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ORIGINAL PAPER

On *egin*: *do*-support and VP focus in Central and Western Basque

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Abstract This paper develops an account of *do*-support in VP focus constructions in Central and Western Basque (CWB) dialects. In particular, this paper argues that CWB dialects, along with Korean, form a class of *do*-support languages whose dummy verb insertion mechanism differs slightly from that of English and Monnese. 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 to value this feature 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.

Moreover, Basque *do*-support is not a last-resort phenomenon as in Chomsky's classic analysis of English *do*-support (Chomsky 1957). That is, the unavailability of *do*-support in non-verb focalization constructions is not due to competition with a more economical alternative, but rather is independently excluded. This approach avoids a violation of the Inclusiveness Condition inherent in economy-based approaches to *do*-support that generate the dummy verb in the computational component.

Keywords *Do*-support · Basque · Economy · VP-focus · Verb movement · Lexical array

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

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appearance of a dummy verb *egin*, which as a lexical verb is akin to English 'make' or 'do' (Rebuschi 1983; 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 and the problem posed by *do*-support for current minimalism. 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 *Do*-support and economy

1.1 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). In a seminal analysis, Pollock (1989) connected the inflectional poverty of English to the relative placement of verbs and certain adverbs in English versus other languages. (7), for example, 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).

(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"

[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.

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.[3] 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?

1.2 The problem of *do*-support in current minimalism

Much recent minimalist work invokes Chomsky's (2000, 2001, 2004) notion of a "lexical array" in addressing these questions. In Chomsky's recent work, lexical material is assembled into syntactic structures by a computational component of the grammar, i.e. "narrow syntax," distinct from 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.

This approach 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" (Chomsky 2000:100-1).

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

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

more complex than that in (9b), since the former 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.[4] 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*)

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 therefore 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, as noted originally by Arnold (1995). 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 therefore 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 et al. 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, this approach entails a violation of the

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

Inclusiveness Condition (Chomsky 2000), which proscribes the introduction of material in the computational component.[5]

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, *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 affixes- *-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 -Ø 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

[5] 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.

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.

(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 perfective markers (across the board), 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.[6] (Evidence is provided below that these constructions are in fact monoclausal rather than biclausal.)

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

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 har-tan esan zidan, egunero etor(r)-i nahi zu-ela.
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.

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). In these environments, rather, these affixes seem more akin to infinitival markers. The distribution of verb+*-tu/-i/-n/-Ø* is in fact 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, verb+*-tu/-i/-n/-Ø* is also selected by certain prepositions and postpositions including *nahiz* 'despite' and *gabe* 'without.' (Other postpositions and control verbs 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).

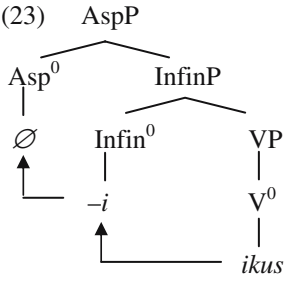
(21) Ez dakit zer abes-tu.
not know what sing-tu
I don't know what to sing.

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 (14) (repeated here).

(22) Ines-ek ikus-i du. =(14)
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/-Ø*, as shown in (24).

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

Crucially, *-tu/-i/-n/-Ø* in future contexts lacks properties of true perfective (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 oso ongi ezagu-tu-ko du bihotz-aren anatomia.
Ines-ERG very well know-tu-FUT AUX-PRES heart-GEN anatomy
Ines 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, I will assume: (i) that the verb root+*-tu/-i/-n/-Ø* in verb focalizations is in fact an infinitive form; 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.[7] I will return to these assumptions later in the analysis of *do*-support developed below.

2.2 Focalized VPs raise to Spec,FocP

Following a proposal by Rebuschi (1983), in a brief discussion of verb focus constructions with *egin*, I will assume that focused VPs raise to the same left-peripheral designated focus position targeted by other kinds of information foci.[8] In the following discussion, I present evidence in favor of this position from 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 non-focalized material cannot appear between the focus and the main verb or *ez*.

