LEXICAL CAUSATIVES AND CAUSATIVE ALTERNATION IN BASQUE

B. Oyharçabal
(IKER-UMR 5478, CNRS)

Abstract

After offering a brief survey of the features of causative sentences in Basque, mainly on the basis of Dixon's (2000) criteria, the paper deals with Basque lexical causatives, which can be used as either causative or unaccusative verbs. The proposed analysis assumes that lexical decomposition is carried out directly according to syntactic principles (Hale & Keyser 1993, Baker 1997, McGinnis 2000), and that different types of causative sentence (morphological vs lexical causatives) correspond to different types of phrase (VoiceP vs VP) selected by the Cause head (Pylkkänen 2001, 2002; Meggerdoomian 2002). The paper shows that in Basque lexical causatives the Cause head selects one of the predicates BECOME *or* GO *only. Other intransitive verbs are excluded from lexical causativization, even those which are superficially similar verbs of change because they are absolutive monadic verbs (reflexive verbs like* orraztu *'comb', verbs of happening like* gertatu *'happen', or verbs of activity like* jostatu *'play'). Three types of lexical causative are distinguished and analyzed following lexical decomposition: verbs of change of (physical) state, verbs of change of place and psychological causatives. Since Basque, unlike Finnish or Japanese, shows a strict correlation between causation and the existence of an external argument, it is assumed that in Basque as in English, the Cause and Voice heads conflate in lexical causatives (Pylkänen 2002).*

There are two main ways to form causative verbs in Basque, illustrated in (2a) and (2b):[1]

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[1] Abbrevations. ABS: absolutive, ART: article, AUX: auxiliary, CAU: causative, COM: comitative, DAT: dative, ERG: ergative, FOC: focus marker, FUT: future, IMP: imperfective, INE: inesive, INS: instrumental, INTER: interrogative, PL: plural, PAR: partitive, PTP: participle, RFL: reflexive. Finite verb forms such as the auxiliaries [AUX] *da* and *du* incorporate indices for the person and number of the verb's nuclear arguments, which in the literal glosses are indicated to the right of a colon by means of English personal pronouns in the order subject > (direct or indirect) object, regardless of the sequence of morphemes in the Basque forms. Where glosses for finite forms are followed by *three* personal pronouns, the third index represents the dative complement (indirect object). Basque makes no grammatical distinction for the gender of third-person arguments.

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(1) *Katua hil da*
cat.ABS die AUX:3SG
"The cat died."

(2a) *Haurrak katua hil du*
child.ERG cat.ABS die AUX:3SG.3SG
"The child killed the cat."

(2b) *Haurrak katua hilarazi du*
child.ERG cat.ABS die.CAU AUX:3SG.3SG
"The child caused the cat to die" or "The child had the cat killed."

In (1) (2a) and (2b) above the noun phrase *katua* "(the) cat" is in the absolutive case, which is zero-marked in Basque; this case identifies both subjects of intransitive verbs and direct objects of transitive verbs. In the above examples the verb *hil* "die" occurs with either an intransitive (1) or a transitive (2) auxiliary. Notice that the DP *katua,* in the absolutive case, keeps the same theta-role throughout, that of undergoer of the change-of-state expressed by the verb, even though it has the syntactic functions of subject in (1) and object in (2). In (1) *hil* occurs as a monadic verb. The noun phrase *katua,* which appears as object and immediate internal argument in (2a,b) has moved to subject position in (1). In (2a,b) the same process is expressed as in (1), namely the death of the cat, with the difference that the *causer* is specified. The *causation* is not of the same kind in (2a) and (2b) and is expressed in different ways. What both sentences have in common is that the subject has done something to bring about the cat's death.

In this article I will use *causer* and *causation* in the way just illustrated and will refer to verbs of the kinds seen in (2a) and (2b) as *causative verbs.* Following Comrie's (1989) typology, the verbs and sentences in (2a) and (2b) will be called *lexical causatives* and *morphological causatives* respectively. In both cases, the verb *hil* "die" is the *base.* The *lexical causative alternation* between (1) and (2a) is the subject of this paper.[2]

1. Features of causative sentences

According to Dixon's (2000) list of criteria for classifying causative formations, Basque causatives can be characterised with regard to three features: (a) the verb base's aspect; (b) its syntactic type; (c) indirectness of the causer's influence. In this introduction I shall begin with a general overview of causative sentences in Basque in which I examine these characteristics of Basque causatives, before moving on to the main subject of the article.

1.1. Dixon's first criterion refers to whether or not the verb base may be a stative verb. This is relevant in Basque not just as a means of classifying causative structures but because Basque does not allow the lexical or morphological formation of causatives

[2] I won't discuss causative verbs including the causative preroot affix *-ra-*, because it is no more productive. I will also exclude from this study control verbs like *laga* or *utzi* 'let' and *behartu* 'compel, oblige', which do not concern us here.

from stative predicates such as **edun* or *eduki* "have", predicate adjective, noun or postpositional phrase + *izan* or *egon* "be", *-tan* or *-tzen jakin* "know" (how to do something), etc., as the following examples show:[3]

(3a) **Otoitzek saindu/ parabisuan izan(arazi)ko zaituzte*
prayers.ERG saint/ paradise.INE be.(CAU).FUT AUX:3PL.2SG
"Prayers will cause you to be a saint/in paradise."

(3b) **Semeari euskaraz (mintzatzen) jakin(arazi) diot*
son.DAT Basque.INS (speak.IMP) know.(CAU) AUX:1SG.-.3SG
"I caused my son to know how to speak Basque."

(3c) **Dirua ukan(arazi) dizut*
money.ABS have.(CAU) AUX:1SG.3SG.2SG
"I caused you to have money."

In the preceding examples, stative predicates are placed in a causative structure and result in ungrammatical sentences. Basque allows the use of a transitive construction with certain stative predicates, such as copulative predicates; but such sentences, which Rebuschi (1984) calls implicative, are not interpreted as causatives:

(3d) *Lankidea aitzinean dut* (or *daukat*)
colleague.ABS in.front have:1SG.3SG
"I have the colleague in front", i.e. "My colleague is in front of me."

(3e) *Lankidea aspaldiko adiskidea dut*
colleague.ABS old friend.ABS have:1SG.3SG
"I have the colleague (as) an old friend", i.e. "My colleague is an old friend."

(3f) *Lankidea eri dut*
colleague.ABS ill have:1SG.3SG
"I have the colleague ill", i.e. "My colleague is ill."

(3g) *Lankidea hotzak hila dut (daukat)*
colleague.ABS cold.ERG dead.ABS have:1SG.3SG
"I have the colleague dead of cold", i.e. "My colleague is freezing."

These are derived by the addition of an external argument (a surface subject, labelled ergative) from copular sentences with predicates in the forms: postpositional phrase + copula (3d), noun phrase + copula (3e), adjectival phrase + copula (3f-g). The presence of this ergative argument triggers replacement of the copula by the transitive verb glossed "have", but the results are not interpreted as causatives.

1.2. The second criterion from Dixon's typology to be considered can be formulated as the question: Can the base verb be transitive? This is relevant to Basque be-

[3] The aspectual restriction linked to causation has been established by Dowty (1979). However, this view has been questioned; see Pylkkänen (1999) for an analysis of causative derivation with stage-level stative verbs in Finnish.

cause it turns out that lexical causatives cannot be derived from a transitive base, but morphological causatives can, as shown by the following examples:

(4a) *Autoa garajean sartu dut*
car.ABS garage.INE put.in AUX:1SG.3SG
"I put the car in the garage."

(4b) *Autoa garajean *sartu/ sarrarazi didazu*
car.ABS garage.INE *put.in/ put.in.CAU AUX:2SG.3SG.1SG
"You made me put the car in the garage."

(4c) *Sagarra jan dut*
apple.ABS eat AUX:1SG.3SG
"I ate the apple."

(4d) *Sagarra *jan/ janarazi didazu*
apple.ABS *eat/ eat.CAU AUX:2SG.3SG.1SG
"You made me eat the apple."

When we want to put the transitive sentences (4a) and (4c) into a causative construction, only the morphologically derived causatives *sarrarazi* and *janarazi* are available; the transitive base forms *sartu* and *jan* cannot acquire causative meanings.[4]

1.3. The third of Dixon's criteria that we shall consider asks whether the causer's influence is indirect or direct. This point is easily confused with extralinguistic issues, for causality in the real world resembles a chain at the end of which it is always possible to attach a further link (Danlos 2001). But as Dixon observes, this question is highly relevant in linguistic causatives, and Basque is no exception, as the following examples show:

(5a) **Oswaldek tiroz hilarazi zuen Kennedy*
Oswald.ERG gunshot.INS die.CAU AUX.PST:3SG.3SG Kennedy.ABS
"Oswald caused Kennedy to die by gunshot", i.e. "Oswald had Kennedy shot."

