Two Kinds of Restructuring Infinitives in Basque¹

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1. Introduction

Recent monoclausal approaches to restructuring come in two flavors. Cinque (2004) and Cardinaletti and Shlonsky (2004) propose that restructuring is universally restricted to single iterations of the functional sequence (fseq) of the clause (Cinque 1999). From this perspective, restructuring is always and everywhere between a main verb and a higher functional head of the same fseq. In contrast, Wurmbrand (2001, 2004) argues that “lexical” restructuring must also be admitted. That is, lexical verbs in V may, under certain conditions, restructure with a small verbal complement.

This paper presents evidence from Basque that supports the latter view. In particular, this paper distinguishes two kinds of restructuring infinitives in Basque—those headed by –tu/-i/-n or -Ø (depending on the verb class) and those with -t(z)en, as shown in (1) and (2). In both cases, the auxiliary agrees in person and number with dative and absolutive arguments of the lower verb. Different properties of these infinitives, however, suggest that they have different functional structures. Infinitives with –tu/-i/-n/-Ø are InfinPs, a vP-internal projection that restructures with a higher functional head of the same fseq (“functional restructuring” in Wurmbrand’s terms). By contrast, -t(z)en constituents are minimally AspPs that restructure with a verb in VP (“lexical restructuring”). Evidence in favor of this distinction will come from (i) the availability of infinitival negation and (ii) the morphological behavior of main verbs and modals.

(1) Infinitives with –tu/-i/-n/-Ø (“functional restructuring”)
[Jon-DAT book-ABS give-n] want 3S(ABS)-3S(DAT)-1S(ERG)

‘I want to give Jon the book.’

(2) Infinitives with -t(z)en (“lexical” restructuring)
Berak [zuri babak egi-ten] amaitu dautsuz.
he-ERG [you-DAT beans-ABS make-t(z)en] finish 3PL(ABS)-3S(DAT)-3S(ERG)

‘He has finished cooking the beans for you.’ (Arregi and Molina-Azaola 2004)

¹ I am deeply grateful to the residents of the town of Oiartzun for their hospitality and support during the fieldwork portion of this study. I am particularly grateful for helpful comments and suggestions on the material presented here from Richard Kayne and Xabier Artiagoitia and also Arantzazu Elordieta, Urtzi Etxeberria, Ricardo Etxepare, Ariz Irurtzun, Itziar Laka, Javier Ormazabal, Jon Ortiz de Urbina, Juan Uriagereka, Koldo Zuazo the HIM taldea of the University of the Basque Country in Gasteiz and an audience at BIDE04. I am responsible for all shortcomings. This work is supported by a Fulbright grant and by the National Science Foundation under Grant No. 0317842. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the National Science Foundation.

Part one of this paper discusses functional restructuring with \(-tu/-i/-n/-Ø\) infinitives. Part two discusses lexical restructuring with \(-t(z)en\) constituents. Part three suggests that \(-t(z)en\) constituents should be thought of as restructuring gerunds as proposed by Pires (2000).

2. “Functional” restructuring: infinitives with \(-tu/-i/-n/-Ø\)

This paper treats the affixes \(-tu/-i/-n/-Ø\) in restructuring environments as infinitival markers. This is not a standard approach to these elements in the literature on Basque, so I will devote some discussion to defending this claim.

2.1 The dual identity of Basque “participles”

In the Basque literature, \(-tu/-i/-n/-Ø\) are typically described as perfective markers or participial affixes in view of the fact that, on main verb complements of auxiliaries, as in (3), they necessarily cooccur with a perfective interpretation. In this environment, \(-tu/-i/-n/-Ø\) is in complementary distribution with \(-t(z)en\), as in (4), which has several different kinds of imperfective interpretation.

<table>
<thead>
<tr>
<th>(3)</th>
<th>Inesek etxe bat eraik-i du.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ines-ERG house one build-PERF AUX</td>
</tr>
<tr>
<td></td>
<td>‘Ines has built a house.’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(4)</th>
<th>Inesek etxe bat eraiki-tzen du.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ines-ERG house one build-IMPERF AUX</td>
</tr>
<tr>
<td></td>
<td>‘Ines is building a house.’</td>
</tr>
</tbody>
</table>

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 (5).

