system in which a licenser along the lines of (interpretable) T plays the main role accounts for the main data in intensional contexts as well, thus adding to the extensional licensers and the previous theoretical considerations. The general idea of the proposal developed so far is that the relevant modals similarly to the other types of licensers (though possibly different in a number of other respects) have in common, and with respect to vPE operate on the basis of, the same types of interpretable features.¹¹

3.3 Co-licensing

As we saw that modals which encode morphosyntactic properties of tense may have a tendency to be better licensers even on epistemic readings, we next turn to another case in which the restriction on epistemicity seems to be suspended in the sense that epistemicity and ellipsis sites can co-occur. As we will see, however, this apparent contradiction to more traditional beliefs on epistemicity can also be derived from the properties of licensing. More specifically, a co-licenser element which contains a [T] feature can still license vPE. A typical example in point is given in (26).

(26) Jane must have solved the ellipsis puzzle and John must have _ too.

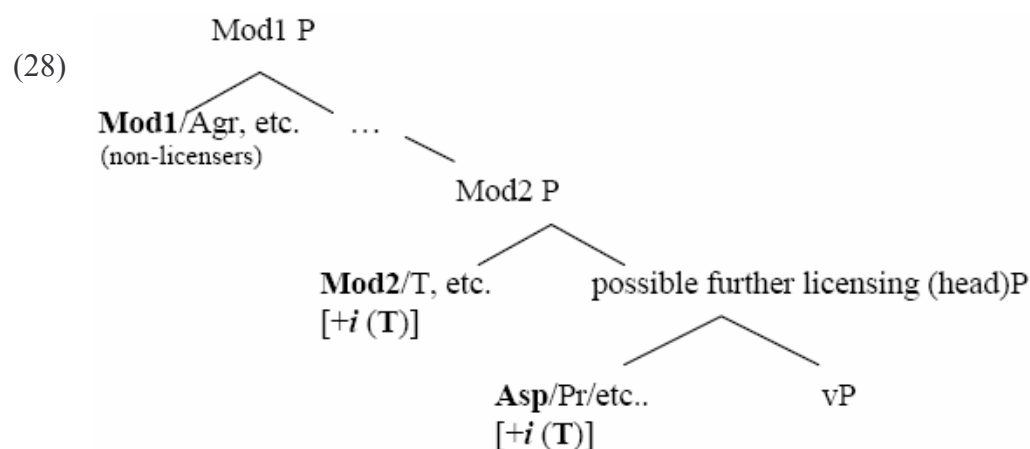
¹¹ An example from the movie *The Green Mile* pointed out to me by Luis Vicente illustrates the similar licensing behavior of modals and in a nearly parallel fashion; cf. (i) (I gloss over the interesting issues of morphological (non)identity here; cf., e.g., Lasnik (1995) for discussion.)

(i) Rogue guard - You can't do this to me! Big guard - Oh yes! We can _ and we are _!

Examples that include co-licensing *have* or *be* can be easily multiplied and judgments are even stronger in this case that they allow epistemic readings. The interaction between intensional and extensional licensers in co-licensed cases thus is explained in that merging [T] elements licenses an otherwise infelicitous vPE site. The epistemic restriction on vPE, while interesting evidence for the role epistemicity arguably in a subset of the singly licensed configurations, thus becomes a secondary factor in such examples not because, e.g., one and the same epistemic modal becomes all of a sudden different in this context, but because there is a co-licenser containing [T], namely *have*. The informal condition given in (27) accounts for this fact and suggests a structure along the lines of (28).

(27) Co-licensed vPE:

With tempo-aspectual *have/be* merged, the epistemic restriction becomes irrelevant.



While I hope so much may seem straightforward, I conclude the subsection with a further-going observation. The account has concentrated on the clearest cases of grammaticalized modal base and force (epistemic vs. deontic and universal vs. existential force). Notice that licensing conditions from past alethic-counterfactual modals in irrealis contexts, i.e. on the morphosyntactic side of the issue in contexts which include a past modal and *have* interestingly constitute a different type of modality. An example in point is (29), from Stowell (2004a).

(29) The Dodgers might have won the game.

