The spell-out of syntactic structures

1 Introduction

This chapter addresses several topics in the spell-out of syntactic structures, particularly of DD, that relate closely to the syntactic topics treated in the preceding chapters. The issues are somewhat heterogeneous in themselves, yet they are closely linked in their effect on the syntactic structure: they obscure its spell-out in syntactically arbitrary ways, creating gaps in the paradigm, or gaps in the morphological composition.

The first part considers the spell-out of DD, and focuses particularly on the diachronic development and synchronic deployment of the morphological pieces that occurs when a new syntactic structure enters the language. Of particular interest will be the fate of syntactic material that has no contextually appropriate spell-out in such a new structure: the failure of spell-out, which arguably leads to a failure to spell-out the whole form and thus to a syntactically arbitrary gap; $\varnothing$ spell-out; and the co-option of overt morphology from the rest of the language to create new morphology.

The second part addresses the distribution of DD and ED "doubling" by SX morphology in the Basque dialects. The distribution of such doubling is haphazard and when partially correlated with something, it is correlated with surface properties such as prosodic weight or the presence of other vocabulary items. This will lead to the conclusion that doubling is syntactically general, and that there exist surface filters that tend to reduce the multiple coding of the φ-feature of a single argument in a morphosyntactic word. Numerous cross-linguistic analogues are reviewed, which provide ample parallelism for the doubling of φ-Agree by X^0-movement, resulting in double agreement morphology. The principal contribution to the theory of such doubling is that the filters on it are not absolute as often maintained, and they apply in a highly variable and minutely parametrizable manner at spell-out.

2 The morphology of Dative Displacement

2.1 Morphological spell-out of syntactic structures and blocking

The theory of DD developed in C3 is the theory of the syntax of DD. The resulting syntax then has to be spelled out. As established in C0, in Basque as elsewhere, there exist arbitrary restrictions on the spell-out of syntactically legitimate agreement complexes, and these block the corresponding syntax as well if, as often, there is no default alternative spell-out.

Language change in particular seems to be rife with such arbitrary gaps, and this includes the development, creation or loss, of agreement displacement phenomena. Change in the syntax can only be sensitive to distinctions available at that level, and on the Separation Hypothesis of Distributed Morphology, this can only be the featural content of functional heads and perhaps root identity. Possible syntactic relationships among these syntactic elements, such as Agree and selection, limit what combinations of properties can enter into defining the syntactic context of a phenomenon such as dative PP transparency for DD. For this reason, change in the range of syntactic contexts that can enter into one often appears as a sweeping one, a swath in the paradigm, for it affects say all 1st person datives regardless of the φ-features of the allocutive, too far from any of the potential loci of DD parametrization to affect it. Yet these other properties can indeed condition the spell-out of the morphosyntactic word, the agreement complex, of which they are part, and in this they may give rise to gaps, isolated or yielding patterns at that level, in the spell-out of legitimate syntax. This, at any rate, is the view proposed here of the situation found with agreement and agreement displacement in Basque dialects, and studied for DD specifically: there are systematic patterns of application and non-application depending roughly on the properties that the theory of their

syntax leads one to expect, and then gaps in the application that whose distribution tends to be arbitrary or based on the occurrence of individual vocabulary items.

TABLE gives a typical paradigm for DD, which is at present more frequent in the Basque dialects than instances of categorical application or non-application of datives per dialect, sub-paradigm, or particular dative value (see PRELIM on how to read tables). DD applies only for 1.SG.DAT, where it has a gap for 2.PL.ERG; non-DD occurs elsewhere, but it has a gap for 3.PL.ERG. Varying dialects in this area will produce the same picture with different values of ERG: G-H-neA:E and G-H-neP:Br have no DD in this subparadigm, G-H-neS:Y has complete DD and non-DD strategies for 1.SG.DAT, and G-H-nePS:ALO in TABLE has its arbitrary gaps to DD and non-DD elsewhere than G-H-nePD:ALO.

TABLE: 3VS present in G-H-nePD:ALO

DAT ERG	3.SG	3.PL	1.SG	1.PL	2R	2.PL
3.SG	(di)yo	diote/yote	yot	(di)yo(g)u	(di)yosu	(di)yosute
3.PL	(di)yote	(di)yote	(di)yotet/di(ot)et	(di)yogu	(di)yosu	(di)yosute
1.SG	dit, nau	$\varnothing$, naute	-	-	diasu, nasu	diasue, $\varnothing$
1.PL	digu, $\varnothing$	digute, $\varnothing$	-	-	digusu, $\varnothing$	digusue, $\varnothing$
2R	disu, $\varnothing$	disute, $\varnothing$	disut, $\varnothing$	disugu, $\varnothing$	-	-
2.PL	disute, $\varnothing$	disute, $\varnothing$	disu(t)et, $\varnothing$	disugu, $\varnothing$	-	-

TABLE: 3VS present in G-H-neS:Y

DAT ERG	3.SG	3.PL	1.SG	1.PL	2R	2.PL
3.SG	diyo	diyote	diyot	diyogu	diyozu	diyozute
3.PL	diyote	diyote	diyotet	diyotegu	diyotezu	diyotezute
1.SG	dit, nau	di(d)ate, naute	-	-	di(d)azu, nazu	di(d)zute, nazute
1.PL	digu, $\varnothing$	digute, $\varnothing$	-	-	diguzu, $\varnothing$	diguzute, $\varnothing$
2R	dizu, $\varnothing$	dizute, $\varnothing$	dizut, $\varnothing$	dizugu, $\varnothing$	-	-
2.PL	dizute, $\varnothing$	dizute, $\varnothing$	dizutet, $\varnothing$	dizutegu, $\varnothing$	-	-

A theory of DD syntax has been proposed in C3, and it is repeated here in FIGURE:

FIGURE: DD syntax
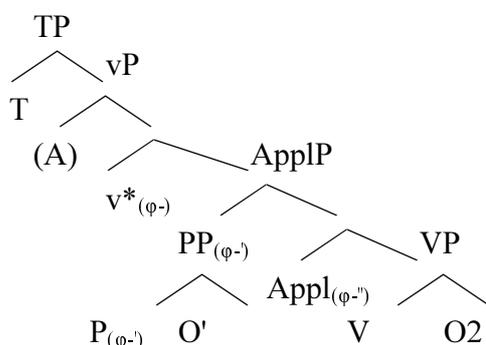
The first question I will address is what elements in this proposed structure may enter into the arbitrary gaps, in particular, whether elements that systematically receive $\varnothing$ spell-out may do so. This has a positive answer. In many dialects, such as those in TABLES above, DD forms of the 3V paradigm with O2=SG are identical in mode of formation to the 2V paradigm, under the mapping that equates φ-features of O1 and O'. Thus *n-a-u, n-a-u-te, n-a-*

(u)-su, n-a-(u)-su-te, all of the form [1-TM-(√)-] followed by SX and PL', are equally 3.S / 3.P / 2R / 2.P > 1.S and > 1.S+ > 3.S, up to minor variation in spell-out. Systematically then in these dialects, Appl is silent, DD is not doubled by SX morphology, and in some of them, the φ-probe on Appl also receives ∅ spell-out in when O2 is PL, which it always does when O2 is singular. The elements that receive non-∅ sepll-out are then only those that do so for simple transitives. Yet there can be minor differences in the spell-out of the two structures (see ANNEX). More strikingly, there can be arbitrary gaps in DD where there are corresponding legitimate 2V forms. This is shown in TABLES, a virtually exhaustive list for the Y corpus of this situation. Since the 2V forms show for those morphemes that are overtly spelled-out their legitimacy in the relevant context, the arbitrary gaps in the 3VS DD forms can only be the result of blocking effectuated by elements of the syntax in FIGURE that are not overtly spelled out, such as Appl.

TABLE: Arbitrary gaps in 3VS present DD w.r.t. 2V

NB: ∅ indicates failure of DD, - indicates a lacuna in the data or impossible combinations

ABS/DAT	Dialect	2V present 3.S|3.P|1.S|1.P|2R|2.P ERG	3VS present 3.S|3.P|1.S|1.P|2R|2.P ERG
1.SG	HNn-Ir-RZE	nau|naute|-|-|nazu|nazute	nau|naute|-|-|nazu|∅
1.SG	G-EA-p:I	nau|naubiE|-|-|niezu|niezubiE	∅|∅|-|-|niezu|niezubiE
1.PL	HNn-Ir-p:Br	gattu|gattuzte|-|-|gattuzu|gattuzute	gattu|gattuzte|-|-|∅|∅
1.PL	HNn-Ir-pO	gaittu|gaittuzte|-|-|gaittuzu|gaittuzute	gattu|∅|-|-|∅|∅
1.PL	HNn-Ir-pV	gaittu|gaittuzte|-|-|gaittuzu|gaittuzue	gaittu|∅|-|-|gaittuzu|gaittuzute
1.PL	L-E-K:A	gaitu|gaituz(t)e|-|-|gaituzu|gaituze	∅|∅|-|-|gaituzu|gaituze
1.PL	G-Bu-B:O	gairu|geirubei|-|-|gairuzu|gairuzai	gairu|gairu(b)ai|-|-|∅|gairuzai
1.PL	G-EA-p:Y	-|geittubiE|-|-|giezu|geittuzubie	∅|∅|-|-|giezu|giezibie
2.SG	L-Ai-p:B	zaitu|zaituzte|zaitut|zaituu|-|-	zaitu|∅|zaitut|∅|-|-
2.SG	L-Ar-p:H	zaitu|zaituzte|zaitut|zaituu|-|-	∅|∅|zaitut|∅|-|-

TABLE: Arbitrary gaps in 3VS past DD w.r.t. 2V

NB: ∅ indicates failure of DD, - indicates a lacuna in the data or impossible combinations

ABS, DAT	Dialect	2V present 3.S|3.P|1.S|1.P|2R|2.P ERG	3VS present 3.S|3.P|1.S|1.P|2R|2.P ERG
1.SG	HNn-Ir-p:Br	nauen|nauten|-|-|nazun|nazuten	∅|∅|-|-|nazun|nazuten
1.SG	HNn-Ir-pO	nauen|nauten|-|-|nazun|nazuten	nauen|∅|-|-|nazun|∅
1.SG	HNn-Ir-H:Br	niñuen|niñuten|-|-|niñuzun|niñuzuten	∅|∅|-|-|nazun|nazuten
1.SG	B-V-O:A	ninnduan|ninnduen|-|-|ninndusun|ninndusuen	nostan|nostain|-|-|∅|∅
1.PL	HNn-Ir-p:Br	gattuen|gattuzten|-|-|gattuzun|gattuzuten	∅|∅|-|-|gattuzun|gattuzuten?
1.PL	HNn-Ir-pO	gaittuen|gaittuzten|-|-|gaittuzun|gattuzuten	∅|∅|-|-|gattuzun|gattuzuten
1.PL	HNn-Ir-H:Br	giñuen|giñuzten|-|-|giñuzun|giñuzuten	gattun|gattuzten|-|-|gattuzun|∅
1.PL	L-S-U:T	gintuen|gintuzten|-|-|gintutzun|gintutzuen	gintuen|∅|-|-|gintutzun|gintutzuen
1.PL	B-V-O:G	giñduan||-|-|giñdusun|giñdusuen	∅|∅|-|-|goskutzun|goskusuen
2.PL	HNn-Ir-pO	zattuen|zaittuzten|zaittuten|-|-|-	∅|∅|zaittuzten|∅|-|-

The incidence of arbitrary gaps is not staggering; the incidence of dative-values with lack of arbitrary gaps in DD outnumbers them for every dative, given in TABLE. However, it seems sufficient to make the point.[1]

---

[1] Most arbitrary gaps occur for 1.PL datives. This seems to have an external explanation. The vast majority of

TABLE: Total numbers of dialects that have some DD per dative in 3VS (approximate)

DAT O'	3VS present	3VS past
1.SG	38	24
1.PL	33	25
2.SG	22	17
2.PL	19	16

The ∅-spelled-out elements that play a role in arbitrary gaps in the syntax of DD do receive a spell-out elsewhere. Many dialects that are otherwise identical to the ones given in TABLE have DD + DAT doubling, so that the dative controls not only PX/PL morphology but also SX morphology, and this never occurs with the absolutive in the 2V paradigm. This is studied in XN, with a suggestive conclusion that the phenomenon is general and its surface distribution is due to the application of variable filters at spell-out. Some dialects also overtly spell out Appl, as will be seen when the form of DD is considered in XN. Finally, most dialects do give overt spell-out to the PL2 morphology for the number probe on Appl when O2 is PL, for example G-H-nePD:ALO 3.S>1.S+>3.P *n-a-ski* [1-TM-PL2]. What must be concluded from arbitrary gaps is that even in contexts where these elements regularly receive ∅ spell-out, they may enter into blocking spell-out to create arbitrary gaps.

Arbitrary gaps are arbitrary with respect to syntax. They depend on the failure of a vocabulary item (VI) to be inserted in particular context, because for that context, there is none; if there is no spell-out of a terminal in a context at all, including by default, the entire syntactic structure fails to be spelled out. Such failure of VI insertion may itself create patterns, if a VI simply fails to be inserted in a context that defines a pattern. An interesting possible example is the role of Tense in DD, which has been seen to create a pattern. Tense often blocks, and rarely enables, DD, in an evidently systematic way. TABLE counts of DD in present vs. past, further separating O2=SG from O2=PL within each; the X:Y+Z or Y+Z:X notation means that Y-number of DD cases are a subset of the X-number DD cases, and Z are not. For a great number of dialects, DD occurs in the present only; for the Oñate DD group (B-V-O), it occurs only in the past. Thus, tense has a systematic effect.

TABLE: The role of Tense (and O2 number) in DD

NB: - stands for missing subparadigm.

Dialects	present 3VS:3VP	past 3VS:3VP
L-Ai-p:B	6:3	0:0
G-Bu-A:G, G-Bu-B:G, G-Bu-I:G, G-Bu-U:G	2:0	0:0
G-Bu-B:I, G-Bu-U:S, HNn-Ir-H:S, HNn-Ir-RL	4:4	0:0
G-Bu-B:O	3:1	0:0
G-EA-p:G, G-EA-p:I, L-E-K:A	2:0+2	0:0
G-EA-p:Y	5:4	0:0
G-H-nePD:ALO	3:3+1	0:0
G-H-nePS:ALO	6:4	1:0
G-H-neS:Y, HNn-Ir-RA, HNn-Ir-RZE	4:0	0:0
HNn-Ir-H:Br	8:4	5:1

DD dialects come from the northern DD continuum, where it began with 1.SG dative, which is most affected and most lacks arbitrary gaps, and then spread to 1.PL. Here most dialects stop, and there are here the most gaps; some then continue to 2.SG/PL.

HNn-Ir-HM:A	4:3+1	3:2
HNn-Ir-OG:K	1:1	0:0
HNn-Ir-OI:Al	15:13	0:0
HNn-Ir-OIR:Al	4:1	0:0
HNn-Ir-p:Br	6:4	4:3
HNn-Ir-pO	13:7+2	9:8+3
HNn-Ir-pV	7:7	0:0
HNn-Ir-RF	4:0	1:0
L-L-p:B	all:all	0:0
L-L-nB:A	all:14	all:13
L-Ar-p:H	9:8	0:0
L-S-U:T	all:7	15:5
L-S-Z:I	14:9	11:11+1
B-V-O:O	0:-	8:-
B-V-O:A	0:-	4:-
B-V-O:G, B-V-O:I	0:-	6:-

For the following dialects, DD occurs everywhere: L-Ai-p:A, L-L-sA:S, L-L-sB:S, L-L-sH:A, L-L-sU:S, L-L-p:A, L-L-nG:A, L-L-nG:S, L-Ar-A:A, L-Ar-p:A, L-S-A:A, L-S-p:A, L-S-S:D.

As CHATPER 3 has discussed, it does not seem reasonable that T have a syntactic effect on DD given a notion of locality in selection; still less that it have one on *leismo*, as seen in ANNEX. However, there is another way for tense to have a systematic effect: it suffices that the vocabulary item spelling out a particular tense, past *n* for example, systematically fail to attach to DD forms. These must be characterized by some relevant property; the presence of a φ-probe on Appl is one, another is a valued first cycle [participant] on *v*. The former is an example of a property that is not local to the terminal where T is inserted, the other of one that is; yet at present there seems to be strong evidence that allomorphy is not subject to locality (Bobaljik 2000). Under specific assumptions about the mechanism of allomorphy (see op.cit. and C0), sensitivity of Tense to properties c-commanded by Tense, that is "inward", can only be to the properties of already inserted vocabulary items. An interesting option that characterizes the majority of DD dialects, including all those restricting DD to the present, is the ∅ spell-out of Appl + non-default spell-out of PX + first cycle theme marker.

The advantage of this proposal is that the systematic effect created is something completely expected, provided DD can be characterized by some combination of properties to which the insertion of the vocabulary item for Tense can be sensitive. The prediction, which cannot be tested with the Y corpus, is that the pattern created is one of the vocabulary items inserted for Tense, not for features of Tense: the Y corpus does not include irrealis (and complications arise here even in the absolute due to reduced tense/mood distinctions at the colloquial level where DD occurs, in some dialects). Naturally, if this is possible for the tense vocabulary item *n*, it is also for other vocabulary items such as the PX *n* [1], and this might create patterns of DD based on such vocabulary items like 1.SG dative. However, this possibility does not weaken the argument made in C3 that the dative is unique among agreement controllers in that its φ-features have a systematic effect on DD, precisely because the notion of dative, ergative, allocutive, and so on, is not characterized by a single vocabulary item (indeed, given agreement displacement, even the notion of 1.SG dative is not trivial to so characterize).

2.2 <u>The form of DD: Transitives</u>

As mentioned in C3, DD in Basque falls into several groups that are not contiguous geographically, except for Burunda and Echarri-Aranaz, and that differ in the point of origin and mode of formation of DD.

TABLE: DD groups, points of origin, and modes of formation

DD group	Origin in 3.S>α>3.S	3V non-DD / older	2V 3.S>α	3V DD
Northern:				
mainly L	1.S.D pres.	d-a-u-t [X-TM-√2V/3V-1]	n-a-u [1-TM-√2V/3V]	n-a-u [1-TM-√2V/3V]
mainly G	1.S.D pres.	d-i-t [X-√3V-1]	n-a-u [1-TM-√2V]	n-a-u [1-TM-√2V]
Lekeitio (B)	1.S.D pres.	d-e-u-s-t [X-TM-√-DF-1]	n-a-u [1-TM-√2V/3V]	n-a-u [1-TM-√2V/3V]
Burunda (G)	1.P.D pres.	d-e-gu [X-√3V-1']	g-a-it-u > geru [1-TM-PL-√2V]	g-e-r-u [1-TM-PL-√2V]
Echarri-Aranaz (G)	1.S.D pres.	d-uu-t [X-√3V-1']	n-ie- [1-TM+√2V]	n-ie- [1-TM+√2V]
Oñate (B)	1.S.D past	*o-s-ta-n [√3V-DF-1-PAST]	n-indd-u-en [1-TM-√2V-PST]	n-o-s-ta-n [1-√3V-DF-1-PAST]

My concern here is how the proposed DD structure in FIGURE maps to these diverse formations; in this I set aside DD in the 1V' paradigm, found in the northern group only, which is studied in XN. In all but the Oñate DD group, DD forms in the 3V paradigm when O2 is singular have the same mode of formation as forms in the 2V paradigm under the mapping of DLed O's φ-features to O1's φ-features, as is clear from TABLE. To this base, PL2 morphology is added when O2 is plural (XN), and SX morphology doubling the dative (XN), neither possible for simple transitives in the 2V paradigm.

As has been discussed in XN, the 3VS DD and 2V forms diverge in arbitrary gaps. They diverge also in minor matters such as the application of phonological rules, for example elision of *g* in the context *u__u*. These are studied in ANNEX; the most significant of these are differences in theme markers, DD forms often replacing 2V past theme markers by a default; and in Burunda, the 2V forms have historically undergone phonological developments (*gaitu* > *geru*), of which in any particular dialect DD often chooses forms more advanced than the ones of the 2V paradigm (cf. Y-D2-362). These divergences call for an input to DD spell-out that is not identical to that of simple transitives, and the Appl head of DD, dative doubling, and the φ-probe of Appl provide the necessary differences.

Yet one would wish to see the proposed structure more clearly, and to understand the reasons for the frequent coincidence of 3VS DD and 2V forms, which is not logically necessary. In this section I aim to do that.

The key is the Oñate DD group, where the spell-out of the syntax in FIGURE is rather transparent. DD in it realizes the dative flag systematically, and chooses a 3V root distinct from the 2V one, both reflecting Appl. It also has DAT doubling, which occurs in the northern group as well, but here is systematic. DD in Oñate is limited to 1.SG and 1.PL, past; there are generally in this dialect, regardless of DD, not distinct forms for plural O2/S, and 1st/2nd person lack specification for [plural]. Thus, it suffices to keep these dative values in 2V and 3V(S) past paradigms, and PL morphology may be ignored since for 1st/2nd person it never surfaces. TABLE exemplifies the relevant paradigms, in a dialect where DD has been most extended.

TABLE: B-V-O:O past 2V vs. 3V DD

2V

ABS ERG	3.SG	3.PL	1.SG	1.PL	2R	2.PL
1.SG	niñdun	niñduen	-	-	niñdusun	niñdusuen
1.PL	giñduan	giñduen	-	-	giñdusun	giñdusuen
2R	siñdun	siñduaiñ	siñduan	siñdugun	-	-
2.PL	siñduen	siñdueiñ	siñdusen	siñduegun	-	-

3V DD

DAT ERG	3.SG	3.PL	1.SG	1.PL	2R	2.PL
1.SG	∅, nostan	∅, nostaiñ	-	-	∅, nostatzun	∅, nostatzuen
1.PL	∅, goskun	oskue-n/iñ?, goskue-n/iñ	-	-	∅, goskutzun	∅, goskutzuen
2R	otzun, ∅	otzuen, ∅	notzun, ∅	gotzun, ∅	-	-
2.PL	otzuen, ∅	otzueiñ, ∅	notzuen, ∅	gotzuen, ∅	-	-

The DD 3V paradigm differs from the 2V paradigm in the following aspects:

(i) It is missing the theme marker TM *iñd* (*indd, iñ*) between the prefix and the root. Some 2V B-V-O:I forms replace it with *a* from the present, e.g. 2.P>1.P *gaisuen/ginddusuen*, seemingly default TM, and this in turn regularly disappears before *o* in the present, e.g. 3.S>3.S *d-a-u* vs. 1.S>3.S *d-o-t*; it is this TM that may be present in DD.

(ii) It makes use of the 3V root *o*, found generally in non-DD 3V forms as may be seen from TABLE (and for example 3.S>3.S+>3.S *o-tz-a-n* [√3V-DF-3-PT]), but never with in the 2V paradigm that makes use of *u/b*.

(iii) There is DF and SX morphology, e.g. *n-o-s-ta-n* [1-√3V-DF-1-PT], identical to that of non-DD 3V forms, as indicated by TABLE that gives non-DD 3V forms where they exist.

TABLE: Non-DD 3V past forms for 1.SG/PL.DAT in Oñate

DAT ERG	3.SG	3.PL	1.SG	1.PL	2R	2.PL
1.SG	-	-	--	--	*sostan* (B-V-O:A)	sostain (B-V-O:A)
1.PL	oskun (B-V-O:G, B-V-O:I)	oskuen (B-V-O:G, B-V-O:I)	--	--	*soskun* (B-V-O:A)	soskuen (B-V-O:A)

The diachronic development of DD in Oñate seems to have grafted 1, 1' PX directly onto the 3V DF+DAT root.[2] The theme maker *ind* associated with these prefixes in the 2V past, the closest featurally comparable context with such PX, have not tagged along. Arguably, the replacement has simply made use of the default theme marker *a*, extending it to a novel context.[3] It does not seem surprising that class markers, a sign of morphological arbitrariness in the sense of involving a morphologically-added terminal that does not correspond to a syntactic one, would not be extended to a new environment, and would be susceptible to loss when the resources of the morphology are recruited to spell out new syntactic formations. This corresponds to their high susceptibility to variation and loss, documented in APPENDIX TM, and seen also in B-V-O:I above. Variation in theme markers is also a major source of such deviations as there are between 2V and DD 3V paradigms in the northern DD group (see ANNEX).

There is arguably another point of importance to be made about Oñate DD. As discussed in C0, Hualde (2000, 2001) argues from the loss of ergative displacement in western Bizkaian

---

[2] That this has occurred in the past tense only might have an external explanation in the fact that the past default in Oñate is the Bizkaian ∅, not the past *s/z* general elsewhere, nor the *d* (+DF, *x*) of the present. Thus only here, when ED, partly lost in Oñate, does not supply a PX controller, is there a vowel-initial stem.