(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).
who-ERG/Jon-ERG (Miren) not AUX (Miren) see-PERF (Miren)
Who/JON hasn't seen Miren.[9]

[7] See Artiagoitia (1995, chapter 3) for an extensive discussion of the dual nature of these affixes.

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

[9] 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.

(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.

(33) (?)Etor(r)-i (*Jon) ez da egin-Ø (Jon).[10]
come-INFIN *neg AUX* *do-PERF* *(Jon)*
Jon hasn't COME.

In addition, for some speakers in some dialects, focalized constituents may also appear right-peripherally, as in (34).[11]

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

(35)–(37) show 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. [12]

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

(36) 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.

(37) 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.

[10]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.

[11]In fact, for some speakers, right-peripheral foci need not be strictly right peripheral (see 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-DAT
Jon has given a BICYCLE to Miren.

[12]As a reviewer notes, speakers tend to accept focalized VPs with overt complements much more readily postverbally than preverbally (Rebuschi 1983). (i), for example, is marginal for many speakers, though available for some speakers in Western dialects.

(i) % Ogia jan egin zuen. (Rebuschi 1983)
bread eat do AUX
She ATE THE BREAD.

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 those in (35)–(37) are also marginal (A. Elordieta, p.c.).[13]

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 (38) and (39) (Ortiz de Urbina 1989; Uriagereka 1999).

(38)
Nola esan du Jonek [uste du-ela Peruk [egin behar-ko litzateke-ela?]]
how say AUX Jon-ERG think AUX-COMPPeru-ERG make need-FUT AUX-COMP
How did Jon say Peru thinks it should be made? (Downstairs interpretation) (Etxepare and Ortiz de Urbina 2003)
(39)
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. (Etxepare and Ortiz de Urbina 2003)

(40) shows that, at least for some speakers, focalized verbs behave like other kinds of foci in their ability to extract from complement clauses. The availability of extraction in such cases, to the extent that they are available, is further evidence that verb raising in *egin*-constructions is A'-movement.

(40) % 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.

Similarly, *wh*-phrases and foci may also pied-pipe entire clauses to the front of the matrix clause as in (41) and (42) (Ortiz de Urbina 1993; Arregi 2003).

(41) [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? (Ortiz de Urbina 1993)
(42) [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. (Ortiz de Urbina 1993)

[13]For discussions of postverbal foci see Ortiz de Urbina (2002) and Uribe-Etxebarria (2003). 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.

Example (43) 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.

(43) [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 and 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.[14] Second, as

[14]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) Saiatu, behintzat, egin-go gara.
try at least do-FUT AUX
Try, at least, we will. (Etxepare and Ortiz de Urbina 2003)

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.

discussed above, *egin* has the 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. (44) and (45) (repeating (32) and (33), respectively) illustrate this alternation.

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

(45) Etor(r)-i (*Jon) ez da egin (Jon). =(33)
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 therefore suggest that *egin* only appears when the main verb cannot occupy its normal position.

(46) Verb focalization
Eror-i (egin-go[15]/egi-ten) da etxea.
fall-INFIN *do-FUT/do-IMPERF* *AUX* *house*
The house is going to FALL./The house is FALLING.

(47) 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.

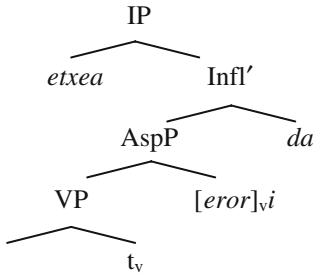
Why, then, is *egin* merged? From the standpoint of an understanding of *do*-support as motivated by the need to value an uninterpretable inflectional (or C) feature (Benincà and Poletto 2004), examples such as (46) and (47) suggest that *egin* is merged to value aspectual features when the main verb cannot. The remainder of this article will develop this intuition.

[15]The /k/ of the affix *-ko* assimilates in voicing to the preceding nasal. This phenomenon is presumably orthogonal to the claims made here.