(5a′) *Oswaldek tiroz hil zuen Kennedy*
Oswald.ERG gunshot.INS die AUX.PST:3SG.3SG Kennedy.ABS
"Oswald killed Kennedy by gunshot", i.e. "Oswald shot Kennedy."

(5b) **Francok tiroz hil zuen Grimau*
Franco.ERG gunshot.INS die AUX.PST:3SG.3SG Grimau.ABS
"Franco killed Grimau by gunshot", i.e. "Franco shot Grimau."

(5b′) *Francok tiroz hilarazi zuen Grimau*
Franco.ERG gunshot.INS die.CAU AUX.PST:3SG.3SG Grimau.ABS
"Franco caused Grimau to die by gunshot", i.e. "Franco had Grimau shot."

(5c) **Erregeak gosez hil zuen presoa*
king.ERG hunger.INS die AUX.PST:3SG.3SG prisoner.ABS
"The king killed the prisoner by hunger."

[4] With a different interpretation, the dative argument being benefactive (4b, c), the starred examples are well formed.

(5c′) *Erregeak gosez hilarazi zuen presoa*
king.ERG hunger.INS die.CAU AUX.PST:3SG.3SG prisoner.ABS
"The king caused the prisoner to die of hunger", i.e. "The king let the prisoner starve to death."

— In (5a) the use of the morphological causative is inappropriate because Oswald shot Kennedy himself. Use of the morphological causative suggests that Oswald was the indirect causer, rather than the agent of "shoot".
— In (5b) it is the lexical causative that is inappropriate, because its use suggests that Franco himself shot Grimau, rather than condemning him to death by firing squad.
— In (5c) the lexical causative is wrong again, because when someone starves to death, the immediate cause of death is hunger or starvation, a process which, at least from the language's point of view, an agent cannot control directly or use as a weapon. Since the causer's influence is indirect, use of the lexical causative is inappropriate. Interestingly, if *gosez* "by hunger" is replaced by *ezpataz* "by the sword" or *tiroz* "by gunshot", which are instruments that the causer can control directly, the sentence is well formed:

(5d) *Erregeak ezpataz hil zuen presoa.*
king.ERG sword.INS die AUX.PST:3SG.3SG prisoner.ABS
"The king killed the prisoner with a sword."

1.4. The aim of this paper is to examine the causative alternation behind Basque lexical causatives of the kind illustrated in (1-2a). First I shall review previous theoretical approaches to the subject and explain my preference for the lexical decomposition approach (§2). Following that I will take a look at the implications of this decision regarding the syntactic features of lexical causatives (§3).

I will then show that the restriction against forming lexical causatives from transitive verbs mentioned above, while true, is only part of the story, for there are further restrictions on the formation of lexical causatives from intransitive verbs. Then I will look at possible connections between such restrictions and a verb's associated case morphology, showing intransitive verbs of the [ERG] type[5] cannot supply lexical

[5] The only apparent exception is *jo* "hit, ring". See the following examples:

(i) *Ezkilek jo dute* "The bells rang"
bell.PL.ERG ring.PTP AUX:3PL
(ii) *Ezkilak jo ditugu* "We rang the bells"
bell.PL.ABS ring.PTP AUX:1PL.3PL

According to Levin & Rappaport Hovav (1995: 140) verbs of emission are inergative verbs. In (i), *jo* is used in such a way and the subject takes ergative case, just like *dirdiratu* "shine, glitter". (ii) shows that the same verb (*jo*) can be used as a causative verb. However, it is not clear that examples in (i-ii) are a case of causative alternation. *Jo* is a polysemic verb ("hit, beat, play (music)"...) often used as transitive verb. Even used as a verb of emission, *jo* can be interpreted as a transitive verb with an unspecified object. Compare (i) with (iii) below:

(iii) *Ezkilek meza jo dute* "The bells rang for mass"
bell.PL.ERG mass.ABS ring.PTP AUX:3PL

causatives. Furthermore, there are some kinds of [-ERG] intransitive verbs which cannot provide lexical causatives either, including all [ABS, DAT] type verbs and also several [ABS] type verbs. I shall conclude that Basque lexical causatives can only be formed from monadic verbs of change, including psych-causatives with an experiencer as object. To explain this, I shall argue that the causative head of lexical causatives selects one of the predicates BECOME or GO, in contrast to morphological causatives with which another syntactic argument *(Voice)* is selected. Finally (§6), following Pylkkänen's (2002) typology which differentiates between a *Cause* head and a *Voice* having an external argument, I will conclude that both Basque and English are languages which conflate both heads.

2. Lexical and syntactic explanation of causative sentences

Like other syntactic alternations associated with the number of arguments of a verb or changes in the way arguments are expressed, such as noun incorporation, passivization, applicatives etc., lexical causatives involve issues concerning the relation between syntax and the lexicon. Approaches to these issues fall into two groups, associated with the lexicalist hypothesis and the syntactic hypothesis respectively.

2.1. In the lexicalist view, the causative alternation is based in the lexicon, in accordance with the Projection Principle (Chomsky 1981). Each lexical entry has an argument structure associated with a verb's meaning and reflected in its syntax. In the case of lexical causatives, both uses of a given verb appear at the level of the lexicon since there are two different argument structures that somehow correspond to them, even though the difference is systematic and limited basically to the presence or absence of an external argument. Within this view, causative alternations have been represented in two ways: either as the addition of an argument, or as the substraction of an argument.

In studies which favour the addition of arguments (Williams 1981), in the argument structure of verbs with causative alternation, a causer argument is added to a monadic verb turning it into a diadic verb, as in the case of labile causatives with a double dictionary entry like *kill* versus *die*. This is the approach taken in EGLU-II (52):

(6) *hil*$_1$ "die" _ *hil*$_2$ "kill"
[NOR] [NOR-NORK]
+inchoative +causative

Works favouring the subtraction of arguments (Levin & Rappaport Hovav 1995, Jackendoff 1997) prefer the opposite analysis, and rather than studying the causative alternation as causativization, they approach it as decausitivization. The verb has a theta-role corresponding to an external argument in its semantic representation, but this does not appear in the argument structure and is therefore not reflected syntactically. In this approach, then, a causative structure is found in the basis of the lexical representation of unaccusative verbs, and this is reflected in many languages where, if one of the forms is marked in verbs with a causative alternation, it is the intransitive form. According to Levin & Rappaport Hovav (1995: 80-81), Chierchia (1989) demonstrates this for

Romance languages with regard to the inchoative-causative alternation: unaccusative verbs take a reflexive form, and causatives the corresponding non-reflexive form. Levin & Rappaport Hovav themselves accept this view and incorporate it into their theory of unaccusativity, in which verbs with lexical alternation have a single representation in Lexical Conceptual Structure but two argument structures, one of which is diadic (the causative) and the other monadic. They appeal to lexical binding, which deletes an external argument, to explain why the external argument of the Lexical Conceptual Structure corresponding to the agent of the causative event fails to be reflected in the argument structure of unaccusative verbs. This is how the two alternating lexical representations of the verb *hil* "die, kill" appear in this theory (cf. Levin & Rappaport Hovav 1995: 108):

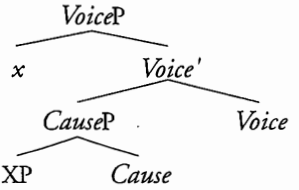
Unaccusative *hil* "die": *hil*: <y>		
	[*x* DO-SOMETHING] CAUSE [*y* BECOME *hil*]	
	Ø	
Lexical binding:	Ø	
Linking rules:		Ø
Argument structure:		<*y*>
Causative *hil* "kill": *hil*: x <y>		
	[*x* DO-SOMETHING] CAUSE [*y* BECOME *hil*]	
Linking rules:	Ø	Ø
Argument structure:	*x*	<*y*>

Here the causative alternation appears in the lexicon, in the organisation of argument structure, and is then reflected in the syntax, according to the lexicalist hypothesis.

2.2. In an alternative approach, following earlier treatments within generative semantics (Lakoff 1968), analysis of the alternation is located in the syntax. Given that, as shown particularly by Baker (1988) and, with reference to causative morphology in Basque, Deustuko Mintegia (1989), a syntactic analysis of syntactic regularities is possible, it was taken for granted that such an analysis would be plausible for causative alternations also. In Minimalism, the occurrence of an external argument is linked to a special syntactic head (cf. Chomsky's (1995: 352) light verb *v*, and Kratzer's (1996) *Voice),* and this line of analysis has recently been pursued in various forms (Megerdoomian 2002, Pylkkänen 2001 (2002): Folli & Harley to appear). I will follow the same approach here, assuming that syntactic regularities, including those which appear in lexical causative alternations, are to be explained syntactically. In this approach, lexical decomposition is carried out directly according to syntactic principles in line with Hale & Keyser's (1993) proposal, but without a separation of syntax and the lexicon. Predicates that arise through decomposition are made to appear in the syntax, each with its unique argument (Baker 1997, McGinnis 2000).