[3] The contrast with 2V requires that theme marker insertion be sensitive to more than the presence of a first cycle PX controller and tense, i.e. presence of Appl or the root. See APPENDIX TM.

dialects by replacement of old past tense forms with present + past tense default PX / suffix, that it is analogy that what creates these new morphological forms, and that internal, synchronic analysis of the agreement complex morphology is not involved and perhaps does not occur at all. Perhaps the construction of the Oñate forms fits here less. One way to look at it is as evidence that speakers have indeed internalised the *n*, *g* exponents of PX, which in the 2V past paradigm never occurs without the following theme marker *indd* and root *u*, or with DF and SX morphology, but do when extended to DD. Yet I mean this as suggestive indication, not as an argument, for analogy is a powerful tool into the scope of which the Oñate development no doubt falls.

Oñate shows that 3VS DD forms need not fall together with 2V forms. The phenomena pervasive on Oñate are found more sporadically elsewhere. Doubling of the dative by SX is common, though for 1.SG dative it only occurs in an isolated form, BNw-Villefranque 2F.M>1.S+>3.S *n-a-u-ta-k* [1-TM-√2V/3V-DF+1-M] (Trask 1981:294). The same form also reflects the dative flag, for the specific form *-ta-* assumed by the SX for [1] is due to it (C1, APPENDIX BM); controlled by the ergative, the SX [1] in this dialect is *-(d)a-* in Y-BNw-369ff. Arguably the dative flag is also so reflected by the SX doubling of the dative elsewhere, discussed in XN. Yet *nautak* like all non-Oñate dialects shows a root that is not distinctly a 3V root, and more commonly in DD, the dative flag is not reflected either. This stands in need of an explanation.

The explanation seems to lie in a trivial fact: DD in the northern DD continuum started in dialects that do not distinguish 2V and 3V roots, and that only reflected the dative flag in the influence it has on SX. This is a subpart of the L group of the northern continuum (the dialects of Ainhoa, Arcangues, St. Jean de Luz, some Sare subdialects), where DD is most entrenched in the paradigm, the only group where it affects some dialects in the entirety of their applicative transitives for 1st/2nd person datives, as in L-Ai-p:A. Older forms these dialects, such as L-Ai-p:B in TABLE, have less DD, and permit directly the comparison of DD and non-DD forms. The non-DD forms use the same root, *u*, as the 2V forms use in this dialect, when the dative is 1st/2nd person (not when it is 3rd), and the only expression of the dative flag is on the first consonant of SX, for example *ku* [1'] where the ergative SX is *u*.

TABLE: 3VS present in L-Ai-p:B

DAT ERG	3.SG	3.PL	1.SG	1.PL	2R	2.PL
3.SG	dio	diote	diot	diou	diozu	diozue
3.PL	diote	diote	diotet	dioteu	diozute	diozue
1.SG	daut, nau	∅, naute	-	-	∅, nauzu	∅, nauzue
1.PL	dauku, ∅	daukute, ∅	-	-	daukuzu, ∅	daukuzue, ∅
2R	datzu, zaitu	datzute, ∅	dautzut, zaitut	datzuu, ∅	-	-
2.PL	dautzue, ∅	dautzue, ∅	dautzuet, ∅	datzueu, ∅	-	-

This characteristic of these L dialects contrasts with those of others in the northern group: the G dialects of Hernani, the HNn dialects of Irun, and the L dialect of L-S-U:T. These, adjacent to the former, are characterized by having a 3V root *i* (= auxiliary root in the context of null DF) distinct from the 2V *u* for all datives outside of DD, as TABLE shows. These dialects have also DD with much lesser extent than those of the former group, typically affecting only 1st person datives in the present, sometimes past.

TABLE: 3VS present in HNn-Ir-HM:A

DAT ERG	3.SG	3.PL	1.SG	1.PL	2R	2.PL

3.SG	dio	diote	diot	diogu/digu	diozu	dizia
3.PL	diote	diote	diot	diegu/duu	diozu	ziä
1.SG	ditt, nau	∅, naute	-	-	∅, nazu	∅, nazia
1.PL	digu, ∅	digute, ∅	-	-	diuzu, ∅	dizie/**diziute**, ∅
2R	dizu, ∅	(di)zute, ∅	dizut, ∅	dizugu/dugu, ∅	-	-
2.PL	dizia, ∅	dizia, ∅	diziat, ∅	diziegu/dizia, ∅	-	-

It seems likely that DD spread from the first group southward to the other dialect groups, creating the northern DD continuum. In doing so, it carried its original formation, using the *u*-root, into the southward dialects. Here a contrast arose that was not present in the original northward dialects, between non-DD 3V root in *i*, and the new DD 3V formations in *u*. This gives rise to an apparent generalization that 3V DD recruits 2V formations. In fact then, the generalization is an historical accident.

There remain the Lekeitio, Burunda, and Etxarri-Aranaz DD groups, which also all use 2V forms in DD of 3VS. Much can be learned from the latter two groups, contiguous, about the starting points of DD, since in Burunda DD starts in 1.PL dative present and in Etxarri-Aranaz in 2R/2.P>1.S+>3.S. These belie any universality to 1.SG as a starting point that might be deduced from the remaining groups, much as Oñate does the same for the present tense. Yet DD forms here are few. In Lekeitio DD is much more clear and wide-spread in the paradigm, and from its beginning recorded by Azkue, it seems to have affected 1.SG/PL and immediately used the 2V forms, very distinct from the 3V ones. For Lekeitio, a prominent sea-port, influence of the northern group seems likely, both in terms of starting point and choice of forms. For Burunda and Etxarri-Aranaz there may also have been influence.

To conclude, one can tell a plausible story about the spread of DD that takes into account its various degrees of entrenchment, to naturally explain the prevalent 3VS DD = 2V mapping as a phenomenon due to external factors and not intrinsic to DD. The story identifies two groups, the first L group and the Oñate group, as independent points of DD origin, where in its beginnings, DD made use of the morphological resources used to spell-out applicative transitives, not simple transitives; the 3V root, the dative flag, and the SX morphology.

2.3 <u>The form of DD: Unaccusatives</u>

DD in the 1V' paradigm is restricted to a handful of geographically related dialects of the HNn-Irun variety, namey in Hondarribia and Oyartzun. Forms of the key contrastive dialects are given in TABLE (the full paradigms are given in ANNEX; the forms for plural S are studied separately in XN). The 1V' DD forms of these dialects happen to be identical to 3V DD forms; it is a generalization that DD in 1V' entails a corresponding DD in 3V. The 3V DD forms and thus the 1V' forms are in turn identical in mode of formation to 2V, up to the PL2 marker if O2/S is plural, as discussed and explained in XN. The curious stated of affairs is the former, for in general, 1V' and 3V forms are very distinct.

Yet the collapse of 1V' and 3V in these dialects is independent of and antecedes DD. This original state of affairs is largely retained in HNn-Ir-pO and HNn-Ir-RZE in the present; the original 1V' past forms would have been 3.SG *(zi)zaion*, 3.PL *(zi)zai(ot)en*, 1.SG *(zi)zaidan*, 1.PL *(zi)zaigun*, 2R *(zi)zaizun*, 2.P *(zi)zaizu(t)en*. The remaining dialects in TABLE go to various distances in replacing 1V' forms by 3V ones, the process being complete, independently of DD, in HNn-Ir-HM:A. The original 1V' formation involves the default PX present ∅ < *d* / past *zi*, + root(+DF) *zai*, + dative-controlled suffixes + tense; the replacement principally changes the auxiliary root to the 3V *i*. This switch of the auxiliary root is observed and discussed in Holmer (1964:87, 161n), Etxaburu (1981:309), Letamendia and Sagarzazu

(1992:528), Fernández (2004) for Hondarribia,[i] and Fraile & Fraile (1996:112f.), Zuazo (1997:413) for Oyartzun.

TABLE: Present 1V'S, 3VS (3.S ergative) paradigms

DAT		HNn-Ir-pM	HNn-Ir-HM:A		HNn-Ir-OI:Al		HNn-Ir-OIR:Al		HNn-Ir-pO		HNn-Ir-RZE	
		1V'	1V'	3V	1V'	3V	1V'	3V	1V'	3V	1V'	3V
3.SG		dio	dio	dio	(za)ddo	ddo	ddo/dio	diddo	zaio	diyo	zaio/yo	yo
3.PL		diote	diote	diote	zaddote	ddo	diddote	diddo	zaiote	diote	zaiote	yo(te)
		∅	dit	ditt	zait	∅	zait/zit	∅	zait	(dit)	zaitt/zitt	ditt
1.SG	DD	nau	nau	nau	∅	nau	nau	nau	nau	nau	nau	nau
		∅	digu	digu	zaigu	digu	degu/digu	digu	zaigu	∅	zaigu	dio
1.PL	DD	gattu	∅	∅	∅	gattu	∅	∅	∅	gattu	∅	∅
		∅	dizu	dizu	zaizu	-(i)zu	∅	dizu	zaizu	dizu	zaizu	(d)(i)zu
2R	DD	zattu	∅	∅	zattu	zattu	za(i)ttu	∅	zaitu	zaittu	∅	∅
		∅	(di)zia	dizia	zaizute	∅	∅	dizute	zaizue	dizute	zaizute	(d)(i)zute
2.PL	DD	zattuste	∅	∅	zattu(z)te	zattute	zaituzte	∅	∅	zaittuzte	∅	∅

TABLE: Past 1V'S, 3VS (3.S ergative) paradigms

DAT		HNn-Ir-pM	HNn-Ir-HM:A		HNn-Ir-OI:Al		HNn-Ir-OIR:Al		HNn-Ir-pO		HNn-Ir-RZE	
		1V'	1V'	3V	1V'	3V	1V'	3V	1V'	3V	1V'	3V
3.SG		zion	zion	zion	ziddon	ziddon	ziddon	ziddon	zizaion	zion	(zi)zaion	ziyon
3.PL		zioten	zioten	zioten	ziddoten	ziddon	ziddoten	ziddon	zioten	zioten	ziyoten	ziyon/zioten
		∅	zian	ziran/zien	zian	zin	zian	zian	ziran	ziran/zitten	zitten	zi(t)en
1.SG	DD	nauen	∅	nauen	∅	∅	∅	∅	nauen	nauen	∅	∅
		∅	zigun	zigun	zigun	zigun	zigun	zigun	z(a)igun	zigun	ziun	zigun
1.PL	DD	gattuen	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
		∅	zizun	zizun	zizun	zizun	zizun	zizun	zizun	zizun	zizun	zizun
2R	DD	zattuen	∅	∅	∅	∅	∅	∅	∅	zaittuen	∅	∅
		∅	ziziän	zizian	zizuten	zizuten	zizuten	zizuten	zitzuen	zizuten	zizuten	zizuten
2.PL	DD	zattusten	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅

Fernández (2004) proposes that the change of the auxiliary is only a change in the insertion conditions of the auxiliary root, in the framework of Albizu's (2001, 2004) proposal that auxiliary root insertion is sensitive to Case/Agree properties, not to theta-theoretic ones (also Rebuschi 1983; see C1, APPENDIX BM). Among good reasons for doing so is that the case morphology of the dative and absolutive agreement controllers does not change, either with auxiliary switch or with DD, as shown in (1).[4] I will assume her proposal is correct, and send the reader there for the actual mechanics of auxiliary insertion.

(1) a. nei$_i$ *pro*$_j$ pasatu izandu (d)-i-t$_i$
         me.DAT   it.ABS passed been   X-√-1
         It passed to me. (Fraile & Fraile 1996:112f., Oyartzun)

     b. iru(d)itzen n$_i$-a-u   nei$_i$ *pro*$_j$
         seeming   1-TM-√   me.DAT   it.ABS
         It seems to me. (Fraile & Fraile 1996:112f., Oyartzun)

     c. Zuri$_i$ hori$_j$/*horrek$_j$ gustatzen d-i-zu$_i$
         you.DAT   this.ABS/*ERG   liking   X-√-2
         You like it. (JA, Hondarribia)

The reasons for the auxiliary change can be guessed at from its extent among the different forms. It is most extensive in the past tense. The reason seems to be that the present 3.S+>3.S

---

[4] One could posit a covert ergative expletive and take 1V' DAT-ABS forms as really EXPL:ERG-DAT-ABS.

(zi)zaio - dio distinctiveness is weaker in the past *(zi)zaion - zion*, because the 1V' root begins with *z*, same as the past default PX, which itself tends to be lost before it. The forms *(zi)zaion* (HNn-Ir-RZE), *z(a)igun* suggest that the next two steps proceeded in the order of *zi*-loss and *a*-loss. The first step was probably helped by the fact that the *zi*- past prefix is not present in the present tense (**d-(t)zai > zai*), and perhaps the phonological haplology.[5] The second step may have been helped by the typically unstressed nature of the auxiliary.[6] In the present, an aid to the collapse of *zai-* and *di-* forms is the convergence of intervocalic *i* and initial *di*, seen in HNn-Ir-OI:Al and HNn-Ir-RZE in TABLE.

The Irun dialects are the only ones to have undergone this auxiliary switch. DD of applicative unaccusatives that use the 1V' paradigm also seems to occur only here; and at the same time, within these dialects, the occurrence of DD seems contingent on a prior auxiliary switch for the particular dative to which DD applies. The change of auxiliary and DD in 1V' are thus significantly linked, as proposed by Fernández (2004:95, 98-99). There is an obvious external reason in terms of a model: given the co-existence of DD and non-DD 3V forms, the replacement of 1V' forms with non-DD 3V forms leads to the further step of the use of DD 3V forms in the 1V' paradigm. Syntactically, it suffices for the unaccusative *v* to select Appl with a number probe like the transitive one. The explanation partly fleshes out Fernández's (2004:99) intuition that 1V' DD arises at the crossing of the auxiliary change and DD. Yet of course, the creation of DD forms need not rely on the pre-existence of DD. Absence of of 1V' DD forms elsewhere is perhaps aided by the commonly consonant-initial nature of the 1V' root, grafting the consonantal PX onto which may be harder than onto the vowel-initial 3V root. In the final analysis though, the fact that 1V' DD has not occurred elsewhere is simply the way things are at present and not in great need of explanation.

2.4 PL2 morphology: Form, position, and origin

The study of O2 morphology is of great interest, for it is shows how a new syntactic property that arose with DD, the number probe on Appl, comes to be clothed in morphological form.

In the vast majority of dialects, there is a single pattern. DD exists only for applicative transitives, and the form for singular O2 are identical with the 2V forms, as discussed in XN. To these, the PL2 morpheme is added either as $\varnothing$ in some dialects, not detectable, or as *zki* (*ski*) in others: for example, 3.S>1.P+>3.S DD *g-a-it-u* [1'-TM-PL-√] becomes *gaitu* or *gaituzki*.[7] This exhaustively characterizes the PL2 formation in the northern DD group, Burunda, and Etxarri-Aranaz; ANNEX gives this data in detail. The PL2 *zki* comes before all suffixal morphology, including dative doubling (DF+)SX morphology, which in the vast majority of dialects happens to be contingent on it (see XN), ergative-controlled SX morphology, and PL'/gender morphology. *Zki* is most consistently used as PL2 in 1.SG dative DD, and DD of other datives deploys it more sporadically, $\varnothing$ being more common. This

---

[5] The step occurs independently in many dialects where the auxiliary change does not take place: (3.S+>3.S) G-H-nePD:ALO *sitzayon/sisayon/sayon*, L-S-A:A, L-Ar-A:A, L-B-An:IA *zitzaion/zaion*, EpGarAJ *zizaion/zaion*, L-E-p:G *zayon*, L-E-pAr:A, L-B-Al:A *zaion*, EBLG *(zit)zayon*, and presumably for independent reasons in the Burunda dialects where *(zit)zaion* meets *zakion/zekion* which lacks *zi*- entirely (as does the Bizkian *jakion* type) to give forms like *zaiyon* (G-Bu-A:O1).

[6] It occurs independently elsewhere, G-Bu-A:O2 *zizion* and similar forms; particularly relevant are forms like HNn-Ir-HM:A *(t)zion* (REF: Y, s.v. Artola), where *a*-loss occurs without AUX switch.

[7] There is a gap in the formation with *zki*, irrelevant but with the potentiality to confuse: in the northern group 2R/2.P datives do not simultaneously trigger PL *it* and PL2 *zki*, so there are no forms based on *z-a-it-u-zki*- [2-TM-PL-√-PL2] as there are with 1.PL dative *g-a-it-u-zki*-. Changing PL to *t* in the past however does yield the expected forms for both 1.PL and 2R/2.PL, e.g. L-Ai-p:A 3.S>1.P/2.R+>3.P *g/z-in-t-u-zki-en* [1'/2-TM-PL-√-PL2-PT], cf. with O2 singular *g/z-in-t-u-en*.

recapitulates the distribution of DD itself, and in both cases simply seems attributable to DD beginning with 1.SG.DAT in the northern DD continuum.

TABLE gives an excellent example of this type of formation, from a dialect belonging to the group where DD seems to have developed earliest. TABLE gives the form of a closely related dialect more than a century earlier, showing a much less full extend of the morphology, and one non-DD form, *d-a-u-zki-gu* [X-TM-√-PL-1'], that indicates where it came from. On both dialects the incidence of dative doubling by SX morphology, the underlined forms, is to be noted as well. Minor deviation within this basic pattern are documented in ANNEX. The handful of dialects with DD in 1V', discussed in XN, show the same pattern (much as they use 3VS forms when S is singular), except HNn-Ir-pM to which I return; their paradigms are given in ANNEX.

TABLE: 3V present in L-L-sH:A

DAT	ERG OS	3.SG	3.PL	1.SG	1.PL	2R	2.PL
3.SG	SG	dio	diote	diot	diogu	diozu	diozu(t)e
	PL	diozka	diozkate	diozkat	diozkau	diozkatzu	diozkatzue
3.PL	SG	diote	diote	diotet	dioteu	diozute	diozu(t)e
	PL	diozkate	diozkate	diozkatet	diozkateu	diozkatzute	diozkatzue
1.SG	SG	∅, nau	∅, naute	-	-	∅, nauzu	∅, nauzue
	PL	∅, nazki	∅, nazkite	-	-	∅, nazkitzu	∅, nazkitzue
1.PL	SG	∅, gaitu	∅, gaituzte	-	-	∅, gaitutzu	∅, gaitutzue
	PL	∅, gaituzki	∅, gaituzkite	-	-	∅, gaituzkitzu	∅, gaituzkitzue
2R	SG	∅, zaitu	∅, zaituzte	∅, zaitut	∅, zaitugu	-	-
	PL	∅, _zaizkitzu_	∅, _zaizkitzute_	∅, _zaizkitzut_	∅, _zaizkitzugu_	-	-
2.PL	SG	∅, zauzte	∅, zauzte	∅, zauztet	∅, zauztegu	-	-
	PL	∅, _zauzkitzu(t)e_	∅, _zauzkitzute_	∅, _zauzkitzuet_	∅, _zauzkitzuegu_	-	-

TABLE: 3VP present in L-L-p:B

DAT	ERG 3.SG	3.PL	1.SG	1.PL	2R	2.PL
3.SG	diotza/diozka	diozkate	diozkat	diozkagu	diozkatzu	diozkatzube
3.PL	diotzate/diozkate	diozkate	diozkatet	diozkategu	diozkatzute	diozkatzube
1.SG	∅, nauzki	∅, nauzkite	-	-	∅, nauzkitzu	∅, nauzkitzube
1.PL	dauzkigu, gaitu	∅, gaituzte	-	-	∅, gaitutzu	∅, gaitutzube
2R	∅, _zaizkitzu_	∅, _zaizkitzute_	∅, _zaizkitzut_	∅, _zaizkitzugu_	-	-
2.PL	∅, _zaizkitzube_		∅, _zaizkitzubet_		-	-

The cooption of *zki* for DD O2.PL is very natural. It is a very common plural marker outside of DD for PL in applicative contexts (not elsewhere), particularly with 1st/2nd person datives controlling SX agreement. Thus it already marks O2/S plurality with applicatives, and its extension to PL2 in DD keeps it in this function. There are other PL morphemes in applicative contexts outside DD in these dialects, and one may ask why they were not coopted. Some, like *tza*, are reserved to contexts with a 3rd person dative, as in TABLE above. The remaining obvious choice is PL *it*, found in many dialects as PL in all transitive and applicative transitive contexts, in some only in the former, but never deployed as PL2 in DD (cf. Fernández 2004:100). Yet despite its commonality, it has been remarked that *it* does not extend outside its historical context in the Basque dialects in language change, unlike other PL markers (Lafon, p. 417, Azkue, II:554/§774). Moreover, *it* is normally already deployed by DD as the PL marker signalling O' plurality, as in TABLE.

In the sole B dialect to show PL2, B-Lek, a different originally PL marker has been coopted: *s* (*z*), as shown in TABLE (in B-Lek DD only occurs for 1st person datives). Outside DD, this is the regular B pluralizer in all contexts (Azkue II:543/§773), extremely productive, found in such contexts as restructuring, where northern dialects use *zka* or *tza* (APPENDIX

BM). It frequently doubles PL *it* where this occurs, as in B-Lek 3.S>3.P *d-itx-u-s* [X-PL-√2V-PL], sometimes optionally as in form *g-a-itt-u-(s)* [1'-TM-PL-√-(PL)] in TABLE. In DD, it has been recruited as an independent PL2. In DD, *it* remains as PL marker to indicate plurality of the O' (cf. Fernández 2001:154-5).

TABLE: 3V present in B-L:HEE for 1st/2nd dative

DAT	O2	3.SG	3.PL	1.SG	1.PL	2R	2.PL
1.SG	SG	nau	nábe	--	--	nasu	nasúe
	PL	nittus	nábes	--	--	nasus	nasúes
1.PL	SG	gaittu(s)	gaittúe	--	--	gaittusu	gaittusúe
	PL	gaittus	gaitt-ú-e-s	--	--	gaittusus	gaittsúes

There is one quite isolated form in TABLE, *n-itt-u-s* [1-PL-√-PL2]. Here O2 plurality is signaled not only by PL2 *s*, but also by *it*. In this dialect, as in others, this is always limited to being a PL marker with the root *u*, except in this one occurrence as PL2. The result is a form juxtaposing the PX for 1, *n*, with *it*; the combination is attested elsewhere in 1.S>3.P *n-it-u-en* [1-PL-√-PT], where the PX is *n*, controlled by A under ED, and PL is the O-controlled *it*, though in B-Lek itself the plural used here is *s*, and the form is *n-e-b-as-a-n* [1-TM-√-PL-?-PT].

Another isolated PL2 marker is *z* in L, where it has a different status than in B. It is normally a secondary exponent of PL before other morphemes (PL' *te*, DF *ki*, *ka*); as a primary exponent of PL it occurs only in the 1V/1V' paradigms and with a handful of synthetic verbs like *eduki* 'have' (Lafitte, p. 318, 294ff., 330-1; Azkue II:553/§787). Yet it is also historically the source of *z* in *zki*, where *ki* is historically the applicative flag. As PL2 it is brought up by Lafitte (p. 296), as noted by Fernández (2001:155n7): "Ils vont jusqu'à introduire la marque du pluriel, et nous avons relevé des formes comme: *bi ogiak ekharri nauzkate*, 'ils m'ont porté les deux pains', au lieu de: *ekharri dauzkidate*." Other traces of this PL2, very marginal in the Y corpus, are noted in ANNEX.

In view of the use of *z* as PL2, there arises the interesting possibility that *zki* PL2 is in fact *synchronically z* + the dative flag *ki*.[8] In the dialects at hand, the dative flag never surfaces independently, DD or no DD; it can be detected only from the effects it has on SX and on the root, and as discussed in XN, the effect on the root is absent in DD because DD developed in these dialects in a group where DF had no influence on the root. The analysis of *zki* as *z + ki* changes the balance of evidence to add weight to two proposals made by the theory of DD developed in C3: that DD involves Appl, independently supported, and that the number probe that PL2 reflects is specifically on Appl.

The last PL2 marker of DD is *te*. This is found in the 1V' paradigm, only, HNn-Irun dialects: HNn-Ir-pM as well has Hondarribia data in Fernández (2004), and HNn-Ir-pO. Only HNn-Ir-pO has corresponding 3V data; TABLE permits a comparison of 1V' and 3V PL2. As can be seen, the former uses *te*, the latter *ski*; *te* is used elsewhere in HNn-Ir-pO, as in Basque generally, as PL', form example controlled by 3.PL ergative in 3.P>1.S+>3.P *d-i-zki-ra-te* [X-√3V-PL-1-PL'], a morpheme that is never controlled by plural absolutives except for the sur-plural 2.PL (C1). For the Hondarribia dialects using *te* only the 1V' paradigm is known; I give it in TABLE, along with data from closely related dialects form comparison in [].

TABLE: 1V' DD in HNn-Ir-pO (PL2 underlined)

---

[8] This is not to cast doubt on the traditional and correct analysis of *zki* as just PL in some cases, namely with synthetic verbs like *joan* 'go' (Lafitte, p. 241) or *eraman* 'bring' (Lafitte, p. 280, Azkue II:544f./§775, 578/§812): on the relevant usage these are not applicative and have no dative object.