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).[16] (49) shows Laka's (1990) IP structure for (48), showing raising of the main verb to Asp^0.

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

(49) (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 Asp 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 (50).[17] Indeed, the inability of the verb to pied-pipe AspP as in (50) is especially curious in view of the fact that foci in Basque are notorious pied-pipers in other contexts (see 2.2).

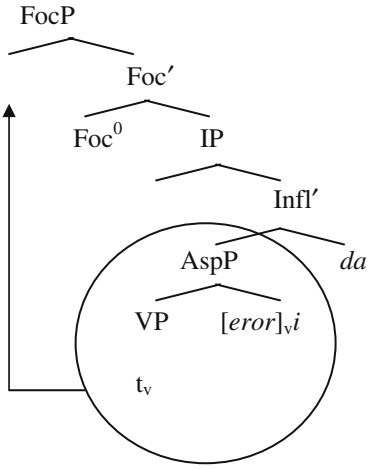
[16]These authors assume an underlyingly mixed-head structure for Basque. See also Elordieta (1997) for a head-movement approach to these main verbs that assumes antisymmetry.

[17]The derivation in (50) 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 whether they might be derived as in (50).

(50)



Evidence from similar phenomena in Korean suggests an answer to this question. In neutral declarative sentences in Korean, tense and inflectional morphology appear as affixes on the main verb, as in (51).

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

However, in certain 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 in VP-focus constructions, which are strikingly similar to the Basque constructions discussed above.[18]

(52) 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. (Hagstrom 1995) [19]

[18]Another such environment is "long-negation," an example of which appears in (i). Here, the main verb *ilk* 'read' appears to the left of the negative marker and with the nominalizer, *-ci*.

(i) 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. (Hagstrom 1996)

[19]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.

In (52), the main verb, with a nominalizing affix, *-ki*, appears to the left of its canonical position, and tense morphology is borne by *ha.* Evidence that movement of the main verb is not head movement but rather phrasal movement comes principally from the interpretation of such examples: as described by Hagstrom (1995), the preferred reading of examples such as (52) is with focus on the object; however the entire VP may also be focused.[20]

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*/*-Ø*, which vary by verb class. In view of the Korean data in (52), I propose that the infinitival markers *-tu*/*-i*/*-n*/*-Ø* also bear the feature [+noun] and that this property 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 (53).

(53) 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 (53) will be developed below. For the moment, it bears observing that (53) 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 (54) and (55) below. In view of data such as these from different West African languages and Haitian Creole, Manfredi (1993) proposes that, in fact, in all cases in which a verb moves overtly to a focus position, the verb is nominalized.

(54) 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).

(55) Yorùbá (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.

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

First, Basque infinitives may take a D head, as in (56).

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

In this respect, Basque infinitives with *-tu*/*-i*/*-n*/*-Ø* are similar to infinitives in Spanish and Italian, as in (57).

(57) 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 (58) and (59) (Artiagoitia 1995). This, again, is expected from the perspective of infinitives as nominals.

(58) 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') (Artiagoitia 1995:433)
(59) Aitonaren esa-n zahar(r)-ak
grandpa's *say-INFIN* *old-PL*
Grandpa's old sayings (cf. *esa-n* 'to say') (Artiagoitia 1995:437)

Finally, as a reviewer notes, evidence for focalized infinitives as nominals comes from the fact that they may trigger object agreement (for some speakers). In (60), 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.[21]

(60) 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

What remains to be addressed is where in the derivation *egin* is merged. One kind of evidence that may illuminate this question is the fact that main verbs in verb

[21] 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.

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 (61) and (62). Second, with both *ahal* and *egin*, long distance agreement is obligatory for most speakers. (As noted in fn. 21, some speakers also accept constructions in which the infinitive triggers agreement, as in (60).) Examples (61) and (62) show that, in both cases, the auxiliary marks agreement with complements of the lower (main) verb.

