ON *EGIN*: *DO*-SUPPORT AND VP FOCUS IN CENTRAL AND WESTERN BASQUE

This paper is a study of *do*-support in VP focus constructions in Central and western Basque (CWB) dialects. In such constructions, a focused verb phrase triggers the appearance of a dummy verb *egin*, which as a lexical verb is akin to English 'make' or 'do.' (Rebuschi 1984, Ortiz de Urbina 1989, Zuazo 1998, Etxepare and Ortiz de Urbina 2003). An example of this phenomenon is given in (1), which contrasts with the neutral example, without *do*-support, in (2).

(1) Ines etorri egin da.
Ines come do AUX
a. 'Ines has COME.'
b. * 'Ines has come.' (non-verb focalization reading)

(2) Ines etorri da.
Ines come AUX
'Ines has come.'

The goal of this paper is to explain how *do*-support comes about in sentences such as (1a). In particular, I argue that CWB dialects, along with Korean (Hagstrom 1995, 1996), form a class of *do*-support languages whose dummy verb insertion mechanism differs slightly from that in English (Chomsky 1957, 1995, Pollock 1989) and Monnese (Benincà and Poletto 2004). In all four of these languages, the dummy verb occupies a position that is, in marked environments, inaccessible to the verb. However, in Korean and CWB, unlike in English and Monnese, the verb's inability to raise is not due to its inflectional poverty, but rather because it must bear a nominalizing infinitival affix for independent reasons; this nominal infinitive may not bear aspectual morphology, and a dummy verb is merged to do so instead.

I further propose that merger of *egin* is not a last-resort phenomenon as in Chomsky's classic analysis of English *do*-support (Chomsky 1957, 1995). That is, the unavailability of *egin* in non-verb focalization constructions such as (1b) is not due to competition with the more economical *egin*-less alternative in (2); rather, (1b) is independently excluded. A virtue of this approach is that it avoids a violation of the Inclusiveness Condition (Chomsky 2000, 2001) inherent in economy-based approaches to *do*-support that treat the dummy verb as non-lexical material generated in the computational component (Chomsky 1995).

Section 1 of this paper briefly reviews previous approaches to *do*-support in English. In section 2, I discuss some key properties of focalized VPs in Basque that will be crucial to the analysis of *egin* developed here. Section 3 develops an analysis of the dummy verb *egin*.

1. Previous approaches to *do*-support in English

In certain marked environments, standard English requires a semantically empty "dummy" verb *do*. In environments where this *do* appears, it bears tense and agreement morphology that in other environments is borne by the main verb. *Do*-support in some of these environments is illustrated in the following examples.

(3) Negatives

Ines doesn't smoke.

(4) I-C movement (yes/no and non-subject *wh*-questions) [1]

a. Who$_i$ did Ines see t_i?
b. Did Ines leave?

(5) VP-ellipsis

Ines ate Pasta and Ira did too.

By contrast, *do*-support does not obtain in other environments including neutral declaratives.[2]

(6) Neutral declaratives

a. Ines smokes.
b. *Ines does smoke. (without stress on *do*)

English *do*-support has often been related to the absence of verb raising, which is in turn frequently attributed to the inflectional "poverty" of the language (Lightfoot 1979, Pollock 1989).[3] In a seminal analysis, Pollock (1989) connected the inflectional poverty of English to the relative placement of verbs and certain adverbs in English vs. other languages. For example, (7) shows that main verbs in English must follow adverbs of frequency, such as *often*.

(7)

a. Ines often sees Mary.

b. *Ines sees often Mary.

By contrast, French *souvent*, 'often' must follow the main verb as in (8).

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[1] As Benincà and Poletto (2004) argue, *do*-support in the Northern Italian dialect Monnese is strikingly similar to English *do*-support in environments with I-C movement. I will not discuss the Monnese facts here.

[2] *Do*-support in both (standard) English and Monnese is also unavailable with *be* and modals. I abstract away from these facts here.

(i) a. Ines isn't tall.
b. *Ines doesn't be tall.

(ii) a. Ines can't swim.
b. *Ines doesn't can swim.

[3] Compared to many other languages, English seems to be rather "poor" in inflection. On lexical verbs in the present tense, for example, English has only two distinct conjugations: -*s* for 3sg subjects and -∅ for all other subject persons. For lexical verbs in the past tense, the agreement morpheme for all subject persons is -∅. In French, by contrast, overt subject-verb agreement is much richer, distinguishing (orthographically, at least) among up to five or six subject persons across tenses, depending on the verb class.

(8)

a. Ines voit souvent Marie.
   Ines sees often Marie
  'Ines often sees Marie.'
b. *Ines souvent voit Marie.
   Ines often sees Marie

In view of this difference in adverb placement, and in view of the difference between the two languages in inflectional richness, Pollock proposed that a "strong" agreement head above *souvent* attracts the verb, producing the verb-adverb word order in French. By contrast, this same agreement head in English is plausibly too "weak" to attract the main verb. Consequently, the main verb remains *in situ*, yielding the adverb-verb word order for English.

Crucially, in English affirmative sentences such as (6a) and (7), a rule of "affix-hopping" must apply whereby inflectional morphology—in this case 3SG *–s*—lowers to attach to the verb (Chomsky 1957). In negative sentences such as (3), the negative morpheme blocks this affixation and *do*-support applies in order to provide lexical support for this agreement morphology. Similarly, in yes/no questions and non-subject *wh*-questions, in which an inflected verb must raise to C, *do* raises in place of the main verb, which cannot raise out of its base-generated position in V.

A long tradition of research has approached *do*-support as a "last resort" phenomenon (Chomsky 1957, 1995) in view of the fact that it may only occur when it must.[4] That is, dummy *do* is inserted to host tense and agreement morphology only when no other verbal element is available to do so. When *do*-support need not apply—i.e. when affix-hopping is available—it cannot apply. The intuition behind this approach is that, in cases where *do*-support does not apply, it is "blocked" by simpler derivations without *do*-support. A persistent challenge in the Principles and Parameters framework, however, has been to explicate notions of economy and competition (Chomsky 1995, Collins 1997). In particular, against what candidate set is a given derivation evaluated for economy? And, how exactly are competing candidates evaluated?

The problem of do-support in recent minimalism. In recent minimalism, Chomsky's (2000, 2001, 2004) notion of a "lexical array" figures in answers to these questions. In Chomsky's recent work (as in other frameworks), lexical material is assembled into syntactic structures by a computational component of the grammar, i.e. "narrow syntax," excluding the interpretive (LF) and phonetic components (PF). Chomsky (2000, 2001, 2004) proposes that the computational component does not take material directly from the lexicon, however, but rather from a "lexical array"—a "one-time selection" of material from the lexicon. The notion of lexical array has two main motivations. First, Chomsky (2000, 2001) suggests that such a device reduces computational complexity since the computational component can work from a limited lexical palate, rather than the unwieldy full lexicon: "If the derivation accesses the lexicon at every point, it must carry along this huge beast, rather like cars that constantly have to replenish their fuel supply. Derivations that map LA [lexical array] to expressions require lexical access only once, thus reducing operative complexity in a way that might well matter for optimal design" (2000:100-1).

Second, the lexical array allows for a more precise notion of competition. A naive comparison of the sentences in (9a) and (9b) suggests that the example in (9b) is less

[4] See also Grimshaw (1997), Bresnan (2000), Vikner (2001) for approaches to *do*-support in Optimality Theory.

complex than that in (9a), since the latter contains more lexical material—the expletive *there*—and therefore requires more steps in assembling this material.

(9) (Chomsky 2000:104)

a. I expected [there to be a proof discovered].

b. I expected [a proof to be discovered].