	1V'		3VP
DAT ABS	3.SG	3.PL	3.S>X+>3.P
1.SG pres	zait, n-a-u	∅, n-a-<u>zki</u>	dizkit, n-a-<u>zki</u>
1.SG past	ziran, n-a-u-en	∅, n-a-u-<u>te</u>-n	∅, n-a-<u>zki</u>-yen

TABLE: 1V' in HNn-Ir-pM and Fernández (2004) (F)

DAT ABS	3.SG	3.SG	3.PL	3.PL
Present	HNn-Ir-pM [HNn-Ir-pB]	F [HNn-Ir-H:S]	HNn-Ir-pM [HNn-Ir-pB]	F [HNn-Ir-H:S]
3.SG	dio [dio]	dio [dio]	diote [ttio]	diote [ttio]
3.PL	diote [diote]	diote [diote]	diozkate [ddiote]	diote [ttioste]
1.SG	∅, nau [zait, nau]	nau [nau]	∅, naute [nauzki]	naute [nauzki]
1.PL	∅, gattu [gattu]	digu [di(g)u]	∅, ga[i]ttuste [gattu]	ttiu [ttiu]
2R	∅, zattu [zattu]	dizu [dizu]	∅, zattuste [zattu]	dizute [ttizu]
2.PL	∅, zattuste [zaittuste]	dizia [dizia]	∅, zattuste [zaittuste]	dizia [ttizia]
Past				
3.SG	zion [zion]		zioten [zittion]	
3.PL	zioten [zioten]		zioten/zizkioten [zkioten]	
1.SG	∅, nauen [zian]		∅, nauten [zkian/tzian?]	
1.PL	∅, gattuen [gattuen]		∅, gattusten [zkiun]	
2R	∅, zattuen [zattuen]		∅, zattusten (zattun]	
2.PL	∅, zattusten [zaittusten]		∅, zattusten [zattusten]	

The auxiliary forms used in these dialects have been discussed in XN; they are 3VS DD (and thus 2V) forms. Yet 3V forms never use *te* to mark an absolutive plural, either for PL or PL2, DD or not (but see ANNEX for some possible marginal uses as PL2). It is only here, in the 1V' forms, that *te* is used in this role, for PL2. This occurs both in forms with DD, such as 1.SG.DAT *n-a-u-te-(n)* [1-TM-√-PL2-(PT)], 1.PL.DAT *g-a-tt-u-ste-(n)* [1'-TM-PL-√-PL+PL2-(PT)], and in forms where DD does not occur, 3.SG.DAT *d-i-o-te* [X-√-3-PL]*, z-i-o-te-n* [X-√-3-PL-PT]. When a context arises for the insertion of both PL' and PL2 as *te*, the two Merge into one. As regularly, *te* continues to mark PL', as can be seen from forms with 3.PL.DAT (non-DD) and 2.PL.DAT (DD) where it is controlled by their plurality; and also regularly, *it* (*it … s* before *te*) marks PL.

What is occurring in these dialects is that *te* is spreading as a marker of plural S in applicative constructions in DD and non-DD forms alike, so respectively as PL and PL2. This is an interesting state of affairs, for *te* controlled by absolutive plurals outside the special 2.PL context is rare, though found (see APPENDIX BM: Azkue II:545/§733, Lafon, p. 84; Lafitte, p. 243, 251ff.), yet otherwise *te* is perhaps the most regular plural marker of Basque; its spread here fits that. Finally, it is certainly not the case that *te* somehow indicates the presence of a plural ergative here, as Fernández (2004) demonstrates: the controller is absolutive, just as it is for *zki*, (2)a, and an ergative is independently impossible with applicative unaccusatives in this context, (2)b (cf. C5 for a different context and a different phenomenon).

(2) a. *pro*ᵢ   sagarrakⱼ   erori nᵢ-a-u-teⱼ/zkiⱼ
         me.DAT   apples.D.ABS fallen 1-TM-√-PL2
         Apples fell on me. (Yrizar 1992-II:386, HNn-Ir-pB/HNn-Ir-pM resp.)
     b. *Niriᵢ/*zuriᵢ   marmitakoakⱼ gustatzen nᵢ-a-u-__ / d-i-zuᵢ-__
         me/you.DAT   stew.D.the   liking   1-TM-√/ X-√-2
         Intended: I like the the stew (ERG.SG). (Fernández 2004:102)

Finally, a frequent O2.PL noted throughout the discussion is simply $\varnothing$. This is not something simply allowed by default or as non-agreement found in some dialects in applicative contexts (q.v. C3); if another PL2 marker is available, it must be used, as in (3);

(3)   Guri$_i$ bokatak$_j$ gustatzen   g$_i$-a-tt$_i$-u-*(zte$_j$).
       us.DAT   sandwiches.D.ABS   liking   1'-TM-PL-√-PL+PL2
       We like the sandwiches. (AI)

PL2 morphology is the empirical basis for attributing to DD construction a second φ-probe, a number probe, that the analysis in C3 has placed on Appl. Its appearance in DD dialects in a precious chance to study the acquisition of new morphology, the use that language change can make of pre-existing morphological resources, and arguably about the internal synchronic properties of the resources so deployed. A variety of plural markers are used to create PL2: the regular PL markers of applicative contexts or generally (*zki*, and B *z*), regular PL markers with a far more restricted distribution (*it*, and L *z*), and a plural marker that in the relevant dialects expresses PL' but not PL (*te*). The possible decomposition of *zki*, often treated by synchronic analysis as a PL marker in an applicative context but known to originate as PL *z* + DF *ki*, when extended to PL2, provides support for two aspects of the theory of DD in C3: the presence of Appl in DD and the placement of a number probe on it.

3   ERG and DAT doubling, and the nature of SX agreement

3.1 Agreement, clitics, and syntactic doubling

In ED and DD both, the PX eccentrically controlled by ergative and dative respectively may be doubled by their canonical SX morphology. The conditions on doubling, studied here, are very dialect-specific and ultimately seem entirely surfacy and arbitrary; many dialects allow no such doubling. The canonical absolutive PX control generally cannot be doubled in any dialect (though see XN). The PL morpheme, which is also eccentrically controlled by the dative in DD, shows no such doubling. Such doubling has been discussed for ED in classical grammars (see XN); but a uniform theoretical treatment of doubling, in relationship to ED and DD, is only attempted in by Fernández (2002), discussing the dialect of Sara for DD doubling (from Fernández and Ezeizabarrena 2002) and G-H-nePD:ALO, G-H-nePS:ALO for ED doubling.

(4)   a.   *pro*$_i$ *pro*$_j$ *pro*$_k$ emaiten   ba-$\underline{z}_i$-ina-u-ta$_j$-$\underline{zu}_i$. (*ED*)
            you.ERG   me.DAT   it.ABS giving   if-2-TM-√-DF+1-2
            If you were giving it to me (L, Lafitte 289/§569e)
       b.   *pro*$_i$ *pro*$_j$ *pro*$_k$ *pro*$_m$ eman   arazi   n$_j$-a-u-ta$_j$-k$_i$
            you.ERG   me.DAT   him.DAT   it.ABS given   caused 1-TM-√-DF+1-M
            You made me give it to him. (LNe-Villefranque, Trask 1981: 294)

Doubling of this sort is well-known and wide-spread in agreement morphology: I will mention various examples in addressing specific issues, and the list is continuously being increased, often with phenomena as strikingly resembling Basque as those that follows (Armenian subject clitics, Harris and Halle 2005: 196n2 citing Vaux 1998, 1999). Analyses wander over a correspondingly wide range, perhaps with different ones appropriate to different phenomena. One may class them as phonological, morphological, or syntactic.

One option that can be excluded for Basque is the phonological copying approach explored by Harris and Halle (2005) for Spanish. To take one example, the standard form *dé-n=me=lo* [give.SUBJ-PL me.DAT it.ACC] 'let them give it to me' (- an inflectional boundary, = a clitic boundary), may give rise dialectally to migration of *n* in *démenlo*, *démelon*, or to its doubling, *dénmenlo*, *dénmelon*, *dénmenlon*. Harris and Halle's specific mechanism is reduplication; it and all phonological migration and copying mechanisms will retain the phonological identity (or regular modification thereof) of the source. This is clearly not what occurs in Basque doubling of the type discussed above: the PX is *n*, *h*, *g*, *z*, the corresponding SX is *da*, ∅, *gu*, *zu*, and no synchronic phonological mechanism to take one to the other, though this is a frequently explored diachronic conundrum (see Gómez 1994, Gómez and Sainz 1995 for reviews). A second consideration to be adduced is that the phonological approach requires a source for the copy, even if eventually deleted; and thus Heap (2003, ex. 12), has an argument against the phonological approach to Spanish in observing that the spurious *n* turns out attached to clitics in infinitives where as inflection it could never occur in its original position. This works for Basque as well, if the mechanism that fills SX in ED and DD doubling is to be linked to the one that fills SX generally. The latter is is independent of the PX position, which is controlled by a different argument or default, or is simply missing in so-called contracted infinitives (C1). Arguably, Basque does have examples of phonological doubling of agreement morphology that meet the expectations; but the PX-SX relationship is not one of them (see Fernández 2002 for this separation).[9]

Moving farther in the direction of syntax, one may establish the relationship between PX and SX in the morphology, for example by allomorphy or fission. I will give this a very short take here, for the issue in general has already been discussed in C2 for ED, and more briefly for C3 for DD. Allomorphy one could no doubt develop in such a way as to create secondary exponence of PX by SX, with the problems discussed in C2, or vice versa, losing a unified analysis of SX morphology when it does not double PX. Fission on the other hand seems like an inappropriate tool from the outset for doubling, because the same property, person features, are involved. The major deployment of fission in the study of agreement system has been to give the feature bundle of a single syntactic terminal, say dual, exponence at different locations in such a way that the exponence of any single feature is unique: some are realized at one location, say the marked dualness, and the remainder, impoverished of them, is realized at another for what is left, say plural (Noyer 1992/1997, Phillips 1993, Harley and Noyer 1997:§3.3).

Finally, syntactic analyses propose to analyze doubling as involving two syntactic terminals related in the syntax. Movement is one such relation, a syntactic analysis that I do

---

[9] Examples that fit phonological doubling I have come across are:
-Dative-controlled 1.S suffix: Already the sixteenth century writers Leiçarrague, who has from *izan* 'be to' 1.S+>3.S *zai-ta-da-n* [√1V'-DF+1-1-PT] (*çaitadan*) for *zai-ta-n* [√1V'-DF+1-PT] (Lafon, p. 372, Azkarate and Altuna 2001:138), allocutive *z-i-ai-ta-da-k* [X-AF-√1V'-DF+1-1-M]; and Dechepare, who has from *eritzi* 'consider' 3.S>1.S>3.S both expected *-d-e-riz-ta-n* [X-TM-√consider-1-PT] and doubled *-der iztada-n*. Lafitte (p. 289/§569b) gives *eman d-a-u-ta-te-t* [X-TM-√2V-DF+1-PL'-1] 'il me l'ont donné'. Rebuschi (1983:659n5) cites Ithurry (1895:69, 187) for *(d)-i-e-za-da-zu-t* [(X)-DF-TM-√2V-1-2-1], 'faites-le moi', and a contemporary (1978) Souletin writer's *erraiten d-ei-ta-ta-k* 'me dis-tu' for EB *d-i-da-k*, *eskaila ei-ta-da-zü* 'vous me l'avez livrée' for EB *d-i-da-zu*. Cf. dative-controlled 1.PL as 1.S + 1.P in APPENDIX BM. Oyharçabal (1993:93n10) points out that in Zuberoa *z-i-ta-zu* [X-√-1-2] can be *z-i-ta-da-zü-t*, and three-fold doublings of this type in this class of dialects are further studied in Albizu and Fernández (2006).
-te [PL'] as *ete*, of various sources, discussed by Lafitte (p. 289/§569c, d): e.g. *eman d-u-zu-e-te* for *d-u-zu-e* [X-√2V-2-PL'] 'vous donnerez', *eman d-e-e-te-te* for *d-e-e-te* [X-TM-√3V-PL'] 'il le leur a donné'.
-Gender markers indicating allocutive agreement in Elissamburu de Sare's (1828-1891) *d-i-a-gu-k* [X-AF-M-1'-M] for 1.P>3.S:2F.M *diagu* (Lafon 1959:392), or in L-StJean-Pr-(Art) present 1.P>3.P+>3.P:2F.F *z-i-o-zka-te-na-gu-n* [X-√3V-3-PL-PL'-F-1'-F].
-Doubling of the dative flag, as in *iezai(d)azu* for EB *i-e-za-da-zu* [DF-TM-√2V-1-2] (Pablo Albizu, p.c.).

not pursue. It could provide an elegant approach to doubling. ED and DD would involve X^0-movement of X^0's from their canonical position in the SX field to PX. This is the letter of Laka's (1993) approach. If movement were involved, suppression of SX could be viewed as standard copy (trace) deletion, as on Laka's proposal. Doubling by SX could be viewed as failure thereof. Finally, lack of ED/DD could be viewed as either non-application of movement, in cases where there is another PX controller, or as spell-out of the lower copy, perhaps for ED loss.

The best-known instance of copy-deletion failure is Boskovic's (2002) proposal for multiple *wh*-movement in Serbo-Croat. It occurs because of a phonological filter on haplology, blocking the double *šta* in (5), and it results in deletion of the upstairs copy and spell-out of the lower copy. This would agree with the conclusion in XN that the decision to spell-out doubling or not is due to surface considerations operating after vocabulary insertion. A different possibility, very suggestive in the present context, is illustrated by Franco-Provençal clitics in modal constructions in (6) (see Cinque 2002 on French modal constructions recently). Infinitives ending with an unstressed vowel require their object clitic to precede, (6)a, as in Standard French generally, (6)b; the remaning infinitives instantiate spell-out of the lower copy in some dialects, (6)c, and of both copies in others, (6)d. As in Boskovic's example, phonological considerations play a role in the choice of the option.

(5)   Šta   šta~i~   uslovljava šta~i~
        what   what   conditions what
        What conditions what (Serbo-Croat, Boskovic 2002: 368-9)

(6)   a. dəvø lo fárə   *t*
            I.want it to.do
            I want to do it.   (Franco-Provençal a, b; *lofárə* written one word)
        b. faut   le porter   *t*   (Standard French)
        c. fo   pɔrtá   lo   (Franco-Provençal a; *pɔrtálo* written one word)
        d. fo   lo purtá   lo   (Franco-Provençal b; *lopurtálo* written one word)
            must   it to.carry   it
            It has to be carried. (Ratel 1958 [13:32], cited in Moron 1979:305n5)

As I have said, X^0-movement is the letter of Laka's (1993) proposal for ED. The spirit, more congruent with the phenomenon, is closer to φ-Agree rather than movement. If PX and SX morphology are all X^0's, then they differentiate the case of their controllers, since the difference cannot be coded by Agree vs. movement: the canonical PX controller is absolutive and so is PX, SX is dative and ergative. Yet the putative X^0 movement from SX in ED and DD transmits φ-features only, and not case. This is one of the reasons C2 and C3 have opted for the Agree analysis of PX and PL morphology. That said, the choice between movement of entire syntactic terminals and transmission of syntactic features by Agree is a theoretical choice, motivated on the grounds in discussed in C0, and largely independent of everything that I have said in this work, provide terminals can be made as fine-grained as required for example by the notion of 'participant' (cf. Polletto 1999, Bianchi 2006 for such terminals in a cartographic approach, and Bejar 2000 for a proposal that nodes of the feature-geometry are assembled by Merge).

Related to the possibility of treating doubling as a chain of which both copies are spelled out is φ-Agree with the same argument by different heads. This is Fernández's (2002) proposal for ED and DD doubling: in ED doubling for example, the ergative checks its person feature against both its canonical head T and the head it relates to eccentrically under ED, V (here *v*). Case is assigned only once. The option of multiple checking of the person features of

the dative and ergative can be parametrized. This is close specifically to Phillips's (1993) treatment of Yimas, and to syntactic approaches to agreement doubling in the literature generally, both discussed in section. The approach entails that SX is the reflection of the same relationship between a controller and a head as that which occurs between T and the ergative, φ-Agree modulo framework changes, as most literature assumes (e.g. Laka 1993, Fernández and Albizu 2000, Fernández 2001, Rezac 2003). Yet I have argued in C3 that the dative does not value the φ-features of a probe outside DD and is cliticized by the φ-probe of *v*, so the SX morphology it controls cannot be the reflex of φ-Agree, and if parallelism for SX controllers is to be maintained, neither can it be so when it is controlled by the eragtive.

Here I exploit another possibility, made available by the Agree framework that provides both for φ-feature valuation and X^0-movement as possible sources of agreement morphology. A clausal head H with a φ-probe, and H' with a landing site for X^0-movement, can logically relate to the same goal G, which values the φ-probe of the former and undergoes (or a subconstituent of it undergoes) X^0-movement to the latter. H and H' may be identical, in which case the φ-probe is the motive force of the X^0-movement. The resulting combination of a φ-probe and X^0-morphology on H does not differ relevantly from a φ-probe no H and G in [Spec, HP], the paradigm of φ-driven XP-movement. Indeed, under certain assumptions about how X^0-movement differs from XP-movement, there may be no narrow-syntactic difference at all at all between the two (Ora 2006).

The kind of structure expected is show in in (7). *Ik* is an XP in [Spec, TP], and *kommen* a verb in T whose agreement morphology *en* reflects T-*ik* φ-Agree that drove its movement from inside the *v*P. *Da* is in C; C has a φ-probe that has Agreed with *ik*, spelled out as the complementizer agreement morphology *n*. Up to this point the analysis is widely though not universally shared (Carstens 2003 and van Koppen 2005). The issue is the nature of the clitic *k*, an X^0 doubling *ik* in addition to the complementizer agreement morphology. The option made available on the theory here is that it is an X^0-moved from a larger DP containing *ik*, in the manner that clitic doubling of pronominal and non-pronominal DPs in Romance and Celtic has been analysed by Torrego (1988), Uriagereka (1995), Belletti (1999), Rouveret (1994), Sichel (2001), and others. The motive force of the cliticization is the φ-Agree of C. Locality conditions on φ-Agree derive why the controllers of *n* and *k* must coincide and be the closest DP, the nominative subject.

(7)   da-n_i-k_i ik_i komm-en_i
        that-1.SG-I(clitic) I.NOM come-1.SG (West Flemish; Zwart 1997: 138)

In this model, the double coding in the morphology of the φ-features of a goal is related syntactically by coming from the same goal, but the two φ-sets do not bear the same relation to the goal. One is a representation of the goal's φ-features only, or a subset thereof, depending on the specifications of the φ-probe. The other is an X^0 that represents at least and up as much what an X^0 can represent, for exaple an entire φ-bundle and case (i.e. D^0+P^0). Their spell-out can be radically different. These properties seem to fit well the PX-SX doubling relationship in Basque ED and ED. PX represents "person" φ-features only, and not "number" φ-features; this dissociation is clearly seen with canonical and DD PX controllers, which if [plural] code this by PL, not PX. SX can arguably code both person and number; at least, this has been the argument given in C1 why the SX *gu* and *zu* do not allow a separate PL' *te* morpheme. PX and SX are spelled out using different pieces.

In what follows, I will look at three language groups that exemplify doubling that may be of the kind proposed here, and resembles the Basque type. Regardless whether the theory proposed here is correct, they are good guides to the kind of agreement doubling that occurs in human languages and its properties. XN develops the proposal for Basque in the specifics,

and prepares the way for the most mysterious topic in the whole business: the variation found in doubling, and its reasons. XN suggests that syntactic agreement doubling is cross-linguistically subject to reduction at the morphology, a dispreference for multiple coding of the φ-features of an argument, and probably more generally a dispreference for the multiple coding of any single φ-feature in an agreement complex in general. The remaining sections show that the details of ED and DD doubling in Basque support this view, and conclude that such a dispreference, however it is to be implemented, are sensitive to surface properties of the forms containing agreement doubling, post vocabulary insertion, and that it must be minutely parametrizable. The facts support in particular a proposal by Hale, Jeanne and Pranka (1990) that intervening material helps obviate the dispreference. These results, that must underlie theorizing about the mechanisms needed to account for tgem, can be viewed as the principal contribution of this work to the study of doubling, if the theory is unpalatable; for there has been no attempt to see what the variation in doubling looks like in detail across Basque dialects or any body of data with the scope of the Y corpus.

3.2   Three examples of doubling

3.2.1   Salish

Davis (1999, 2000) reconstructs the development of subject (S, A) agreement from Proto-Salish to the modern Salish languages. In Proto-Salish and the relevant Salish group, there are two agreement series. One is a "clitic" series that is high in the sense that it will float off the main predicate to pre-verbal auxiliaries, etc., and its realization is sensitive to clause type: indicative, possessive (nominalized clauses), and conjunctive (subjunctive). The other is an "affix" series that is low in the sense that it attaches to the main predicate. S controls only the the clitic series. A can control the affix series, the clitic series, or both, according to language:

(i)   The expletive pattern: A is coded by low agreement and there is high 3.SG clitic (∅ for the indicative series).
(ii) The copy pattern: A is coded by both low agreement and high clitic.
(iii) The raising pattern: A is coded by high clitic and not by low agreement.

The following table lists the distribution of these pattern across this Salish group:

TABLE: A agreement patterns in Salish (Slightly modified from Davis 1999)

Clause type	A person	Thompson, Proto-Salish	Lilloet	Squamish	Halkomelem	Sechelt[10]	Lushootseed
Indic. main	1/2	X	R	R	R	C, R	R
	3	X	X	X	X	C, X	R
Conjunctive	1/2	X	R	R	R, C*	R, C*	R
	3	X	X	X	X, C*	X, C*	R
Nominalized	1/2	X	X, R	C, R	R	R	R
	3	X	X	C, X	X	X, R	R
Indic. subord.	1/2	X	X	X	R	X	R
	3	X	X	X	X	X	R

Patterns of A agreement: X - expletive, R - raising, C - copy, C* - negative copy.[11]

_____

[10] C, R patterns in Sechelt indicative main clauses not in free variation but differentiated according to auxiliary used.
[11] The negative copy pattern: a negative auxiliary selects a conjunctive complement, and A is coded by both a subject clitic on the negative auxiliary and a conjunctive subject clitic in its complement; this is not clearly

Davis argues that the Proto-Salish system was identical to that of Thompson, using the expletive pattern only, and then gradually changed to the raising and the rarer copy patterns. Parameters of spread were clause type, main indicative favouring the new patterns, and the participanthood of A, $1^{st}/2^{nd}$ person favouring them.

The Salish low agreement must be such that only A, not S can control it; in other words, it seems to be contingent on the locus of transitivity, *v*: it might be present on the transitive *v* and A controls it by cyclic expansion, or it is present on T that selects a transitive *v*.[12] The Salish high agreement series is associated with a higher system, C/T, and properties such as clause type can play a role here (as in Old Irish subject agreement, Carnie et al. 2005), while transitivity cannot. These are essentially the proposals of Davis (1998, 1999).

For Davis furthermore, low agreement and high clitics have the same abstract syntactic status, interpretable Agr-type syntactic objects, to which *pro* moves under a relation (e.g. checking) to Agr's φ-features; the affix/clitic spells out the Agr's φ-features. The expletive pattern arises when *pro* moves only to the low Agr position, so the high Agr can only contain default/expletive φ-features which do not need to be checked; the raising pattern when it moves to the high Agr-position and its lower copy is not spelled out, and the copy pattern when it moves and both copies are spelled out. The model idea is the same as that for the Franco-Provençal object clitics in XN.

The coding of A bears a striking resemblance to the coding of A under ED in Basque. This is clearest under the setting SX = low agreement affixes (*v*) and PX = high agreement clitics (T/C). The expletive strategy has A coded entirely by SX agreement, in non-ED contexts by the Tense Condition and under ED loss, with PX filled by default as when its potential S controller is 3rd person. The copy strategy is ED with doubling. The raising strategy has A coded only by PX, so it is ED loss with no doubling. The parameters of variation also recall to those that play a role in Basque ED: person and tense (clause type), affecting the nature of A agreement, but not of S agreement.[13] There is nothing obvious about the Salish system that would prevent whatever series is taken as PX to reflect φ-Agree and SX as X^0-movement, as I propose for Basque. However, the interest here lies in the parallelism and in the patterns and parameters of doubling.

3.2.2 West Germanic: T, C-agreement, subject clitic doubling, object clitics

The second example of doubling is complementizer agreement + clitic doubling of nominative subjects in West Germanic dialects. Complementizer agreement in here is a vast subject: for recent work, comprising comprehensive overviews, see Zwart (1997: 136ff., 256ff.), Hoekstra and Smits (1998), de Vogelaer et al. (2002), Carstens (2003), and particularly van Koppen (2005). Subject clitic doubling is discussed for example in Haegeman (1990, 1992, 2005), de Vogelaer et al. (2002), van Craenenbroecks and van Koppen (2002). Other doublings, of objects for example, are not found in these dialects in general [not some; CHECK for rest].