Such specific environments are ambiguous between an epistemic and a counterfactual reading in English (Condoravdi 2001; Stowell 2004a, b). To the extent that speakers accept such sentences under elliptical contexts, they require, again, most typically the co-licensed type of vPE. In particular, with the support of *have* the counterfactual readings, which are distinct from both the epistemic and the root ones, are also licensed.¹²

(30) Agassi might have won his game and Graff might have _ too.

¹² Notice that while this observation accounts for the counterfactual cases containing *have*, I do not have a simple syntactic solution at this point for what I take to be the ungrammatical status of past counterfactual cases without the support of the tempo-aspectual auxiliary. They seem to behave differently from the genuine epistemic ones in various respects though.

3.4 Licensing “clitics”

This section analyzes a case which on first appearances might seem to be an even more problematic one for the Interpretability Hypothesis if it turns out to be a true vPE licenser class: clitics. I discuss a situation which has precisely this appearance, but at the same time, drawing on Dvořák & Gergel (2004), I argue that it does not constitute a problem for the IH once more closely considered; the particular case rather offers interesting support for it.

Clitic pronouns are a classical case of grammaticalization if not the one most easily expected to develop into a vPE-licenser class. There are two main reasons for this negative expectation. One is that clitics simply do not carry stress whereas vPE-licensers in most cases do.¹³ The second reason has to do with the fact that on traditional accounts, clitics and especially pronominal clitics may be well expected to enter uninterpretable projections such as Agr. Thereby, finding a case of clitics that in addition licenses vPE is interesting since it poses a potential problem for interpretability. While such observations seem to control for a number of languages, a different situation obtains for Slovenian where a type of ellipsis exists which is licensed by what under unmarked circumstances are the atonic pronouns in the rich inflectional paradigms of the language (see Dvořák 2003; Dvořák & Gergel 2004). In the next part of this section, I briefly introduce the relevant construction in the context of ellipsis, I argue that it is vPE and finally show that it conforms to the IH.

Various (South) Slavic languages allow various types of vPE. A common one is known to involve an auxiliary or a verb in the Infl-domain. In addition, pronominal clitics can surface in the inflectional domain together with the element occupying the Infl-domain, followed by a rule of deletion such as vPE (Stjepanović 1998). A typical configuration for such facts is given in (31).

(31) [Aux + Cl.(Sequence) [vPE]]

Since prosodic or syntactic encliticization to licensing material is a possibility, we seem to have a case similar to the previous ones, with an auxiliary crucially involved, in which we could next embark on trying to tease various Infl-related contributions apart. However, this is not the route we shall take next. We can, instead, consider an alternative pattern of vPE also arising in Slovenian. Slovenian conforms to the schema above, but in addition, many of its dialects show a type of vPE that seems to apply in a different manner. In particular, it seems to involve an additional licensing property in that sole pronominal object “clitics” can license elliptical processes, as shown in the mini-dialogue in (32).¹⁴

(32) A:	A	ga	vídiš?	B:	Ga _ . / *Jò.
	Q-compl	cl.3.ACC.SG.M	see.2.SG		CL.3.ACC.SG.M/F
	‘Do you see him?’				‘I do see him /I do see her’

In (32), a clitic object can be used to license an elliptical structure. A rather strong identity usually holds between antecedent and ellipsis site in such cases: for instance, the gender

¹³ Some of the cases that are often neglected stem from multiple auxiliary sequences in which not the licenser but rather a higher auxiliary sometimes carries stress. However, one way to account for such cases is through the rule of *have*-encliticization (Selkirk 1984, Drubig forth.).

¹⁴ All Slovenian data stem from joint work with Bostjan Dvořák (Dvořák & Gergel 2004, in prog.). I also thank Luka Crnic and Boban Arsenijević for their comments on relevant data from Slovenian and Serbo-Croatian, respectively.

contrast illustrated in the same example (32) for comparison, much along the lines of a pseudogapping-style construction, is not acceptable.¹⁵

Beyond the close match in terms of the antecedent-ellipsis relationship, there are further pieces of evidence to support the view that what is at stake are vPE sites. While the full analysis is beyond present scope, let me mention that both embedding and cross-utterance application of clitic-licensed ellipsis are possible, that no “flanking” of the elided material is necessary (in stark contrast with gapping), and that some extractions are allowed; cf. above and (33)-(34) below.