If the computational component has direct access to the lexicon, and if simpler derivations always block more complex ones, then (9b) should always be able to block (9a), since the former involves fewer steps, and (9a) is therefore incorrectly excluded as a possible English sentence. This problem is avoided, however, if evaluations of economy are restricted to derivations built from identical lexical arrays.[5] Under this assumption, (9a) and (9b) are not in competition, since their lexical arrays are non-identical sets of lexical elements, and (9b) therefore does not block (9a). In this way, the lexical array helps limit evaluations of economy to derivations with the same lexical input, an intuitively attractive result.

Consider, then, how an economy approach to *do*-support might work within this framework in view of the following examples.

(10) Ines doesn't live here.

(11) Ines lives here.

(12) *Ines does live here. (non-emphatic *do*.)

As discussed above, a traditional understanding of *do*-support is that it serves to host inflectional morphology in sentences like (10), because negation blocks affixation of this morphology onto the main verb. In the absence of negation, as in (11), *do*-support is not required, and is therefore blocked. That is, because in neutral declaratives a more economical derivation without *do*-support is available—namely (11)—the more "expensive" derivation with *do*-support is blocked. *Do*-insertion, then, applies only as a "last resort."

This approach, however, is problematic from the perspective of approaches to economy that make use of a lexical array. Crucially, if the dummy element *do* is taken to be part of the numeration, then (11) and (12) do not compete, since they have different lexical arrays—one with *do* and one without. This approach, then, fails to exclude (12). Another possible solution is that the dummy verb is not included in the lexical array, but is rather non-lexical material generated by the computational component in the course of the derivation (Hornstein, Nunes and Grohmann 2005). A derivation with the insertion of *do* is presumably more costly than its minimally different competitor without *do*-insertion and (12) is therefore correctly excluded on economy considerations. This second approach, however, entails a substantial enrichment of the grammar, since it requires the computational component to be more than an assembly algorithm; rather, this approach crucially requires the computational component to *generate* non-lexical material. In terms of recent minimalist theory, then, this

[5] It must also be assumed that only convergent derivations compete and that derivations must exhaust the items in a lexical array.

approach entails a violation of the Inclusiveness Condition (Chomsky 2000), which proscribes the introduction of material in the computational component.[6]

In section 3 of this paper, I will argue that Basque *do*-support is not a last-resort phenomenon as in Chomsky's analysis of English. That is, the unavailability of *egin* in non-focalization environments is not blocked by a cheaper *egin*-less alternative, but rather is excluded independently. By this approach, then, *egin* need not be generated in the narrow syntax, a welcome result from the perspective of recent theory.

2. Some properties of the focalized verb in Basque verb focalization constructions

This section discusses some properties of the main verb in verb focalization constructions that will be relevant to the analysis of *do*-support developed below.

2.1 Focalized verbal constituents are infinitives.

Main verbs in VP focus constructions bear one of four affxes— *–tu/-i/-n/-Ø*— which vary by verb class. The open class affix is *–tu* as in (13a). Three smaller classes of (typically older) verbs take the affixes *–i,-n* and -∅ in (13b-d), respectively.

(13)
a. Toles-**tu** egin du.
bend-*tu* do AUX
'She has BENT IT.'
b. Etor(r)-**i** egin da.
come-*i* do AUX
'She has COME.'
c. Ema-**n** egin didate.
give-*n* do AUX
'They have GIVEN IT TO ME.'
d. Hil-**Ø** egin da gure aita.
die do AUX our father
'Our father has DIED.' (Ortiz de Urbina 1989)

In the following discussion, I will treat these affixes as (underlyingly) infinitival markers. This is not a standard treatment of these elements in the literature on Basque, so I will devote some discussion to defending this approach.

In the Basque literature, *-tu/-i/-n/-Ø* are typically described as perfective markers (Laka 1990, Ortiz de Urbina 1989, Zabala and Odriozola 1996) or participial affixes in view of the fact that, on main verb complements of auxiliaries, they necessarily cooccur with a perfective interpretation, as reflected in the gloss in (14).

(14) Ines-ek ikus-i du.
Ines-ERG see-PERF AUX
'Ines has seen (it).'

In this environment, *-tu/-i/-n/-Ø* are in complementary distribution with the affix *–t(z)en*, as in (15), which may have several different kinds of imperfective interpretations.

[6] A third possibility is that *do*-support is a PF-phenomenon as suggested by Chomsky (2001). I will not pursue this possibility here. See Embick and Noyer (2001) and Benincà and Poletto (2004) for evidence against this approach.

(15) Ines-ek ikus-ten du.
Ines-ERG see-IMPERF AUX
'Ines sees (it).'

In view of this distribution, Laka (1990), proposes that *-tu/-i/-n/-Ø* and imperfective *–t(z)en* are alternate values of a single aspectual head, Asp (cf. Zabala and Odriozola 1996). Nevertheless, the behavior of *-tu/-i/-n/-Ø* in other environments is problematic for an approach to these elements as always and everywhere merged as perfective markers. One such environment is verb focalization constructions involving the dummy verb *egin* as shown in (16).

(16)
a. Eror-i egin-Ø da etxea.
fall-i do-PERF AUX house
'The house has FALLEN.'
b. Eror-i egi-ten da etxea.
fall-i do-IMPERF AUX house
'The house FALLS.'
c. Eror-i egin-go da etxea.
fall-i do-FUT AUX house
'The house is going to FALL.'

In (16), *-i* appears on the focalized main verb, while aspectual markers such as the imperfective affix *–t(z)en* and future *–ko* are realized on the dummy verb, *egin*. Crucially, in sentences such as (16), the aspectual interpretation is invariably determined by the aspectual morpheme on the dummy verb, *egin*, as reflected in the glosses. Assuming Laka's AspP proposal and an analysis of *-tu/-i/-n/-Ø* as (always) perfective markers, then the data in (16) are perplexing since they seem to require the realization of different values of a single aspectual head on different items in a single clause. (Evidence is provided below that these constructions are in fact monoclausal rather than biclausal.)[7]

The behavior of *-tu/-i/-n/-Ø* on verbs selected by modals provides additional reason for skepticism toward the traditional analysis of these elements. In particular, verbs selected by the modals *ahal*, 'can,' *nahi*, 'want' and *behar*, 'need' obligatorily bear *-tu/-i/-n/-Ø* regardless of the perfectiveness of the action.

(17) Egun hartan esan zidan, egunero etor(r)-i nahi zuela.
day that-on say AUX everyday come-i want AUX-COMP
'That day she told me she wanted to come everyday.' (want>every)

Iterative readings of this kind are not possible in the past tense in the absence of a modal; instead, the imperfect affix *–t(z)en* is required.

(18) Egunero (*etor(r)-i/etor-t(z)en) zen.
everyday (come-i/come-t(z)en) AUX
'She used to come everyday.'

[7] As a reviewer notes, if we do not adopt Laka's AspP proposal for Basque, and instead posit different merged position in the clausal functional sequence are allowed for these different aspectual heads (Cinque 1999), then this problem may not arise.

Hence, on verbs under modals and in verb focalization constructions, *-tu/-i/-n/-Ø* are not plausibly understood as perfective markers (Artiagoitia 1995, Alcázar 2002); rather, in these environments, these affixes seem more akin to infinitival markers. In fact, the distribution of verbs+*-tu/-i/-n/-Ø* is similar in three other ways to infinitives cross-linguistically. First, the verb+ *-tu/-i/-n/-Ø* is the citation form for the verb. While infinitives are commonplace as citation forms, an aspectually-marked verb as a citation form, is less expected. Second, verbs+*-tu/-i/-n/-Ø* are also selected by certain prepositions and postpositions including *nahiz* 'despite' and *gabe* 'without.' (Other postpositions take a gerund complement headed by an affix *–t(z)en* homophonous with the imperfective affix discussed above.)

(19) nahiz gaztea iza-n
despite young be-INFIN
'despite being young.'

(20) ikus-i gabe
see-*i* without
'without seeing.'

Third, these constituents participate in short *wh*-movement, as in (21) (Ortiz de Urbina 1989).