TABLE shows the paradigm of one dialect that includes both C-agreement and "clitic" doubling, plus additional agreement on the verb (arguably in T, Carstens 2003). My resume relies entirely on Haegeman (1990), who emphasizes the distinctness of C agreement and the

---

monoclausal.

[12] On the former approach, the object must never be a goal, along the lines for example of Jouitteau and Rezac (2006) for Breton: it is in an agreement domain opaque to the outside where it gets independent (nominal) Case licensing.

[13] The settings could also be made in reverse, but then the behavior of S would not fit, for it would always control the high = SX series as it never does in Basque.

doubling pronoun. The controller of all this morphology can only be the nominative subject. Clitic doubling is only possible with pronouns; non-pronouns cannot be clitic doubled by they control the same C agreement as corresponding 3rd person pronouns (except for details about he final consonant of the complementizer *da*). As the middle column shows, CLD is required for 2nd person; otherwise, the form without the pronoun and only the clitic is the unmarked form, the form with the pronoun and the clitic stresses the subject and is roughly equivalent to "that she herself works", and the form with pronoun but no clitic is contrastively stressed, "it is she and not somebody else who is working".[14] The clitic must be left-adjacent to C; it cannot be separated from it by a *tomorrow*-type adverb.

TABLE: Lapscheure (West Flemish) paradigm from Haegeman (1990)

CLD 'clitic doubling'; full pronouns in bold, clitics in underlined, agreement in italics

	C + V		V-in-C
	CLD of pronoun	non-CLD of pronoun	CLD of pronoun
1.SG	da-*n*-<u>k</u> **ik** werk-*en*	?da-*n* **ik** werk-*en*	goa-*n*-<u>k</u> **ik** werk een
	that-1.SG I work-1.SG	that-1.SG I work	am I going to have a job?
2.SG	da-<u>j</u> **gie** werk-*t*	*da **gie** werk-*t*	goa-<u>j</u> **gie** werk een
3.SG.M	dat-<u>j</u> **ij** werk-*t*	?da **jij** werk-*t*	goat-<u>j</u> **ij** werk een
3.SG.F	da-<u>se</u> /dat-<u>ze</u>/ **zie** werk-*t*	da **zie** werk-*t*	goa-<u>se</u> /goat-<u>ze</u>/ **zie** werk een
3.SG.N	da-<u>t</u> **tet** werk-*t*		goa-<u>t</u> **tet** werk een
1.PL	da-<u>me</u> /da-*n*-<u>we</u>/ **wunder** werk-*en*	da-*n* **wunder** werk-*en*	goa-<u>me</u> /goa-*n*-<u>me</u>/ **wunder** werk een
2.PL	da-<u>j</u> **gunder** werk-*t*	*da **gunder** werk-*t*	goa-<u>j</u> **gunder** werk een
3.PL	da-*n*-<u>ze</u> **zunder** werk-*en*	da-*n* **zunder** werk-*en*	goa-*n*-<u>ze</u> **zunder** werk een

On Haegeman's (1990, 2005) analysis, to put things *very* briefly, the clitic is in fact an XP, a weak pronoun syntactically and a clitic phonologically; it is the true argument of the verb. The strong pronoun is introduced for emphasis, one possibility being the spell-out of the trace of the weak pronoun. One can easily formulate a variant of this proposal that stems from the work on clitic doubling by Uriagereka (1995) and others cited in XN, simply by a difference in how the strong pronoun is introduced: the clitic is a D head, which may be be doubled by (a perhaps adjoined) strong pronoun DP. The movement is driven by the φ-probe of C, which explains why the subject doubling clitic and C agreement are controlled by the same element and why this has to be the nominative DP, the closest with structural Case.[15]

---

[14] Cf. Kashmiri where 2nd person is unique in always being obligatorily clitic doubled (Wali and Koul 1997:246-7), and Italian where subjunctive 2nd person subject clitic is unique in not licensing *pro*-drop (Cardinaletti 1997:00, Poletto 1999:189n5).

[15] Example (i) is of general interest regarding clitic placement and the formation of the agreement comples in C. It shows C and a subject doubling clitic, but the object clitic *t* intervenes between the two; in this dialect it must occur outside the TP. In other Flemish dialects with otherwise similar systems, object clitics occur syntactically lower (Haegeman 2005), as can weak pronouns in both systems. The object clitic cannot have moved here by φ-Agree, since not even the verb in T reaches C, let alone *v*. The authors show that object cliticization is syntactic, feeding Condition C. It seems a clitic movement mechanism independent of φ-Agree must have moved it, an option clear for non-pronominal clitics, and reached elsewhere for pronominal ones available to φ-Agree as well (Anagnostopoulou 2003: 204).
(i) da-ge-<u>t</u>   gou   'm   merge nie gotj   geven
     that-you(CL)-it(CL) you(STRONG) to.him(WEAK) tomorrow not go   give
     that you're not going to give <u>it</u> to him tomorrow (Wambeek dialect (Brabant), Van Craenenbroeck and Van Koppen 2002: 290).

The doubled 'big-DP' clitic-DP structure is available only to pronouns (as in say most Spanish dialects for objects); it is emphatic except for the 2nd person that requires it. This latter then is like Salish and Basque, where doubling is not determined by discourse factors. One may thus differentiate DPs that always come in a 'big DP' structure that contains what must move out as an X^0, and DPs whose participation in such structures leads to special interpretation. In all cases, C-agreement and C-attached clitic (weak) pronoun constitute double morphology, one where both elements are always spelled out in this dialect.

3.2.3 Northern Italian Subject Clitics

Subject clitics of northern Italian varieties have been the subject of intensive research, resulting in such seminal generative proposals such as Rizzi (1986), Brandi and Cordin (1989). Poletto (1999) is an extensive recent treatment in the cartography framework (Rizzi 1997, Cardinaletti 1997, 2002, Cinque 1999). They double the (nominative) subject of the clause, which also controls verbal agreement.

Poletto (chapter 2) identifies two major groups of subject clitics, both preceding object clitics: a C-related group, and a lower one that I will refer to as T-related. Clitics that belong to (sub-groups of) each group cannot co-occur, but those of the two groups can in the order C > T clitics, as shown in TABLE. The C-clitics cluster with C for elision, precede negation, and are sensitive to left-peripheral properties such as type of *wh*-word or the occurrence of left dislocation. The C-clitics need not cluster with C and typically occur after negation. The C-clitics fall into two types, invariable and deictic; the first is not at all sensitive to the φ-features of the subject, the second only to the 1st/2nd vs. 3rd person distinction, as in TABLE; they are also insensitive to the semantic properties of the DPs subject (p. 151). Poletto analyses them as expletive realizations of left-peripheral heads like focus; φ-Agree by such C-head(s) as in West Germanic would give the person sensitivity of deictic clitics.

The T clitics also fall into two groups, which Poletto calls person and number clitics. Person clitics are found as 2.SG *tV* in all dialects and as 3.SG *Vl* in a few, shown in TABLE. Number clitics code number and gender distinction for the 3rd person (3.SG.M *l*, 3.SG.F *la*, 3.PL.M *(l)i*, 3.PL.F *le*); this is not shown in TABLE, but it is exemplified by *le*, *e* for this dialect in (8)b. A generalization due to Renzi and Vanelli (1983) states that if a dialect has only one subject clitic, it is 2.SG, if two, 2.SG and 3rd person, if three, 2.SG, 3.SG, 3.PL. Person and number clitics are differentiated by coordination, only the latter being shareable by coordination of the type *They write and rewrite the book*, though one can easily imagine formulating this in terms of different attachment properties of the clitics, not syntax.

TABLE: Subject clitics in S. Michele al T (Friulian) from Poletto (1999: 13)

Subject	C clitic	T clitic	V+INFL	Translation
1.SG	i		mangi	I eat
2.SG	i	ti	mangis	you eat
3.SG	a	l	mangia	he eats
1.PL	i		mangin	we eat
2.PL	i		mange	you eat
3.PL	a		mangin	they eat

(8) a. Nisun   al   mi capis.
        nobody   SCL   me understands
     b. Le fomne che   le   neta   le scale   e   e   ndande via.
        the women who   SCL   clean the stairs SCL   have   gone   away

(S. Michele al T (Friulian), Poletto 1999: 142)

In this particular dialect, any DP, including a weak quantifier and a *wh*-trace, can be doubled (p. 142), as in (8). Across the dialects person/number subject clitics differ in their compatibility with subjects of different semantic types according to the implicational scale in (9) (p. 142-3), though this is an indication only of a more complex situation differentiating different quantifier types, tenses and/or quantifier interpretations, and so on: p. 188n2, 4).[16]

(9) Subject clitic - subject semantics compatibility

	tonic pronouns >	DPs	> QPs >	variable/trace bound by Ā-movement
Veneto	obligatory	optional	no	no
Montesover	obligatory	obligatory	no	no
Milanese	yes	yes	yes	no
Turin	yes	yes	yes	yes

Poletto analyzes person and number clitics as reflecting left-peripheral clausal functional heads, rather than X^0's moved from the corresponding DPs. This differentiation is due to Rizzi (1986) and Brandi and Cordin (1989), and based on the ability of the subject clitics in some dialects to double DPs without imposing any semantic restrictions on their controller. In the Agree framework, one would translate this as φ-Agree by probes heads separate from that hosting verbal inflection, perhaps differentiated according to the their φ-feature content (person vs. gender/number, etc.). By the same heuristic, one would analyze as moved X^0's those subject clitics that enforce semantic restrictions on their controller, a classical approach to such restrictions as specificity on agreement (e.g. Corbett 2003). It is important to note that neither step is logically necessary. Suñer (1992) analyses specificity restrictions by treating clitics as agreement heads that must match in specificity features with their controller. In the other direction, pronouns impose no interpretive restrictions when they function as quantifier-bound variables, and so approaches like of Gutierrez-Rexach (1999) to Spanish clitic doubling can treat as pronouns clitics that double DPs with and without restrictions.

In terms of relevance to the picture of doubling, the Northern Italian T-clitics show another system where the determination of which DP is doubled may be sensitive either to purely morphological specifications (e.g. 2nd and 3rd person in S. Michele al T.), or to semantic ones, or a mixture of the two, as in Lapscheure. The double is verbal agreement morphology, not affected by either consideration. Dialects such as that in TABLE show an additional agreement series in the C system, giving a three-fold coding of agreement of the nominative subject, each with different properties: 1/2 vs. 3 on C, 2.SG vs. 3 vs. null for the remainder as T clitic and sensitive to semantics of the subject in other dialects, and full semantics-insensitive differentiation of φ-features on the verb.

3.3 <u>Basque clitics: An analysis</u>

---

[16] Such controller-based conditions on clitic doubling, beyond φ-features, are common. In Spanish, dative and accusative strong pronouns must ordinarily be clitic doubled. The doubling of non-pronominal accusatives varies according to semantic factors, particularly quantificational properties and animacy (particularly Suñer 1988, Franco 1994 [1999], Roca 1995, Bleam 1999, Guttiérez-Rexach 2000). Similar factors affect accusative doubling in Greek (Anagnostopoulou 1999), Albanian (Kazazis and Pentherudakis 1976, Kallulli 1999), Romanian (Steriade 1980, Dobrovie-Sorin 1994), and nominative subject doubling in colloquial French (Roberge 1990, Zribi-Hertz 1994).

The basic proposal for the SX series in Basque is that it spells out X^0 elements moved from their respective controllers.[17] The proposal comprises three separate issues: the moving force; the landing site; the properties of the source.

Potential SX controllers are the dative and the ergative. The (applicative, agreeing) dative has been shown to be dependent on the φ-probe of v in C3. Under certain assumptions, the latter is strong support for supposing that the driving force of X^0-movement that yields SX is a φ-probe. C3 has proposed that applicative datives require agreement because they are inserted necessarily as "big DPs" containing the actual dative DP and the D-head that will become the dative clitic; the latter must move out because it is not licensed in-situ. The dependance of applicative datives, not just dative agreement, on the φ-probe of v follows if this probe is the motive force for displacing the D-head. Thus, I will assume that the motive force for the X^0-movement of dative and ergative that yields the SX morphology is a φ-probe.

For the dative, this is the φ-probe of v, whether it values it only partially as a quirky dative in non-DD derivations, or whether it values it fully in DD derivations. The ergative Agrees with the φ-probe of T always, as demonstrated in C1, C2, and with the [participant] φ-probe of v in ED. I will assume that it is always the φ-probe of T that is responsible for its X^0-movement, not that of v (to some extent only a simplifying assumption). This means that the dative relates to a point in the clausal architecture that is lower, and that triggers movement earlier, than the ergative: v is lower than and its operations precede those of T. This asymmetry yields a dative > ergative ordering of X^0-movement and ergative > dative c-command, either mapping satisfactorily to the strong dative > ergative preference evidenced by SX, though modifiable by the morphology.

The absolutive can never control SX morphology, although it values the φ-probes of v, and I have assumed that the ergative's X^0-movement also cannot be triggered by the [participant] probe of v under ED. Only the dative may cliticize to v, though absolutive and ergative alike relate to it by φ-Agree; and the manner in which they do so cannot be responsible for the differences between them in control of SX morphology:

(10)   Case, φ-probe of v, and SX control:
    a. Absolutive (no SX): O2 - number; O1 - person/number; O2 in DD - neither.
    b. Dative (SX): outside DD - (partly) person; DD - person/number.
    c. Ergative (SX): outside ED - neither; ED - person.

These three DPs differ in case. The discussion of clitic doubling in West Germanic and Northern Italian dialects in XNS shows that properties of the DP controller like φ-features and semantics enter into whether doubling may or must occur. Case might be taken as one of those properties; DPs with different case typically differ in their doubling, so that in a typical peninsular Spanish dialect for example most dative DPs can be doubled but only pronominal accusatives can (see references in NOTE). Exploration along these lines seems clearly possible to me, but it does not lead to interesting results, which may indeed be all there is. However, a more tantalizing possibility arises once the landing site of X^0-movement is considered.

X^0-movement, like other movement, requires a landing site, and this must be provided by the target. In current theory, the target of XP-movement is an OCC (occurrence) feature on the category that hosts the probe that drives the movement (Chomsky 2000, 2001 et seq.). X^0-movement of the type being considered here, that is the potentially unbounded φ-driven A-movement of categories that happen to be X^0's rather than XPs, is more and more treated on

---

[17] The moved X^0 may contribute features spelled out elsewhere than SX itself by regular processes; the clearest case is plurality fissioned off SX for 3.PL and spelled out using PL', while it is spelled out using SX itself for $1^{st}/2^{nd}$ person plural.

par with XP-movement (e.g. Anagnostopoulou 2003), and the distinction between the two is not relevant in narrow syntax. Applying the proposal of Ora (2006) for head-movement in general, the movement moves a syntactic object to the specifier of the target, whence its attachment to the target takes place after syntax using the standard attachment device of Distributed Morphology, Merger (Embick and Noyer 2001).[18] The XP/X^0 distinction only plays a role at the post-syntactic level where an X^0 may become an affix or a clitic by virtue of its attachment properties, not within narrow syntax (cf. Chomsky 1995:00). Thus, the licensing of X^0-movement requires two things. First, a landing site for syntactic movement, namely an OCC feature on the target. Second, the applicability of Merger to satisfy the attachment properties of an affixal X^0 in its derived position; this depends on the attachment properties of the X^0 and the suitability of the context to satisfy them.

For the T-ergative relation, no questions amenable to investigations pose themselves. For the *v*-dative relationship, something must allow the dative to undergo X^0-movement when the absolutive and ergative cannot. I suggest that this property might be the presence of Appl. For concreteness, Appl in *v*, which is arguably spelled out as a dative-flag, provides the host for attachment of the dative from [Spec, *v*P] where it is placed by the φ-probe of *v*. Lack of Appl in non-applicative constructions means that no X^0 can attach from [Spec, *v*]. Presence of Appl normally entails presence of an applicative dative, and thus movement of its D-head into [Spec, Appl]. By locality, this precedes the *v*-absolutive relationship, and by cyclicity, the *v*-ergative relationship. Therefore, the dative will be the first candidate for attachment by Merger to Appl+*v* when there is Appl present in the structure. The system ends up being able to cliticize only datives to *v*(+Appl). Any other X^0 that in [Spec, *v*P] cannot be attached because the dative already has been, and it ends up illegitimate in that position. There are various slight variations, and the system could be elaborate with additional conditions depending on the case of the X^0 in [Spec, *v*P], but that does not seem necessary. Keeping all X^0's uniform and putting the burden of locality and cyclicity on why it is the dative that attaches is consonant with the fact that all SX morphemes appear to be uniform, whether controlled by ergative or dative or, in the rare case discussed below, by absolutive.

The real motivation of the proposal, however, is in a guiding intuition that has grown in work on Spanish dative clitic doubling, particularly Demonte (1995), Ormazabal and Romero (1998, 2002), and Cuervo (2003): there is a close link between the Appl head of the applicative construction that introduces the dative, and the dative clitic. The connection surfaces in Basque in the frequent adjacency between the dative flag, reflecting Appl, and the dative-controlled SX in the agreement complex, though this is by no means universal. I am reluctant to explore a direct application of the cited proposals by taking the dative-controlled SX as the Appl head itself that agrees with the dative in its specifier. This would make the identity between dative-controlled and the ergative-controlled SX pure accident, have a harder time of accounting for the cases of dative flag - SX separation, and most importantly, the idea is not easy to concile with the interpretation of the dative dependency generalization of C3, that makes φ-Agree by *v* the driving force that yields the SX morphology.[19] However, fairly little in the present proposal would change in the end if SX morphology were systematically viewed instead as morphology introduced upon Merge of a DP on its selector: ergative on *v*, dative on Appl. A proposal for the existence of agreement morphology of this type is

---

[18] Sportiche (1990), reviewed in Sportiche (1996:244) for a similar view of clitic movement as XP-movement + X^0 head movement / incorporation.

[19] Some of the same issues arise in the Spanish clitic cluster where the dative clitic precedes accusative ones, which in turn precede the inflect verb: if the dative clitic is an agreeing Appl, rather than P+D X^0-moved from Appl, morphological devices must be deployed to place it before the accusative, and dative-accusative syncretisms become more of an accident.

proposed by Wiltschko (REF). The principal reason for not exploring this direction is that SX morphology is controlled by non-thematic DPs under raising-to-ergative in Basque (C1).

On the present proposal makes all SX D-heads of "big DP" structures that have particular attachment properties. φ-probes move the D-heads to [Spec, TP] and [Spec vP]. T, and v supported by Appl, provide attachment sites for D heads and this satisfies their requirements. v alone, or v whose Appl has already provided an attachment site, does not provide one. Unattached X^0's end up illegitimate. This model provides few places to parametrize the actual syntactic movement of X^0's that yields the SX series outside the source DP of the D-head, the controller of the SX. Properties of this DP clearly determine whether such a D-head is available, so only $1^{st}/2^{nd}$ DPs provide (overt, at any rate) source of SX morphology. The φ-probe and the OCC feature of the target can modulate the syntactic movement only across-the-board: allow it or block it.[20]

Consider now datives and ergatives that in canonical agreement contexts control SX morphology. In eccentric agreement contexts, ED and DD, little pertinent to the syntax of the movement that yields SX changes: the dative and the ergative continue to relate to the φ-probe of v and T, which would seem to have the same properties (modulo a more articulated φ-probe on v in ED contexts), and so the same OCC feature. This yields the expectation that the ergative and dative can control SX morphology under ED and DD as well, when they anomalously control PX and PX/PL morphology. This prediction is partly borne out, as has been repeatedly pointed out in C2, C3: this constitutes ED + ERG doubling, DD + DAT doubling forms.

Yet such doubling is by no means general; in most dialects it is the exception rather than the rule. The prediction here is straightforward: the restrictions on SX morphology in ED and DD, restrictions on doubling, should arise at the post post-syntactic level, in the mapping between syntax and the spelled-out form. They should therefore depend on the properties of post-syntactic levels, such as properties of vocabulary items inserted there. Syntactically, ED and DD always have doubling whenever there a particular ergative and dative controls SX morphology regularly outside ED and DD. It is just not always spelled out, and its spell-out is determined by "surface" considerations. This dependance on surface considerations turns out to be the quintessential characterstic of doubling in Basque, as the following sections will show. Interestingly, the variable spell-out of doubling morphology has been documented for other languages, and I begin by considering their evidence first in XN.

---

[20] X^0-movement can in principle have interpretive consequences, since an X^0 with φ-features has some pronominal properties, and such properties have played a role in arguments about the nature of the dative clitic: clitics count as pronouns for the Binding Theory (Zubizarretta 1998: 107ff.) and for weak cross-over (Suñer 1988, Anagnostopoulou 2003: 207ff.). I have not been able to make much of this for Basque. Except for 3rd person datives, only $1^{st}/2^{nd}$ person control SX, which drastically reduces the set of testable properties. One restriction on clitic doubling in Spanish is that if the clitic comes from O1/O2, it is subject to certain specificity restrictions; if it comes from O', it is not (Franco 1994, Roca 1996, Guttierez-Rexach 1999, Bleam 2000, Ormazabal and Romero 2006). However, clitics doubling O' continue to count as pronominal in Suñer's (1988) WCO suspension. Ormazabal and Romero (2006) point out that $1^{st}/2^{nd}$ pronouns in Spanish, which are homophonous for O1/O2 and O', show no restriction, and take it as evidence that agreement rather than X^0 movement is involved. However, the structures tested, of the type (i) for Basque, are (necessarily) of the type *some of us*, and the strong D-linking is expected to favoritize doubling (Gutierrez-Rexach 1999). At any rate, to me the mystery of specificity in clitic doubling does not seem to me to be the lack of the specificity restriction for O', but the presence of the same for O1/O2 clitic doubling. This is widely reported and often taken as a diagnostic of X^0 movement (Bresnan and Mchombo 1987, Bresnan 2001, Comrie 2003). Howver, it cannot be so simple, since pronouns can be bound variables, and a source of the clitic in below the quantifier (*no$_i$ one in his$_i$ right mind*) should yield not restrictions.

(i) pro_i <u>batzuok$_j$</u>   ez g$_j$-a-it$_j$-u-zte$_i$ sorpresaz   harrapatu
      they.ERG   some.these.ERG   not 1-TM-PL-√-PL+PL' surprise.by   taken
      they did not take <u>some of us</u> by surprise. (euskalherria.indymedia.org/eu/2004/04/14020.shtml)

I will end by briefly turning to a most unusual phenomenon in Basque, absolutive control of the SX series and absolutive doubling, one interpretation of which has an easy time with the theory of SX developed in this section. Control of the SX series by the absolutive is virtually never found in the Basque dialects. The absence is so thorough that one is tempted to view this as a deep property, which might follow as above if Appl is required to provide v with an X^0 landing site (cf. Fernández 2002, who proposes it is because an absolutive's person feature is always coded by PX if there is one). Yet even here there is reason for caution: the Lekeitio dialect, in TABLE, does show both systematic coding of absolutive S by SX, in bold, and by PX-SX doubling, underlined (Hualde et al. 119-120). The phenomenon is extremely restricted, occurring optionally in the potential mood of *be*, not in the indicative, conditional, or subjunctive; yet it is systematic for all that, and the doubling is occurs with 1.SG and 1.PL both. Hualde et al. point out that the forms coding the absolutive as SX originate as 1V' forms and the SX coded the dative, and they retain this use, but synchronically they can also code the absolutive: *etorri leikígu* means either 'he can come to us' or 'we can come' (p. 120).

TABLE: Lekeitio 1V/BE paradigm for 3.S/P.A

ABS	Indicative	Potential	Conditional	Subjunctive
Present				
3.SG	da	léike	--	deižen, daižen
3.PL	dira(s), dis	léikes, leikíe(s)	--	dirasen, disen, deižésen
1.SG	naix, nas	néike(t), **léiket**	nitzateke	nasen, naixen, naižen
1.PL	gara	giñíkes, **leikí(g)u**	giñiteke(s)	garien
2R	sara	siñikes, **leikíxu**	siñiteke(s)	sarien
2.PL	saríe	siñikíes, **leikixúe**	siñitekíe(s)	saríen
Past				
3.SG	san	leikí(ž)en		
3.PL	sirian	leikí(ž)en		
1.SG	nitzan	neikíen, **leikíen**		
1.PL	giñian	giñikí(g)un, **leikí(g)un**		
2R	siñian	siñikísen, **leikíxun**		
2.PL	siñíen	siñikiísen, **leikixúen**		

It is hard to draw any conclusions from so rare a phenomenon. Yet, as these forms come from old applicatives, perhaps it fits rather well into the idea that support by Appl is needed for v to host X^0-morphology. Synchronically one could put an Appl that does not select an argument here, and make its presence dependent on that of the potential morpheme *ke*. This, although a mood morpheme, is morphologically reflected low and interacts significantly with the dative flag and SX especially in the Bizkaian dialects, turning up sometimes between the two, as discussed in APPENDIX BM (Azkue II:578f./§813, II:561/§796).