Since causative verbs have a single head in the present proposal, such verbs will take the following syntactic form (where the head is simply referred to as *Cause*, distinct from *Voice* and under it):

(7)



In (7) the complement of the *Cause* head is not specified and is hence valid for different causative types, i.e. both lexical and morphological causatives.

As we have seen, lexical and morphological causatives in Basque have different distributions, and many verbs that can occur with the causative morpheme *arazi* do not have lexical causative alternation, so XP must differ in such cases, but how? That is the issue we are going to study now, with special attention to lexical alternation since that is where we find the greatest number of restrictions. We shall discover, in line with Pylkkänen (2002), that in the case of lexical causatives there is a special relationship between *Cause* and *Voice*.

3. The complement of the Cause head in lexical causatives.

In §1 we saw that with the exception of stative predicates (§1.1), Basque verbs may undergo morphological causativization. In order to delimit the more restricted set of verbs capable of lexical causative alternation in Basque, we may begin with a descriptive characterisation referring to the morphosyntactic properties of such verbs.

Verbs whose subject takes the ergative case do not admit lexical causativization. This applies of course to transitive verbs (§1.2), including the numerous constructions on the pattern "do/make X" (i.e. noun + *egin* "do, make"), such as *eztul egin* "cough", literally "make (a) cough". The restriction also applies to deponent verbs such as *bazkaldu* "have lunch", *dirdiratu* "sparkle, glitter", *etsi* "surrender", *iraun* "last", which have a single nuclear argument that takes the ergative case.

The first of the following examples (8a) illustrates the restriction on an ordinary transitive verb, *jan* "eat".[6]

(8a) **Pellok* *Maddiri* *ogia* *jan dio*
Peter.ERG Mary.DAT bread.ABS eat AUX:3SG.3SG.3SG

(8a') *Pellok* *Maddiri* *ogia* *janarazi dio*
Peter.ERG Mary.DAT bread.ABS eat.CAU AUX:3SG.3SG.3SG
"Peter made Mary eat the bread."

The restriction applies regardless of whether the object is specified (*ogia* "bread") as in (8a,a') or unspecified as in one interpretation of (8b,b').

(8b) **Pellok* *Maddiri* *jan dio*
Peter.ERG Mary.DAT eat AUX:3SG.3SG.3SG

[6] In all the examples in (8), a dative DP corresponds to the *causee*.

(8b') *Pellok Maddiri janarazi dio*
Peter.ERG Mary.DAT eat.CAU AUX:3SG.3SG.3SG
"Peter made Mary eat (it)."

(8c) illustrates the restriction on the light verb *egin* "do, make" in the construction *eztul egin* "cough":

(8c) **Pellok Maddiri eztul egin dio*
Peter.ERG Mary.DAT cough make AUX:3SG.3SG.3SG

(8c') *Pellok Maddiri eztul eginarazi dio*
Peter.ERG Mary.DAT cough make.CAU AUX:3SG.3SG.3SG
"Peter made Mary cough."

(8d) illustrates a similar restriction on intransitive verbs with an ergative subject, which in this case is animate *(semea* "son"), cf. *Semeak bazkaldu du* "The son [ERG] had lunch":

(8d) **Pellok semeari bazkaldu dio*
Peter.ERG son.DAT have.lunch AUX:3SG.-.3SG

(8d') *Pellok semeari bazkalarazi dio*
Peter.ERG son.DAT have.lunch.CAU AUX:3SG.-.3SG
"Peter made (his) son have lunch."

(8e,f) show that the same applies when the base verb's ergative subject is an inanimate (*gerla* "war"), cf. *Gerlak iraun zuen* "The war [ERG] lasted (a long time)". Notice that in this case, the lexical causative construction is barred, regardless of whether the case of the causee is absolutive (8e) or dative (8f).

(8e) **Erregeak gerla iraun zuen*
king.ERG war.ABS last AUX.PST:3SG.3SG

(8e') *Erregeak gerla iraunarazi zuen*
king.ERG war.ABS last.CAU AUX.PST:3SG.3SG
"The king made the war last (a long time)."

(8f) **Erregeak gerlari iraun zion*
king.ERG war.DAT last AUX.PST:3SG.-.3SG

(8f') *Erregeak gerlari iraunarazi zion*
king.ERG war.DAT last.CAU AUX.PST:3SG.-.3SG
"The king made the war last (a long time)."

In these examples the morphological causative (8a′,b′,c′,d′,e′,f′) is possible but the lexical causative (8a,b,c,d,e) is not. Assuming that the occurrence of the ergative case is a realization of the light verb *Voice* on an external argument, it can be inferred by generalisation from these examples that the XP complement of the causative head of the lexical causative cannot be *Voice*P.

Next we would like to find out whether this initial generalisation about verbs with ergative arguments can be extended further. Considering that deponent verbs are associated with a transitive structure in the lexicon (Hale & Keyser 1993, Laka 1993), and all verbs with ergative arguments are at least diadic, let us see if the generalisation can be extended to all polyadic verbs. In that case, the generalisation might have the important syntactic implication that XP in the representation of (7) may only be VP.

To test the validity of this generalisation in Basque descriptively, we must now look at [ABS, DAT] verbs, which have an absolutive and a dative argument, paying special attention to psych-verbs, which although few in number are significant for our study.[7] We need to distinguish between two types of [ABS, DAT] psych-verbs: those in which the experiencer is in the dative and those in which the experiencer is in the absolutive. The former type includes *ahaztu* "forget" and *gustatu* "like", and the latter type includes *urrikaldu* and *errukitu*, which both mean "to pity".

Adhering to the typology usually applied to these verbs (Belletti & Rizzi 1988), *ahaztu* and *gustatu* belong to the *piacere* type of psych-verb (Artiagoitia 1995, 2000). Such verbs do not admit a lexical causative alternation, as the following examples show:

(9a) *Adinarekin kantuak ahaztu zaizkit*
age.COM song.PL.ABS forget AUX:3PL.1SG
"On account of age I have forgotten the songs."

(9b) **Adinak kantuak ahaztu dizkit*
age.ERG song.PL.ABS forget AUX:3SG.3PL.1SG
*"Age has forgotten me the songs."

(9b′) *Adinak kantuak ahatzarazi dizkit*
age.ERG song.PL.ABS forget.CAU AUX:3SG.3PL.1SG
"Age has made me forget the songs."

[ABS, DAT] verbs like *urrikaldu* (in present-day usage)[8] and *errukitu*, which have the experiencer in the abolutive case, do not admit lexical causative alternation either:

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[7] Communication verbs like *mintzatu* "speak" or *elekatu* 'converse' and some other verbs like *jarraiki* "follow", *ekin* "start doing something" can be used as [ABS, DAT] verbs. They have no causative alternation. However, this is not very revealing because causative alternation is blocked even when they are mere [ABS] verbs; see below §4.2.

[8] Following the data given by the DGV, untill the middle of the 19th century, *urrikaldu* "pity" was an [ABS, DAT] verb in which the experiencer was dative. This use is no longer available in present day Basque (outside except in markedly literary usage). Consider the following contrast:

(i) *Jainkoari urrikaldu zitzaizkion gizonak*
god.DAT pity.PTP AUX.3PL.3SG men.ABS
"God took pity on the men" (old usage)

(ii) *Jainkoa urrikaldu zitzaien gizonei*
god.ABS pity.PTP AUX.3SG.3PL men.DAT
"God took pity on the men" (contemporary usage)

(9c) *Aberatsak bakan urrikaltzen zaizkie behartsuei*
rich.PL.ABS rare pity.IMP AUX:3PL.3PL needy.PL.DAT
"The rich rarely take pity on the poor."

(9d) **Apaizaren erranek aberatsak urrikaldu dizkiete behartsuei*
priest.GEN saying.PL.ERG rich.PL.ABS pity 3PL.3PL.3SG AUX: needy.PL.DAT
"The priest's words made the rich take pity of the poor."

It can be concluded from the data cited so far that in lexical causatives the base verb must be a [ABS] monadic verb, i.e. a verb with a single argument which cannot be ergative. We must now ask whether any such [ABS] verb other than change-of-state verbs can appear as a complement of *Cause*. In fact, it cannot. There are some kinds of [ABS] verb that allow morphological causativization but not lexical causativization, as shown in the following table:

(10) Possibility of lexical causative alternation in major classes of [ABS] monadic verbs:

—Reflexive verbs	
garbitu "get washed", *jantzi* "get dressed", *orraztatu* "comb one's hair"...	NO
—Verbs of activity	
jokatu "play", *jostatu* "play", *mintzatu* "talk"...	NO
—Verbs of happening	
gertatu "happen", *jazo* "happen"...	NO
—Change-of-state verbs	
hil "die", *hautsi* "break", *zabaldu* "spread"...	YES
—Change-of-place verbs:	
atera "leave", *hurbildu* "come close", *joan* "go"...	YES
—Psych-verbs:	
aspertu "get bored", *harritu* "be surprised", *izutu* "be scared"...	YES

(10) shows which classes of NOR-verbs allow lexical causative alternation and which do not.[9] In the next two section we look at some examples which show in greater detail which lexical causatives of NOR-verbs are grammatical.