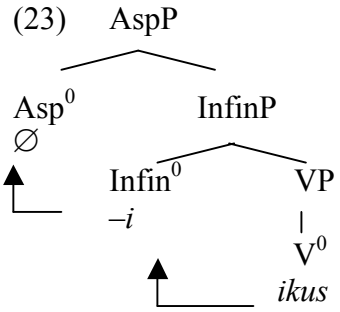
(21) Ez dakit zer abes-tu.
not know what sing-tu
'I don't know what to sing.'

In view of these facts, I will assume that verbs+*-tu/-i/-n/-Ø* in VP focus cases are in fact infinitives. From this perspective, however, a question that arises is how to account for the behavior of these affixes in perfective environments such as such as (14)(repeated here).

(22)=(14)
Ines-ek ikusi du.
Ines-ERG see.PERF AUX
'Ines has seen (it).'

I propose that perfective examples such as these involve adjunction of the verb root+*-tu/-i/-n/-Ø* to a null aspectual head, as illustrated in (23).

(23)



Such a derivation, in fact, seems to be independently required for future forms, which are formed by stacking the future affix *–ko* onto the verb+*-tu*/*-i*/*-n*/*-∅*, as shown in (24).

(24) Abes-tu-ko dut.
sing-tu-FUT AUX-PRES
'I will sing.'

Crucially, *-tu/-i/-n/-Ø* in future constructions lack properties of true perfective heads (Artiagoitia 1995, chapter 3). In particular, with *–ko* stative *ezagutu*, 'to know (a person, place etc.)' need not have an "ingressive" interpretation marking the beginning of a state as illustrated in (25) (cf. Spanish *conocer* 'to know').

(25)
Inesek, nere kardiologoak, oso ongi ezagu-tu-ko du bihotzaren anatomia.
Ines-ERG my cardiologist, very well know-*tu*-FUT AUX-PRES heart.GEN anatomy
'Ines, my cardiologist, must know (lit. 'will know') the anatomy of the heart very well.'

In canonical perfective environments, by contrast, *-tu* does force such an ingressive interpretation with this class of verbs.

(26) Ezagu-tu nuen.
know-PERF AUX-PAST
'I met him.'
*'I knew him.'

Similarly, future forms with *-tu/-i/-n/-Ø* allow iterative interpretations as in (27).

(27) Maiz etorr-i-ko da.
often come-*i*-FUT AUX-PRES
'She'll come often.'

In light of these facts, then, I will assume: (i) that the verb root+*–tu/-i/-n/-Ø* in verb focalizations are in fact infinitives; and (ii) that the perfective guise of these affixes is derived by adjoining the verb root+*–tu/-i/-n/-Ø* to a null aspectual head.[8] I will return to these assumptions later in the analysis of *do*-support developed below.

[8] See Artiagoitia 1995 chapter 3 for an extensive discussion of the dual nature of these affixes. A more detailed argument for the unified analysis of these two guises of *–tu/-i/-n/-Ø* is provided in xxxx 2006.

2.2 Focalized VPs[9] raise to spec, FocP.

Following a proposal by Rebuschi's (1983) in a brief discussion of verb focus constructions with *egin*, I will assume that in these environments the focused VP raises to the same left-peripheral designated focus position targeted by other kinds of information foci. In the following discussion, I present evidence in favor of this position from based on the behavior of focalized VPs in terms of word-order, extraction from complement clauses and clausal pied-piping.

2.2.1 Word order

The positioning of arguments in Basque is discourse-sensitive. Canonically, foci and *wh*-phrases must appear left-adjacent to the main (aspect-bearing) verb in positive sentences and left-adjacent to the negative morpheme *ez* in negatives as illustrated in (28) and (29).

(28) Nor-k/JON-EK ikus-i du Miren.
Who-ERG/Jon-ERG see-PERF AUX Miren
'Who/JON has seen Miren.'

(29) Nor-k/JON-EK ez du (√Miren) ikus-i (√Miren).
Who-ERG/Jon-ERG not AUX (Miren) see-PERF (Miren)
'Who/JON hasn't seen Miren.'

(30) and
(31) show that when non-focalized material intervenes between the focus and the main verb or *ez*, the result is unacceptable.

(30) Nor-k/JON-EK (*Miren) ikus-i du (√Miren).
Who-ERG/Jon-ERG (Miren) see-PERF AUX (Miren)
'Who/JON has seen Miren.'

(31) Nor-k/JON-EK (*Miren) ez du (√Miren) ikus-i (√Miren).[10]
Who-ERG/Jon-ERG (Miren) not AUX (Miren) see-PERF (Miren)
'Who/JON hasn't seen Miren.'

(32) and (33), below, show that focalized VPs behave like other kinds of foci in requiring left-adjacency to the main (aspect-bearing) verb in affirmatives, and left-adjacency to *ez* in negatives.

(32) Hil-Ø (*aurten/*gure aita) egin-Ø da aurten gure aita.
die-INFIN do-PERF AUX this.year our father
'Our father has DIED this year.'

[9] The term "VP" is used here for expository convenience. I will later propose that the constituent that raises to is slightly bigger than VP.

[10] Another possible reply to the negative *wh*-question here is (i).
(i) Ez du JON-EK Miren ikusi.
Not AUX Jon-ERG Miren see.
'JON hasn't seen Miren.

(33) (?) Etor(r)-i (*Jon) ez da egin-Ø (Jon).[11]
Come-INFIN NEG AUX do-PERF (Jon).
'Jon hasn't COME.'

A more marked and less-well studied focalization strategy is also available for some speakers, in which focalized constituents appear right-peripherally,[12] as in (34).

(34) Elordieta (2001)
Ardoa ekarri diot (#) ANDONI-RI.
wine brought AUX Andoni-DAT
'I brought the wine to ANDONI.'

(35) shows that in Oiartzun Basque and neighboring dialects, VPs in *egin*-constructions may also appear right-peripherally. In these examples, the most natural reading is one in which the entire verbal constituent (in brackets) or a verbal complement receives focus interpretation.

(35) Horrek egi-ten du zuzen-du.[13]
That egin-IMPERF AUX correct-INFIN
'The latter CORRECTS IT.'

(36) Monjak egin zigun [barruan utz-i.]
Nuns do AUX inside leave-INFIN
'The nuns LEFT US INSIDE.'

(37) Berak egin behar zituen [bi txiki jar(r)-i.]
He/she do need AUX two small put-INFIN
'He/she had to PUT TWO SMALL ONES.'

(38) Egin behar duzu hurrengo egun-ean [dena enboteila-tu.]
egin need AUX next day-on all bottle-INFIN
'The next day you have to BOTTLE IT ALL.'

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[11] In affirmative contexts, focalized verbs are interpretable as both contrastive/corrective foci and information foci (i.e. as an answer to a *wh*-question questioning the focalized element). For negative foci such as (33), which some speakers find somewhat marginal, a contrastive/corrective interpretation is preferred.

[12] In fact, for some speakers, right-peripheral foci need not be strictly right peripheral (cf. Ortiz de Urbina 2002). In particular the "right-peripheral" focalized constituent can be followed by a topic if it is set off by a pause as in (i), below.

(i) Jonek eman dio BIZIKLETA BAT # Miren-i.
Jon give AUX bicycle one Miren-to
'Jon has given a BICYCLE to Miren.'

[13] In this example and in others to follow, the /t/ of *–tu* assimilates in voicing to the preceding nasal. This is orthogonal to the claims made here.

Crucially, this strategy seems to be most marked precisely in those dialects in which other kinds of right-peripheral foci are highly marked. For example, in the dialect of Lekeitio, which is conservative with respect to post-verbal foci generally, right-peripheral verb focalizations such as that in (35) are also marginal (A. Elordieta, p.c.).[14]

2.2.2 Extraction from complement clauses and clausal pied-piping

Another well-documented property of *wh*-phrases and foci in Basque is that they may extract from complement clauses, especially under verbs of saying, as shown in (39) and (40) (Ortiz de Urbina 1989, Uriagereka 1999).