3.4   Filters on doubling

The literature on agreement has run up against cases where multiple exponence of agreement in a single agreement complex is expected, even sometimes shows up, yet is generally absent. I refer to this as a ban on agreement doubling. I will review three discussions.

Jeanne, Hale, and Pranka (1990:267f.) have a particularly insightful discussion of the dispreference for doubling. Their concern is two ways that Hopi tracks number. One is regular agreement, subject-INFL Agree, where a suffixal number morpheme associated with INFL is controlled by plural subject, A/S. The other is stem suppletion for the number of the "direct"

argument it selects, O/S, which they analyse as semantic concord of the kind discussed in C1 (Durie 1986), comparing the requirement of *collide* in English to apply to a plurality of participants (*we/*I collided, I collided with John*). For transitives A controls the former type agreement, O the other type, (11)a. For intransitives however, S is the controller of both. Generally, double marking of the plurality of S by both the suffix and suppletion is excluded, (11)c, but not always, (11)b where doubling occurs.

(11)　　a.　'Itam　　mamanhoy-mu-y　cam-ya
　　　　　　　　we　　　the.girls　　　　　　took:pl-PL [my gloss]
　　　　　　　　We (pl) took the girls along.
　　　　　b.　'Itam　　yu'tu-k-ya.
　　　　　　　　we　　　run:pl-INCR-PL
　　　　　　　　We (more than two) ran. (Hopi, Hale, Jeanne, and Pranka 1990:266)
　　　　　c.　*öki-ya
　　　　　　　　arrive:pl-PL (Hopi, Hale, Jeanne, and Pranka 1990:267)

Their discussion is of the ban on doubling and its obviation worth citing in full:

(12)　　Surely, this has to do with a prohibition in word formation against multiple marking of a single grammatical category (cf. Lieber, 1980; Kiparsky, 1982). We might speculate along the following lines. Let us assume that the plural member of a suppletive pair -- e.g., *'öki* (arrive:pl) -- is supplied with a feature [+F], indicating that its subject is plural, as an inherent lexical property. The suffix *-ya* is identified as an element which enters into the formation of verb words belonging to the catgory [+F]. The principle which prohibits multiple marking of a single category will, then, block the formation of words like [(11)c]. And assuming that the AGR subcomponent of a plural INFL is also [+F], the plural stem alone (i.e., *öki*) will satisfy the condition for lexical insertion at the terminal node resulting from merger of INFL and the preceding V. This scenario is, of course, intimately bound up with the idea that the verb and INFL form a single word at surface structure -- i.e., with the theory of merger. And in this scenario, the existence of words of the type represented by the verb of [(11)b] now requires an explanation. Our only suggestion is that the increment *-k-* may be capable of blocking the application of the double-marking principle by, so to speak, making the feature composition of the verb stem "invisible" from the point of view of the plural word-formation rule. (Hale, Jeanne, and Pranka 1990:267)

The authors do not provide any details about the ban on agreement doubling, but they localize it clearly in the morphology and view is as a ban on multiple expression, in the morphology, of (it seems) multiple syntactic features that have the same controller. The ban is restricted to some morphophonological domain, the word, and within words there may exist barriers that create two domains opaque one with respect to the other for the application of this principle. This is essentially what the Basque data will suggest, except that the application of the principle is extremely modulable and sensitive to very arbitrary factors, but at the same time, the addition of an extra morpheme -- one separating the two singly-controlled features -- aids in allowing them to be both expressed.

A morphological treatment of the ban on multiple spell-out of agreement is also developed by Kinyalolo (1991) for Kilega (Bantu, DRC/Zaire), adapted by Carstens (2003, 2005). When aspectual and modal morphemes are separate heads, they each agrees independently with the subject; (13)a, but when they amalgamate by head movement to the verb, only one instance of subject agreement appears for the whole complex, (13)b. Similarly, while in *wh*-movement

constructions there is normally φ-agreement with both the *wh*-phrase in [Spec, CP] by C, and with *pro* subject by T, in subject *wh*-questions only the C-agreement with the *wh*-phrase appears. Carstens (2003) compares separate C and T+V agreement in West Germanic with the nominative subject, of which only one, C-agreement surfaces under V-to-C movement.

(13)   a.   Nzogu   zí-kili   z-á-twag-a   maswá.
             10elephant 10AGR-be.still   10AGR-ASP-stampede-FV   6farm
             The elephants are still stampeding over the farms.
       b.   *pro*   mú-ná-kúbul-(*mú-)íl-é   mázi
             IIPL-MOD-pour-(*IIPL-)ASP-FV   6water
             You could have poured water.
             (Kilega, Carstens 2003:407, adapted from Kinyalolo 1991:294)

Kinyalolo (1991) proposes the following condition, which Carstens extends to accounting for the West Germanic facts and suggests is universal, "a property of the morphology, regulating spell-out of the output of syntactic processes (inert […] means unpronounced, on this view)". Carstens (2005:252-5) calls the condition Kinyalolo's Constraint (p. 253). Interestingly, she notes that Swahili "tensed" relative clauses are a counter-example, (15).[ii] So the constraint does not seem as universal as that, but the evidence for its existence is quite striking.

(14)   Morphological Economy: In an adjoined structure, AGR on a lower head is inert iff its features are predictable from AGR on a higher head.

(15)   vitabu vi-li-vy-o-anguka
       8book 8SA-PST-CA+o-fall
       the book which fell (Swahili, Carstens 2005:253n31)

Finally, Phillips's (1993) analysis of Yimas provides a glimpse of, if very brief, of another morphological perspective, situated within a DM analysis. Keeping the exposition to a minimum, Yimas has three heads that seem to relate to the C-system, that share the following behavior: attaching to the agreement complex, they introduce a right-peripheral agreement marker for number/class, call it AGR, with controller α, and extinguish normal agreement corresponding to α within the agreement complex. For two of these heads, potential prefix *ant-* POT and negation prefix *ta-* NEG, α is the leftmost argument in the agreement complex; for the third, the relative clause complementizer *m-* on Phillips's analysis, α is the relativized argument. The extinction only affects 3rd person, not 1st/2nd person. Phillips presents several arguments that 3rd person and 1st/2nd person argument agreement morphology differs in that the former is agreement while the latter is incorporation into the verb, which he supposes renders them immune (note 20). Commenting on the mechanics of agreement extinction:

(16)   "[AGR] agrees with the syntactically highest number feature in the verbal complex. Assuming that the licensing of agreement features involves some kind of 'checking' in the Yimas verb, entailing *at most one spell-out of agreement with any given feature*, the number agreement feature of NEG and POT prevents further spell-out of the next highest number agreement feature. In the absence of vocabulary items specified for all but the number features of an argument, functional heads agreeing with specifier pros cannot be spelled-out. This derives the 'leftmost affix suppression' effect." (Phillips 1993)

"The "prefix suppression" effect of concord suffixes on Ergative and Absolutive prefixes is the result of a constraint blocking multiple agreement within the same head." ((Phillips 1993, note 20)
"Concord processes which entail multiple realization of agreement with a given feature are well attested. The option '+/-unique spell-out' may presumably be selected by individual languages for individual constructions (cf. Noyer 1992)." (Phillips 1993)

The Yimas phenomenon may well not fall under a ban on multiple spell-out of agreement at all.[21] The interest is Phillips' treatment thought: the syntax has multiple agreement, but a single albeit complex morphosyntactic head can only realize once a given feature. The option is parametrized per language and "per construction".

Now clearly, sometimes the ban on multiple realization of agreement does not operate at all: West Germanic C agreement + C subject clitic is an excellent example. Prefix + suffix agreement in Itelmen with the same argument, particulary with intransitives where both elements share all features, is another (C2). Basque doubling of ED and DD by SX morphology provides an excellent window on the phenomenon because of the documented diversity in the dialects in the Y corpus. the following two sections survey this, and the results are taken up in XN. Beyond much doubt, the data indicates the kind of sensitivity to surface, post-vocabulary-insertion considerations that vindicate the idea of a morphological treatment shared by the three proposals above, but emphasize the issue only touched by them. This is the enormous variability available in whatever process enforces the ban, whose general trend nevertheless recalls Hale, Jeanne and Pranka's suggestion.

3.5 <u>DD doubling</u>

In the Y corpus itself, DD doubling shows two patterns. In the northern group and in Burunda, it occurs only when O2 is plural and there is the overt PL2 marker *zki*. Under these conditions it occurs irregularly, if sometimes frequently, and typically in the present, rarely in the past (where DD is quite rare for plural O2); 1.SG dative is never doubled. In the Oñate group, which has DD only in the past and does not have any PL2 morphology nor, independently of DD, generally distinguishes 3V forms according to plurality of O2, DD doubling occurs in all DD forms. Both the 1.SG and 1.PL datives for which DD occurs are doubled. Outside the Y corpus, Trask (1981) adduces a precious example from an outlier of the northern group that breaks all its generalizations, and has doubling of 1.SG DD dative in the present with singular O2, resembling but for the tense difference the forms of Oñate. C3 has given examples of doubling forms in a syntactic context.

Starting with the northern group, doubling occurs in mostly in a contiguous group of L dialects: those of St. Jean de Luz (central L-L-p:B, L-L-p:A, south L-L-sA:S, L-L-sB:S, L-L-sH:A, L-L-sU:S, north L-L-nB:A, L-L-nG:A, L-L-nG:S), Sara (L-S-p:A, L-S-S:D, L-S-A:A, L-S-U:T), Ainhoa (L-Ai-p:A), Arcangues (L-Ar-A:A, L-Ar-p:A). All these dialect data from the 1990's (informants of different ages, but all older generation), except L-L-p:B (Bonaparte) and L-S-U:T (1974, 1982); other northern group dialects, e.g. L-Ai-p:B, have no doubling even if there is DD. An example paradigm is given in TABLE, a dialect rich in both non-DD and DD forms, where doubling is underlined; there is virtually no deviation in these dialects from the mode of formation it shows. The full data is given in ANNEX. To be remarked is that within any particular dialect, such as that in TABLE, there may be generalizations that

---

[21] The agreement extinction in relative clauses appears to fall under the cross-linguistically wide-spread *anti-agreement effect*, which has a syntactic cause, whatever that is, that prevents one of the agreements from actually occurring (Phillips 1996, 1998, Richards 2001:147ff.). Extending it to the phenomenon at hand seems possible, essentially treating say negative *John has not left* as relative + negative *John (is) not (the one who) has left*.

obtain of the 3VP present paradigm in its entirety, e.g. that 2nd person DD doubles, but there need not be.

TABLE: 3VP present DD doubling in L-S-p:A

DAT\ERG	3.SG	3.PL	1.SG	1.PL	2R	2.PL
1.SG	∅, nauzki	∅, nauzkite	-	-	∅, nauzkitzu	∅, nauzkitzue
1.PL	dauzk(ig)u, gaizkigu	dauzkite, gaituzte	-	-	∅, gaititutzu	dauzkitzue, gazkitzute
2R	dauzkitzu?, zaizkitzu	∅, zaizkitzute	∅, zaizkitzut	∅, zaizkitzugu	-	-
2.PL	dauzkitzue, zauzkitzuet	dauzkitzuete, zauzkitzuete	dauzkitzuet, zauzkitzuet	dauzkitzuegu, zauzkitzuegu	-	-

Doubling is found only in a handful of past forms, otherwise it occurs in the present. All forms with doubling in these dialects have the PL2 marker *zki*. However, a dialect with doubling may outside of doubling use the PL2 marker ∅ for DD as well, as in TABLE for 1.PL datives. From this, it is possible to conclude that doubling in these dialects is contingent on the PL2 *zki* specifically. Dialects like L-L-sU:S are particularly clear on this, having doubling forms of type 3.S>2.P+>3.P *z-a-u-zki-tzu-e* [2-TM-√-PL-2-PL'] beside non-doubling *za(it)uzte*.

Among these dialects, DD doubling is found with dative 1.PL, 2R, 2.PL there is no doubling of 1.SG. Doubling has the highest rate for 2.S.DAT, next for 2.P.DAT, and then, much lower, for 1.P.DAT. The scale of penetration of doubling is thus 2.SG > 2.PL > 1.DAT for the dative, which is independent of the scale of DD (see below). Doubling for 2.SG/PL.DAT is evenly distributed by (independent of) the value of ERG. However, 1.PL.DAT doubling occurs only with 3.SG.ERG (4x) and 3.PL.ERG (1.x): that is, when there is not another SX, which would be controlled by the ergative.

Despite the thorough absence of 1.SG dative DD doubling in these dialects, there is a BNe-Villefranque dialect datum reported in Trask (1981: 294), and raised by Fernández and Ezeizabarrena (2004). The form is 2F.M>1.S>3.S *n-a-u-ta-k* [1-TM-√-DF+1-M]. This is present tense, there is no PL2 morpheme and O2 is singular, and the doubled dative is 1.SG; yet the mode of formation here, and in this dialect in general for the 3V paradigm, is very close to the L group just discussed.[22] The Oñate DD doubling forms will be of the type 3.S>1.S>3.S past *n-o-s-ta-n* [1-√-DF-1-PT], resembling the formation.

Doubling also occurs in forms of two Burunda dialects, exhaustively given in TABLE. The DD forms in these dialects have the formation, for 1.PL.DAT in the present, *g-e-r/a/∅-u-* [1'-TM-PL-√] if O2 is singular, and *g-e(u)-zk(i)-u-* [1'-TM+√-PL2-1'] if O2 is plural. The fact that doubling here is limited to 1.PL dative is a simple consequence of the fact that DD is limited to this dative here. The reliance of doubling on *zki* is shared by the two groups.[23]

TABLE: 3VP present DD doubling in G-Bu-B:I (1), G-Bu-U:S (2)

---

[22] The form is for 2F, omitted from the Y corpus, but a cursory overview of 2F forms for the L dialects does not reveal any doubling of 1.SG dative, with or without PL2. Special issues about the use of the doubling form recorded by Trask are discussed in C3; all that might be pertinent is that it is recorded in a causative construction and perhaps not available for a simple ditransitive, which might bear on the amount of covert structure or the flavour of Appl separating the PX and SX.

[23] C3 has discussed G-Bu-U:I forms of type past 1.P>2R *z-end-u-zu-n* [2-TM-√-2-PT], in the 2V past leismo paradigm for 2R/2.PL O1. These seem to exhibit leismo of O1 + DD + DD doubling; these would be exceptional in this group in having doubling with no PL2, in the past, and with 2R/2.PL datives.

DAT	ERG	Dial	3.SG	3.PL	1.SG	1.PL	2R	2.PL
1.PL		1	∅, geuzku	∅, geruzkubei	-	-	∅, geuzkuzu	∅, geuzkuzai
1.PL		2	∅, gezkiu	∅, gezkiubei	-	-	∅, geuzkizu	∅, gezkiuzai

The final incidence of DD doubling are occurs in the Oñate group. Here, doubling is coextensive with DD. The paradigms have already been given several times; TABLE reproduces one set of DD forms, from which others deviate significantly only in the "partial DD" phenomenon that yields *nosku-* for *gosku-*, studied in C4:DLM. The formation assembles the PX *n* [1], *g* [1'] withe the non-DD past forms *o-s-ta/ku-n* [√-DF-1/1'-PT]. Here DD happens only in the past and for 1.SG/PL, and the dialect has no PL2 marker for in general it does not track the plurality of O2/S in applicative constructions (XN).

TABLE: DD Doubling in 3VSPt (=3VPPt) B-V-O:O (partial DD in bold)

DAT	ERG	3.SG	3.PL	1.SG	1.PL	2R	2.PL
1.SG		∅, nostan	∅, nostaiñ	-	-	∅, nostatzun	∅, nostatzuen
1.PL		∅, goskun	oskue-n/iñ?, **goskue-n/iñ**	-	-	∅, goskutzun	∅, goskutzuen

If one did not have the Oñate dialects, and Trask's extraordinary form *nautak*, one would be tempted to posit that DD doubling is contingent on PL2 *zki*, and that 1.SG dative cannot undergo it (cf. Fernández 2002 for the dialect of L-Sara). The Oñate data belie both facts, and the Villefranque form *nautak* shows the same doubling in a dialect that has the same DD formation as other doubling dialects of the northern group. Caution is in order in generalizing from negative data about restrictions on doubling.

The Labourdin 2.S > 2.P > 1.P (> 1.S) doubling scale does not correspond to and is partly the reverse of the DD-spread scale in the northern group, which is rather 1.S > 1.P > 2. This may have an extra-grammatical explanation: perhaps the forms to which DD spreads latest tend to keep also the DAT morphology. If this is so, it would imply that DD actually started in combination with doubling, and doubling disappears as DD spreads. This fact about overt doubling, like the choice of 3V roots when DD begins, if a fact about the independent origin of DD in its hearths of Labourdin and Oñate. When DD spread apparently around the beginning of the twentieth century to Lekeitio, from the northern group it seems, no doubling is recorded, and the choice of the 2V root had tagged along.

3.6 ED doubling

Doubling of ED by SX has been observed for a long time. Zabala (1848:57) already mentions Bizkaian forms like 1.P>3.S *gueroagun* for *gueroian* 'we brought' from *eroan* 'carry', corresponding to non-Bizkaian *eraman*, and hence matching *generamagun* for *generaman* given by Fernández and Albizu's (2000: note 7). Other classical remarks are Azkue (II:709/§948) on B, Lafitte (p. 289/§569e) and Ithurry (1920:168), cited in Rebuschi (1983:660n6), on Navarro-Labourdin.[iii24] These sources go some way back. Nevertheless, it is notable that in the oldest texts, whose verb is treated by Lafon for the sixteenth century and by Orpustan for such fragments as there are before, there is ED as early as the twelfth (see C2), but no doubling. This need not indicate that doubling did not exist; classical grammarians

---

[24] Many dialects have 2F ergative trigger gender morphology under ED where it does not without it, a phenomenon particularly common on Gipuzkoan. Azkue (II:711/950n6) treats this as something special, but III:REF as part of ED + ERG doubling. I would argue this is quite a separate phenomenon, since in many dialects in the same area even 2F absolutive triggers gender (denied by Azkue): see XN.

treat ED + ERG doubling as a pleonasm to avoid, and that, perhaps, has to do with the marked status that the ban on agreement doubling gives it.

In the Y corpus, a good example of ED doubling is the dialect in TABLE (subject to the book-length study from which the data is taken). Many forms permit the comparison of ED (italics), ED + ERG doubling (underlined), and ED-loss formations. To be noted is the utterly scattered, arbitrary character of ED doubling; this is the typical situation in a dialect, more it seems to me than for DD doubling where it is also present.

TABLE: ED doubling in 3VS past in G-H-nePD:ALO

DAT ERG	1.SG	1.PL	2R	2.PL
3.SG	*niyon*	*geniyon*/_geniyogun_	*seniyon*/_seniyosun_/siyosun	*seniyoten*/_seniyosuten_/siosuten
3.PL	*niy(ot)en*	*geniyon*	*seniyoten*/_seniyosun_	*seniyosuten*
1.SG	-	-	_seniasun_/siasun, ∅	_seniasuten_/siasuten, ∅
1.PL	-	-	*senigusun*, ∅	*senigusuten*, ∅
2R	*nisun*, ∅	*genisun*/_genisugun_, ∅	-	-
2.PL	*nisuten*, ∅	*genisuten*, ∅	-	-

The frequencies of doubling, according to φ-values of the agreement controllers are in TABLE; each cell gives the number of doublings in the value for the 2V, 3VS, 3VP past paradigms for the corresponding controllers, totalled in the brackets. Note that some of the 2V forms are leismo formations, with 3V structure; I return to this below.

TABLE: ED Doubling raw numbers per all Y corpus dialects

Format: past 2V, 3VS, 3VP (Total)

O1/O'	ERG			
	1.S	1.P	2R	2.P
3.SG	0,0,0 (0)	0,2,1 (3)	0,6,3 (9)	0,4,2 (6)
3.PL	0,0,0 (0)	2,5,8 (15)	4,6,7 (17)	3,11,9 (23)
1.SG			7,12,14 (33)	7,15,14 (36)
1.PL			5,15,16 (36)	4,15,13 (32)
2R	0,0,0 (0)	8,6,4 (18)		
2.PL	0,0,0 (0)	6,7,5 (18)		

Some generalizations are evident from this table. 2>1/3 doubles more than 1.PL>2/3. 3.SG O1/O' disfavours ED doubling, but for other O1/O' φ-values there are no vast differences. Finally, the 3VS/P paradigms double more than the 2V paradigm for 2nd person ergative, a fact noted by Azkue (709/§948), but the preference disappears for 1.PL doubling.

The most striking generalization in TABLE is that 1.SG ergative does not double, ever, and Azkue (709/§948) and Fernández (2002) restrict ED doubling to the SX *gu* [1'], *zu* [2]. Yet as with DD, this must be tempered with a contra-indication, and so finally seems to turn into a negative datum without a profound internal significance, though one would certainly like to know its (external) motivation. The doubling of 1.SG ergative under ED occurs in TABLE, a heavily eroded paradigm as non-indicative forms often are, where 1.SG ergative is also the only ergative subject to ED. Forms in the 1.SG column beginning with PX *n* and ending with SX *t* (*da-*) have ED + ERG doubling; those without *-t* have ED only; those without *n-* have no ED.

TABLE: Potential of 2V/3V AUX in B-Lek:HEE

NB: The paradigm is used in transitives for direct objects and in ditransitives for applied objects with a 3.SG direct object; 3.PL direct objects add *s*, final -*t* being replaced by -*da*-before -*s*. Adding -*en* creates the past potential (hypothetical) tense.

ABS/DAT	ERG 3.SG	3.PL	1.SG	1.PL	2R	2.PL
3.SG	leikížo	leikí(ž)e	*néike(t)*, leiket, leikížot, <u>*neikížot*</u>	leikígu	leikíxu	leikixúe
3.PL	leikíže		*neikíže(t)*, leikíže(t)	leikígu	leikíxu	leikixúe
1.SG	léike	leikí(ž)e	-	-	leikíxu	leikixúe
1.PL	leikígu, léike	leikí(ž)e	-	-	leikíxu	leikixúe
2R	leikíxu, léike	leikixúe	*neikíxu(t)* / leikíxut	leikígu	-	-
2.PL	leikixúe, léike	leikixúe	*neikixúe(t)*, leikixúet	leikígu	-	-

ANNEX presents a detailed break-down of the doubling patterns in each dialect that has doubling, and correlations between various factors may be sought there. A striking property of ED doubling, as of ED and DD, is that its presence for a particular combination of φ-features of α and β in α:ERG-β:O1/O' in any of the past 2V, 3VS, 3VP paradigm makes no predictions about the others, not even where the closest relationship obtains in formation, between 2V leismo and 3VS forms. The full listing does not seem to add information beyond the minimal raw-numbers TABLE and the generalizations that ensue from it.

Azkue (709/§948) observes that ED doubling is more frequent with synthetic verbs than with the auxiliaries. It is possible to see this for ED doubling from B-Lek:HEE in TABLE, Azkue's dialect three generations later. In B-Lek:HEE, transitive synthetic verbs have highly reduced paradigms; generally there is no ED except for 1.SG ergative where it does not co-occur with doubling. Still, the paradigms of *euki* 'have' and *žakin* 'know' in the past and conditional (only for the former) are worth comparing with each other, and with the corresponding auxiliary. Clearly, the incidence of ED (italics) and of doubling (underlined) depends on the lexical identity of each verb. The same point can be made by loking at other dialects subject to book-length studies like B-Lek:HEE, such as G-H-nePD:ALO, G-H-nePS:ALO.

TABLE: 2V past and conditional X>3.SG in B-Lek:HEE

NB: For the synthetic verbs there are no other φ-feature combinations except 3.PL absolutive forms that are identical to 3.SG save for *s(V)* PL suffix.