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[9] I won't discuss the case of aspect verbs like *hasi* "begin" or *bukatu* "finish". As can be seen in the examples below, these verbs have causative alternation (Pustejovsky 1995: 201):

(i) *Pilota partida hasi/ bukatu zen* "The pelota game started/finished"
pelota game begin finish AUX:3SG

(ii) *Pilotariek partida hasi/ bukatu zuten* "The pelota players began/finished the game"
pelota player.PL.ERG begin finish AUX:3SG

However these aspectual causatives deserve a special analysis. Semantically, the complement of aspectual verbs must be an event. Therefore, only DPs which permits the event reading (by means of coercion) can appear in the transitive construction. This is why, out of context (iii) below is normally understood as (iv), depending on whether Mary is known as a writer or not.

(iii) *Maddik liburua hasi zuen* "Mary began the book"
Mary.ERG book.ABS begin AUX:3SG.3SG

4. [ABS] verbs that do not admit lexical causatives.

Let us first examine the verb classes shown in (10) that do *not* have lexical causatives.

4.1. Reflexive [ABS] verbs

There are two ways to make transitive verbs reflexive in Basque. One is to employ a reflexive pronoun, without altering the verb's transitive structure. The other is to alter the verb's syntax, turning it into a single-argument verb whose argument goes into the absolutive case (Ortiz de Urbina 1989). For most verbs the standard derivation is the one which maintains the verb's transitive form, but some verbs such as *beztitu* "get dressed" or *orraztatu* "comb one's hair" have lexicalized the intransitive reflexive. Consider these examples:

(11a) *Pello beztitu da*
Peter.ABS dress AUX:3SG
"Peter got dressed"

(11b) *Maddik Pello beztitu du*
Mary.ERG Peter.ABS dress AUX:3SG.3SG
"Mary dressed Peter."

(11c) *Pello orraztatu da*
Peter.ABS comb AUX:3SG.3SG
"Peter combed his hair."

(11d) *Maddik Pello orraztatu du*
Mary.ERG Peter.ABS comb AUX:3SG.3SG
"Mary combed Peter's hair."

The verbs in (11) have both intransitive and transitive usages. Nevertheless, they do not display lexical causative alternation because (11b) and (11d) do not incorporate the meanings of (11a) and (11c). In (11a,c) the verb is reflexive, meaning that Peter dresses himself and combs his own hair; whereas in (11b,d) Pello does not dress himself or comb his own hair. The only way to obtain a causative from these reflexive verbs is by means of a morphological causative: *Maddik Pello beztiarazi du* "Mary made Peter get dressed", *Maddik Pello orraztarazi du* "Mary made Peter comb his hair". These causatives are derived from syntactic intransitives that decompose lexically into two co-referential arguments, one internal and one external (Reinhart & Siloni, to appear). Thus the restriction that applies to these verbs arises from their underlying transitivity.

(iv) *Maddi liburua irakurtzen/idazten hasi zen* "Mary began readind/writing the book"
Mary.ERG book.ABS reading/writing begin AUX:3SG

(v), below, shows that the causative alternation is restricted to event-nouns:

(v) **Liburua hasi zen* (vs *Gerla/pilota partida/filma/klasea... hasi zen*)
"*The book began" (vs "The war/the pelota game/the movie/the class... began")

4.2. Unergative [ABS] verbs

In her classification of Basque verbs, Levin (1983, 1989) claims that monadic [ABS] verbs are all unaccusative with the single exception of *mintzatu* "speak". Although it would seem that the ergative case marking is becoming more and more widespread with non stative intransitive verbs, particularly in the dialects of the South (Sarasola 1977), this is an over-generalization for there are many unergative verbs, particularly in Northern dialects, which while semantically being clearly unergative, can or must be used as [ABS] verbs.[10] Some examples of these are *ari izan* "be doing (something)", *bazkaldu* "have lunch", *borrokatu* "fight", *dantzatu* "dance", *elekatu* "talk", *entseiatu* "try", *jauzi* "jump", *jazarri* "attack", *jokatu* "play (a competitive game)", *jostatu* "play, have fun", *mendekatu* "avenge", *mintzatu* "speak", etc. Regarding the analysis of these agentive verbs as unergative verbs, see Perlmutter & Postal 1984, and Levin & Rappaport Hovav 1995: 136.[11]

As the following examples show, unergative NOR-verbs do not alow lexical causatives (12b, 13b):

(12a) *Pello kanpoan jostatu da*
Peter.ABS outside play AUX:3SG
"Peter played outside."

(12b) **Maddik Pello kanpoan jostatu du*
Mary.ERG Peter.ABS outside play AUX:3SG.3SG

(12b′) *Maddik Pello kanpoan jostararazi du*
Mary.ERG Peter.ABS outside play.CAU AUX:3SG.3SG
"Mary made Peter play outside."

(13a) *Nire aurka borrokatu zara*
me.GEN against fight AUX:2SG
"You fought (against) me."

(13b) **Buruzagi berriek nire aurka borrokatu zaituzte*
boss new.PL.ERG me.GEN against fight AUX:3PL.2SG

(13b′) *Buruzagi berriek nire aurka borrokarazi zaituzte*
boss new.PL.ERG me.GEN against fight.CAU AUX:3PL.2SG
"The new bosses have made you fight (against) me."

Indeed, many speakers admit use of *borrakatu* "fight" as a transitive, e.g.

(13c) *Buruzagi berriek zu ere borrokatu zaituzte*
boss new.PL.ERG you too fight AUX:3PL.2SG
"The new bosses fought you too."

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[10] Following de Rijk (2002) Levins' generalization describes the situation in old Basque (until the begining of the 16th century). In his proposal present-day unergative [ABS] verbs historically either derived from unaccusative verbs (for example, *trabaillatu* "work", when it was borrowed, wasn't unergative and meant "toil"), or they are the result of antipassive constructions (in the case of verbs like *mintzatu* "speak" or *mendekatu* "avenge"). I won't discuss this proposal here.

[11] However, change-of-place verbs, which may also be agentive (even when they don't express the manner of motion), are not included in this class as we shall see in §5.2.

However (13c) is not a causative formation and its meaning is not related to that of (13b′). The same applies to verbs denoting verbal communication such as *elekatu*, *hizkatu*, *mintzatu*, *solastatu*, etc., which all roughly mean "talk", "converse", "speak" in various dialects. In Northern dialects these verbs, while generally intransitive, admit transitive uses too:

(14a) *Pello* *mintzatu da*
Peter.ABS speak AUX:3SG
"Peter spoke."

(14b) *Maddik* *Pello* *eta Jakes* *mintzatu ditu*
Mary.ERG Peter.ABS and James.ABS speak AUX:3SG.3PL
"Mary spoke to Peter and James."

The verb in (14b) is transitive, but the meaning is not causative. We can prove this by inserting a prepositional phrase in (14a), as in (14c), and then trying to make the verb transitive as in (14d):

(14c) *Pello* *bere buruarekin* *mintzatu da*
Peter.ABS his head.COM speak AUX:3SG
"Peter spoke with his head", i.e. "P. spoke to himself."

(14d) **Maddik* *Pello* *bere buruarekin* *mintzatu du*
Maddi.ERG Peter.ABS his head.COM speak AUX:3SG.3SG
*"Mary spoke Peter with his head", i.e. *"M. spoke P. to himself."

(14d) is ungrammatical because in the only possible interpretation (corresponding to (14c)) it is a causative based on an unergative verb of communication.

It is unclear how the case morphology of such unergative verbs should be represented. In the lexical decomposition approach favoured here it is unlikely that we would want to assign different roles to arguments of the following verb pairs: *borroka egin* "fight" [+ERG]/*borrokatu* "fight" [-ERG], *ele egin* "talk" [+ERG] talk/*elekatu* "talk" [-ERG], *hitz egin* "talk"/*hizketatu* "talk" [-ERG], *zintz egin* "blow one's nose" [+ERG]/*zintzatu* "blow one's nose" [-ERG], etc. (Oyharçabal 1993). This kind of alternation is quite regular with some incorporating verbs, such as verbs of communication, where a noun such as *ele*, *hitz* or *solas* is combined with either the light verb *egin* "do, make", or a morphologically empty verb head, giving a simple verb (Hale & Keyser 1993). One possibility is, following Marantz (1991), to treat the Basque ergative as a dependent case and consider its occurrence in relation to the visibility of the object position (Oyharçabal 1994). Since the object is always visible in constructions with a light verb, use of the ergative is obligatory in this case. In incorporations with a head verb whose form is zero, on the other hand, the object position is released and becomes invisible, blocking occurrence of the dependent case, i.e. the ergative, since this needs to be able to 'see' the object in order to occur. In this analysis, full incorporation of N predicts Basque unergative verbs to be [ABS] and deponent verbs[12] to be the exception because in them the incorporated object remains visible.