- (33) A: A ga poznáš?
 Q-COMPL CL.3.ACC.M.SG know.2.SG
 ‘Do you know him?’
 B: Míslim, da gà.
 think.1.sg, that cl.3.ACC.M.SG
 ‘I think I do_’

- (34) A: A ne poznaš Omanovih?
 Q NEG know.2.SG the Omans
 ‘Don't you know the Omans?’
 B: Ne. Kdó pa JIH?
 no who PART CL.3.ACC.PL
 ‘No (I don't). Who does_?’

The additional licensing process of the apparent sole clitic element, however, is determined by a temporal restriction of the construction. This type of ellipsis makes a clear selectional restriction in that it requires a tense node involving the present and excluding the past. Moreover, there is a shift in the accenting properties of the originally weak pronouns for licensing purposes; clearly, in such a context, the term clitic can only be used for expository purposes (the point being to distinguish them from the full counterparts, which are paradigmatically distinct in the lexicon of the language). Moreover, the apparently outlandish behavior is corroborated by evidence from independent contexts, in which the clitic carries stress and acquires an additional pragmatic function, as in (33).

- (35) A GÀ vidiš?
 Q-compl cl.3.ACC.SG.M see.2.SG
 ‘Do you really see him?’

We can conclude that the construction is vPE. For further diagnostics, I refer the reader to Dvořák & Gergel (2004, in prog.). For present purposes, it is the temporal restriction which becomes relevant. Following the analysis mentioned, we may note that the tempo-aspectual restriction interestingly influences interpretative properties in larger contexts. In addition to the examples above, this is illustrated in particular also by the contrast between (36) and (37).

¹⁵ Variation in the identity condition of the licensing pronouns is, however, possible in some other contexts (see Dvořák & Gergel, in prog.).

- (36) Včeraj me ni zeblo, danes PA.
 yesterday CL.1.P.SG.GEN NEG.AUX.3.SG frozen, today PRT
 ‘Yesterday I did not freeze, today I did.’
- (37) Včeraj me ni zeblo, danes pa ME.
 yesterday CL.1.P.SG.GEN NEG.AUX.3.SG frozen, today PRT CL.1.P.ACC
 ‘Yesterday I did not freeze, today I do.’ (non available reading: today I did)

Thus, no temporal requirement is necessary in the stripping-style example in which a particle licenses the contrast to ‘today’ and simply copies the tense of the antecedent, as in (36). In (37), which is a clitic-based vPE site, however, the interpretation paralleling the past tense of the antecedent is precluded and the ellipsis site is interpreted in the present, in contrast to the antecedent.

To sum up, the case of Slovenian clitic-based vPE then offers support for a theory of ellipsis based on interpretable features and on temporal features in particular.

4. Outlook

I next discuss further connections - including some problematic ones - of the ellipsis licensing mechanism proposed here as well as potential consequences of the hypothesis of vPE(LIC) based on interpretability with regard to some theoretical issues.

4.1 Look aside

This subsection notes two further-going theoretical issues in the context of what I have argued above with regard to vPE, namely the possible relationship to *pro* theory and the problematic status of nonfinite ellipsis in English.

The first issue concerns the assumed similarity in earlier theories between, e.g., empty subjects and vPE. In the research on licensing based on government, ellipsis types such as vPE and null elements like *pro* followed virtually the same principles of licensing and identification. The question whether this remains a consistent interpretation under minimalist assumptions has to my knowledge not been addressed.¹⁶ While a discussion of null subjects is beyond my scope, I sketch in what follows one possible logical space for further exploring the connection given that most post-GB account of ellipsis do not address the similarity discussed by earlier theories. Holmberg (2005) insightfully synthesizes in his analysis of null arguments the following scenarios for the fate of *pro* in Minimalism.

Either (A) the licensing head (taken to be Agr for *pro*) is taken as interpretable; or (B) *pro* itself is referentially fully specified and values the licensing head’s features. Holmberg argues for (B) on the basis of Finnish data. In this connection, an independent interpretability issue arises for the licensing of *pro*, which is at the core of Holmberg’s approach: “The traditional view of the null subject as *pro* identified by Agr (the ϕ -features of I) cannot be maintained in a theory where Agr is uninterpretable” (Holmberg 2005:533). For vPE, the empirical situation is different in that the functional element that we have seen to empirically be in charge of vPE (i.e. T) is interpretable by definition and the licensed entity is syntactically fully specified.