<table>
<thead>
<tr>
<th>(5)</th>
<th>eror-i (egin-go/egi-ten) da etxea.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fall-i do-FUT/do-IMP AUX house</td>
</tr>
<tr>
<td></td>
<td>‘The house is going to FALL.’/’The house FALLS.’</td>
</tr>
</tbody>
</table>

In (5), \(-tu/-i/-n/-Ø\) is realized 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. From the standpoint of an analysis of \(-tu/-i/-n/-Ø\) as always and everywhere perfective markers, the data in (5) are perplexing since they seem to require the realization of different values of a single aspectual head— \(-t(z)en\) and \(-i\)—on different items in a single clause. (Evidence is provided below that these constructions are in fact monoclausal rather than biclausal.) In sentences such as (5), the aspectual interpretation is invariably determined by the aspectual morpheme on the dummy verb, egin, as reflected in the glosses.

The behavior of \(-tu/-i/-n/-Ø\) on verbs selected by modals provides additional reason for skepticism with regard to the traditional analysis of these elements. 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.

<table>
<thead>
<tr>
<th>(6)</th>
<th>Egun hartan esan zidan, egunero etor(r)-i nahi zuela</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>day that-on say AUX everyday come-i want AUX-COMP</td>
</tr>
<tr>
<td></td>
<td>‘That day she told me she wanted to come everyday.’ (want&gt;every)</td>
</tr>
</tbody>
</table>

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.
Hence, on verbs under modals and in verb focalization constructions, -tu/-i/-n/-Ø are not plausibly understood as perfective markers. Rather, in these environments, these affixes seem to behave as infinitival markers. In fact, three other properties of these elements support an understanding of -tu/-i/-n/-Ø as infinitival markers. 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, these forms participate in short wh-movement, as in (8) (Ortiz de Urbina 1989).

Third and finally, verbs+ -tu/-i/-n/-Ø participate in certain restructuring phenomena. These facts are discussed in the following section.

2.2 Restructuring with -tu/-i/-n/-Ø

2.2.1 Long distance agreement

Auxiliary verbs in Basque agree in person and number with ergative, absolutive and dative arguments of the main verb as in (9).

Nevertheless, certain verbs that take infinitival complements are transparent to absolutive and dative agreement marking. With the modal ahal, ‘can,’ agreement marking on the auxiliary is determined by the argument structure of the main verb. In (10), for example, the auxiliary agrees in person and number with dative and absolutive arguments of the lower verb. (The modals nahi ‘want’ and behar ‘need’ behave somewhat differently. These modals are discussed below.)

I will assume that this transparency in agreement marking is similar in nature to clitic climbing in Romance (Etxepare 2004, Sportiche 1996). I will remain agnostic, however, about how exactly this

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2 See Artiagoitia 1995 and Haddican (in preparation) for a unified account of these different guises of -tu/-i/-n/-Ø.
clitic climbing is to be derived (cf. Laka 1993, Cheng and Demirdache 1993, Arregi and Molina-Azaola 2004).

By contrast, verbs such as *ausartu*, ‘dare’ are not transparent to agreement. In (11), for example, the matrix auxiliary does not mark agreement with dative complement of the embedded verb, ‘to help.’ (I will return to restructuring with verbs+*t(z)en* in part 2.)

(11) Ausartu (dira/*digute) [guri lagun-tzen]
    dare 3PL(ABS)/3S(ABS)-1PL(DAT)-3PL(ERG) [we-DAT help-*t(z)en]
    ‘They have dared to help us.’ (Etxepare 2004)

From the perspective of Wurmbrand’s proposal, one possible approach to the difference between the restructuring configuration in (10) and non-restructuring cases, as in (11), is that the latter contains an embedded case position, while the former does not. Indeed, from the perspective of the traditional approach to auxiliary verbs in Basque, in which agreement is assigned in a spec-head relationship with arguments (Laka 1993, Cheng and Demirdache 1993), the restructuring data in (9)-(10), suggest that case must be checked in the “matrix” clause rather than the lower VP, in restructuring environments. (For a more recent approach, see Arregi and Molina-Azaola 2004.) By contrast, the above data suggest that non-restructuring infinitives such as that in (11) minimally include a case assigning head. In the following discussion, I will present independent evidence suggesting that non-restructuring infinitives involve a richer functional architecture than their restructuring counterparts.