[12] Since Lafitte (1944), Basque grammars call monadic simple verbs whose unique argument takes ergative case *deponent verbs*.

In any case it is highly significant for the analysis of these [ABS] monadic verbs that they can never appear in lexical causatives, even though, as we have seen in (11e) and (12b), some of them allow transitive formations, favouring the view that their argument is external.

4.3. Verbs of happening

[ABS] verbs of happening do not have lexical causatives either.

(15a) *Nire otoitzen ondotik, bi mirakuilu gertatu dira*
my prayer.PL.GEN in.consequence, two miracle.ABS happen AUX:3PL
"As a result of my prayers, two miracles happened."

(15b) **Nire otoitzek bi mirakuilu gertatu dituzte*
my prayer.PL.ERG two miracle.ABS happen AUX:3PL.3PL
*"My prayers happened two miracles."

Here the single argument cannot be treated as external: verbs of happening are unaccusative. So that cannot be the reason for the ungrammaticality of (15b). Basque is not alone here; English (Levin 1993: 21) and French (16a,b below) behave similarly:

(16a) *Il est survenu/advenu un miracle*
it AUX happen one miracle
"A miracle happened."

(16b) **Mes prières ont advenu/survenu un miracle*
my.PL prayer.PL AUX happen one miracle
*"My prayers happened a miracle."

Survenir and *advenir*, French verbs of happening, occur in a construction in which only unaccusative verbs are possible, with a non-specific subject following the verb. (16b) shows that such unaccusative verbs cannot occur in a lexical causative. In the lexical decomposition proposed below, we will associate lexical causation with predicates of change. However, in verbs of happening there is an existence predicate rather than a predicate expressing a change. This difference allows us to explain the absence of lexical causatives with such verbs. We have seen that some classes of [ABS] monadic verbs do not alternate with lexical causatives. Next we will look at some which do.

5. NOR-verbs that admit lexical causatives

Two types of verbs of change can be distinguished: change-of-state verbs (§5.1) and change-of-place verbs (§5.2). I will treat psych-causatives separately, although I ultimately propose that these can be thought of as verbs of change (§5.3).

5.1. Change-of-state verbs

Change-of-state verbs include verbs that express a change in the form or physical state of the immediate internal argument. Typically they are derived from an adjective, and sometimes from a noun. Some examples follow of Basque change-of-state verbs. Note that some of their meanings are intransitive and some transitive; *-tu* (or *-du)* is an

aspectual suffix (perfective),[13] while *-i* is an older equivalent that is no longer productive. So, deadjectival and denominal verbs in the list below are zero-derived.

arraildu "crack, get drunk", cf. *arrail* n. "crack" & adj. "cracked, drunk"
belztu "blacken, turn black", cf. *beltz* adj. "black"
berotu "heat, get hot", cf. *bero* adj. "hot" & n. "heat"
edertu "make/become beautiful, adorn", cf. *eder* adj. "beautiful"
eritu "become/fall/make ill", cf. *eri* adj. "ill" & n. "illness, ill person"
hautsi "break", cf. *hauts* n. "powder, ash"
hil "die, kill", cf. *hil* adj. "dead" (but this is also the participle of the verb *hil*)
hoztu "get/grow/make cold", cf. *hotz* adj. & n. "cold"
idortu "dry", cf. *idor* adj. "dry"
puskatu "break, break up", cf. *puska* n. "piece, bit"
urtu "melt", cf. *ur* n. "water"
zabaldu "spread, open", cf. *zabal* adj. "broad, wide"

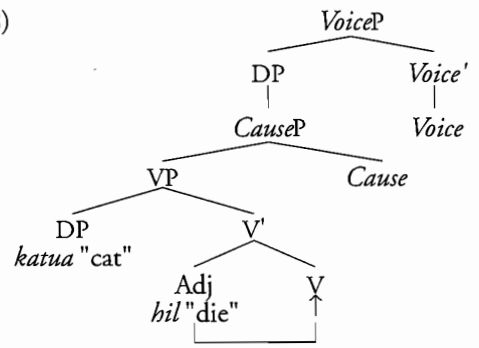
In this group of verbs the derivation of lexical causatives is totally productive, e.g.

(17a) *Udaberriarekin bazterrak laster berdatu ziren*
spring.COM corner.PL.ABS fast turn.green AUX:3PL
"With (the coming of) spring the countryside soon grew green."

(17b) *Udaberriak bazterrak laster berdatu zituen*
spring.ERG corner.PL.ABS fast turn.green AUX:3SG.3PL
"Spring soon turned the countryside green."

In the present analysis such causatives may be represented in two ways depending on whether or not the verb is derived from an adjective (or a noun).[14] If it is, the representation will be as in (18):

(18)



[13] In Basque participle forms are standardly used to cite verbs.

[14] Some change-of-state verbs can probably be analyzed as incorporating a null postpositional head. AOPZ (2000: 438) propose this kind of analysis for verbs like *apurtu, puskatu, zatitu...* "break, smash to pieces, divide...". These derived verbs incorporate a noun (*apur, puska, zati...*) which designates a small piece (of something). In some cases the postposition (*-ka*) may appear: *xehakatu, zatikatu...* Verbs like *lilitu, loratu* "blossom" can also be analyzed following this type of decomposition. See §5.2 and 5.3 below.

As a diagnostic for determining whether intransitive verbs are unaccusative or unergative, Levin & Rappaport Hovav (1995: 91) consider that most change-of-state verbs are unaccusatives because they are externally caused, whereas verbs that express internally-caused changes are unergatives. Nevertheless, there are some change-of-state verbs that have an internal cause (Levin & Rappaport Hovav 1995: 159). Such internally-caused verbs are unlikely to undergo lexical causativization. If a change-of-state is triggered by an internal cause, a subject of a lexical causative expressing an external cause cannot be a direct cause, cf. (5a,b), and such verbs therefore cannot undergo causative alternation.

As Levin & Rappaport Hovav (1995: 99) point out, not all languages deal with this problem in the same way, and some vacillations and contradictions are found even among speakers of a given language. Insofar as the present study is primarily descriptive, let us see what happens in the case of Basque.

As a general rule, Basque appears to tolerate causative alternation in change-of-state verbs that are conceptually analysable as internally-caused. Indeed there are some cases of Basque verbs that admit causative alternation even though in neighbouring languages the formation of a lexical causative from the equivalent verb is blocked on account of internal causation.

Studying Spanish change-of-state verbs, Mendikoetxea (1999: 1599) states that many internally-caused change-of-state verbs may be treated as if they were externally-caused, depending on the type of argument. Thus, if a verb can be used to talk about animals or natural phenomena, it is likely to admit an internal-cause reading that is not available with an inanimate subject, as in the following examples, cf. Mendikoetxea (1999: 1599):

SPANISH:

(19a) *Juan ha ensanchado* (internal cause)
Juan AUX widen.PTP
"Juan has broadened out."

(19b) *La carretera se ensancha en el km 5* (external cause)
ART road RFL widen in ART km 5
"The road widens at kilometre 5."

In Basque it seems that for processes involving inert or inanimate objects (but probably not plants), lexical causatives are possible for all speakers. Processes of change such as melting, rotting and rusting apply to inanimates yet may be thought of as internally caused. In Basque they are treated as externally caused and undergo causative alternation.

Take the French verb *fondre* "melt", for example, which is not amenable to causative alternation, whereas its Basque equivalent *urtu* is:

FRENCH:

(20a) **Le soleil a fondu le verglas*
ART sun AUX melt.PTP ART ice
"The sun melted the ice."

(20a′) *Le soleil a fait fondre le verglas*
ART sun AUX make/CAU.PTP melt ART ice
"The sun caused the ice to melt."

BASQUE:

(20b) *Eguzkiak bideko horma urtu du*
sun.ERG road.GEN ice.ABS melt AUX:3SG.3SG
"The sun melted the ice on the road."

When the undergoer of the change is animate, speakers' judgments differ and are often uncertain. This is illustrated in French and Basque for the verbs Fr. *grossir*, Bq. *loditu* "fatten, grow fat" and Fr. *maigrir*, Bq. *mehatu* "slim, grow thin":[15]

FRENCH:

(21a) *Pierre a grossi/ maigri*
Peter AUX fatten.PTP/ slim.PTP
"Peter grew fat/thin."

(21b) **Les médicaments ont grossi/ maigri Pierre*
ART.PL medicine.PL AUX fatten.PTP/ slim.PTP Peter
"The medicines fattened/slimmed Peter."

BASQUE:

(22a) *Pello loditu/ mehatu da*
Peter.ABS fatten/ slim AUX:3SG
"Peter grew fat/thin."

(22b) %*Erremedioek Pello loditu/ mehatu dute*
medicine.PL.ERG Peter.ABS fatten/ slim AUX:3PL.3SG
"The medicines fattened/slimmed Peter."