(39) Etxepare and Ortiz de Urbina (2003)
Nola esan du Jonek [uste du-ela Peruk [egin behar-ko litzateke-ela?]]
how say AUX Jon-ERG think AUX-COMP Peru-ERG make need-FUT AUX-COMP
'How did Jon say Peru thinks it should be made?'(Downstairs interpretation)

(40) Etxepare and Ortiz de Urbina (2003)
HOR(R)-ELA uste dut [egin behar-ko litzateke-ela aukeramena.]
this-way think AUX make need-FUT AUX-COMP choice
'IN THIS WAY do I think the choice should be made.'

(41) shows that, at least for some speakers, focalized verbs behave like other kinds of foci in their ability to extract from complement clauses. (Why sentences of this kind are only marginal for many speakers is not clear to me.) The availability of extraction in such cases, then, to the extent that they are available, is further evidence that verb raising in *egin*-constructions is A'-movement.

(41) ? Etor(r)-i_i esan didate [t_i egin zine-la].
come-INFIN say AUX do AUX-COMP
'They have told me that you CAME.'

[14] The most thorough generative treatment of postverbal foci in Basque is by Ortiz de Urbina (2002), who argues that in both preverbal and postverbal focus constructions, the focalized constituent moves to the same position—spec, FocP.

(i) $_{FocP}$ [XP_i [Foc^0 … t_i

The two constructions differ minimally in that postverbal focalization constructions involve an additional movement step in which the remnant constituent below FocP raises to the left of FocP, leaving the focalized constituent as the most deeply embedded material in the tree. This movement step is illustrated in (ii). (See also Uribe-Etxebarria 2003.)

(ii) (Ortiz de Urbina, 2002)

$_{TopP}$[YP_j [Top^0 $_{FocP}$ [XP [Foc^0 t_j]]]]

I will set aside the issue of how such rightward foci are derived. For the purposes of the present discussion, what will be crucial is that VP foci behave like other kinds of foci according to the available diagnostics.

Similarly, *wh*-phrases and foci may also pied-pipe entire clauses to the front of the matrix clause as in (42) and (43)(Ortiz de Urbina 1993, Arregi 2003).

(42) Ortiz de Urbina (1993)
[Nor etorri-ko d-ela bihar] esan diozu Miren-i?
who come-FUT AUX-COMP tomorrow say AUX Miren-DAT.
'That who will come tomorrow have you told Miren?'

(43) Ortiz de Urbina (1993)
[JON etorri-ko dela bihar] esan diot Miren-i.
Jon come-FUT AUX-COMP tomorrow say AUX Miren-DAT.
'That it is Jon that will come tomorrow I have told Miren.'

Example (44) shows that clausal pied-piping is also available with verb focalizations with *egin*. This property of *egin* focalization constructions is again expected if focalized main verbs move to the same left peripheral position as focalized arguments and adjuncts.

(44) [Etor(r)-i egin zine-la] esan didate.
come-INFIN do AUX.COMP say AUX
'They say you CAME.'

To review, focalized VPs behave like other kinds of foci in terms of word order, extraction from embeddings and clausal pied-piping. Following Rebuschi (1983), then, I will assume that these elements move to the same designated left-peripheral focus position targeted by focalized arguments adjuncts (Ortiz de Urbina 1989, Rizzi 1997).

3. *Do-support*

3.1 *Egin* as a dummy verb

Three sets of facts presented so far support an understanding of *egin* in verb-focalization constructions as a "dummy" verb, i.e. as an element occupying the canonical position of the main verb, when the latter has other obligations. First, *egin* in this semantically empty guise *only* and *always* appears in verb focalization environments in which the main verb raises to the left periphery.[15] Second, as discussed above, *egin* has the

[15] Etxepare and Ortiz de Urbina (2003) however, describe a topicalization strategy with the dummy verb *egin* as in (i). As Etxepare and Ortiz de Urbina note, constructions of this type are marginal and restricted to certain predicates, and will be set side for the purposes of the present discussion.
(i) (Etxepare and Ortiz de Urbina 2003)
Saiatu, behintzat, egin-go gara .
try at.least do-FUT AUX
'Try, at least, we will.'
In the following discussion, I will also set aside discussion of a different kind of focus construction illustrated in (ii) in which the verb is focalized in the absence of a dummy verb *egin* (Laka 1990:146-7, Etxepare and Ortiz de Urbina 2003: 470-473). As reflected in the gloss, the interpretation of such sentences tends to be one of polarity focus rather than information focus, which suggests that these configurations are likely a (partially) independent phenomenon.
(ii) ETORRI da Xabier
come aux Xabier.
'Xabier HAS come.'

same word order properties as main verbs in negative/affirmative word order alternations: in affirmative sentences, *egin* appears immediately left-adjacent to the auxiliary, and in negative sentences, it appears to the right of the auxiliary and may be separated by arguments and other material. (45) and (46) (repeating (32) and (33), respectively) illustrate this alternation.

(45)=(32)
Hil-Ø (*aurten/*gure aita) egin da aurten gure aita.
die-INFIN do AUX this.year our father
'Our father has DIED this year.'

(46)= (33)
Etor(r)-i (*Jon) ez da egin (Jon).
come-INFIN NEG AUX do (Jon).
'Jon hasn't COME.'

Third, *egin* bears one of three aspectual markers—perfective –Ø, imperfective *–t(z)en* and future *–ko*—normally realized on the main verb, which appears without aspectual marking in the infinitival citation form. These facts, then, suggest that *egin* only appears when the main verb cannot occupy its normal position.

(47) verb focalization
Eror-i (egin-go[16]/egi-ten) da etxea.
fall-INFIN do-FUT/do-IMPERF AUX house
'The house is going to FALL.'/'The house is FALLING.'

(48) argument/adjunct focalization
etxea (erori-ko/eror-tzen) da
house fall-FUT/fall-IMPERF AUX
'The house is going to fall.'/'The house is falling.'

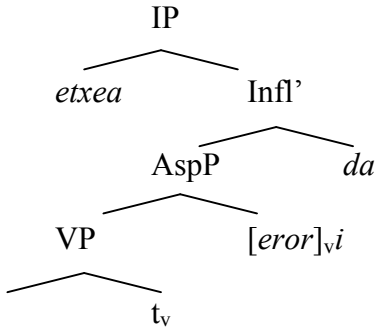
Why, then, is *egin* merged? From the standpoint of an understanding of *do*-support as motivated by the need to value an uninterpretable inflectional (or C) feature (Benincà and Poletto 2004), examples such as (47) and (48) suggest that *egin* is merged to check aspectual features when the main verb cannot. The remainder of this paper will develop this intuition.

In the received approach to Basque verb syntax, analytic main verbs pick up their aspectual morphology via head-adjunction (Ortiz de Urbina 1989, Laka 1990, Elordieta 2001).[17] (50) shows Laka's (1990) IP structure for (49), showing raising of the main verb to Asp^0.

(49) (Laka 1990)
Etxe-a eror-i da.
House-the fall-PERF AUX
'The house has fallen down.'

[16] The /k/ of the affix *–k o* assimilates in voicing to the preceding nasal. This phenomenon is presumably orthogonal to the claims made here.
[17] These authors assume an underlyingly mixed-head structure for Basque. See also Elordieta 1997 for a head-movement approach to these main verbs that assumes antisymmetry.