2.2.2 Auxiliary switch

Example (12) shows that the modal *nahi*, ‘want’ behaves identically to *ahal*, ‘can’ with regard to long distance agreement/clitic-climbing. That is, it is transparent to dative and absolutive agreement marking on the auxiliary.

(12) a. Joan nahi dut (unaccusative)
    go want (AUX, ‘have’)-1S(ERG)-1S(ABS)
    ‘I want to go.’

b. Torreak ikusi nahi ditut (monotransitive)
    towers-ABS see want (AUX, ‘have’)-3PL(ABS)-1S(ERG)
    ‘I want to see the towers.’

c. Joni liburua eman nahi diot (ditransitive)
    Jon-DAT book-ABS give want (AUX, ‘have’)-3S(ABS)-3S(DAT)-1S(ERG)
    ‘I want to give Jon the book.’

Nevertheless, *nahi* behaves differently from *ahal* with regard to auxiliary switch. (12) shows that *nahi* always cooccurs with *edun*, ‘have’ regardless of the argument structure of the main verb with which it restructuring. This change in auxiliary is visible in the root vowel-/u/. In contrast, *ahal*, ‘can’ participates in auxiliary switch. That is, the choice of auxiliary—izan, ‘be’ or *edun*, ‘have’—is determined by the main verb as shown in (10), repeated below.

Crucially, then, Basque restructuring is like restructuring in Italian in that the class of verbs participating in auxiliary switch is a subset of the class of verbs participating in clitic climbing (Cardinaletti and Shlonsky 2004). As restructuring verbs, *behar* ‘need’ and *nahi* ‘want’ behave like the class of “quasi-functional verbs” in Italian identified by Cardinaletti and Shlonsky (2004), including verbs of motion and perception, which are transparent to clitic climbing but do not participate in auxiliary switch. These two properties of modals are summarized in Table 1.
<table>
<thead>
<tr>
<th>verb</th>
<th>Long distance agreement</th>
<th>auxiliary switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>nahi ‘want’</td>
<td>√</td>
<td>*</td>
</tr>
<tr>
<td>behar ‘need’</td>
<td>√</td>
<td>*</td>
</tr>
<tr>
<td>ahal ‘can’</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

Following Cardinaletti and Shlonsky’s (2004) analysis of “quasi-functional verbs” in Italian, I will assume that nahi and behar are like lexical verbs in that they determine an auxiliary—*edun, ‘have’—but are like functional verbs in being transparent to clitic climbing. In contrast, ahal ‘can’ plausibly corresponds to the class of pure functional verbs in Cardinaletti and Shlonsky’s proposal. These verbs are transparent to clitic climbing but do not determine an auxiliary.

The difference between these two classes of verbs is plausibly related to the fact that behar ‘need’ and nahi ‘want’ also take DP complements but ahal does not. In these cases, nahi and behar behave like other transitive verbs in that person and number agreement with objects of these verbs is marked on the auxiliary as in (13) and (14).

(13) bi gauza behar ditut
    two thing need 3PL(ABS)-1S(ERG)
    ‘I need two things.’

(14) liburua nahi dut
    book.ABS want 3(ABS)-(ERG)
    ‘I want the book.’

On one hand, then, the fact that nahi, ‘want’ and behar, ‘need’ may take DP complements recommends an approach to these elements as main verbs. On the other hand, other properties of these elements, including the fact that nahi and behar take verbs with -tu/-i/-n/-Ø and participate in restructuring, suggests that these elements are rather modals, on a par with ahal, ‘can.’ Following Cardinaletti and Shlonsky’s proposal for Italian modals like volere ‘want’, one approach to this problem would be to say that behar and nahi may be either functional verbs or lexical verbs depending on the environment: with DP complements they are merged in V, and with verbal complements they are merged in a functional position.

Evidence against this approach comes from the fact that behar and nahi do not behave morphologically like main verbs even when they take DP complements. In particular, these modals can never take the imperfective morpheme –t(z)en. With stative predicates, verbs+–t(z)en have an iterative interpretation, as reflected in the gloss in (15).

(15) Arazoak eduki-tzen ditu.
    problems-ABS have-IMPERF AUX
    ‘She often has problems.’