In this example with verbs expressing physical changes-of-state in the theme, some Basque speakers, but not all,[16] accept a causative alternation that is hardly acceptable in

[15] Apparently, Spanish data depend upon the speakers. Following Mendikoetxea (1999: 1598) a verb like *adelgazar* "slim" has no causative alternation:

(i) *Pedro adelgazó* "Peter slimmed"

(ii) **Un nuevo medicamento adelgazó a Pedro* "A new medicine slimmed Peter"

However, examples like (iii) appear in dictionaries:

(iii) *Esta medicina te adelgazará* "This medicine will slim you"

[16] In the DGV such examples appear from different dialects:

(i) *Janhari irintsuek loditzen dute* (Harriet) "Floury food slims"

(ii) *Etxeko jatekiak lorittu eiñ nau* (T. Etxebarria) "Homemade food fattened me"

French. The same pattern is observed with the Basque verb *gorritu* "blush" (literally "turn red", from *gorri* "red"). Here we compare this verb with its equivalents in several other languages, as mentioned in the literature:

ENGLISH:

(23a) *Peter blushed*

(23b) **The compliment blushed Peter* (Levin & Rappaport Hovav 1995: 91, 160)

SPANISH:

(24a) *María enrojeció*
María blushed
"María blushed."

(24b) **La enhorabuena enrojeció a María*
ART congratulation blushed ACC María
*"The congratulation blushed María." (Mendikoetxea 1999: 1604)

FRENCH:

(25a) *Marie rougit*
Marie blushed
"Marie blushed."

(25b) **Vos paroles rougirent Marie*
your.PL word.PL blushed Marie
"Your words blushed Marie." (Labelle 1990: 306)

BASQUE:

(26a) *Maddi gorritu zen*
Maddi.ABS blush AUX.PST:3SG
"Maddi blushed."

(26b) %*Zuk esandakoak gorritu egin nau*
you.ERG say.PTP.ERG blush FOC AUX:3SG.1SG
"What you said made me blush."[17]

Thus it would seem that there are very few unaccusative change-of-state verbs in Basque for which speakers unanimously reject causativization. *Hazi* "grow" when applied to plants has no causative use for many speakers, though some westerners admit causation with agentive subjects:[18]

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[17] *Egin* "make, do" in (26b) is merely a marker of information structure which places the verb *gorritu* in emphatic focus (FOC). The acceptance of the example is easier when the verb is focalized.

[18] With verbs like *loratu* or *lilitu* "bloom" (< *lore*, *lili* "flower"), speakers' judgements are divided with regard to causative alternation; some accept it, while others do not:

(i) %*Maiatzeko eguzkiak gereziondoak loratu ditu*
may.GEN sun.ERG cherry.tree.PL.ABS bloom AUX:3SG.3PL
*"The May sun bloomed the cherry trees."

(27) %*Baratzezainak gure landareak ondo hazi ditu*
gardener.ERG our plant.PL.ABS well grow AUX:3SG.3PL
"The gardener grew our plants well."

(28) **Ongarriak gure landareak ongi hazi ditu*
fertilizer.ERG our plant.PL.ABS well grow AUX:3SG.3PL
*"The fertilizer grew our plants well."

A further pattern exists involving some of the verbs in this class. Certain verbs derived from nouns denoting plant and animal parts enter into a special kind of causative alternation, e.g.

aletu "bear fruit; pick", cf. *ale* "fruit, berry, bean etc."
bihitu "turn to grain; thresh, remove grain", cf. *bihi* "grain, cereal"
kimatu "sprout; prune", cf. *kimu* "shoot, sprout"
lumatu "grow feathers; pluck", cf. *luma* "feather"

AOPZ (2000: 439) and Etxepare (2003) draw attention to these verbs which have an unaccusative use that expresses internal causation, but also a causative use denoting removal of the part expressed by the incorporated noun:

(29a) *Kardua kimatu da*
thistle.ABS sprout AUX:3SG
"The (edible) thistle has sprouted."

(29b) *Jendeek mahastia kimatu zuten*
people.PL.ERG vineyard.ABS prune AUX:3PL.3SG
"The people pruned the vineyard."

So far, lexical causatives in Basque seem to be quite regular, exhibiting few of the idiosyncrasies often associated with lexicalization, in contrast to the next group we shall look at.

5.2. Change-of-place verbs

The class of change-of-place verbs consists exclusively of verbs which express simple or (directed motion, but not manner of motion (Rosen 1984, Levin & Rappaport Hovav 1995).[19] We saw earlier that single-argument agentive verbs are generally unergative, but Levin & Rappaport (1995: 148) established that the verbs in this group form an exception to that generalisation.[20] Even though many of these verbs have an agentive argument, they are unaccusatives and admit causative alternation:

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[19] Basque generally doesn't lexicalize verbs of manner of motion. Verbs like *run, swim* or *walk* are expressed by using an adverb (indicating the manner) with a change-of-place verb like *etorri* "come", *ibili* "move", *joan* "go", etc. *Igerika/lasterka/oinez etorri/ibili/joan naiz* "I came/moved/went swimming/running/walking".

[20] For Levin & Rappaport (1995) the group is restricted to *verbs of inherently directed motion.* In Basque the group includes simple motion verbs like, for example, *ibili* "move".

(30a) *Kanpora atera zara*
outside go.out AUX:2SG
"You went outside."

(30b) *Kanpora atera zaitut*
outside take.out AUX:I.2SG
"I took you outside."

(31a) *Haurrak oheratu dira*
child.PL.ABS go.to.bed AUX:3PL
"The children went to bed."

(31b) *Haurrak oheratu ditut*
child.PL.ABS put.to.bed AUX:1SG.3PL
"I put the children to bed"

We have seen that there are few change-of-state verbs for which causative alternation is completely impossible for all speakers, but such cases are more numerous among change-of-place verbs:

— With lexical causatives: *agertu* "appear, display", *amildu* "plunge, hurl", *atera* "go out, take out", *elkarretaratu* "come/bring together", *etxeratu* "go/take home", *goititu* "rise, raise", *hurbildu* "approach, bring (to a place)", *igan* "go/take up", *ilki* "come out, bring out", *jaitsi* "go/take down", *jalgi* "bring/take out", *joan* "go, %take", *sortu* "emerge, come into being, be born; bring about, create", *urrundu* "move away", etc.
— Without lexical causatives: *ailegatu, arribatu* "arrive", *erori* "fall", *etorri* "come", *ibili* 'move', *irten* "go out", *jaio* "be born", *jin* "come", *joan* "go", *partitu* "leave", etc.

This distinction is hard to explain. The cases of lack of alternation seem to be the marked ones: they are few in number and constitute a closed list. Verbs derived from adverbs and postpositional forms belong to the group allowing causative alternation; in particular, the alternation is always potentially available for those containing the allative postposition *-ra*, e.g.

> *goratu* "go up, rise; bring up, raise", cf. *gora* "up(wards)", *etxeratu* "go home; take home", cf. *etxe* "house", *etxera* "home(wards)", *lurreratu* "come to the earth, fall to the ground, land; bring down, cause to fall", cf. *lur* "ground, earth", *lurrera* "to the ground, to the earth", etc.

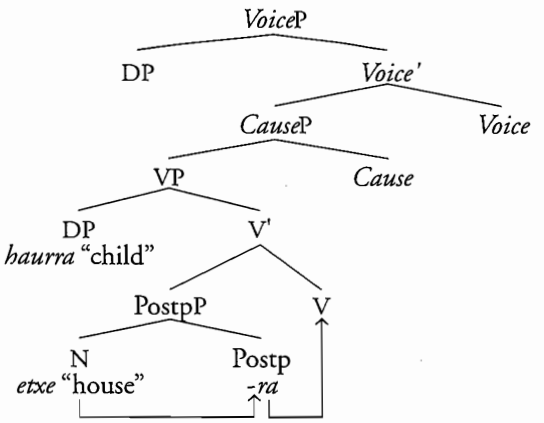
Certain verbs, such as *joan* "go", have a causative use in Northern dialects that is lacking in others (see DGV):

(32) *Ardiak mendira joan ziren*
sheep.PL.ABS to.the.mountain go AUX.PST:3PL
"The sheep went to the mountain."

(33) *%Artzainak ardiak mendira joan zituen*
shepherd.ERG sheep.PL.ABS to.the.mountain take AUX:3SG.3PL
"The shepherd took the sheep to the mountain."

Change-of-place verbs are represented as follows, once again with a derived verb for the sake of clarity:

(34)



The PostpP structure occurs in the case of verbs derived from allative expressions like *etxera* "to the house" or from adverbs like *urrun* "far" and *hurbil* "near". In other cases, such as *jautsi* "descend" or *igan* "rise", direction is an integral part of the verb's sense and the root is the verb's complement (Marantz 1997).