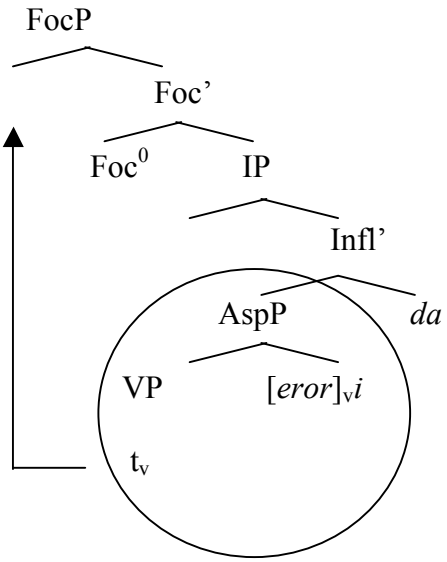
(50) (Laka 1990)



An appealing account of *egin* from the perspective of this proposal is that *egin*'s role is to value an uninterpretable feature in Asp, because the main verb is unable to. Specifically, because the focused VP raises to spec, FocP, the verb cannot head-adjoin to these morphemes, and the dummy verb *egin* fulfils this role. In non-verb focalization contexts, in which the main verb can raise to Asp, *egin* does not appear. (Later, I will return to the question of how to exclude *egin* in non-focalization environments.)

Nevertheless, this approach leaves unexplained the apparent fact that, in such constructions, the verb cannot head-adjoin to Asp and subsequently pied-pipe AspP to spec, FocP. (This derivation is illustrated in (51).[18] Indeed, the inability of the verb to pied-pipe AspP as in (51) is especially curious in view of the fact that foci in Basque are notorious pied-pipers in other contexts (see 2.2).

(51)



[18] The derivation in (51) would produce (i) below.

(i) Etxea ERORIKO da.
house fall-FUT AUX
'The house is going to FALL.'

In other dialects without *egin* in verb focalization constructions, sentences such as (i) are available. More data are needed, however, to determine the nature of these constructions, and whether they might be derived as in (51).

Evidence from similar phenomena in Korean suggests an answer to this question. In neutral declarative sentences in Korean, tense and inflectional morphology appears as affixes on the main verb, as in (52).

(52) (Hagstrom 1996)
Chelswu-ka chayk-ul ilk-ess-ta.
Chelsu-NOM book-ACC read-PAST-DECL
'Chelswu read the book.'

However, in two marked environments, in which the main verb appears to raise out of its normal position, the canonical position of the main verb is occupied by a dummy verb, *ha*, which as a lexical verb is akin to English *do*. One such environment is "long-negation,"[19] an example of which appears in (53). Here, the main verb *ilk* 'read' appears to the left of the negative marker and with the nominalizer, *-ci*.

(53) (Hagstrom 1996)
Chelswu-ka chayk-ul ilk-ci ani **ha**-ess-ta.
Chelsu-NOM book-ACC read-*ci* NEG **do**-PAST-DECL
'Chelswu did not read the book.'

A second environment in which *do*-support occurs is in VP-focus constructions, which are strikingly similar to the Basque constructions discussed above.[20]

(54) (Hagstrom 1995)
Chelswu-ka chayk-ul ilk-ki-nun **ha**-ess-ta.
Chelswu-NOM book-ACC read-*ki*-TOPIC **do**-PAST-DECL
'Read the book, Chelswu does.'

In (54), the main verb, with a nominalizing affix, *-ki*, appears to the left of its canonical position, and tense morphology is borne by *ha,* as in the long negation example in (53). Evidence that movement of the main verb is not head movement but rather XP movement comes principally from the interpretation of such examples: as described by Hagstrom (1995), the preferred reading of examples such as (54) is with focus on the object, however the entire VP may also be focused.[21]

The presence of this nominalizing affix in Korean suggests an account of the Basque data discussed above. Recall that Basque focalized VPs obligatorily appear with one of the infinitival affixes *–tu*/*-i*/*-n*/*-∅*, which vary by verb class. In view of the Korean data in (54), I propose that the infinitival markers *–tu*/*-i*/*-n*/*-∅* also bear the feature [+noun] and further that

[19] A second kind of negation in Korean is "short-negation" shown in (i), which does not involve *do*-support.
(i) (Hagstrom 1996)
Chelswu-ka ppang-ul an mek-ess-ta
Chelswu-NOM bread-ACC NEG eat-PAST-DECL
'Chelswu didn't eat the bread.'

[20] Hagstrom glosses the affix *–nun* as a topic marker, and I have preserved this gloss here. Hagstrom's discussion of the interpretation of these sentences, however, suggests that the VP in such constructions is indeed a focus and not a topic.

[21] Basque speakers as well prefer to interpret parallel examples with focus on a verbal dependent, however full VP-focus interpretations are also available.

it is this property that is central to understanding *do*-support in CWB and Korean. In particular, in both CWB and Korean, the inability of the VP to pied-pipe inflectional material is plausibly a consequence of a requirement that verbal constituents in spec, FocP be [+noun], i.e. be headed by a nominalizing affix. This constraint is given in (55).

(55) CWB/Korean: Verbal constituents that move to FocP must be [+noun], i.e. be headed by a nominalizing affix. (cf. Manfredi 1993)

An account of (55) will be developed below. For the moment, it bears observing that (55) appears to be more general (and in fact may be universal). In Èdó and Yoruba, for example, focalized main verbs must likewise bear nominal morphology, as in (56) and (57), below. In view of data such as these from different West African languages and Haitian Créole, Manfredi (1993) proposes that, in fact, in all cases in which a verb moves overtly to a focus position, the verb is nominalized.

(56) Èdó (Stewart 2001)
a. Òzó dé.
Ozo fell.
b. ù-dé-mwèn òré Òzó *(dé).
NOM-fall-**NOM** FOC Ozo fall
'It is falling that Ozo did, (not, say, rolling).'

(57) Yoruba (Adapted from Manfredi 1993)
Rí-rà ni Ajé ra ìwé.
NOM-buy COMP Ajé buy paper
'It is buying paper that Aje is doing (not stealing).'

This account of *do*-support in Basque depends crucially on the claim that Basque infinitives are nominal in nature, as is often claimed for infinitives in Germanic in Romance. Indeed, three independent kinds of evidence support this view.

First, Basque infinitives may take a D head, as in (58).

(58) (Zabala and Odriozola 1996:239, fn. 3)
Sentitzen dut [Miren berandu etorri iza-n-a.]
regret AUX Miren late come have-INFIN-**the**
'I regret Miren having come late.'

In this respect, Basque infinitives with *–tu*/*-i*/*-n*/-Ø are similar to infinitives in Spanish and Italian, as in (59).

(59) Italian (adapted from Kayne 2000:284)
il mangiare la carne il venerdì
the eat-INFIN the meat the Friday
'the eating the meat on Friday'

Second, a closed class of infinitives may be modified by adjectives as in (60) and (61) (Artiagoitia 1995). This, again, is expected from the perspective of infinitives as nominals.

(60) (Artiagoitia 1995:433)
Guk irabaz-i handi-ak atera ditugu
we gain-INFIN big-PL take out AUX
'We've had big gains.' (cf. *irabaz-i* 'to gain')

(61) (Artiagoitia 1995:437)
Aitonaren esa-n zahar(r)-ak
grandpa's say-INFIN old-PL
'Grandpa's old sayings' (cf. *esa-n* 'to say')

Finally, as a reviewer notes, a third kind of evidence of the nominal nature of focalized infinitives comes from the fact that they may trigger object agreement (for some speakers). In (62), for example, the embedded verb is intransitive, which indicates that the only element available to trigger transitive agreement on the auxiliary is the infinitive complement itself.[22]

(62)
Jon-ek egi-ten **du** astero-astero bertara joa-n
Jon-ERG do-IMP **AUX.TR** weekly-weekly [there go-INFIN]
'What Jon does is go there every week.'

The availability of this kind of agreement, then, is likewise expected if the focalized infinitive is nominal.

3.2 *egin* is merged in v^0

There remains to be addressed where in the derivation *egin* is merged. One kind of evidence that may illuminate this question is the fact that main verbs in verb focalization constructions behave like verbs under the modal *ahal,* 'can' in several key respects. First main verbs under both *ahal* and *egin* obligatorily bear the affixes *–tu*/*-i*/*-n*/*-Ø* as shown in (63) and (64). Second, with both *ahal* and *egin*, long distance agreement is obligatory for most speakers. (As just noted, some speakers also accept constructions in which the infinitive triggers agreement, as in (62).) Examples (63) and (64) show that, in both cases, the auxiliary marks agreement with complements of the lower (main) verb.