(61) a. Joan ahal na-iz. (unaccusative)
go-INFIN *can* ***1S(ABS)-be***
I can go.

b. Torrea ikusi ahal d-u-t. (monotransitive)
towers-ABS *see-INFIN* *can* ***3S(ABS)-have-1S(ERG)***
I can see the tower.

c. Jon-i liburua eman ahal d-i-o-t. (ditransitive)
Jon-DAT *book-ABS* *give-INFIN* *can* ***3S(ABS)-have-3S(DAT)-1S(ERG)***
I can give Jon the book.

(62) a. Joa-n egin na-iz. (unaccusative)
go-INFIN *do* ***1S(ABS)-be***
I have GONE.

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

c. Joni liburua ema-n egin d-i-o-t. (ditransitive)
Jon-DAT *book-ABS* *give-INFIN* *do* ***3S(ABS)-have-3S(DAT)-1S(ERG)***
I have GIVEN Jon the book.

Third, in both cases, auxiliary switch obtains. (61a) and (62a) show that unaccusative main verbs determine *izan* 'be' on the auxiliary, while transitive main verbs determine **edun* 'have.'[22] Fourth and finally, in both cases, *-tu*/*-i*/*-n*/*-Ø* complements under *egin* and *ahal* may not include negation.

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

(64) *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

[22]On the *have/be* alternation in Basque, see Arregi (2004). 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.

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 more plausible identity for *egin* is light-verb head *v* (Chomsky 1995). Evidence in favor of this approach comes from the fact that *egin* appears in canonical light verb constructions such as (65), well known from previous literature (Levin 1983; Laka 1993; Bobaljik 1993; Rodríguez and García Murga 2001; Fernández 1997). In this example, *egin* supports the unincorporated object *lan* 'work'.[23]

(65) Jon-ek lan egin-go du.
Jon-ERG work egin-FUT AUX-TR
Jon will work.

I will assume, then, that *egin* in its *do*-support guise is merged in *v*.[24] Nevertheless, under this assumption, some account is needed for certain properties of dummy *egin* that are unexpected of *v* elements. In particular, *egin* may co-occur with unaccusative verbs, as in (62a), repeated below.

(66) Joa-n egin na-iz. =(62a)
go-INFIN do ***1S(ABS)-be***
I have GONE.

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

[23]Unergative, light verb predicates of the kind in (65) 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.

In view of constructions like (65), 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.

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

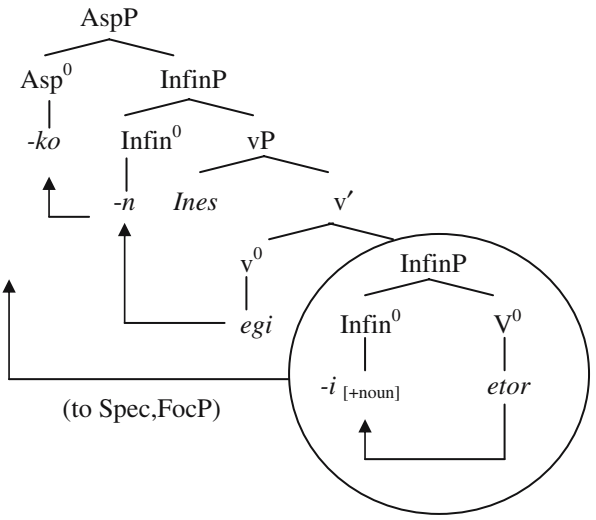
3.3 A non-economy based approach to *egin*

Let us now consider a sample derivation of the VP focus construction in (67a). I will return shortly to the problem of how to exclude *egin* in the non-verb focalization construction in (67b).

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

(68) derives the lower portion of (67a), 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.)