5.3. Causative psych-verbs

The class of causative psych-verbs consists of psych-verbs of the [ERG, ABS] type, i.e. having an ergative subject and an absolutive object, such as *aspertu, enoatu* "bore, be bored", *harritu* "surprise, be surprised", *interesatu* "interest, be interested", *izutu* "frighten, be frightened", *liluratu* "dazzle, fascinate, be dazzled, be fascinated", *poztu* "please, make happy, be pleased, be happy", etc. These are not universally treated as alternating verbs in the literature. While in some of these the subject constitutes the theme, in others the theme turns up as object. Consider the following:

(35a) *Peter fears bears* (35b) *Bears frighten Peter*

It has been suggested in the literature that *Peter* has the same theta-role in both (35a) and (35b), namely experiencer, as does *bears*, namely theme. Syntactically, of course, the theme is the object in (35a) and the subject in (35b), while the experiencer is the subject in (35a) and the object in (35b). This state of affairs is highly enigmatic if one accepts that theta-relations are reflected in syntactic relations (cf. Baker's *Uniformity Theta Assignment Hypothesis*, 1988: 46). To solve this puzzle, Belletti & Rizzi (1988) apply the unaccusative analysis to causative psych-verbs, suggesting that the theme argument occurring as subject is the verb's immediate internal argument in D-structure, and that the experiencer, located above the theme within the VP, takes an inherent accusative case. Since it is not an external argument, the theme argument rises to subject position as with unaccusatives. Thus the theme is a derived subject, as in (36):

(36) Theme$_1$ [VP [V' t_1] Experiencer]

Belletti & Rizzi (1988) provide strong syntactic arguments in favour of this explanation based on the hypothesis that subjects of the *preoccupare-frighten* class are derived (see also Artiagoitia 2003 in this volume), but others reject the thematic analysis on which this explanation is based (Dowty 1991, Pesetsky 1995, Tenny 1995, Baker 1997). Pesetsky (1995) observes that the theta role of *the article* is not quite the same in the following two examples:

(37a) *John is angry at the article* (37b) *The article angered John* AUX:3SG

Pesetsky (1995: 56) points out that in (37a) *the article* is the target of emotion, whereas in (37b) it is the causer of emotion. In (37a) the article is what John's anger is aimed at; in (37b), on the other hand, it is the cause of his anger, but not necessarily what his anger is aimed at. It may be that John thinks the article is well-written and that the article tells of something that makes him angry. According to Pesetsky's account, the thematic analysis of psych-verbs presented by Belletti & Rizzi (1988) is misleading, because in the transitive forms the subject is the causer, as has been suggested repeatedly (see also Dowty 1991, Baker 1997, Arad 1998, Pylkkänen 1999, and in reference to Basque, Zabala 1993: 203). I coincide with this view.

Let us examine the behaviour of causative psych-verbs in Basque, illustrated in (39):

(39a) *Jon enoatu /harritu da /izutu /kezkatu da*
John.ABS be.bored /be.surprised /be.frightened /be.worried AUX:3SG
"John was/got bored/surprised/frightened/worried."

(39b) *Pellok Maddi enoatu /harritu /izutu /kezkatu da*
John.ABS Mary.ABS be.bored /be.surprised /be.frightened /be.worried AUX:3SG
"John bored/surprised/frightened/worried Mary."

The main difficulty in accounting for the causative analysis of such pairs involves binding. It was observed by Artiagoitia (2000: 110) that unusual binding relations may be found with causative psych-verbs. Consider the following (cf. also Artiagoitia's (2000: 110) example with *nazkatu* "sicken"):

(40a) *Nire buruak izutzen nau*
my head.ERG frighten.IMP AUX:3SG.1SG
"I frighten myself", literally: "Myself frightens me."

(40b) *Pello bere buruak izutzen du*
Peter.ABS his head.ERG frighten.IMP AUX:3SG.3SG
"Peter frightens himself", literally "Himself frightens Peter" (or "Peter is frightened by himself.")

In these examples, the reflexive phrase *nire burua(k)* "my head.ERG, i.e. myself" or *bere burua(k)* "his head.ERG, i.e. himself' is the subject of the psych-causative, and is bound by the object. The data in (40) poses several problems. One involves Principle C, which says that referring expressions in a sentence must be unbound; the other involves

Principle A, which says that anaphoric expressions must be bound in their domain. For example, according to Belletti & Rizzi (1988) (41), which is the exact translation of (40b), is a violation of Principle C:[21]

(41) **Himself$_i$ worries John$_i$*

Just as in (41), in (40b) too the object, *Pello*, is a referring expression yet it is bound since it is c-commanded by the subject. If *bere burua(k)* "himself" and *Pello* are co-indexical in (40b), then Principle C is clearly violated. Therefore we should first of all find out if the two phrases in (40) are really co-indexical. When we examine these sentences more closely, some questions arise. For example, the pattern found in (40) is completely ungrammatical if we substitute a reciprocal anaphor as in (42):

(42) **Pello eta Maddi elkarrek izutzen ditu*
Peter.ABS and Mary.ABS each.other.ERG frighten.IMP AUX:3SG.3PL
*"Each other frighten Peter and Mary" (or "Peter and Mary are frightened by each other.")

The reciprocal pronoun *elkar* cannot be used in subject position, whereas *bere burua* "himself" can. How can we explain this difference, which doesn't appear in other contexts, as can be seen in (43a,b)?

(43a) *Pello eta Maddik elkar hilen dute*
Peter and Mary.ERG each.other.ABS hit.FUT AUX:3PL.3SG
"Peter and Mary will kill each other"

(43b) *Pello eta Maddik beren burua hilen dute*
Peter and Mary.ERG their head.ABS kill.FUT AUX:3PL.3SG
"Peter and Mary will kill themselves" (i.e. commite suicide)

In the examples of (43), the two anaphoric expressions obey Principle A, since both are bound in the relevant local domain. I will consider that *X-en burua* is a metonymic anaphor (cf. Safir 1996) and that in such a case the *i*-within-*i* condition is deactived as Rebuschi (1997: 288) proposes:

(44) ... *Maddik*$_1$ ... [DP$_2$ [*ber(e)*$_1$ [*buru*$_2$]]-*a*] ...

On the contrary, there is a sharp contrast between (40a,b) and (42). The expression *X-en burua* can appear in the subject position of the psych-causative (40), while *elkar*

[21] Under Belletti & Rizzi's (1988) analysis, Principle A is not violated in (41), or in (i) either:

(i) *Pictures of himself frighten John*

As seen in (36), in Belletti & Rizzi's (1988) view, the subject is derived from a position where it is c-commanded by *John*. Therefore the anaphor inside of it is bound.

cannot (42). To explain this, I propose that in (40) *bere buruak* is not an anaphor, but an ordinary DP, which is metaphorically used to denotes one 's (uncontrolled) self. On the other hand, the reciprocal pronoun *elkar* is morphologically simple[22] and has to bear the index of the binding DP.

According to our proposal, the expression *X-en burua* can be syntactically autonomous even when it is metonymically used to designate not really the body part, but the whole person, and we would expect that it may also occur outside of psych-causatives. Such is the case in the following examples from various periods and dialects in Basque literature, in which *nire burua*, as subject, denotes the first person (cf. DGV, sub *buru*, p. 2,672):[23]

(45a) ***Nere buruak*** *ere ematen dit* *franko lan*
my head.ERG too give.IMP AUX:3SG.3SG.1SG plenty work.ABS
(Labayen, *Euskal-Eguna*, 92)

"I give myself plenty of work too", lit. "Myself also gives me plenty of work", "I am given plenty of work by myself."

(45b) *Halaz despeditu nahi nuzuia?*
thus take.leave want AUX:2SG.1SG.INTER
Hebetik ioan gabe ***ene buruia***
from.here go without my head.ABS
egin behar duzu *ene nahia*
do must AUX:2SG.3SG my wish.ABS (Dechepare, 207)

"Would you take leave of me thus? Before I (*lit.* myself) depart hence you shall fulfil my wish."

We must adduce some further data, which enforces our proposal. The fact that *X-en burua* may appear as subject of psych-causatives as shown in (40) doesn't rule out that the same expression may also appear in object position. See the examples in (46):

(46a) *Nire buruak izutu nau*
my head.ERG frighten AUX:3SG.1SG
"I frightened myself", literally: "Myself frightened me."

(46b) *Nire burua izutu dut*
my head.ABS frighten AUX:1SG.3SG
"I frightened myself."

In (46a) the expression *nire burua* is the subject and it takes the ergative case. In (46b) the same expression is the direct object and it receives the absolutive case. The

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[22] I don't take into account historical complexity (*elkar* < *alkhar* < **(h)ark-har* "DEM.ERG-DEM.ABS" (Michelena 1961: 69).