(63)
a. Joan ahal naiz (unaccusative)
go-INFIN can ***izan*.1S(ABS)**
'I can go.'
b. Torrea ikusi ahal dut (monotransitive)
towers.ABS see-INFIN can **3S(ABS).****edun*.1S(ERG)**
'I can see the tower.'
c. Jon-i liburua eman ahal diot (ditransitive)
Jon.DAT book.ABS give-INFIN can **3S(ABS).****edun*.3S(DAT).1S(ERG)**
'I can give Jon the book.'

[22] In other dialects, however, the non-finite clause boundary is transparent to agreement marking (see below). I will set aside the problem of how to account for this variation, though see San Martin and Uriagereka (2002) for relevant discussion.

(64)

a. Joa-n egin naiz (unaccusative)
go-INFIN do ***izan*.1S(ABS)**
'I have GONE.'

b. Torrea ikus-i egin dut (monotransitive)
tower.ABS see-INFIN do **3S(ABS).**edun*.1S(ERG)**
'I have SEEN the tower.'

c. Joni liburua ema-n egin diot (ditransitive)
Jon.DAT book.ABS give-INFIN do **3S(ABS).**edun*.3S(DAT).1S(ERG)**
'I have GIVEN Jon the book.'

Third, in both cases, auxiliary switch obtains. (63a) and (64a) show that unaccusative main verbs determine *izan*, 'be,' on the auxiliary while, transitive main verbs determine **edun*[23], 'have.' Fourth and finally, in both cases, *–tu*/*-i*/*-n*/-Ø complements under *egin* and *ahal* may not include negation.

(65) *Ez joan ahal naiz.
not go-INFIN can AUX
'I can not go.'

(66) *Ez etorr-i egin da.
not come-INFIN do AUX
'He has NOT COME.'

Hence, in key respects, verb focalization constructions are like restructuring constructions with *ahal*. Following much recent work on "restructuring" infinitives (Wurmbrand 2001, Cinque 2004, Cardinaletti and Shlonsky 2004), I will assume that verb focalization constructions with *egin*, like modal constructions with *ahal*, are monoclausal, i.e. constitute a single iteration of the clausal functional sequence (Cinque 1999, 2004), and that the main verb is merged as the matrix V. (See Hagstrom (1995) for evidence that Korean *do*-support constructions are also monoclausal.) This entails, however, that *egin* cannot be merged in V.

A plausible identity for *egin,* then, is light-verb head v (Chomsky 1995, cf. Kratzer 1996). Evidence in favor of this approach comes from the fact that *egin* appears in canonical light verb constructions such as (67), well known from previous literature (Laka 1993, Bobljik 1993, Rodríguez & García Murga 2001, Fernández 1997). In this example, *egin* supports the unincorporated object *lan,* 'work'.[24]

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[23] The verb **edun* is starred in observance of the fact that it always appears in a finite form and never as an infinitive, except in citations.

[24] Unergative, light verb predicates of the kind in (67) are notable for the fact that, although they are apparently intransitive, they require ergative case marking on the subject and auxiliary unlike unaccusative predicates, such as that in (i).

(i) Jon-Ø etorri da.
Jon-ABS come AUX-ABS
'Jon has come.'

(67) Jon-ek lan egin-go du.
Jon-ERG work *egin*-FUT AUX.ERG
'Jon will work.'

I will assume, then, that *egin* in its *do*-support guise is merged in v.[25] Nevertheless, under this assumption, some account is needed of certain properties of dummy *egin* that are unexpected of v elements. In particular, *egin* may co-occur with unaccusative verbs as in (64a), repeated below.

(68)= (64a)
Joa-n egin naiz.
go-INFIN do *izan*.1S(ABS)
'I have GONE.'

In such constructions, ergative case is not assigned. On the standard assumption that T assigns absolutive case in unaccusative constructions, then the v in which *egin* is merged appears not to assign case in these examples. Following Chomsky (2001, 2004), then, I will assume that dummy *egin* may head a "defective" v, i.e. one that does not assign case or an agent theta-role.

3.3 A non-economy based approach to *egin*

Let us now consider a sample derivation of the VP focus construction in (69a). I will return shortly to the problem of how to exclude *egin* in the non-verb focalization construction in (69b).

(69) Ines etorr-i egi-n-go[26] da.
Ines.ABS come-INFIN do-INFIN-FUT AUX
a. 'Ines will COME.'
a. * 'Ines will come.' (non-verb focus reading)

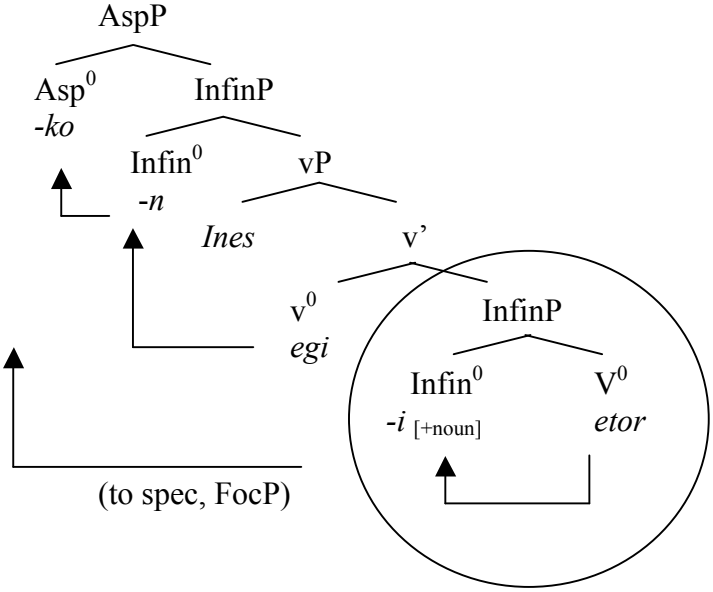
(70) derives the lower portion of (69a), beginning with a lexical array {Ines, *etor-* ('come'), *-i* (INFIN), *egi-* ('do'), *-n* (INFIN), *-ko* (FUT), T}. (I will later present a slightly modified derivation.)

In view of constructions like (67), Laka (1993) proposes that in English, unlike in Basque, unergative predicates involve incorporation of an argument prior to syntax (in the Lexical Relational Structure) (Hale and Keyser 1993). In Basque, however, incorporation does not take place, and consequently, as true transitive constructions, these sentences require ergative case marking on both the subject and the auxiliary.

[25] Cf. Embick and Noyer (2001) who propose that English dummy *do* is also merged in v.

[26] As noted earlier, the /k/ of *–ko* assimilates in voicing to the preceding nasal in this example. This process is presumably orthogonal to the claims made here.

(70) *do*-support in Basque (preliminary version)



Following Cinque (2000) and in the spirit of Kayne's (1993) participle phrase proposal, I assume that infinitival affixes on the main verb *–tu*/*-i*/*-n*/*-Ø* are merged in an infinitival phrase (InfinP) above the main verb. The head of this projection bears the feature [+noun]. Note that if this nominalizing infinitival head were not merged, movement of the VP to FocP would violate (55), which requires focalized verbal constituents to be headed by a nominalizing affix. (I will return to this requirement shortly). The dummy verb root, *egi-*, is subsequently merged in v, and raises to adjoin to a higher infinitival marker *-n* following merger of the latter. The future marker *-ko* is then merged and the dummy verb root+infinitival marker *egi-n*, raise to adjoin to it.

I further assume that InfinP cannot be merged above AspP. If it could, the verb could presumably raise to Asp^0, and then to Infin^0. Subsequent XP movement of the verbal constituent to spec, FocP would then yield the unattested morpheme sequence *V+Asp+*–tu*/*-i/-n/-∅*.[27]

How, then, is *do*-support excluded in non-focalization environments? Crucially, nothing proposed so far rules out sentences such as (69b) (repeated below), in which the verb does not receive focus interpretation.