ERG	žakin 'know' indicative	euki 'have' indicative	conditional	AUX indicative	AUX conditional conditional
3.SG	ekižan	eukan	leuko	eban	leuko, (leuke, *rare*)
3.PL	ekížen	éuken	leukíe/léuke	ebasan	leukos
1.SG	*nekižan*	*neukan*	*neuko*	*naben*	*banáben*
1.PL	<u>*genkiun*</u>/ekiun	eukaun	leukagu	*gaittusen*	*bagáittun*
2R	ekixun	eukasun	leukasu	*saittun*	*basaittun*
2.PL	ekixúen	eukasúen	leukasúe	*saittúen*	*basaittúen*

The morphology of ED + ERG doubling is what is expected by combining ED forms with an ergative-controlled SX, as the preceding tables indicate by contrasting ED, ED loss, and ED + ERG doubling forms. Deviations occur general along lines found independently and not

germane to a discussion of ED doubling specifically.[25] A phenomenon that deserves mention, but that lies beyond my scope, is a certain effect of "weight conservation", not limited to here; I will illustrate with one example. The controllers of PL', in the northern dialects *te* and its variants, are 3.PL dative and ergative and any 2.PL agreement controller (C1). This is normally compatible just fine with SX, controlled by the same or another argument. However, when SX comes from ED doubling, it tends to disappear, in comparison with forms where SX does not come from ED doubling, so the doubling and non-doubling form happen to have same number of syllables. Thus L-Ai-p:A 2R>3.P+>3.P *z-in-i-o-zka-te-n* [2-TM-√3V-3-PL-PL'-PT] (no doubling, *te* controlled by 3.PL dative) beside *z-in-i-o-zka-tzu-n* [2-TM-√3V-3-PL-2-PT] (doubling, no *te*); G-H-nePD:ALO 2.S>3.P+>3.S *s-en-iy-o-te-n* [2-TM-√3V-3-PL'-PT] beside *s-en-iy-o-su-n* |2-TM-√3V-3-2-PT]. This is one of the many fascinating corners of doubling, presumably in its diachronic aspect, that remain to be seriously explored.

There remains an important observation on the form restriction on ED doubling that is made by Fernández (2002) from the G-H-nePD:ALO, G-H-nePS:ALO dialects: in the auxiliary forms ED doubling is contingent on the presence of either a DAT-controled SX or of PL *it* (e.g. G-H-nePD:ALO 1.P>3.P *g-en-it-u-(gu)-n* [1'-TM-PL-√2V-(1')-PT], 1.P>3.S+>3.S *g-en-iy-o-(gu)-n* [1'-TM-√3V-3-(1')-PT]), but that this does not hold of synthetic forms (e.g. *ikasi* 'learn', 2.R>3.S *s-ene-ka-su-n* [2-TM-√learn-2-PT]). This, as she notes, is an odd condition. Yet it fits into the direction explored by Hale, Jeanne and Pranka, and noted for DD, where the presence of extra morphology separating the two morphemes doubling each other helps doubling to surface. PL and a dative-controlled SX play this role, as PL2 (and the dative flag) did for DD; the root of a synthetic verb, more salient than that of the auxiliary in some sense, does as well.[26]

There appears to be no correlation between ED and DD doubling. Both can occur independently, alone in a particular dialect or for a particular PX controller, as exemplified in TABLE, and this indeed the general case. For example, ED doubling has no dependence on PL2 *zki*, as DD doubling in the northern group does: even keeping to northern group forms with PL2, where DD doubling does require specifically *zki* and not ∅, ED doubling does not: G-H-nePD:ALO past 1.P>2.S/P+>3.P *z-en-i-(zki)-gu-zu-n* [2-TM-√3V-(PL)-1'-2-PT], *z-en-i-(zki)-gu-zu-te-n* [2-TM-√3V-(PL)-1'-2-PL'-PT]. On the other hand, in both ED and DD doubling, there is a clear 2.S/P > 1.P, although the clear 2.S > 2.P preference seen in DD doubling is missing for ED doubling.

TABLE: ED vs. DD doubling (past; doubling SX underlined)

Dialect	DD doubling	ED without doubling
B-V-O:A	2.S><u>1.P</u>+>3.S *gosku<u>tzu</u>n*	<u>1.P</u>>2.S+>3.S *gotzun*
L-L-sA:S	3.P><u>2.P</u>+>3.P *zintuzkit<u>zue</u>ten*	<u>2.P</u>>3.P+>3.P *ziñiozkaten*

3.7   <u>The ban on agreement doubling</u>

---

[25] Some forms have partial ED, which generally combines with doubling: hence forms like (past) HNn-Ir-H 1.P>3.P+>3.P *n-u-gu-n* for *g-en-u-(gu)-n* [1'-TM-√2V-1'-PT]. These seem to have an origin very different from partial DD; see APPENDIX ED-LOSS.
[26] A glance at TABLE seems to belie this, but in this sense the TABLE is misleading, for leismo 2V forms, with 3VS formation, have been included unde the 2V paradigm. Correcting for this, it turns out that all 2V forms with doubling are in fact leismo forms, except for 2R/2.P>3.P in the B-V-O:G and B-V-O:O dialects (of type *s-itt-u-su-(e)-n* [2-PL-√-2-(PL')-PT], which might equally have ED loss, see C2, APPENDIX ED-LOSS), and the forms of the G-H-nePD:ALO and G-H-nePS:ALO dialects from which she draws the generalization. For completeness (to correct the table), G-H-nePD:ALO has ED doubling in 1.P, 2.R/P>3.P, with PL *it*, and three other leismo forms; G-H-nePS:ALO in 1.P, 2.R>3.P, with PL *it*, and one other leismo form.

What has been presented above of ED and DD doubling is only part of its analysis. One would like to also see if there are patterns based on φ-feature of the agreement controller, and whether there are other patterns based on features, as has been done for DD itself. The ANNEXES are provided for this purpose, and it is clear than within a particular dialect, there are patterns based on φ-features of the controller, for example dialects that doubling only 2nd person datives or only 1st person ergatives; most dialects do not doubling 1.SG ergative or dative even if they potentially double everything else.

If this is to be captured in the syntax of doubling, the means are there. This is clearest for DD, where the theory of how φ-features of the dative DP make it a PX/PL controller has been developed. In the theory of doubling proposed above, properties of an argument such as φ-features determine whether it provides a mobile D-head to become SX or not. Thus a 2nd person dative that undergoes DD and doubling can be differentiated from a 1st person dative that undergoes DD without doubling by providing a mobile D-head, and a 1st person dative that does not provide such a source for SX is differentiated from non-DD dative that does by its transparency. For ED, extension of the notion of φ-based transparency has been explored in C3, and if correct, the same mechanics apply. This differentiation of transparent and non-transparent ergatives would be needed to differentiate an ergative under ED that systematically does not double from an ergative the same φ-features that does control SX morphology outside ED.

For my part, it is not clear to me that doubling be not best viewed as obtaining universally for DD and ED for all DD and ED controllers. At any rate, my interest lies elsewhere in this section: provided an DD/ED controller does allow doubling, what kinds of conditions determine where it can apply and what mechanism implements them? The fundamentals of the answer are clear. The occurrence of doubling by a DP with φ-features to potentially double depends, perhaps among other factors, on properties of the form where it surfaces that are available only after vocabulary insertion. These are factor such as the presence of PL2 *zki*. This also partly determines the (one) mechanism that allows doubling to surface, and that the mechanism that suppresses it otherwise: it must apply during or after vocabulary insertion.

For both DD and ED doubling, there appears to show up the condition on the felicity of doubling proposed by Hale, Jeanne, and Pranka and discussed in XN: something of significance must separate the two expressions of doubled agreement, PX and SX. That something of significance has been the PL' *zki* for DD in most dialects, but also apparently just the dative flag *s* in the Oñate group and in the isolated *nautak* form (where the dative flag causes SX *da* to surface as *ta*). For ED, it has been either PL or the dative-controlled SX (which also always implies Appl, sometimes with an effect on the root or inserting the dative flag), or a lexical, non-auxiliary verbal root. No easy generalizations can be drawn about what is salient, it seems, like it carrying φ-features itself; but the generalization seems clear. What does not count in general, it seems, is the theme marker and the auxiliary root.

An investigation of the Basque agreement complex with respect to the ban on agreement doubling can be performed independently of ED/DD doubling. In ED and DD doubling, the two identical features have the same controller; but occurrences of the same feature that come from different controllers can also be investigated. For person features, it turns out that Basque does not tolerate any combinations of [participant] agreement controllers two of which share the same person: *You saw youself*, *You gave yourself a book*, and so on, are expressed by using either a 3rd person 'X's self/head' type reflexive or by detransitivization. Beyond [participants] only the 3rd person dative has a person specification. Therefore, at most one person feature can be coded on the agreement complex for independent reasons; this seems itself a revealing fact (cf. Béjar and Rezac 2004). The question of what happens to multiple features outside ED/DD doubling can thus be asked only about number.

Here, it turns out, one does find reductions to a single exponence where one would expect multiple exponence, both when multiple plural features come from one controller and when they come from several. Starting with the former, the sur-plural 2.PL always controls PL', even when it additionally controls PL (XN). There is a common pattern in L dialects whereby the expected form *z-a-it-u-zte-* [2-TM-PL-√-PL+PL'], 2.PL O controlling *z* [2] and *it* [PL], surfaces as *z-a-u-zte*, with PL deleted, and in contrast to 2R control where the stem is as expected *z-a-it-u-* [2-TM-PL-√] (see further APPENDIX TM). L-Ar-p:A in TABLE is typical; some dialects require this transformation, others do not allow it. There is evidence that the process is late: the presence of the deleted *it* [PL] triggers the variant *zte* of *te* [PL'], which is the normal one otherwise (3.P>3.S *dute*). The form *zaituzte* also arises when PL' *te* and PL *it* come from difference sources, namely 3.P>2.R. As TABLE shows, this is typically not affected by the process; yet there is only one form (in L-L-sH:A) that does so, with 3.P>2.R *za(it)uzte*, beside 3.S/P>2.P *zauzte*.

TABLE: L-Ar-p:A 2V present (partial)

ABS ERG	3.SG	3.PL	1.SG	1.PL
2.R	zaitu	zaituzte	zaitut	zaituu
2.PL	za(it)uzte	za(it)uzte	za(it)uztet	za(it)uzteu

However, in a different domain the identity of the controller does not matter. Lafon (1961:421) observes that occurrences of *te* [PL'], whatever their controller, tend to undergo reduction.[iv] Multiple PL' does remain occasionally, and sometimes it is realized differently, e.g. *z-te* for *te-te*, or in a different dialect group, *ie* for *e-e* (see XN).

Lafitte's reduction is not just a filter on haplology. In some dialects, the SX *zu* [2] collapses with *te* [PL'] to produce such forms as *zia*. The collapse is more frequent when both have a single controller, but can occur with different controllers as well, as in 3.P>2.R+>3.P in TABLE. The important form here is 3.P>2.P+>3.P, *z-itt-i-zia-n* [X-PL-√3V-2+PL'-PT]. Here *zu* and *te* from 2.PL dative have collapsed into *zia*; but furthermore, *te* from 3.PL ergative is not present in this form, being deleted (cf. HNn-Ir-H:A present *tt-i-zia-te* [PL-√3V-2+PL-PL'] for the same φ-feature combination, which shows the expected *zia-te*). Yet there is no phonological *te* to delete it; there is rather the plural feature of which *zia* is an exponent.

TABLE: ZU + TE in HNn-Ir-H:Br 3VP past (partial)

DAT ERG	3.SG	3.PL	1.SG	1.PL
1.PL	zittigun, ∅	zittiguzten, ∅	-	-
2.R	zittizun, ∅	zitti-zuten/-zian, ∅	*nittizun*, ∅	*geñittizun*, ∅
2.PL	zittizian, ∅	zittizian, ∅	*nittizian*, ∅	*genittizian*, ∅

Thus, in the Basque agreement complex, there are other instances of the ban on multiple agreement, and they do not necessarily differentiate multiple expressions of the same feature that have different controllers.[27] The reductions that occur show the sensitivity to surface

---

[27] The proposals reviewed in XN about the ban on multiple expression of the same feature in a single agreement complex differ in what they imply for multiple occurrences of the same feature each of which has a different controller. For the Kinyalolo-Carstens formulation the matter is unclear. Hale, Jeanne and Pranka explicitly contrast object and subject controlled plural features on the same agreement complex, which survive separately, with two subject-controlled plural features, morphologically identical to the former, which typically do not. Phillips formulation suggests a general ban on multiple expression of the same feature in an agreement complex regardless of source. Should source be important in the ban on multiple agreement, additional complexity may

factors and the same enormous dialectal variability as ED and DD doubling reduction. At the same time, as has been pointed out in their discussion, they are not universal, and some of these case such as TABLES involve adjacent morphemes where there can be no overt separator to obviate the ban on agreement doubling. In this domain, unlike in doubling, forms expressing multiple instances of the same feature adjacently do occur: past $2.P_i > 3.P +_j > 3.P_k$ *z-in-i-o-zka-te-te-n* [2-TM-√-3-$\underline{PL}_k$-$\underline{PL'}_{j/i}$-$\underline{PL'}_{i/j}$-PT] or B-B-wA:A *s-e-u-n-tz-i-e-s-an* [2-TM-√-TM-DF-3+$\underline{PL'}_{i/j}$-$\underline{PL'}_{i/j}$-$\underline{PL}_k$-PT].

---

[i] "Nor-nori sailean skuarki ez da berezko adizkirik erabiltzen: *nau, na(u)zki; etórri dió, gustátzen dizú, iduríttu diziá/dizié, gustátu dioté, etórri zián* ('zitzaidan'), *iduríttu zittión.*" Letamendia and Sagarzazu (1992:528).

[ii] "This seems connected to the fact that operator agreement is base-generated on a clitic -*o* on T rather than directly on T. I leave a fuller exploration for further research." (p. 253n31).

[iii] Azkue (1923-5, vol. II, par 948, p. 709):

En nuestros días se observa una poderosa reacción popular a favor de la Lógica, pero sólo trátandose de los agentes plurales *gu* y *zu*, sobre todo en verbos no auxiliares. También en el auxiliar, limitándose el movimiento reactive a flexiones de recipiente. De larga fecha oigo continuamente en mi familia (y sé que dicen lo mismo fuere de Lekeitio, en Eibar, Solaruze, Mondragón… y varias otras localidades) estas flexiones lógicas:

Ekigun 'lo sabíamos' por *gekian.*
Ekazun 'lo traíais' por *zekarren.*
Eroiazun 'lo llevabais' por zeroan, zeroian.
Ekarri euskuzuen 'nos lo trajisteis' por *zeuskuen.*

Y aún hay no pocus que, uniendo la Lógica a la Historia, dicen: *gekigun, zekazun, zeroiazun* y *ekarri zeuzkuzuen*; flexiones en que, come se ve, conviven los agentes *gu, zu* y *zue* consus mismos pacientes *g* y *z*. (my bold)

Lafitte (2001:289, §569e) gives *emaiten bazinautazu* for *bazinaut*, 'si vous me donniez'.

"Finalmente contraré por 4.° y último defecto un pleonasmo de cáracteristicas, cual es el poner la de 2.ª[s] personas agentes, ó de 1.ª de plural despues de la radical á los artículos que la tienen al principio, v.g. «ceusta-*zu*-n, gueroa-gu-n por ceustan, gueroian»." (de Zavala 1848:57).

Ithurry's *Grammaire basque…* (p. 168) gives *ziniezadazun* 'que vous [2'] me l'ayez', *ziniezaguzuen* 'que vous [2"] nous l'ayez', cited in Rebuschi (1983:660n6).

Albizu & Eguren 2000:p. 10: *Telebista logelan geneukagun* 'We had our TV in the bedroom'.

[iv] On attendrait, pours 'ils les aiment', *on dariztete*. Mais le basque répugne à répéter l'indice *te*, même quand il doit remplier deux fonctions différentes. Ainsi, en labourdin moderne et en guipuzcoan, en regard de *dio* 'il le lui a', *diote* peut signifier 'ils le lui ont', 'il le leur a', 'il le leur ont'." (Lafitte 1961:421):

be called for in some cases. Quite possibly, the referential index (variable name) of an expression is encoded by φ-features as on classical proposals, arguably under the [individuation] node of th φ-geometry (see the discussion in C1, C2). Anything bearing a complete [individuation] specification thus might have the resources to distinguish different controllers. The same does not hold though, again arguably, of the person side of the feature geometry. Yet it is not clear from the data surveyed that identity of source does count particularly.

Annexes to chapter 4

1   Annex: 2V and 3VS DD minor divergences

1.1   The northern DD continuum

The vast majority of DD forms with O2=SG, which is thus not marked by morphology, are identical to 2V forms within the same dialect (doubling in most cases is not a factor, since it is generally restricted to O2=PL; see section 00). This statement needs to be somewhat modulated. For any particular DD α:ERG-β:DAT-O2RG combination, where α, β are φ-sets, it is not necessarily the case that it is identical to a corresponding 2V α:ERG-β:ABS form. However, the deviations generally simply exploit variations independently attested in the 2V paradigm for the same β:DAT/ABS. For example, L-L-nB:A DD 3.P.E-1.S.D-O2RG is *nintuzten/ninduten*, only the former of which corresponds to 3.P.E-1.S.A *nintuzten*. However, *nindu-* as stem of past 1.S.A is found in 3.S.E-1.S.A *ninduen* in the same dialect, and if thus one predicts the automatic existence of *ninduten* to be exploited (not **ninduzten* because *z* as secondary exponent triggered by *t*). It is open whether the non-attested 3.P.E-1.S.A **ninduten* is blocked by arbitrary blocking, or whether it is simply a gap in the collection of the data. A similar example if HNn-Ir-H:Br present DD 2.P.E-1.S.D-O2RG *nazute* which corresponds to 2.P.E-1.S.A *nazute/nazia*: here the difference lies in the absence of *nazia* as an alternative to *nazute* under DD. For the purposes of my inquiry, I will count such divergences.

　　The next level of divergences seems similarly innocuous. These are variations in the form of the 2 suffix ZU and the PL suffix TE, both controlled by 3.P.E and when expressing 2.PL in combination ZU-TE. The variations are minor. In many cases, forms for other DAT/ABS values in the same dialect display the variation independently of the DD/2V distinction. L-S-A:A, which has *te* in 2V contrasting with *zte* in 3V DD in the table below, independently also has *zte* in 2V for 3.P.E-1.P.A *gintuzten,* -2R.A *zintuzten*; HNn-Ir-H:Br nearly reproduces the 2V *zia* / 3V DD *zute* variation in the 2V paradigm where it has *zia/zute* and *zia/zie* variation, e.g. 2.P.E-3.S.A *duzia/duzute*, -3.P.A *ttuzia/ttuzie*. In other cases, adjacent dialects have the requisite forms independently of the DD/2V distinction. Lacunae in data collection are probably responsible for some of this low-level variation. (The table is exhaustive w.r.t. this type of variation; note that here and below, when forms show a variation beside the one being discussed, it is discussed elsewhere).

TABLE:

ABS/ DAT	Dialect	2V 3.SG|3.PL|1.SG|1.PL|2R|2.PL ERG	3VS DD 3.SG|3.PL|1.SG|1.PL|2R|2.PL ERG
		zue/zute	
1.PL	HNn-Ir-pV	gaittu|gaittuzte|-|-|gaittuzu|gaittuzue	gaittu|∅|-|-|gaittuzu|gaittuzute
		zia/zu(t)e	
1.PL	HNn-Ir-H:Br	gattu|gattuzte|-|-|gattuzu|gattuzia	gattu|gattuzte|-|-|gattuzu|gattuzue
1.SG	HNn-Ir-H:S	nau|naute|-|-|nazu|nazia	nau|naute|-|-|nazu|nazia/nazu(t)e
		zu(e)/tzu(e), zi/tzi	
1.PL	L-L-nG:S	gaitu|gaituzte|-|-|gaituzu|gaitutzue	gaitu|gaituzte|-|-|gaituzu|gaitutzue
1.PL	L-S-S:D	gaitu|gaituzte|-|-|gaituzu|gaitutzue	gaitu|gaituzte|-|-|gaitutzu|gaitutzue
1.PL	L-Ar-p:A	gaitu|gaituzte|-|-|gaituzu|gaitutzi	gaitu|gaituzte|-|-|gaitutzu|gaitutzi
1.SG	L-S-A:A	nintuen|nintuten|-|-|nintuzun|nintutzuen	nintuen|nintuzten|-|-|nintutzun|ni(n)tuzuen/ninduzuen
1.PL	L-S-Z:I	gintuen|gintuzten|-|-|gintuzun|gintuzuen	gintuen|gintuzten|-|-|gintutzun|gintutzuen
1.SG	L-Ar-A:A	nintin|nintuzten|-|-|nintutzun|nintutzin	ninten|nintuzten|-|-|nintutzun|nintutzin
1.SG	L-Ar-p:A	nintin|nintuzten|-|-|nintutzun|nintutzin	nintin|nintuzten|-|-|nintutzun|nintuzin
		tzue/tze	
1.PL	L-S-p:A	gintuen|gintuzten|-|-|gintutzun|gintutzuen	gintuen|gintuzten|-|-|gintutzun|gintutzen
		zte/te	
2R	L-Ai-p:A	zintuen|zintuzten|zintu-ten (#)|zintugun|-|-	zituen|zintututen|zintuten|zintu(u)n|-|-
2R	HNn-Ir-OI:AI	zattu|zattuzte|zattut|zattugu|-|-	zattu|zattute|zattut|zattugu|-|-
2.PL	HNn-Ir-OI:AI	zattuzute (#)|zattuzte|zattuztet|zattuzteu|-|-	zattute|zattuzte|zattutet|zattuztegu|-|-
1.SG	L-S-A:A	nintuen|nintuten|-|-|nintuzun|nintutzuen	nintuen|nintuzten|-|-|nintutzun|ni(n)tuzuen/ninduzuen
2R	L-S-S:D	zintuen|zintuzten|zintutan|zintu(g)un|-|-	zintuen|zintututen|zintuten|zintuun|-|-

2R   L-S-Z:I   zintuen|zintu<u>ten</u>|zintudan/zintuten|zintugun|-|-   zintuen|zintuten|∅|zintugun|-|-
2.PL   L-S-Z:I   zauzte|zauzte|zau<u>t</u>et (#)|zauzteu|-|-   zauzte|zauzte|zau<u>zt</u>et|zauzteu|-|-

     A different type of divergence which I group under the former, thus as inconsequential, is low-level variation in phonetic/phonological realization (or perhaps accuracy of transcription). These are all variations independently attested and wide-spread; examples (nearly exhaustive) are:[1]

-2V root *au > a* // __*zu*: HNn-Ir-pO DD *nauzu* vs. 2V *nazu*; DD *gattuzun* vs. 2V *gaittuzun* (cf. *gattuzuten* for both DD & 2V).
-*it* morpheme *itt/tt* // *a*__: HNn-Ir-pO DD *gattu* vs. 2V *gaittu*; DD *zaittu* vs. 2V *zattu*.
-2V root *ai/ei/e* variation in B* group: G-Bu-B:O DD *gairu(b)ai* vs. 2V *geirubei*; G-Bu-B:I DD *gerubai*, 2V *gairu(b)ai*.
-*b*-intrusion // *u*__*ai*: G-Bu-B:O DD *gairu(b)ai* vs. 2V *geirubei*.
-1.PL affix *gu ~ u* variation. This is found in HNn-Ir-OI:Al DD present 1.P.E-2.P.D *zattuztegu* vs. 2V -2.P.A *zattuzteu*, and the following past forms with 1.PL.ERG:

TABLE

ABS/DAT	Dialect	2V past	3VS past DD
2R	L-S-S:D	zintu(g)un	zintuun
2R	L-S-A:A	zintu(g)un	zintugun
2.PL	L-S-S:D	zintuztegun	zintuzteun

-1.SG affix *ta - da - a* and further after *te*, *te+a > tee > te*. This is found in the following past forms with 1.SG.ERG:

TABLE

ABS/DAT	Dialect	2V	3VS DD
2R	L-L-sA:S	zintuten	zintu(d)an
2R	L-S-S:D	zintutan	zintuten
2R	L-S-A:A	zintuan	zintudan
2.PL	L-L-sB:S	zintuzt(ed)an	zintuzte(e)n
2.PL	L-L-sH:A	zintuzten	zintuztedan
2.PL	L-S-S:D	zintuztetan	zintuzten
2.PL	L-S-A:A	zintuztetan	zintuztedan
2.PL	L-S-U:T	zinduztetan	zintuztedan

-Cases where 2V and 3V DD differ in (not) reducing the sequence TE-TE to TE. The marked unreduced form is found in both 3V DD and in 2V paradigms: L-S-S:D present and past 2V 3.P.E-2.P.A *zaituzte(te)*, *zintuzte(te)n* vs. 3V *zaituzte, zintuzten*; L-L-nB:A present 3V DD 3.P.E-2.P.D *zauztete* vs. 2V *zauzte* (and past *zintuzten* for both), L-L-sU:S past 3V DD 3.P.E-2.P.D *zintuzte(te)n* vs. 2V *zintuzten* (and past 3V DD *za(it)uzte*, 2V *zaituzte*).
     In some cases, the 2V form corresponding to DD does not exist, e.g. HNn-Ir-RZE present DD 1.P.E-2R.D *zattugu* corresponds to gap in an otherwise complete 2V paradigm. These are either arbitrary gaps or lacunae in data. They bear on the investigation in so far as they represent a mirror image of arbitrary gaps in DD that correspond to the expected DD forms

---

1 The following, if not errors, are too sporadic to make anything of: L-Ai-p:A present 2V 1.S.E-2.P.A *zuazten* (#) (vs. 3V DD *zauztet*); HNn-Ir-HM:A present 2V 2.P.E-1.S.A *nizian* (vs. 3V DD *nazian*).

extant in the 2V paradigm in CHAPTER 3B. The conclusion there on the basis of this fact accounts for the gaps here as well: although they have identical surface realizations w.r.t. realized exponents, it is possible to differentiate 2V and DD forms in the arbitrary blocking mechanism, and thus create arbitrary gaps in one independently of the other.