[23] Unlike (45a), example in (45b) (16th century) is rather strange for present-day speakers, because it is difficult not to give the sentence an agentive interpretation (lit. "before I go out from here"). Observe further that the genitive pronoun doesn't have the reflexive form (*neure*) of the genitive pronoun of the 1st person in Dechepare's dialect. Regarding the latter point, see Rebuschi (1995).

two sentences are not exactly synonymous. Speakers perceive a difference in the interpretation of (46a) and (46b), attaching an agentive interpretation to (46b)[24] (Artiagoitia 2000: 110), while (46a) is given a psychological interpretation in which the reason for being frightened resides in one's uncontrolled self. This difference in interpretation corresponds to different uses of the same expression: metonymic anaphor in (46b); metonymic R-expression in (46a).

Now let us look at the representation of psych-causatives. It was noted above that verbs denoting physical states often have an adjective base such as *argal* "thin", *bero* "hot", *handi* "big", *hil* "dead", *hotz* "cold", *lodi* "fat", *luze* "long", *mehe* "thin", *tiki* "small", *zabal* "wide", etc. Verbs formed from words that express psych-states denote changes-of-state too, but are mostly derived from nouns, such as *ahalke* "shame", *arrangura* "worry, preoccupation", *asper* "boredom", *beldur* "fear", *griña* "passion", *izu* "fright", *kezka* "concern", *poz* "pleasure, happiness", etc. Such nouns mostly occur in combination with the intransitive copular verb *izan* "be" as stative predicates, e.g. *ahalke izan* "be ashamed" (literally "be shame"), *arrangura izan* "be worried" (lit. "be worry"), *beldur izan* "be afraid" (lit. "be fear")...; however, they cannot be so used attributively (??*gizon ahalkea* "ashamed man", **gizon arrangura* "worried man", **gizon beldurra* "afraid man", and so on).[25] Such nouns can also occur in postpositional phrases, especially when they occur as a noun phrase rather than a plain noun (Zabala 1993: 544-48):

(48a) *Beldur /ahalke/arrangura /haserre /lotsa naiz*
fear shame/worry anger fear be:1SG
"I am afraid/ashamed/worried/angry/afraid."

(48b) *Kezkaz /beldurrez /pozik nago*
worry.INS fear.INS happiness.PAR be.3SG
"I am worried, afraid, happy."

(48c) *Haserre gorrian naiz*
anger red.INE be:1SG
"I am boiling with rage", lit. "I am in red anger"

I propose that in the decomposition of these kinds of psych-causative there is also a verb of change that selects a PP,[26] where the change consists of entry into a new psych-

[24] The agentive interpretation doesn't imply here that the subject is really in control of the process. For myself as for all the speakers I asked (46b) is preferred to describe the following situation: While you were driving on a wet road, you went into a skid and almost had an accident. Which sentence do you prefer to use to describe your feeling: (46a) or (46b)?

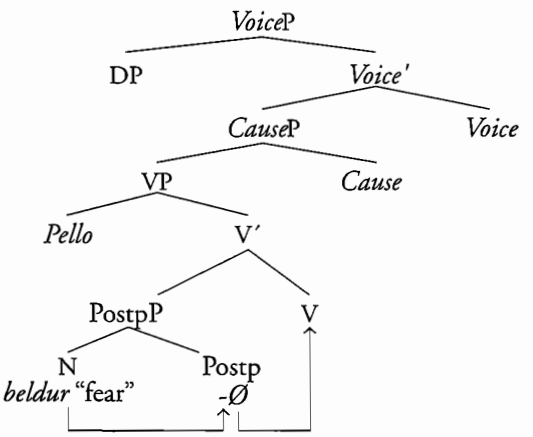
[25] There are ambivalent forms like *haserre* 'anger, angry', which can be used attributively: *gizon haserrea* "the angry man". There are also psych-verbs which can be derived from non ambiguous adjectives, e.g. *alegeratu* "become/make happy", *tristetu* "become/make sad"...

[26] Baker (1997) analyzes causative psych-verbs like *frighten* as a change-of-place whose theme is the emotion and the locative goal the experiencer. The semantic analysis is:

(i) x CAUSE [[FEAR (of x)] GO TO z]

state: x CAUSE [y BE LOC z PSYCH-STATE].[27] On this analysis, underlying a sentence such as *Maddik Pello beldurtu du* "Maddi frightened Pello" there is a PP with an unexpressed head, in which *beldur* "fear" is incorporated in a head-to-head movement which carries forward as far as the *Cause* node.

(49)



6. *Cause* and *Voice* heads

One issue not yet discussed is the type of relation that holds between the causative head and the head of the transitive *Voice* (or *v)* structure. Pylkkänen (2002), inquiring into the relationship between causative morphology and the existence of an external argument, suggests the the two do not always coincide, and notes that in Japanese adversative causatives and Finnish volitive causatives, the causative morphology may leave the verb's valency unchanged, yet the sentence is nevertheless causative. Consider the following Finnish examples:

FINNISH:

(50a) *Maija laula -a*
Maija.NOM sing -3SG
"Maija is singing"

(50b) *Maija -a laula -tta -a* (Pylkkänen 2002: ex. (168))
Maija -PAR sing -CAU -3SG
"Maija feels like singing."

[27] Artiagoitia (pc.) notices that the proposed analysis predicts that verbs like **ahalkez(ta)tu* "become/ make ashamed" or **lotsaz(ta)tu* "become/make afraid"... should be well formed, and this not so. He suggests an analysis where the noun is directly incorporated into V. However, in my view (49) doesn't imply that the lexical realization of the verb has to permit the use of an overt postposition. This is a different matter, which has to do with the way postpositions present in lexical decomposition are phonetically realized within verbs; see footnote 14 above for some other examples.

Adding the causative morpheme *-tta* does not result in the inclusion of another argument, yet the causative morphology conveys an implicit causative event which may be made explicit by a question (Pylkkänen 2002: ex. (174)):

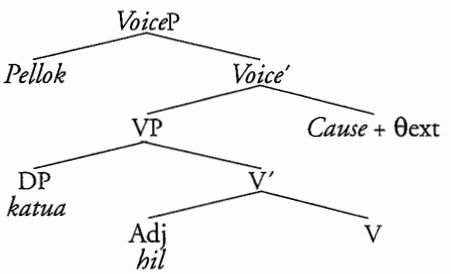
(51) *Minu -a naura -tta -a mutt-en tiedä mikä*
me -PAR laugh -CAU -3SG but-not.1SG know what.NOM
"Something makes me feel like laughing, but I don't know what."

The causative morphology appears in (51) with the subject in the partitive as in (50b). However, in the second part of the sentence the causative question word *mikä* appears. Significantly, the question word cannot express an agent:

(52) **Minu -a naura -tta -a mutt-en tiedä kuka*
me -PART laugh -CAU -3SG but-not.1SG know who.NOM
"Something makes me feel like laughing, but I don't know who."

Hence Pylkkänen (2002) concludes that causation does not always entail an external argument, for which reason the *Cause* head and the external-argument-bearing head (*Voice*) should be differentiated. However, in languages which express lexical causatives through zero morphology, lexical causatives cannot occur without an external argument. This is the case in both English and Basque, where both heads conflate. Pylkkänen calls such a situation Voice-bundling. (53) shows the representation of a lexical causative in this perspective:

(53) *Pellok katua hil du*
Peter.ERG cat.SG.ABS. killed AUX
"Peter killed the cat."



As (53) shows, the external-argument-bearing *Voice* head is associated with the *Cause* head, so causation and the existence of an external argument are linked, unlike Finnish and Japanese. Notice that this structure of causative verbs is similar to that of other transitive verbs. This is why, in some works such as AOPZ (1999: 442), where an intransitive alternation is lacking, some derived verbs not included among the causatives are analysed in causative terms, e.g. in the lexico-semantic structure of verbs such as *babestu* "protect", *zigortu* "punish", etc.

7. In conclusion: lexical causative alternation in Basque occurs with verbs which express a change in the form, location or psych-state of the subject. Aside from certain

idiosyncrasies associated with specific roots, this kind of lexical alternation is highly regular is Basque. We encounter three main types of decomposition, all characterised by a *Cause* head which selects a VP that denotes a change of state or place. In one type, illustrated by (18), the verb BECOME selects and incorporates an adjective or noun, with no further overt morphology, e.g. *edertu* "become beautiful", *handitu* "become big", *haurtu* "become a child" (cf. *eder* "beautiful", *handi* "big", *haur* "child"). In the second type, illustrated by (34), the predicate GO selects an allative PostpP or adverb which inherently expresses direction, e.g. *atera* "go out", *etxeratu* "go home", *hurbildu* "come close" (cf. *ate-ra* "to (the) door", *etxe-ra* "to (the) house", *hurbil* "near"). In the third type, illustrated by (49), the same underlying verb selects a PostpP whose underlying head incorporates the head of its complement. This formation is typical of psych-causatives, e.g. *ahalketu* "be ashamed", *beldurtu* "be afraid", *poztu* "be happy" (cf. *ahalke* "shame", *beldur* "fear", *poz* "happiness"). Like English, Basque conflates the head that expresses causation, which we have called *Cause*, and that which bears an external argument, here called *Voice*. This fact is presumably related to the causative head's zero morphology in causative alternations.

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