(71)= (69)
Ines etorr-i egi-n-go da.
Ines.ABS come-INFIN do-INFIN-FUT AUX
a. 'Ines will COME.'
b. * 'Ines will come.' (non-verb focus reading)

In the following discussion, I will propose an approach to *do*-support in Basque that does not violate the Inclusiveness Condition and instead treats dummy *egin* as a fully lexical element, merged from the lexical array. Specifically, I will argue that the unavailable *egin* sentence without a verb focus reading in (69b) is *not* in competition with the *egin*-less

[27] See Wurmbrand (2001) and Cinque (2000) for evidence that infinitival markers must merge low in the clausal functional sequence.

alternative in (72). In other words, (69b) is not "blocked" by the derivationally "cheaper" option in (72), but rather is excluded for independent reasons.[28]

(72) Ines etor-tzen da.
Ines come-IMPERF AUX
'Ines comes.'

Note that, from the perspective of the derivation of sketched above, (69a) and (69b) differ crucially in that the lower infinitive in (69a) moves to the left periphery—spec, FocP—while in (69b) it does not. This suggests that the unavailability of (69b) is connected to the fact that the infinitive does not raise. This contrast is reminiscent of certain properties of infinitives in French and Italian (and other languages) discussed by Kayne (2000, chapter 14). In particular, Kayne proposes that bare infinitives in these languages—i.e. infinitives not headed by a determiner—raise to the specifier position of prepositional complementizers *de/di* as in (73) and (74). (Subsequent movement raises *de/di* to the left of the infinitive, and the matrix verb above *de/di*, yielding the correct word order.)

(73) French (adapted from Kayne 2000:282)
Jean a essayé de chanter.
John has tried *de* sing-INFIN
'John has tried to sing.'

(74) Italian (adapted from Kayne 2000:282)
Gianni ha tentato di cantare.
John has tried *di* sing-INFIN
'John has tried to sing.'

Kayne argues that this raising is motivated by licensing requirements of the bare infinitival in a way unrelated to case. Specifically, according to Kayne, these infinitives are NPs that need to be licensed in some way, such as by a prepositional complementizer or by a determiner head as in (75).[29]

(75) Italian (adapted from Kayne 2000:284)
il mangiare la carne il venerdì
the eat-INFIN the meat the Friday
'The eating the meat on Friday.'

Basque infinitives with *–tu/-i/-n/-∅* behave similarly to French and Italian infinitives in several ways discussed previously in this paper. In particular, as shown in (58) (repeated below), these elements may combine with a determiner head as in Italian and other Romance varieties.

[28] See Schütze (2004) and Embick and Noyer (2001) for recent approaches to *do*-support in English that eschew notions of economy/last resort.

[29] In a footnote, (fn.11, p.305-6) Kayne notes that other left-peripheral elements, including *wh*-elements, may also license bare infinitives as in (i). The discussion modal constructions in 3.2 suggest that modals must be able to license infinitives as well, as in Romance.
(i) Italian (adapted from Kayne 2000:305)
So dove andare.
I-know where go-INFIN
'I know where to go.'

(76)= (58) (Zabala and Odriozola 1996:239, fn. 3)
Sentitzen dut [Miren berandu etorri izana.]
regret AUX Miren late come have.the
'I regret Miren having come late.'

In addition, as noted above, some infinitives may cooccur with adjectives.

(77)=(60)(Artiagoitia 1995:433)
Guk irabaz-i handi-ak atera ditugu
we gain-INFIN big-PL take out AUX
'We've had big gains.' (cf. *irabaz-i* 'to gain')

Following Kayne's proposal for Italian and French, then, I will assume that these bare infinitives are NPs rather than DPs, and as such, are not assigned case, as also suggested by San Martin (1999).

In light of Kayne's discussion, one possible approach to the contrast between (69a) and (69b) is that the infinitive in (69a) is licensed in a way that the infinitive in (69b) is not. For the sake of concreteness, let us assume that this licensing requirement involves an uninterpretable feature [nominal] on the infinitival head that may be valued by a class of probes including prepositions and determiners with a matching uninterpretable feature. This approach then, will require that both members of (at least some) feature matching pairs may be unvalued (Chomsky 1994) In the case of focused infinitives, then, a plausible licensor is a *wh*-determiner. Specifically, I propose that the non-finite verbal constituent that raises to FocP is in fact a complex *wh*-phrase headed by a null *wh*-determiner and that it is this null determiner that values the uninterpretable [nominal] feature on *–tu/-i/-n/-∅*, the head of its complement. Like other *wh*-elements, this null head has an uninterpretable focus feature [*u*F] that drives movement to FocP, but differs from *wh*-elements like English *what* in that it lacks a question feature [Q]. Under this approach, then, the focalized infinitive in (69a) would have the structure shown in (78).

(78) [$_{WH}$ null [$_{INFIN}$ [$_{V}$ *etorr*] -*i*]]

By contrast, the unavailable neutral sentence in (71b) lacks this null *wh*-head. In the spirit of Kayne's (2000) proposal, then, a possible explanation of the deviance of (71b) is that the derivation contains no preposition or determiner available to value the uninterpretable [nominal] feature on *–tu/-i/-n/-∅*.[30] (This will be made a bit more explicit shortly.)

[30] It bears noting, however, that the null *wh*-element in (78) cannot head *all* focus phrases in Basque since foci in Basque need not be nominal. As (i) and (ii) show, adverbs and adjectives may also be focalized.

(i) AZKAR-AZKAR etorri da.
fast-fast come AUX
(He/she) has come FAST.
(ii) Etxe hori HAUNDIA da.
House that big COP
'That house is BIG.'

From the perspective of the present proposal, these facts suggest that other kinds of null *wh*-determiners are also available, which take non-nominal complements. This null determiner might perhaps be likened to *how*.

As a reviewer notes, indirect evidence for such a null *wh*-determiner comes from the fact that certain members of the class of *wh*-items in Basque fulfil quantificational roles outside of interrogative contexts. In particular, morphemes phonetically identical to *wh*-words, *zer* 'what' and *nor* 'who' may also appear in polarity items and as free choice quantifiers.

(79) e-zer
not-what (*e* < *ez* 'not')
'anything' (NPI)
(80) edo-zer
or-what
'anything' (free choice)

In addition, *nor* 'who' may also be a distributive quantifier, as in (81).

(81) (Etxepare 2002)
Nor bere etxean sartu da.
Who his house-in enter AUX
'Everyone went into his house.'

As Etxepare (2002) notes, these facts then, suggest a decompositional approach to *wh*-phrases with *nor* and *zer* (cf. Arregi 2003), which lends some credence to the possibility of a null *wh*-determiner. That is, the fact that *zer* and *nor* may appear outside of interrogative contexts suggests that, in *wh*-questions, some other apparently null element must be responsible focus and interrogative force.

In addition, indirect evidence that the null *wh*-determiner in (78) indeed selects a nominal complement comes from the fact that, in the question counterpart to (69a)—i.e. in *wh*-questions questioning the verb—the *wh*-element is *zer* 'what' a nominal *wh*-element.

(82) Q: Zer egin du Ines-ek?
what do AUX Ines-ERG
'What has Ines done?'
A: Jan egin du.
eat do AUX
'(She) has EATEN.'

For question-answer pairs such as in (82), a standard assumption is that the focus in the answer in some sense substitutes for the *wh*-element in the corresponding question. That is, both of these elements are foci that share a single presupposition, namely, that there is some x such that Ines did x. In this sense, focalized infinitives such as *jan* 'eat' in (82) are distributionally similar to the nominal *wh*-element, *zer*, in *wh*-questions questioning the verb.[31] The fact, then, that *zer*, like English *what* takes nominal complements in complex *wh*-

[31] As in the case of verb focalizations, the appearance of *egin* in the question in (82) is plausibly related to movement of the *wh*-element questioning the verb, *zer,* to the left periphery. This is suggested by the unavailability of such questions without *egin*.