The lack of or variation in class-markers is a major source or deviations from corresponding 2V forms in the DD, shown in the following table. HNn-Ir-H:Br loses them in all its DD forms. In L-L-nG:A and L-L-nG:S, they are not normally affected, being *int* for 1.PL, 2RG/PL; but 1.SG.ABS and DD'd 1.SG.DAT contrast in that the former has *int* and the latter *it*. L-Ai-p:A has a similar pattern, more sporadically. For these three only cases where 2V and 3V DD differ are given in the table. Finally, L-L-sH:A, L-L-sU:S, L-S-U:T, all of which have DD for all 1/2 DATs, show a different and possibly unrelated variation in the consonantal form of class markers that cuts across 2V and DD forms (the latter being generally more homogenous); here also only cases where 2V and 3V DD differ are given.

TABLE

ABS/DAT	Dialect	2V 3.SG|3.PL|1.SG|1.PL|2R|2.PL ERG	3VS DD 3.SG|3.PL|1.SG|1.PL|2R|2.PL ERG
1.SG	HNn-Ir-H:Br	niñuen|niñuten|-|-|niñuzun|niñuzuten	∅|∅|-|-|nazun|nazuten
1.PL	HNn-Ir-H:Br	giñuen|giñuzten|-|-|giñuzun|giñuzuten	gattun|gattuzten|-|-|gattuzun|∅
1.SG	L-L-nG:S	nintuen|nintuzten|-|-|ninduzun|ninduzuten	nituen|nituzten|-|-|nitutzun|nitutzuen
1.SG	L-L-nG:A	nintuen|nintuzten|-|-|nintutzun|nintutzuen	nituen|nituzten|-|-|nitutzun|nitutzuen
1.SG	L-Ai-p:A	ninduen|ninduten|-|-|nintutzun|nintutzuen	ninduen|ninduten|-|-|ni(n)tutzun/ninduzun|ninduzuen
2R	L-Ai-p:A	zintuen|zintuzten|zintu-ten (#)|zintugun|-|-	zituen|zintuten|zintuten|zintu(u)n|-|-
2.PL	L-L-sH:A	ziu(n)zten|ziu(n)zten|zintuzten|zintuztegun|-|-	zintuzten|zintuzten|zintuztedan|zintuztegun|-|-
2.PL	L-L-sU:S	zintuzten|zintuzten|zintuztetan|zintuzteun|-|-	zintuzten|zintuzte(te)n|ziu(n)ztetan|zintuzteun|-|-
2.PL	L-S-U:T	zind-/zint-/zina-uzten|zintuzten|zinauzten|zinduztetan|zintuztegun|-|-	zintuzten|zintuzten|zintuztedan|zintuztegun|-|-

In the HNn-Ir-H:Br case at least then, the divergence of class markers between 3V DD and 2V forms is the same as in the Oñate dialects: the distinct class markers of the past are eliminated in favour of the present and likely default class marker *a*.

1.2 The Burunda DD area

A different set of 3V DD - 2V divergences is found in the Gipuzkoan DD continuum. They are given synoptically in the following table:

TABLE

ABS/DAT	Dialect	2V 3.SG|3.PL|1.SG|1.PL|2R|2.PL ERG	3VS DD 3.SG|3.PL|1.SG|1.PL|2R|2.PL ERG
1.PL	G-Bu-A:G	geru|gaitubai|-|-|||	geru|gerubei|-|-|-|-
1.PL	G-Bu-U:G	geu|gaitubei|-|-|||	ge(a)u|geubei|-|-|-|-
1.PL	G-Bu-B:I	gaitu|gairu(b)ai|-|-|gaituzu|gaituzai	geru|gerubai|-|-|geruzu|geruzai
1.PL	G-Bu-B:G	geiru|geruri|-|-|||	geiru|geirubei|-|-|-|-
1.PL	G-EA-p:Y	-|geittubiE|-|-|giezu|geittuzubie	∅|∅|-|-|giezu|giezibie

The general pattern here is the following: the 2V paradigm for 1.PL.A marking vaccilates between *ga-it-* + *u*, the regular and historically antecedent form found in most other dialects, and its various developments: *gair+u* (G-Bu-B:I) > *geir+u* (G-Bu-B:G) > *ger+u* (G-Bu-A:G, G-Bu-B:G) > *geu* (G-Bu-U:G), *geitt+u* (G-EA-p:Y), *gie* (G-EA-p:Y). the 3V DD paradigm choses the farthest-developed form or nearly in each dialect: *geru-* (G-Bu-A:G, G-Bu-B:I)*, geiru-* (G-Bu-B:G), *ge(a)u-* (G-Bu-U:G), *gie-* (G-EA-p:Y), where in G-Bu-B:I the 2V

actually lacks the *geru-* form chosen, having only *gaitu-*. Other forms in the 2V present paradigm of these dialects give little guidance for analysis, since they are generally *leismo* forms (section 00) such as G-Bu-A:G 1.S.E-2.P *dezut*. G-EA-p:Y does have some non-*leismo* forms beside the ones in the table: 2R/PL.E-1.S.A *niezu, niezubie*, 1.P.E-2.P.A *zeittugu*. The exception to this is G-Bu-B:I, which has a full paradigm:

TABLE: G-Bu-B:I 2VPr

ABS ERG	3.SG	3.PL	1.SG	1.PL	2R	2.PL
3.SG	dau	dai	dot	daû	dezu	dezai
3.PL	tu	tubei	tut	tû	tuzu	tuzai
1.SG	nau	nai	-	-	nauzu	nazai
1.PL	gaitu	gairu(b)ai	-	-	gaituzu	gaituzai
2R	zaitu	zaitubai	zaitut	zaitû	-	-
2.PL	zaitubei	zaitubei	zaitubeit	zaitû	-	-

It seems that 3V DD forms chose forms historically at the farthest end of the development from *ga-it-u-*, in the case of G-Bu-B:I even *geru-* which does not actually occur as such in the 2V paradigm. Yrizar (Y-Dial-II-362) raises this very point in discussing DD in this dialect group:

(1)   Finalmente, queremos mencionar aquí una curiosa forma que recogió, hace algo mas de medio siglo, el P. Dámaso de Inza, en Bacáicoa e Iturmendi [Inza. - *Burunda*, pp. 19-20]: geru (por *digu*) "él nos lo ha" y *geuzku* (por *dizkigu*) "él nos los ha". En este caso lo curioso es que no se hayan tomado las formas correspondientes a un solo régimen "él nos ha", ya que con este significado, anotó Inza *gaitu*.

Correspondientes a geru y geuzku, recogió, en Olazagutia y Ciordia, *degu* y *dezkigu*; en Alsasua, *deegu* y *deuzkigu*, y en Urdiáin, *deu* y *dezkiu*. Anotó la forma *gaitu* como común a los seis pueblos.

Resulta digno de ser señalado que, en el momento actual, en Urdiáin, según nos comunica J. M. Satrústegui, emplean una misma forma verbal, geau, con los dos sentidos "él nos lo ha" y "él nos has"; a ella corresponde, como forma con objeto directo en plural, *geauzku*, él nos los ha".

Hemos considerado interesante reunir en un cuadro las citadas formas verbales de Bacáicoa e Iturmendi y las de Urdiáin (1922 y 1976)

		Urdiáin	
	Bacáicoa e Iturmendi	1922	1976
"él nos lo ha"	geru	deu	geau
"él nos los ha"	geuzku	deuzkiu	geauzku
"él nos ha"	gaitu	gaitu	geau

In the neighbouring Echarri-Aranaz, he notes, the forms of 2R>1.P and 2R>1.P>3.S also coincide, *giezu*, pluraized for 3.P.O2 *gizkiezu*.

Consider how this might be explained. In line with viewing DD as a new development that puts together productive morphological bits in the fashion seen for the VO* group, one might suppose that DD in this related group of dialects started where and when *gaitu-* had developed to the *geru-, geiru-, ge(a)u-, gie-* form used by DD. The reason for using the farthest divergent, most distinctive forms would have to be sought in the innovative, marked, perhaps more colloquial flavour shared by such forms and DD. One might also suppose in

some cases *gaitu-* forms where re-introduced at the expense of *geru-* forms in 2V, and/or that *geru-* was borrowed with the spread of DD in dialects such as G-Bu-B:I; or that the development may have affected the DD form earlier than the 2VPr form after the DD form, as *gaitu*, was transferred from 2VPr to DD 3VSPr.

Such stories are of course all fanciful, but they would fit the type of development seen in the Bizkaian VO* group. At any rate, the divergences of this group demonstrate that 3V DD and 2V forms can receive different spell-out, as is particularly clear in G-Bu-B:I. The divergences of 3V DD and 2V forms in general then reflect two underlying principles. On the one hand, there is the use of productive morphology to code a new syntactic input: that is, insertion of extant morphemes in new contexts compatible with their features by the Subset Principle. One the other, space must be left for the use of the devices of lexicalization, whereby morphemes (including entire words) are specified for very specific, sometimes unique, syntactic contexts; this reflects the spread of a phenomenon from one dialect to another, carrying new forms.

2 Annex: 1V' DD paradigms

For 1st/2nd person datives, first line has non-DL forms, second DL, if on two lines (otherwise on a single line separated by a coma, as habitually).

TABLE: 1V'SPr, 3VSPr (3.S.E) paradigms

DAT	HNn-Ir-pB 1V'	HNn-Ir-pM 1V'	Hond-PS 1V'	HNn-Ir-H:S 1V'	3V	HNn-Ir-HM:A 1V'	3V	HNn-Ir-OI:Al 1V'	3V	HNn-Ir-OIR:Al 1V'	3V'	HNn-Ir-pO 1V'	3V	HNn-Ir-RZE 1V'	3V
3.SG	dio	dio	dio	dio	dio	dio	dio	(za)ddo	ddo	ddo/dio	diddo	zaio	diyo	zaio/yo	yo
3.PL	diote	diote	diote	diote	dio(te)	diote	diote	zaddote	ddo	diddote	diddo	zaiote	diote	zaiote	yo(te)
	zait	∅	∅	∅	∅	dit	ditt	zait	∅	zait/zit	∅	zait	(dit)	zaitt/zitt	ditt
1.SG	nau	nau	nau	nau	nau	nau	nau	∅	nau	nau	nau	nau	nau	nau	nau
	∅	∅	digu	di(g)u	digu	digu	digu	zaigu	digu	degu/digu	digu	zaigu	∅	zaigu	dio
1.PL	gattu	gattu	∅	∅	∅	∅	∅	∅	gattu	∅	∅	∅	gattu	∅	∅
	∅	∅	dizu	dizu	dizu	dizu	dizu	zaizu	-(i)zu	∅	dizu	zaizu	dizu	zaizu	(d)(i)zu
2R	zattu	zattu	∅	∅	∅	∅	∅	zattu	zattu	za(i)ttu	∅	zaitu	zaittu	∅	∅
	∅	∅	dizia	dizia	dizia	(di)zia	dizia	zaizute	∅	∅	dizute	zaizue	dizute	zaizute	(d)(i)zute
2.PL	zaittuste	zattuste	∅	∅	∅	∅	∅	zattu(z)te	zattute	zaizute	∅	∅	zaittuzte	∅	∅

TABLE: 1V'SPt, 3VSPt (3.S.E) paradigms

DAT	HNn-Ir-pB 1V'	HNn-Ir-pM 1V'	HNn-Ir-H:S 1V'	3V	HNn-Ir-HM:A 1V'	3V	HNn-Ir-OI:Al 1V'	3V	HNn-Ir-OIR:Al 1V'	3V	HNn-Ir-pO 1V'	3V	HNn-Ir-RZE 1V'	3V
3.SG	zion	zion	zion	zion	zion	zion	ziddon	ziddon	ziddon	ziddon	zizaion	zion	(zi)zaion	ziyon
3.PL	zioten	zioten	zioten	zion	zioten	zioten	ziddoten	ziddon	ziddoten	ziddon	zioten	zioten	ziyoten	ziyon/zioten
	zian	∅	zian	zian	zian	ziran/zien	zian	zin	zian	zian	ziran	ziran/zitten	zitten	zi(t)en
1.SG	∅	nauen	∅	∅	nauen	∅	∅	∅	∅	nauen	nauen	∅	∅
	∅	∅	zi(g)un	zi(g)un	zigun	zigun	zigun	zigun	zigun	z(a)igun	zigun	ziun	zigun
1.PL	gattuen	gattuen	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅
	∅	∅	zizun	zizun	zizun	zizun	zizun	zizun	zizun	zizun	zizun	zizun	zizun
2R	zattuen	zattuen	∅	∅	∅	∅	∅	∅	∅	∅	zaittuen	∅	∅
	∅	∅	zizian/ zizuten	zizian	ziziän	zizian	zizuten	zizuten	zizuten	zizuten	zitzuen	zizuten	zizuten	zizuten
2.PL	zaittusten	zattusten	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅	∅

TABLE: 1V'PPr paradigms

DAT	HNn-Ir-pB 1V'	HNn-Ir-pM 1V'	Hond-PS 1V'	HNn-Ir-H:S 1V'	HNn-Ir-HM:A 1V'	HNn-Ir-OI:Al 1V'	HNn-Ir-OIR:Al 1V'	HNn-Ir-pO 1V'	HNn-Ir-RZE 1V'
3.SG	ttio	diote	diote	ttio	ttio	zaizka	zaizka/dizka	zaizkiyo	zaizka
3.PL	ddiote	diozkate	diote	ttioste	diote/ttiote	zaizkate/-zkate	-zkate/dizkate	zaizkiyote	(zai)zkate
1.SG	∅, nauzki	∅, naute	∅, naute	∅, nauzki	ttit, ∅	zaizkit, nauzki	-zkit, ∅	∅, nazki	(zai)zkitt, ∅

1.PL	∅, gattu	∅, ga(i)ttuste	ttiu, ∅	ttiu, ∅	ttigu, ∅	zaizkigu, ∅	-zkigu, ∅	zaizkigu, ∅	zaizkigu, ∅
2R	∅, zattu	∅, zattuste	dizute, ∅	ttizu, ∅	dizu/(tti)zu, ∅	zaizkizu, zattu zattuzte/zaizkizute	-zkizu, ∅	zaizkitzu, ∅	zaizkizu, ∅
2.PL	∅, zaittuste	∅, zattuste	ttizia, ∅	ttizia, ∅	(di)zia, ∅	/dizkizute, ∅	0	zaizkitzue, ∅ 0

TABLE: 1V'PPt paradigms

DAT	HNn-Ir-pB 1V'	HNn-Ir-pM 1V'	HNn-Ir-H:S 1V'	HNn-Ir-HM:A 1V'	HNn-Ir-OI:Al 1V'	HNn-Ir-OIR:Al 1V'	HNn-Ir-pO 1V'	HNn-Ir-RZE 1V'
3.SG	zittion	zioten	zittion	zittion/zion	zizkan/ziddon	0	zizkion	0
3.PL	zkioten	zioten/zizkioten	zittiosten	zioten	0	zaizkaten	zizkioten	(zi)zkaten
1.SG	zkian/tzian?,∅	∅, nauten	zittian, ∅	zittiän, ∅	zaizkin/zizkian, ∅	zizkian, ∅	∅, nauten	zaizkitten, ∅
1.PL	zkiun, ∅	∅, gattusten	zittiun, ∅	zittigun/zigun, ∅	zizkigun, ∅	zizkigu(ke)n, ∅	zaizkigun, ∅	zaizkigun, ∅
2R	∅, zattun ∅,	∅, zattusten ∅,	zittizun, ∅	zizun, ∅ ziziän/ttizian,	zizkizun/zizun, ∅	zizun, ∅ zizkizuten,	zizkitzun, ∅	zizkizun, ∅
2.PL	zattusten	zattusten	zittizian, ∅	∅	zizkizuten/zizuten, ∅	∅	zizkitzuen, ∅	z(a)izkizuten, ∅

A synopsis of the diachrony in the present in Hondarribia:

TABLE: 1V'S/PPr in HNn-Ir-H:A, HNn-Ir-HM:A, HNn-Ir-H:S, HondPS

DAT	S SG				S PL			
	HNn-Ir-H:A	HNn-Ir-HM:A	HNn-Ir-H:S	HondPS	HNn-Ir-H:A	HNn-Ir-HM:A	HNn-Ir-H:S	HondPS
3.SG	zaio/dio	dio	dio	dio	zaizkiyo	ttio	ttio	diote
3.PL	zaie	diote	diote	diote	zaizkiye	diote/ttiote	ttioste	diote
	zatt	dit	∅	∅	zaizkitt	ttit	∅	∅
1.SG	∅	nau	nau	nau	∅	∅	nauzki	naute
	zaigu	digu	di(g)u	digu	zaizkigu	ttigu	ttiu	ttiu
1.PL	∅	∅	∅	∅	∅	∅	∅	∅
	zaizu	dizu	dizu	dizu	zaizkitzu	dizu/(tti)zu	ttizu	dizute
2R	∅	∅	∅	∅	∅	∅	∅	∅
	zaizia	(di)zia	dizia	dizia	zaizkitzia	(di)zia	ttizia	ttizia
2.PL	∅	∅	∅	∅	∅	∅	∅	∅

3 Annex: *zki* PL2 formation in DD

The following two tables give these for the vast majority of dialects in the Y corpus, the first table for the present and the second for the past. Within each table, the DD forms in the last column are arranged first by dialect, then by DAT (1.SG, 1.PL, 2R, 2.PL). There are fewer dialects forms in the latter simply because there are fewer past DD forms with O2=PL. In order to highlight the behavior of the O2.PL morpheme, the second column gives corresponding DD forms for O2=SG, on which the O2.PL forms are often based. Finally first column gives moreover an example of each the pluralizers which occur in non-DD 3V paradigms (which, recall, always exist for at lest 3rd person DAT), using some form of the paradigm that shows it clearly [need to separate it out by dashes]; these are in bold if they do not include the pluralizer used by DD O2.PL.

There are several common deviations from adding *zki* before the suffixes.

First, the O2.PL morpheme *zki* may be missing, per any DAT-value in a dialect either partially (e.g. L-Ai-p:A 2.PL, L-L-p:A 2.PL) or systematically (e.g. L-S-Z:I 1.PL), though it is not systematically missing in any dialect except when this is very meagerly represented in DD in the first place (e.g. G-Bu-B:O). Such forms without overt expression of O2=PL are used with O2=PL objects.

Second, there is variation in the class marker of past tense, giving *ind/int/it*, and deletion of the consonant(s) of this class marker and of A.PL *it* (sometimes with further loss of the root *u*), giving such forms as *z-a-u/i-* for *z-a-it-u-*, *g-a-* for *g-a-it-u*, *z-i-u* and *n-i-u* for *z-i(n)t-u, n-i(n)t-u*, in the case of L-L-nG:A past going so far as to give *n-i-zki-* (beside *nintu-*). Though an interesting research topic itself, this variation occurs also when O2=SG and in non-DD paradigms, generally (though not always) in the same dialect that shows it in DD of O2=PL, and is not germane to the discussion.

These two deviations from the basic patterns may be combined, signalled by underlining and italics. Here, there are some interesting cases of the complementary distribution of the *t* morpheme in the past class marker and *zki* in 1.SG.DAT, as in L-L-sA:S and L-Ai-p:A where *ninduzki-* and *nintu-* are in complementary distribution; that is far from general (SSA *nintuzki-* by L-S-S:D *ninduzki*, SSA both *nintizki/nindizki-*), although it seems true that *nindu-* is not used without *zki*. This could be a non-accidental gap that bans cases where there is no expression of A.PL (either for DD'd DAT or for O2) in the verbal complex in DD O2.PL forms, though it would have to apply only to cases that have the past class marker, for in the present bare *nau-* is used for O2.PL without any A.PL expression (when prefix is for 1.PL, 2, there is already expression of A.PL).

Finally, there are the remaining deviations, some suggestive, but not much can be made of them in this data-set (see below for more salient patterns); the L-S-p:A dialect is rich in them.

L-S-U:T, L-S-Z:I past builds 2.PL.DAT→O2.PL forms on the present stem *zauzte-* rather than the form found both with 2.PL.DAT→O2RG *zintu-* and with 2R.DAT→O2.PL *zintuzki-*. One way of seeing this is that the 2R.DAT→O2.PL uses *zki* while 2.PL.DAT does not, so the latter needs another device to indicating O2.PL in contrast to O2RG, here anomalous class marker choice, which ties it with the *nintu-/ninduzki-* variation discussed above.

HNn-Ir-OI:Al (DD for O2.PL in present only) uses the *zte* realization of the TE morpheme for in 2.PL.DAT-O2.PL forms in contrast to *te* in O2RG. This seems to systematically indicate O2.PL in this fashion, although this is limited to DD'd 2.PL.DAT because it needs the TE morpheme to be inserted. L-S-p:A past 3.PL.ERG→1.SG.DAT→O2.PL *ninduz(ki)ten* beside O2RG *ninduten* shows the same *zte - te* contrast. The thoroughly anomalous L-S-p:A past 3.SG.ERG→1.SG.DAT→O2.PL *nizduzkien*, variant of more normal *nintuen*, seems to show the same autonous use of *z* in a strange position. Intuitively, this use of *z* is not far to seek, since it is a secondary exponent, phonologically and morphologically distant from the primary exponents *it*, *zki*, *t* that condition it.

HNn-Ir-pV present contrasts 3.SG.ERG→1.PL.DAT *gaittu* (O2RG) with *gaittue* (O2.PL), possibly indicating recruitment of the TE morpheme itself for O2.PL. The same phenomenon is found in L-S-p:A 2R.DAT past forms, as is manifest in the forms *zintuzkietan* (1.SG.ERG), *zintuzkiegun* (1.PL.ERG): there *e* has no business other than marking O2.PL, because it cannot be attributed to reflecting 2.PL, or to the expression of TE as *ete*, which is occasionally found (see section 00), and could have been used as explanation of *zintuzkieten* (3.PL.ERG→2.PL.DAT), *gintuzkieten* (3.PL.ERG→1.PL.DAT). The recruitement of TE for O2.PL will be seen most robustly for 1V' DD below.

Finally, there is quite a different class of deviations: in G-Bu-B:I, G-Bu-U:S, and G-EA-p:I dialects (which have no past DD), *zki* is typically placed before rather than after the root in the only DD forms that occur of these dialects, present 1.PL in G-Bu-B:I and G-Bu-U:S (contrast G-Bu-B:O with the same morphological pieces) and 1.SG in G-EA-p:I (contrast G-EA-p:G, G-EA-p:Y). These forms have some other anomalies. The G-Bu-B:I 1.PL forms are based on *ge(r)uzku-*, where *zki* clearly attaches to the O2RG root *g-e-r-u* (cf. G-Bu-B:O *g-a-i-r-u* = standard *g-a-it-u*), but the vowel after *zk* is *u*, not *i*, as if the root were doubled. This could be just vowel assimilation; but the G-Bu-U:S forms based on *gezkiu-* (*gezkiu, gezkiubei, gezkiugai*) beside the single *geuzkizu*, are more telling: here *u* clearly follows the root, as it

precedes in *geuzkizu* and in G-Bu-B:O. The G-Bu-B:O-G-Bu-B:I-G-Bu-U:S continuum may indicate how this kind of reanalysis came to be, through vowel assimilation first in G-Bu-B:I, and then reduction of *Vuzku* to *Vzku*. Finally, in the unrelated G-EA-p:I dialect, *zki* aslo precedes the root *e* (a development of *au/eu*), as the comparison with the O2RG forms and with G-EA-p:G, G-EA-p:Y makes clear: thus compare G-EA-p:I O2.PL *ni-zki-e̯-zu, ni-zki-e̯-zubiE* with O2RG *ni-e̯-zu, ni-e̯-zubiE* and contrast with G-EA-p:G, G-EA-p:Y *ni-e-zki-zu, ni-e-zki-zubie*. A formal parallel to this variation in *zki*-root order is to be found in variations in the order of *zki*-DF+DAT discussed in section 00, such as G-H-nePS:ALO 3VPPr *dizkiyo*-vs. *diyozki-*.

I can deduce nothing from the other handful of minor anomalies that remain.