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



I assume that infinitival affixes on the main verb *-tu*/*-i*/*-n*/*-Ø* are merged in an infinitival phrase (InfinP) above the main verb (Kayne 1991). 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 (53), 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*/-Ø.[25]

How, then, is *do*-support excluded in non-focalization environments? Nothing proposed so far rules out sentences such as (67b) in which the verb does not receive focus interpretation. In the following discussion, I 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 (67b) is *not* in competition with the *egin*-less alternative in (69). In other words, (67b) is not "blocked" by the derivationally "cheaper" option in (69), but rather is excluded for independent reasons.[26]

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

Note that, from the perspective of the derivation of sketched above, (67a) and (67b) differ crucially in that the lower infinitive in (67a) moves to the left periphery-Spec,FocP-while in (67b) it does not. This suggests that the unavailability of (67b) is connected to the fact that the infinitive does not raise. This contrast is reminiscent of the behavior of some Romance infinitives with prepositional complementizers as discussed by Kayne (2000, chapter 14).

(70) French (adapted from Kayne 2000:282)
Jean a essayé de chanter.
John has tried de *sing-INFIN*
John has tried to sing.
(71) Italian (adapted from Kayne 2000:282)
Gianni ha tentato di cantare.
John has tried di *sing-infin*
John has tried to sing.

Kayne proposes that in sentences like (70) and (71), the prepositional complementizers *de/di* are merged above the matrix verb, and that the infinitive raises to its specifier position as shown in (72). (Subsequent movement, orthogonal

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

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

to the present discussion, raises *de/di* to the left of the infinitive, and the matrix verb above *de/di*, yielding the correct word order.)

(72) [cantare]$_i$ di tentato t$_i$
sing *di* *try*

Kayne argues that the appearance of *de/di*, and raising of the infinitive to its Spec, is motivated by licensing requirements of the bare infinitive 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 (73).[27]

(73) 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/-Ø* behave similarly to French and Italian infinitives in several ways discussed previously in this article. In particular, as shown in (56) (repeated below as (74)), these elements may combine with a determiner head as in Italian and other Romance varieties.

(74) Sentitzen dut [Miren berandu etorri izana.] = (56)
regret *AUX* *Miren late come have-the*
I regret Miren having come late. (Zabala and Odriozola 1996:239, fn. 3)

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

(75) Guk irabaz-i handi-ak atera ditugu. =(58)
we *gain-INFIN* *big-PL* *take out* *AUX*
We've had big gains. (cf. *irabaz-i* 'to gain') (Artiagoitia 1995:433)

[27]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 of modal constructions in 3.2 suggests 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.

Following Kayne's proposal for Italian and French, 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 (67a) and (67b) is that the infinitive in (67a) is licensed in a way that the infinitive in (67b) is not. Specifically, let us assume that this licensing requirement involves an uninterpretable feature [+noun] 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, 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 [+noun] feature on *-tu/-i/-n/-Ø*, the head of its complement. Like overt *wh*-elements in certain other contexts (e.g. matrix questions), 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, the focalized infinitive in (67a) would have the structure shown in (76).

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

By contrast, the unavailable neutral sentence in (67b) lacks this null *wh*-head. In the spirit of Kayne's (2000) proposal, then, a possible explanation of the deviance of (67b) is that the derivation contains no preposition or determiner available to value the uninterpretable [+noun] feature on *-tu/-i/-n/-Ø*.[28](This will be made more explicit shortly.)

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 fulfill quantificational roles outside of interrogative contexts. In particular, morphemes

[28]It bears noting, however, that the null *wh*-element in (76) 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*.

phonetically identical to *wh*-words, *zer* 'what' and *nor* 'who', may also appear in polarity items and as free choice quantifiers.

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

In addition, *nor* 'who' may also be a distributive quantifier, as in (79).

(79) Nor bere etxean sartu da.
who his house-in enter AUX
Everyone went into his house. (Etxepare 2002)

As Etxepare (2002) notes, these facts suggest a decompositional approach to *wh*-phrases with *nor* and *zer*. That is, the fact that *zer* and *nor* appear in non-interrogative contexts such as (77)–(79) suggests that *nor* and *zer* are not themselves *wh*-elements but rather indeterminate pronouns that combine with additional null material to produce the relevant quantificational meanings in each of these contexts. In *wh*-questions, these base forms combine with additional structure responsible for focus and interrogative force and this material is evidently null (see Arregi 2003).