In sentences of this kind with behar ‘need,’ and nahi ‘want,’ the imperfective affix may not attach directly onto the modal but rather requires insertion of izan ‘have/be.’

    money (want-IMPERF/want have/be-IMPERF) AUX
    ‘She often wants money.’

The inability of behar ‘need,’ and nahi ‘want’ to take –tzen in such examples, is plausibly related to the fact that they are merged as functional heads and not as main verbs. Indeed, the unavailability of behar and nahi with –t(z)en is mysterious if these elements can be merged in V, in cases in which they take DP complements.

These facts instead suggest an analysis pursued in much recent work (den Dikken, Larson and Ludlow 1996, Benincà and Poletto 2004), whereby semi-modals like ‘want’ are, in all cases, merged as functional heads that may cooccur with a null V head, as in (17). In cases such as (13) and (14), it is this null verbal head that assigns theta-roles to arguments. On the other hand, when want takes a verbal complement, the lexical verb is merged in V as in (18).
3. “Lexical” restructuring: infinitives with –tzen

A class of aspectual and control verbs takes verbal complements with the affix –t(z)en as in (19).

(19) Hasiko da etor-tzen.
    Start-FUT AUX come- t(z)en
    ‘She’ll start to come.’

As several authors have observed, this class of verbs may restructure with their complements +–tzen as in (2), repeated below (Hualde and Ortiz de Urbina 1987, Laka 2004).

(20)=(2) Berak [zuri babak egi-ten] amaitu dautsuz.
    he-ERG [you.DAT beans.ABS make- t(z)en] finish 3PL(ABS)-3S(DAT)-3S(ERG)
    ‘He has finished cooking the beans for you.’ (Arregi and Molina-Azaola 2004)

The availability of restructuring with -t(z)en complements seems to vary significantly across speakers, and across verb classes, although speakers seem to accept these constructions most readily with aspectual verbs. (See Etxepare 2004 for a detailed discussion of these facts). An account of this variation is not within the scope of the present discussion. Rather, what is crucial to the present discussion is that restructuring constructions with verbs+–t(z)en seem to differ in two main ways from restructuring with -tu/-i/-n/-Ø infinitives.

First, -t(z)en complements may include negation as in (21) (Zabala and Odriozola 1996).

(21) Saiatuko naiz ez horretan pentsa-tzen.
    try-FUT AUX not that-in think- t(z)en
    ‘I’m going to try not to think about that.’

The fact that the negative morpheme ez can license NPIs and partitive case suggests that this is sentential negation rather than constituent negation.

(22) Saiatuko naiz ez ezer egi-ten.
    try-FUT AUX not anything think- t(z)en
    ‘I’m going to try not to do anything.’

In contrast, -tu/-i/-n/-Ø infinitives may not include ez.

(23) Kasu-rik ez egi-ten hasiko natzaio.
    case-PART not do- t(z)en start-FUT AUX
    ‘I’m going to start not paying her mind.’

Following Cardinaletti and Shlonsky (2004), I will take the presence vs. absence of embedded negation as a diagnostic of a single iteration of the clausal functional sequence. Under this assumption, negation is impossible in (24) because there is no NEG position available low enough in the functional sequence. In contrast, ez, in (21) is plausibly merged in the lower, non-finite complement.

An alternative account of (21)-(23) is that –tzen complements have the option of being merged in the same fseq as the higher verb when they do not include ez, or merged in a lower fseq when they do (Cardinaletti and Shlonsky 2004). This optionality accounts for the much discussed fact that restructuring is unavailable across negation in Italian. Crucially, however restructuring is possible across negation, as in (25).
I’m going to start not paying my mother any mind.’

These facts, then, support Wurmbrand’s lexical restructuring account adopted here. Assuming that $\varepsilon z$ in (21)-(23) is merged in a lower fseq, then the availability of long-distance agreement across negation suggests that restructuring cannot be limited to single iterations of fseq, and that some kind of lexical restructuring must also be admitted. If, on the other hand, the availability of infinitival negation does not diagnose the presence of an additional fseq below V, some account is needed for why negation is not available with -tu/-i/-n/-Ø infinitives, as in (24).