(i) *Zer$_i$ t$_i$ du Ines-ek?
What aux Ines-ERG
Intended reading: 'What has Ines done?'

phrases, such as (83), lends credence to the proposal that the null *wh*-determiner posited here indeed takes a nominal complement.

(83) Zer etxe ikusi duzu?
What house seen AUX
'What house have you seen?'

This proposal now allows for an explanation of the constraint in (55) (repeated below), formulated in view of data on verb focalizations in Basque and Korean (and other languages discussed by Manfredi (1993).) Specifically, the requirement that focalized verbs be nominal may now be understood as a familiar selectional requirement of the null *wh*-element on its complement.

(84)=(55) CWB/Korean: Verbal constituents that move to FocP must be [+noun], i.e. be headed by a nominalizing affix.

On the Kaynean licensing approach to infinitives adopted here, an additional question to be addressed concerns the licensing of infinitives in perfective and future constructions such as (14) and (24) (repeated below).

The English light verb *do* in *wh*-questions questioning the verb behaves similarly in this regard.

(ii) Q: What will she do?
A: Run

As in Basque, these questions are unavailable without a light verb, *do*.

(iii) *What$_i$ will she t$_i$?

The idea that the appearance of light verb *do* is related to movement of *what* to the left periphery is supported by the fact that *do* need not appear in echo questions questioning the verb.

(iv) She'll what?

Similarly, an answer to a question like that in (v) cannot include *do*, and in this respect, *do* differs from lexical verbs, such as *eat*.

(v) Q: What$_i$ will she do t$_i$?
A: She'll (*do) run.
(vi) Q: What$_i$ will she eat t$_i$?
A: She'll eat pasta.

These facts, then, suggest that light verbs *egin/do* in *wh*-questions questioning the verb are parallel to *egin* in verb focalizations discussed in this paper. Specifically, in view of the foregoing discussion, these data suggest that *egin* in *wh*-questions questioning the verb is merged to support verbal morphology that cannot be hosted by *zer*, the nominal *wh*-element questioning the verb.

(85)=(14)
Ines-ek ikus-i-Ø du.
Ines-ERG see-INFIN-PERF AUX
'Ines has seen (it).'

(86)=(24)
Abes-tu-ko dut.
sing-INFIN-FUT AUX.PRES
'I will sing.'

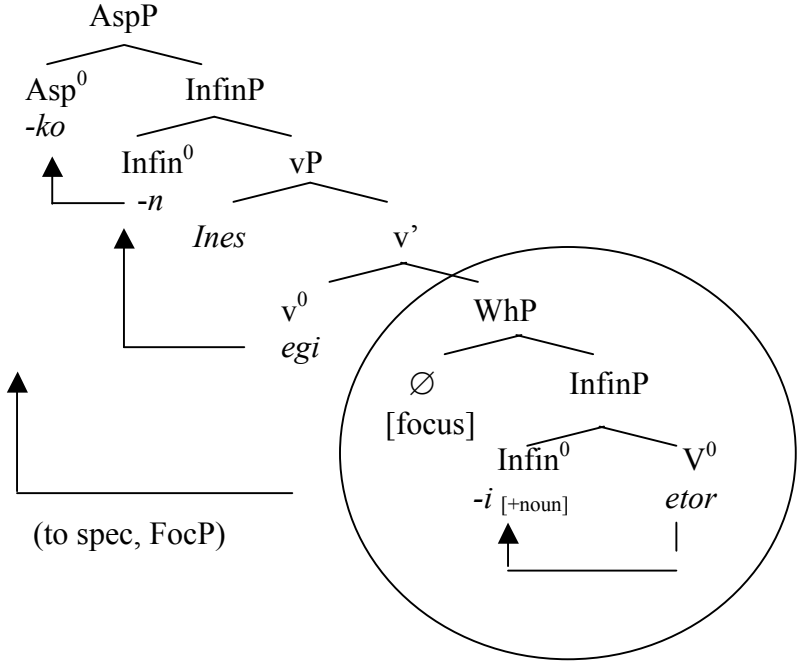
The assumption of such a licensing requirement on infinitives together with the preceding analysis of perfective and future constructions as involving adjunction of the verb root+-*tu/-i/-n/-Ø* to an aspectual head (section 2.1), suggests that two aspectual morphemes—future *–ko* and perfective *–Ø*—are also able to license the infinitive. As a reviewer notes, this possibility again recalls Kayne's (2000) proposal for infinitives under *de/di*. In particular, the fact that *–ko* is a genitive postposition akin to *de/di*—as in (87) below—supports a view of this affix as a licensor of the infinitive. I will set aside the question of how exactly the aspectual guise of *–ko* might be reconciled with its behavior in environments like (87).

(87) Bilbo-ko udala
Bilbao-GEN city council
City Council of Bilbao

In summarizing the proposal, let us consider an updated version of the sample derivation presented earlier. The tree in (89) derives the focus construction in (69a) repeated below.

(88)=(69)
Ines etorr-i egi-n-go da.
Ines.ABS come-INFIN do-INFIN-IMPERF AUX
b. 'Ines will COME.'
c. * 'Ines will come.' (non-verb focus reading)

(89) Basque *do*-support (final version)



In (89), a null *wh*-head selects a nominal infinitival complement. (The [+focus] feature of the *wh*-head later drives movement to FocP.) As in the preliminary derivation in (70), merger and successive head-adjunction of the verb root *egi*-, the infinitival marker *–n* and the future morpheme *–ko* follow next. Without *egin* in the derivation, there would be no infinitive available to raise to *-ko*, and the derivation would crash.

The unattested non-focalization reading in (69b) is ruled out by the absence of a licensor for the infinitive. Crucially, as a non-focused infinitival, it lacks the null *wh*-determiner that values the uninterpretable [nominal] feature on the infinitive in focalized cases such as (69a). Furthermore, the other potential licensor in the derivation—the aspectual marker *–ko*—cannot value this feature because its uninterpretable [nominal] feature is matched by a corresponding feature on the infinitival dummy verb, *egi-n*. The uninterpretable [nominal] feature on *–i*, then, goes unvalued and the derivation crashes.

Under this proposal, then, the unavailability of *do*-support with non-VP focus readings as in (69b)(=(88b) is not a consequence of competition with a more economical *egin*-less alternative, but rather is excluded for independent reasons. This approach does not require generation of *egin* as non-lexical material in the computational component (in violation of the Inclusiveness Condition) and thereby accommodates a more parsimonious theory of grammar.

4. Conclusion

This paper presents an analysis of *do*-support in Basque. In particular, I argue that *do*-support in Central and Western Basque and Korean is of a slightly different nature to *do*-support in English (Chomsky 1957, 1995, Pollock 1989) and Monnese (Benincà and Poletto 2004). In all four cases a "dummy" verb values an uninterpretable feature in a functional projection that is, in marked environments, inaccessible to the main verb. However, in Korean and Basque, unlike in English and Monnese, the main verb's inability to raise to a IP position is not a consequence of its inflectional poverty, but is rather because it must be nominalized—i.e. bear a nominalizing infinitival affix—for independent reasons. This infinitival constituent may not bear verbal aspectual features and a dummy verb is merged to bear these features, in order that the derivation may converge.

I have further proposed that *do*-support in Basque is not a last-resort strategy as in Chomsky's classic analysis for English (1957, 1995). That is, the unavailability of *egin* in non-verb focalization environments is not a consequence of competition with a "cheaper" *egin*-less alternative; rather it is excluded for independent reasons. A theoretical advantage to this approach is that it avoids violation of the Inclusiveness Condition (Chomsky 2000, 2001) inherent in approaches in which a dummy element is generated by the computational component.

Acknowledgments:

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