¹⁶ This may be justified on a theoretical basis since the tools are no longer available, but it is less satisfactory if one loses the empirical coverage of the earlier theory.

“Fully specified”, however, does not amount to the same requirements in the case of null arguments (features) as in the case of elided vPs (articulate internal structure). The distinctions between vPE and *pro* thus come as no surprise since variable binding, trace hosting within ellipsis sites, and further well-known tests, reveal full-fledged structure in VPE but not in *pro*. Therefore, the differences in this respect also hold when potential *pro*-forms in the propositional domain are considered for a more appropriate comparison (such as *so* in English, which, e.g., does not admit extraction; Johnson 2001). A further difference consists in the fact that the tense information itself is syntactically and semantically not standardly assumed to be present within the vP; cf., e.g., von Stechow (2005) for further discussion of semantically vacuous tense morphology on the verb itself. To summarize then for present purposes, on the assumptions and the argumentation made so far, I cannot argue for a direct parallelism between null arguments and vP ellipsis with respect to the mechanisms under which they are licensed. Whether the two display more interesting (say, complementary distribution) patterns than the suggestion *ex negativo* that I am lead to give here, or whether the mechanisms are partitioned differently simply because of the differences between what is at stake in each case (e.g., ϕ -features vs. a fully structured category) is for further research to say.

The next question I would like to raise, is whether the interpretability hypothesis can extend to the (im)possibility of ellipsis under non-finite licensers. If the tense proposals in the spirit of Stowell (1982) and Martin (2001) are correct, at least some infinitives might have tense. Consequently, on the simplest hypothesis, one might be tempted to conclude that precisely those infinitives should also be licensers of vPE. However, there is evidence that such a proposal for non-finites may not correlate entirely, e.g., with the acceptability of vPE under infinitival *to*, which is extremely fickle (see Valmala 1996; Johnson 2001; Baltin & Barrett 2002 for discussion). The problem regarding infinitive ellipsis seem to arise, however, not only if one wanted to extend the present account, but under any other one as well, as far as I know. A first question in this connection is, of course, whether what we see is really vPE both with respect to distributional properties and even to category. For instance, various alternatives to the classical base-generation of *to* in T are available. If, say, *to* is structurally higher (or lower) than T, the follow-up issue would be whether the site licensed by it is correspondingly also something different from a vPE site. Notice that even if we put structural qualms aside and assume that ellipsis under non-finite elements is exactly of the size and the same in nature as a bona-fide vPE site with the licenser in a position parallel to Infl, various other differences obtain, in particular with respect to the behavior in island contexts. In such contexts, a well-known clash obtains between finite and non-finite ellipsis (Johnson 2001). A further interfering issue is the question whether tense is available in infinitives at all (Wurmbrand 2006). Finally and in connection to the latter point, one can speculate whether non-finite ellipsis is guided by the same mechanisms as finite vPE. This is not a particularly neat consequence at first sight, but the distribution in English and perhaps other languages might possibly enforce the conclusion empirically. On a further note, we can mention that cross-linguistically, even within types of ellipsis that are licensed by finite elements, establishing whether they are well-behaved vPE sites is not always an easy task. For instance, a language such as German seems to have a deficient T node at most (cf. Haider 1997; Sternefeld 2004) and no bona-fide process of syntactically governed vPE (Winkler 2005). It can nonetheless interestingly exhibit phenomena resembling vPE, which are perhaps governed by different, discourse-bound factors (cf. once again Winkler 2005 for recent relevant discussion). Given that for non-finites a number of parameters would first need to be clarified, before being able to decide whether interpretability in the formal syntactic sense is

the appropriate tool to be tested, non-finitely licensed ellipsis will have to await further research.

4.2 Look through

In this subsection, I consider two main extensions of the feature-based approach advocated above. As a preliminary, I take note of the issue in the taxonomy of the features involved in ellipsis. If T is indeed the licenser, and T is without a doubt an interpretable and formal feature at least in English, then we have a situation with an interpretable probe. This is not standard, but since further evidence which questions the unidirectionality of the probe-goal mechanism has been suggested, I will leave the model-theoretical question aside and rather consider it as an empirical issue.¹⁷ In various cases, such as clitics, negative concord, and tense, the argument has been put forth (independently of ellipsis) that “inverse” configurations with respect to the standard way of the probe-goal relationship is thought of (cf., e.g., Nash & Rouveret 2002; Zeijlstra 2004, 2006; von Stechow 2005).