A second way in which restructuring constructions with $-t(z)en$ complements differ from restructuring with -tu/-i/-n/-Ø infinitives is that, unlike in the case of modals discussed above, restructuring aspectual and control verbs behave like main verbs in that they take imperfective morphology. For example, (26) shows that segitu, ‘continue’ takes the imperfective morpheme in present tense. In contrast, (16), above, shows that modals may not take $-t(z)en$

She keeps visiting you.’ (Etxepare 2004)

Again, the inability of behar ‘need,’ and nahi ‘want’ to take $-tzen$ in such examples is plausibly related to the fact that they are merged as functional heads and not as main verbs. By contrast, restructuring aspectual verbs behave like other main verbs in their ability to bear $-t(z)en$.

An additional virtue of a lexical restructuring approach to $-t(z)en$ infinitives is its ability to account for the apparently accidental homophony between $-t(z)en$ as an infinitival marker and $-t(z)en$ as an imperfective marker. This affix appears in both guises in (26), above.

It is possible that the homophony between these two $-t(z)en$’s is accidental. One consideration that makes this possibility particularly unattractive, however, is the allomorphy of these elements. With a closed class of native verbs, this morpheme is realized as [ten] as in (27). The open class variant is [tzen] as in (28).

Crucially, these allomorphs surface on the same classes of verbs in both guises of $-t(z)en$. This allomorphy is mysterious if $-t(z)en$ are different kinds of heads in these two guises. I will assume, instead, that this allomorphy is non-accidental and that these elements are in all cases imperfective heads (Artiagoitia 1995, cf. Laka 2004). From the perspective of this assumption, then, the fact that $-t(z)en$ occurs twice in (26) is mysterious from the perspective of Cinque’s and Cardinaletti and Shlonsky’s approach to restructuring, since it would require two overt copies of the same head in a single fseq. By contrast, from the perspective of a lexical restructuring approach to (26), the lower affix $-t(z)en$ is plausibly merged in the main verb’s restructuring complement, minimally, then, an AspP.

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3 Why Basque should differ from other languages in permitting restructuring across negation is not clear (Wurmbrand 2001, Cardinaletti and Shlonsky 2004).
4. Restructuring gerunds?

The distribution of Basque –t(z)en in non-finite embeddings and as an imperfective marker is reminiscent of English –ing (Ortiz de Urbina 1989, Artiagoitia 1995). In fact, Basque –t(z)en shares at least two other properties with English –ing. First, both English –ing and Basque –t(z)en may be headed by possessives (the “poss-ing” construction).

(29) (from Pires 2000)
Paul worried about John’s/his moving to LA.

(30) (From Artiagoitia 1995:416)
Ainhoaren batatik bestera ibiltze hau zorakeria da.
Ainhoa’s one.from other.to walk-t(z)e this craziness is
‘This going from here to there of Ainhoa’s is craziness.’

Second, short wh-movement is available with –tu/-i/-n/-Ø forms (see 1.2) but not with -t(z)en.

(31)=(8)
Ez dakit zer abes-tu
not know what sing-tu.
‘I don’t know what to sing.’

(32) *Inesek inoiz ez du ikasi zer esaten horrelako egoatatan.
Ines ever not AUX learn what say-t(z)en that like situations-in
‘Ines has never learned what to say in those situations.’

This difference is reminiscent of the well-known difference between infinitives and gerunds in English.

(33) (from Reuland 1983)
a. Rudy didn’t remember what, to do t.
b. *Rudy didn’t remember what, doing t.

These facts, then, suggest that Basque restructuring complements with –tzen might be thought of as restructuring gerunds as proposed by Pires (2000) for English.

5. Conclusions

The foregoing discussion has two main consequences for current work on restructuring. First, this paper presents evidence from Basque supporting Wurmbrand’s (2001, 2004) “lexical” restructuring proposal. In particular, aspectual and control verbs in Basque take non-finite complements that are not plausibly merged in the same functional sequence as the verb with which they restructure. Evidence supporting this claim comes from the availability of sentential negation in the embedded, restructuring constituent, and the morphological properties of the higher verb with which they restructure.

Second, the behavior of the verbs nahi ‘want’ and behar ‘need’ suggest evidence in favor of Cinque’s (2004) position that certain restructuring verbs are always merged as functional heads, even in cases where they do not take a restructuring complement (pace Cardinaletti and Shlonsky 2004). Specifically, nahi and behar are unique in that they do not take the imperfective affix otherwise required by main verbs in imperfective environments.

References