In addition, indirect evidence that the null *wh*-determiner in (76) indeed selects a nominal complement comes from the fact that in the question counterpart to (67a)-i.e. in *wh*-questions questioning the verb-the *wh*-element is *zer* 'what', a nominal *wh*-element.

(80) 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 (80), 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 (80) are distributionally similar to the nominal *wh*-element, *zer*, in *wh*-questions questioning the verb.[29] The fact that *zer*, like English *what,* takes nominal complements in complex *wh*-phrases, such as (81), therefore lends credence to the proposal that the null *wh*-determiner posited here indeed takes a nominal complement.

(81) Zer etxe ikusi duzu?
what house seen AUX
What house have you seen?

This proposal now allows for an explanation of the constraint in (53) (repeated below as (82), formulated in view of data on verb focalizations in Basque and Korean (and other languages discussed by Manfredi (1993)). Specifically, the

[29]As in the case of verb focalizations, the appearance of *egin* in the question in (80) 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?

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.

requirement that focalized verbs be nominal may now be understood as a familiar selectional requirement of the null *wh*-element on its complement.[30]

(82) CWB/Korean: =(53)

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 as (83) and (84)).

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

(84) Abes-tu-ko dut. =(24)
sing-INFIN-FUTAUX
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 Romance infinitives under *de/di*. In particular, the fact that *-ko* is a genitive postposition akin to *de/di*-as in (85) 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 (85).

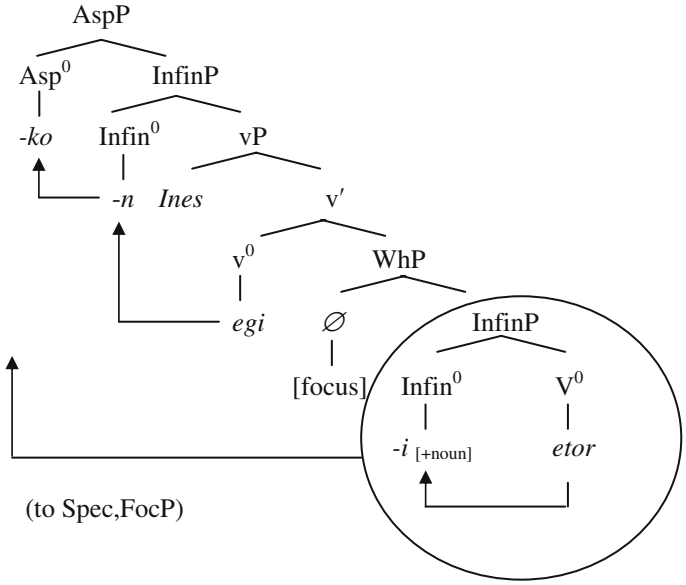
(85) Bilbo-ko udala
Bilbao-GEN *city-council*
City Council of Bilbao

In summarizing the proposal, let us consider an updated version of the sample derivation presented earlier. The tree in (87) derives the focus construction in (67a), repeated below.

(86) Ines etorr-i egi-n-go da. = (67)
Ines-ABS *come-INFIN* *do-INFIN-IMPERF* *AUX*
a. Ines will COME.
b. * Ines will come. (non-verb focus reading)

[30] See fn. 29.

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



In (87), 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

(68), merger and successive head-adjunction of the verb root *egi-*, the infinitival marker *-n* and the future morpheme *-ko* follow next. Crucially, 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 (67b) is ruled out by the absence of a licensor for the infinitive. As a non-focused infinitive, it lacks the null *wh*-determiner that values the uninterpretable [+noun] feature on the infinitive in focalized cases such as (67a). Furthermore, the other potential licensor in the derivation-the aspectual marker *-ko*-cannot value this feature because its uninterpretable [+noun] feature is matched by a corresponding feature on the infinitival dummy verb, *egi-n*. The uninterpretable [+noun] feature on *-i* then goes unvalued and the derivation crashes.

Under this proposal, the unavailability of *do*-support with non-VP focus readings as in (67b) (=(83b)) is therefore 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.

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