If the interpretability (T-based) approach is on the right track, one consequence may perhaps be the following *Chameleon-Hypothesis*, when one considers issues of vPE beyond licensing. In particular, it does not seem unlikely that T has double module access in the computation.

(38) *CH*: T has access both to C_{HL} and the LF/syntax of its complement.

A simplified *CH*-scenario, where vP_A is the relevant antecedent verb phrase and vP_E is the verb phrase to be elided, could run along the following lines. Assume that we arrived at a step n in a (not necessarily conjoined) derivation D in which vP_A has been computed phases away. vP_A is at this point out of computational memory for the syntactic component, but it is, however, available at LF, e.g., in the standard sense of compositionally built semantics. After being merged, vP_E will be reachable for immediately following computations, with its domain still accessible to T (Chomsky 2001:14); a condition such as PIC becomes relevant only at a node $Z \geq C$, i.e. at the next strong phase. A theoretical way to recognize that vP_A and vP_E are isomorphic - if not identical - is via the LF level. Once $vPE(PAR)$ has been established, the interpretable feature T in English and some other languages syntactically licenses the null-spellout of vP_E .

On a final note, let's consider an additional argument why a grammaticalized T may be in charge of vPE in many cases, which potentially has to do with the nature of T and of vPE. Besides the fact that T is the main exponent of an interpretable and formal feature in languages like English and the empirical and theoretical evidence related to vPE directly, consider the higher-predicate syntactic shape of T (cf., e.g., Stowell 1996) and the mechanism of vPE together with its link to deaccenting (Tancredi 1992; Fox 1999; Winkler 2005 a.o.). On the assumption that T is a structurally higher syntactic predicate, more accurately a clause-level two-place relation (Zagona 1990; Stowell 1995; Demirdache & Uribe-Etxebarria 2000), this parallelism further accounts for the cases in which the T-element is stressed and the vP can be deaccented or elided. On such theories, the syntax of tense is essentially the same as the syntax of a transitive verb or preposition; the function of the T node is to order an external argument (e.g., utterance time) with respect to an internal argument (e.g., event time).

¹⁷ We may also note that theoretically the system would also have one assumption less if a probe were not necessarily uninterpretable.

Cases of accent retraction from the auxiliary position may have independent information structural and sometimes syntactic co-licensing reasons; cf. Winkler (2000, 2005) for further discussion. While other languages allow the extreme case of deaccenting with the structurally lower predicates, namely in the case of the complements selected by V (object drop), English only allows deaccenting (and no deletion) in such cases (with a few exceptions) cf. (39); out of the two predicates, it moreover only allows deletion with the complement of the higher predicate (i.e. thus deletion of the complement of T).

- (39) Has John read Slaughterhouse Five?
 a. No, John doesn't READ books. (e.g. *verum* deaccenting; cf. Cresswell 2000)
 b. Yes he HAS. (vPE)

While English does not belong to the set of languages that allow a syntactic process of object drop, it does allow deaccenting in *verum* contexts and both deaccenting and ellipsis in the case of the complements of T. To the extent that one adheres to the theory of tense as a predicate, this provides possible additional motivation to the licensing role of tense.

5. Conclusion

To summarize, the paper has considered the issue of licensing fully structured vPE sites in some grammars no longer assuming typical GB tools. The goal was to go one step further beyond stating the (otherwise interesting) conclusion that ellipsis is deletion. In particular, it consisted in searching for the necessary generalization and the appropriate factors that determine licensing as well as in deciding which conditions they should satisfy, where they may be derived from in the grammar and why. The specific course taken was to consider cases of vPE as grammaticalized in different contexts and test whether and how temporal dependencies were present in the cases of vPE licensing.

I hope to have shown that vPE(LIC) by itself is a straightforward (and for now not eliminable) necessary condition. A note of caution at the same time is that it is not doing the work of, but under minimalist assumptions rather enabling, possibly more complex computations involved in ellipsis. The emerging result found was that vPE licensing is a process occurring in syntax, which is, however, fully motivated at the interfaces, and that interpretability of a formal (more specifically here, temporal) feature is a necessary ingredient for the licensing phenomenon.

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Remus Gergel
 Universität Tübingen
remus.gergel@uni-tuebingen.de

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