Of the eight dialects that have DD in 1V', HNn-Ir-HM:A, HNn-Ir-OIR:Al , and HNn-Ir-RZE lack DD for O2.PL entirely. HNn-Ir-H:S has only *nauzki* 1.SG.DAT→O2.PL (present), and the same for in DD 3.SG.ERG→1.SG.DAT→O2.PL (present). HNn-Ir-OI:Al also has *nauzki* and adds 2R→O2.PL *zattu* without indication of O2.PL; the corresponding 3V DD forms lack O2.PL in both cases, *nau* 3.SG.E→1.SG.D→O2.PL and *zattu* 3.SG.E→2R.D→O2.PL. The two dialects contrast for the O2.PL marker of non-DD forms: HNn-Ir-H:S has only an *it* variant (e.g. *ttio* present, *zittion* past 3.SG.DAT→3.PL.ABS), while HNn-Ir-OI:Al has only *zki*. Finally, HNn-Ir-pO also has *nazki*, corresponding to 3V *nazki* and a general non-DD 1V' pluralizer *zki* in e.g. *zaizkigu*; but because it is closely related to the HNn-Ir-pM dialect that shows a different O2.PL marker, *te*.

TABLE: DD 3VPPr

Prefix	Dialect	Non-DD 3VP pres Pluralizers	DD 3VS present 3.SG|3.PL|1.SG|1.PL|2R|2.PL ERG	DD 3VP present 3.SG|3.PL|1.SG|1.PL|2R|2.PL ERG
1.SG	L-Ai-p:A	diozka	nau|naute|-|-|nauzu|nauzue	nauzki|nauzkite|-|-|nauzkitzu|nauzkitzue
1.PL	L-Ai-p:A	diozka	gaitu|gaituzte|-|-|gaitutzu|gaitutzue	gaituzki|gaituzkite|-|-|gaituzkitzu|gaituzkitzue
2R	L-Ai-p:A	diozka	zaitu|zaitute|zaitut|zaitugu|-|-	zaizkitu/zaizkitzu (#)|zaizkitzute|-|zaizkitzu|-|-
2.PL	L-Ai-p:A	diozka	zauzte|zauzte|zauztet|zauzteu|-|-	zauz(ki)te|zauz(ki)te|zauz(ki)tet|zauz(ki)ten (#)|-|-
1.SG	L-Ai-p:B	diotza, dauzkit	nau|naute|-|-|nauzu|nauzue	∅|nauzkie|-|-|nauzkitzu|nauzkitzue
1.PL	G-Bu-B:O	datza, dezkizu	gairu|gairu(b)ai|-|-|∅|gairuzai	gairu|∅|-|-|∅|∅
1.PL	G-Bu-B:I	datza, dezkizu	geru|gerubai|-|-|geruzu|geruzai	geuzku|geruzkubei|-|-|geuzkuzu|geuzkuzai
1.PL	G-Bu-U:S	deatzi, dezkizu	geau|geubei|-|-|geauzu|geuzai	gezkiu|gezkiubei|-|-|geuzkizu|gezkiuzai
1.SG	G-EA-p:I	doozkiyo	∅|∅|-|-|niezu|niezubiE	∅|∅ (#)|-|-|nizkiezu|nizkiezubiE
1.SG	G-EA-p:G	duuzkizut	∅|∅|-|-|niezu|niezubie	∅|∅|-|-|niezkizu|niezkizubie
1.SG	G-EA-p:Y	dootza/doozkiyo	∅||-|-|niezu|niezubie	∅|∅|-|-|niezkizu|niezkizubie
1.PL	G-EA-p:Y	dootza/doozkiyo	∅|∅|-|-|giezu|giezibie	∅|∅|-|-|giezkizu|giezkizubie
1.SG	L-E-K:A	zazkit	∅|∅|-|-|∅|∅	∅|∅|-|-|nauzkitzu|nauzkitze
1.SG	G-H-nePD:ALO	diskigu	nau|naute|-|-|nasu|∅	naski|naskite|-|-|naskisu|naskisute
1.SG	G-H-nePS:ALO	diskigu	nau|naute|-|-|nasu|nasute	naski|naskite|-|-|naskisu|naskisute
1.SG	HNn-Ir-H:Br	ttio	nau|naute|-|-|nazu|nazute	nazki|nazkite|-|-|nazkitzu|nazkitzue
1.SG	HNn-Ir-H:S	ttio	nau|naute|-|-|nazu|nazia/nazu(t)e	nauzki|nauzkite|-|-|nauzkizu|nauzkisia
1.SG	HNn-Ir-HM:A	ttio	nau|naute|-|-|nazu|nazia	∅|naute|-|-|na(zki)zu|nazia
1.PL	HNn-Ir-HM:A	ttio	∅|∅|-|-|∅|∅	∅|∅|-|-|gattuzu|∅
1.SG	HNn-Ir-OG:K	izkiyo	∅|∅|-|-|(nazu)|∅	∅|∅|-|-|nazkizu|∅
1.SG	HNn-Ir-OI:Al	-zkiazu, ttuzu	nau|naute|-|-|nazu|nazute	nau|naute|-|-|nazkizu|nazute
1.PL	HNn-Ir-OI:Al	-zkiazu, ttuzu	gattu|∅|-|-|gattuzu|gattuzute	gattu|-|-|-|(gattuk)|∅
2R	HNn-Ir-OI:Al	-zkiazu, ttuzu	zattu|zattute|zattut|zattugu|-|-	zattu|-|zattut|zattugu|-|-
2.PL	HNn-Ir-OI:Al	-zkiazu, ttuzu	zattute|zattuzte|zattutet|zattuztegu|-|-	zattuzte|zattuzte|zattuztet|zattuzteu|-|-
1.SG	HNn-Ir-OIR:Al	dizkit	nau|naute|-|-|nazu|nazute	∅|∅|-|-|∅|nazute
2.PL	HNn-Ir-OIR:Al	dizkit	∅|∅|∅|∅|-|-	∅|∅|∅|zaitugu|-|-
1.SG	HNn-Ir-p:Br	ttio	nau|naute|-|-|nazu|nazute	nazki|nazkite|-|-|nazkizu|nazkizute
1.SG	HNn-Ir-pO	dizkiyo	nau|naute|-|-|nauzu|nazute	nazki|∅|-|-|nazkizu|∅
1.PL	HNn-Ir-pO	dizkiyo	gattu|∅|-|-|∅|∅	gattu|gattuzte|-|-|gattuzu|∅
2.PL	HNn-Ir-pO	dizkiyo	zaittuzte|zaittuzte|zaittuztet|zaittugu|-|-	zaittuzte|zaittuzte|zaittuztet|zaittugu|-|-
1.SG	HNn-Ir-pV	diyo	nau|naute|-|-|nazu|nazue	nazki|naute|-|-|nazu|nazue
1.PL	HNn-Ir-pV	diyo	gaittu|∅|-|-|gaittuzu|gaittuzute	gaittue|∅|-|-|gaittuzu|gaittuzue
1.SG	HNn-Ir-RL	dizkigu	nau|naute|-|-|nazu|nazute	nazki|nazkite|-|-|nazkizu|nazkizute
1.SG	L-L-sA:S	diozka	nau|naute|-|-|nauzu|nauzue	nauzki|nauzkite|-|-|nauzkitzu|nauzkitzue
1.PL	L-L-sA:S	diozka	gaitu|gaituzte|-|-|gaitutzu|gaitutzue	gaituzki|gaituzkite|-|-|gaituzkitzu|gaituzkitzue
2R	L-L-sA:S	diozka	zaitu|zaituzte|zaitut|zaitugu|-|-	zaizkitzu|zaizkitzute|zaizkitzut|zaizkitzugu|-|-

2.PL	L-L-sA:S	diozka	zauzte|zauzte|zauztet|zauzteu|-|-	zauzkitzue|zauzkitzue|zauzkitzuet|zauzkitzue(g)u|-|-
1.SG	L-L-sB:S	diozka	nau|naute|-|-|nauzu|nauzue	na(u)zki|na(u)zkite|-|-|na(u)zkitzu|na(u)zkitzue
1.PL	L-L-sB:S	diozka	gaitu|gaituzte|-|-|gaitutzu|gaitutzue	gaizkigu|gaizkite|-|-|gaituzu/gaizkitzu|gaizkitzue
2R	L-L-sB:S	diozka	zaitu|zaituzte|zaitut|zaitu(g)u|-|-	zaizkitzu|zaizkitzute|zaizkitzut|zaizkitzugu|-|-
2.PL	L-L-sB:S	diozka	za(it)uzte|za(it)uzte|za(it)uztet|za(it)uztegu|-|-	zaizkitzue|zaizkitzuete|zaizkitzuet|zaizkitzuegu|-|-
1.SG	L-L-sH:A	diozka	nau|naute|-|-|nauzu|nauzue	nazki|nazkite|-|-|nazkitzu|nazkitzue
1.PL	L-L-sH:A	diozka	gaitu|gaituzte|-|-|gaitutzu|gaitutzue	gaituzki|gaituzkite|-|-|gaituzkitzu|gaituzkitzue
2R	L-L-sH:A	diozka	zaitu|zaituzte|zaitut|zaitugu|-|-	zaizkitzu|zaizkitzute|zaizkitzut|zaizkitzugu|-|-
2.PL	L-L-sH:A	diozka	zauzte|zauzte|zauztet|zauztegu|-|-	zauzkitzu(t)e|zauzkitzute|zauzkitzuet|zauzkitzuegu|-|-
1.SG	L-L-sU:S	diozka	nau|naute|-|-|nauzu|nauzue	nauzki|nauzkite|-|-|nauzkitzu|nauzkitzue
1.PL	L-L-sU:S	diozka	gaitu|gaituzte|-|-|gaitutzu|gaitutzue	gaituzki|gaituz(ki)te|-|-|gaituzkitzu|gaituzkitzue
2R	L-L-sU:S	diozka	zaitu|zaituzte|zaitut|zaitu:|-|-	zaizkitzu|zaizkitzute|zauzte|zaizkitzut|zaizkitzu|-|- zauzkitzue|za(it)uzte|zauzkitzue/za(it)uzte|zauzkitzuet|-
2.PL	L-L-sU:S	diozka	za(it)uzte|za(it)uzte|za(it)uztet|za(it)uzteu|-|-	zauzkitzueu/zaituzteu|-|-
1.SG	L-L-p:B	diotza, dauzkigu	naut (#)|naute|-|-|nauzu|nauzube	nauzki|nauzkite|-|-|nauzkitzu|nauzkitzube
1.PL	L-L-p:B	diotza, dauzkigu	gaitu|gaituzte|-|-|gaitutzu|gaitutzube	gaitu|gaituzte|-|-gaitutzu|gaitutzube
2R	L-L-p:B	diotza, dauzkigu	zaitu|zaituzte|zaitut|zaitugu|-|-	zaizkitzu|zaizkitzute|zaizkitzut|zaizkitzugu|-|-
2.PL	L-L-p:B	diotza, dauzkigu	zaituzte|zaituzte|zaituztet|zaituztegu|-|-	zaizkitzube|-|zaizkitzubet|-|-|-
1.SG	L-L-p:A	diozka	nau|naute|-|-|nauzu|nauzue	nauzki|nauzkite|-|-nauzkitzu|nauzkitzue
1.PL	L-L-p:A	diozka	gaitu|gaituzte|-|-|gaitutzu|gaitutzue	gaitu|gaituzte|-|-gaitutzu|gaitutzue
2R	L-L-p:A	diozka	zaitu|zaitute|zaitut|zaitugu|-|-	zaizkitzu|zaizkitzue|zai-/zau-zkitzut|zaizkitzugu|-|- zauzkitzue|zauz(ki)te|zauz(ki)te|zauzkitzuet/zauz(ki)tet|zauztegu|-|-
2.PL	L-L-p:A	diozka	zauzte|zauzte|zauztet|zauztegu|-|-	
1.SG	L-L-nB:A	diozka, dazku	nau|naute|-|-|nauzu|nauzue	nauzki|nauzkite|-|-nauzkitzu|nauzkitzue
1.PL	L-L-nB:A	diozka, dazku	gaitu|gaituzte|-|-|gaitutzu|gaitutzue	∅|∅|-|-|gaitutzu|gaitutzue
2R	L-L-nB:A	diozka, dazku	zaitu|zaituzte|zaitut|zaitugu|-|-	zaizkitzu|zuzaizkitzute|zaizkitzut|zaizkitzugu|-|-
2.PL	L-L-nB:A	diozka, dazku	zauzte|zauztete|zauztet|zauztegu|-|-	zauzte|zauztete|zauztet|zauztegu|-|-
1.SG	L-L-nG:A	diozka	nau|naute|-|-|nauzu|nauzue	nauzki|nauzkite|-|-nauzkitzu|nauzkitzu(t)e
1.PL	L-L-nG:A	diozka	gaitu|gaituzte|-|-|gaitutzu|gaitutzue	gaitu|gaituzte|-|-gaitutzu|gaitutzue
2R	L-L-nG:A	diozka	zaitu|zaituzte|zaitut|zaitugu|-|-	zaizkitzu|zaizkitzute|zaizkitzut|zaizkitzugu/zaitugu|-|-
2.PL	L-L-nG:A	diozka	zaituzte|zaituzte|zaituztet|zaituztegu|-|-	zaizkitzuete|zaizkitzuete|zauzkitzuet|zaizkitzutegu|-|-
1.SG	L-L-nG:S	diozka	nau|naute|-|-|nauzu|nauzue	nauzki|nauzkite|-|-nauzkitzu|nauzkitzue
1.PL	L-L-nG:S	diozka	gaitu|gaituzte|-|-|gaitutzu|gaitutzue	gaizkigu|-|-|-|-|-
2R	L-L-nG:S	diozka	zaitu|zaituzte|zaitut|zaitugu|-|-	zaizkitzu|zaizkitzute|zaizkitzut|zaizkitzugu|-|-
2.PL	L-L-nG:S	diozka	zaituzte|zaituzte|zaituztet|zaituzteu|-|-	zaizkitzute|zauzkitzuete|-|-|-|-
1.SG	L-Ar-A:A	diozka	nau|naute|-|-|nauzu|nauzi	nauzkitzu|nauzkite|-|-nauzkitzu|nauzkitzi
1.PL	L-Ar-A:A	diozka	gaitu|gaituzte|-|-|gaitutzu|gaituzi	gaituzki|gaituzkite|-|-|gaituzkitzu|gaituzkitzi
2R	L-Ar-A:A	diozka	zaitu|zaituzte|zaitut|zaituu|-|-	zaizkitzu|zaizkitzute|zaizkitzut|zaizkitzuu|-|- zauzkitzue/zauzkitzi|zauzki(tzi)te|zauzkit(zu)et (#)| zauzkitz-ueu/-iu|-|-
2.PL	L-Ar-A:A	diozka	zauzte|zauzte|zauztet|zauzteu|-|-	
1.SG	L-Ar-p:A	diozka	nau|naute|-|-|nauzu|nauzi	nauzki|nauzkite|-|-nauzkitzu|nauzkitzi
1.PL	L-Ar-p:A	diozka	gaitu|gaituzte|-|-|gaitutzu|gaituzi	gaitu|gaituzte|-|-gaitutzu|gaituzi
2R	L-Ar-p:A	diozka	zaitu|zaituzte|zaitut|zaitugu|-|-	zaizkitzu|zaizkitzute|zaizkitzut|zaizkitzuu|-|-
2.PL	L-Ar-p:A	diozka	zaituzte|zaituzte|zaituztet|zaituzteu|-|-	za(it)uzte|za(it)uzte|za(it)uztet|zaituzteu/zauztegu|-|-
1.SG	L-Ar-p:H	dauzkitzu	nau|naute|-|-|nauzu|nauzii?/nauzi	nauzki|nauzkite|-|-nauzitzu (#)|nauzkitzii
1.PL	L-Ar-p:H	dauzkitzu	gaitu|gaituzte|-|-|gaituzu|gaituzi	gaitu|gaituzte|-|-gaituzu|gaituzi
1.SG	L-S-A:A	dauzkigu	nau|naute|-|-|nauzu|nauzue	nauzki|nauzkite|-|-nauzkitzu|nauzkitzue
1.PL	L-S-A:A	dauzkigu	gaitu|gaituzte|-|-|gaituzu|gaitutzue	gaituzkigu|gaituzkigute|-|-|gaituzkitzu|gaituzkitzue
2R	L-S-A:A	dauzkigu	zaitu|zaituzte|zaitut|zaitugu|-|-	zaizkitzu|zaizkitzute|zaizkitzut|zaizkitzugu|-|-
2.PL	L-S-A:A	dauzkigu	zauzte|za(it)uzte|zauztet|zauztegu|-|-	zauzkitzuete|zauzkitzuete|zauzkitzuetet|zauzkitzue(te)gu|-|-
1.SG	L-S-S:D	diozka	nau|naute|-|-|nauzu|nauzue	nauzki|nauzkite|-|-nauzkitzu|nauzkitzuz
1.PL	L-S-S:D	diozka	gaitu|gaituzte|-|-|gaitutzu|gaitutzue	gaituzki|gaituzte|-|-gaitutzu|gaitutzue
2R	L-S-S:D	diozka	zaitu|zaituzte|zaitut|zaituu|-|-	zaizkitzu|zaizkitzute|zaizkitzut|zaizki-tzu/-tzuu?|-|-
2.PL	L-S-S:D	diozka	zauzte|zaituzte|zauztet|zauzteu|-|-	zauzte|zauzte|zauztet|zauzteu|-|-
1.SG	L-S-U:T	diotza, dazkit	nauzu (#)|naute|-|-|nauzu|nauzue	nauzki|nauzkite|-|-nauzkitzu|nauzkitzue
1.PL	L-S-U:T	diotza, dazkit	gaitu|gaituzte|-|-|gaituzu|gaituzue	∅|∅|-|-|gaitutzu|gaituzkitzue
2R	L-S-U:T	diotza, dazkit	zaitu|zaituzte|zaitut|zaitugu|-|-	∅|zaizkitzute|∅|∅|-|-
1.SG	L-S-Z:I	dazkitzu	∅|naute|-|-|∅|nauzue	nauzki|nauzkite|-|-nauzkitzu|nauzkitzue
1.PL	L-S-Z:I	dazkitzu	gaitu|gaituzte|-|-|gaituzu|gaituzue	gaitu|gaituzte|-|-gaituzu|gaituzue
2.PL	L-S-Z:I	dazkitzu	zauzte|zauzte|zauztet|zauzteu|-|-	∅|∅|zauztet|∅|-|-
1.SG	L-S-p:A	dauzkitzu	nau|naute|-|-|nauzu|nauzue	nauzki|nauzkite|-|-nauzkitzu|nauzkitzue
1.PL	L-S-p:A	dauzkitzu	gaitu|gaituzte|-|-|gaituzu|gaituzue	gaizkigu|gaituzte|-|-gaititutzu|gazkitzute
2R	L-S-p:A	dauzkitzu	zaitu|zaituzte|zaitut|zaituu|-|-	zaizkitzu|zaizkitzute|zaizkitzut|zaizkitzugu|-|-
2.PL	L-S-p:A	dauzkitzu	zaituzte|zaituzte|zaituztet|zaituztegu|-|-	zaizkitzue (#)|zauzkitzuete|zauzkitzuet|auzkitzuegu|-|-

TABLE: DD 3VPPt

Prefix	Dialect	Non-DD 3VP past Plurizers	DD 3VS past 3.SG|3.PL|1.SG|1.PL|2R|2.PL ERG	DD 3VP past 3.SG|3.PL|1.SG|1.PL|2R|2.PL ERG
			ninduen|ninduten|-|-	nina-/nind-uzkien|nina-/nind-uzkiten|-|-|ninduzkitzun|
1.SG	L-Ai-p:A	ziozkan	|ni(n)tutzun/ninduzun|ninduzuen	nintutzuen/ninduzkitzuen
1.PL	L-Ai-p:A	ziozkan	gintuen|gintuzten|-|-|gintutzun|gintutzuen	gintuzkien|gintuzkiten|-|-|gintuzkitzun|gintuzkitzuen
2R	L-Ai-p:A	ziozkan	zituen|zintuten|zintuten|zintu(u)n|-|-	zintuzkien|zintuzkiten|zintuzkiten|zintuzkitzun|-|-

				zintuzten/zintuzkien|zintuzten/zintuzten/zintuzkiten|zintuzten/zintuzkiten|
2.PL	L-Ai-p:A	ziozkan	zintuzten|zintuzten|zintuzten|zintuzteun|-|-	zintuz(ki)teun|-|-
1.SG	HNn-Ir-H:Br	zittion	∅|∅|-|-|nazun|nazuten	∅|∅|-|-|nazkitzun|∅
1.SG	HNn-Ir-HM:A	zittion	nauen|∅|-|-|nazun|nazian	∅|∅|-|-|nazun|nazian
1.PL	HNn-Ir-p:Br	zittion	∅|∅|-|-|gattuzun|gattuzuten?	-|∅|-|-|(gattuzen/ken)|∅
1.SG	HNn-Ir-p:Br	zittion	∅|∅|-|-|nazun|nazuten	∅|∅|-|-|nazkizun|nazkizuten
1.SG	HNn-Ir-pO	zizkion	nauen|∅|-|-|nazun|∅	nazkiyen|∅|-|-|nazkitzun|nazuten
1.PL	HNn-Ir-pO	zizkion	∅|∅|-|-|gattuzun|gattuzuten	gattuen|∅|-|-|gattuzun|gattuzuten
2R	HNn-Ir-pO	zizkion	zaittuen|zaittuzten|zaittuten|zaittugun|-|-	zaittuen|zaittuzten|zaittuten|zaittugun|-|-
2.PL	HNn-Ir-pO	zizkion	∅|∅|zaittuzten|∅|-|-	∅|∅|zaittuzten|∅|-|-
				ninduzkien|ninduzkiten|-|-|-
1.SG	L-L-sA:S	ziozkan	ninduen|ninduten|-|-|ninduzun|ninduzuen	|ninduzkitzun|nintutzun|ninduzkitzuen
1.PL	L-L-sA:S	ziozkan	gintuen|gintuzten|-|-|gintuzun|gintuzuen	gintuzkien|gintuzkiten|-|-|gintuzkitzun|gintuzkitzuen
2R	L-L-sA:S	ziozkan	zintuen|zintuzten|zintu(d)an|zintugun|-|-	zintuzkien|zintuzkiten|zintuzkitan|zintuzki-gun/tzun|-|-
2.PL	L-L-sA:S	ziozkan	zintuzten|zintuzteten|zintuztetan|zintuztegun|-|-	zintuzkiten|zintuzkitzueten|zintuzkitetan|zintuzkitzuegun|-|-
1.SG	L-L-sB:S	ziozkan	ninduen|ninduten|-|-|ninduzun|ninduzuen	ninduzkien|ninduzkiten|-|-|ninduzkitzun|ninduzkitzuen
1.PL	L-L-sB:S	ziozkan	gintuen|gintuzten|-|-|gintuzun|gintuzuen	gintuzkien|gintuzkiten|-|-|gintuzkitzun|gintuzkitzuen
2R	L-L-sB:S	ziozkan	zintuen|zintuzten|zintuten|zintugun|-|-	zintuzkien|zintuzkiten|zintuzkiten|zintuzkigun|-|-
2.PL	L-L-sB:S	ziozkan	zintuzten|zintuzten|zintuzte(e)n|zintuztegun|-|-	zintuzkitzuen|zintuzkitzuen|zintuzkitzuen|zintuzkitzuegun|-|-
1.SG	L-L-sH:A	ziozkan	ninduen|ninduten|-|-|ninduzun|ninduzuen	ninduzkien|ninduzkiten|-|-|ninduzkitzun|ninduzkitzu(t)en
1.PL	L-L-sH:A	ziozkan	gintuen|gintuzten|-|-|gintuzun|gintuzuen	gintuzkien|gintuzkiten|-|-|gintuzkitzun|gintuzkitzuen
2R	L-L-sH:A	ziozkan	zintuen|zintuzten|zintuan|zintugun|-|-	zintuzkien|zi(nt)uzkiten|zintuzkitan|zintuzkigun|-|-
2.PL	L-L-sH:A	ziozkan	zintuzten|zintuzten|zintuztedan|zintuztegun|-|-	zintuzkiten|zintuzkiten|zintuzkite(da)n|zintuzkitegun|-|-
1.SG	L-L-sU:S	ziozkan	ninduen|ninduten|-|-|ninduzun|ninduzuen	ninduzkien|ninduzkiten|-|-|ninduzkitzun|ninduzkitzuen
				gintuzkien|gintuzkiten|-|-
1.PL	L-L-sU:S	ziozkan	gintuen|gintuzten|-|-|gintuzun|gintuzuen	|gintuzkitzun/ginduzkitzun|gintuzkitzuen
2R	L-L-sU:S	ziozkan	zintuen|zintuzten|zintu(t)an|zintu:n|-|-	zintuzkien|ziunzten/zinuzten|zintuzkitan|zinduzkigun|-|-
			zintuzten|zintuzte(te)n|ziu(n)ztetan|zintuzteun|-|-	
2.PL	L-L-sU:S	ziozkan	|-	zintuzten|zintuz(ki)ten|zintuztetan|zintuzteun/ziunzteun|-|-
1.SG	L-L-p:A	ziozkan	nituen|nituten|-|-|nitutzun|nitutzuen	nituzkien|nituzkiten|-|-|nituzkitzun|nituzkitzuen
1.PL	L-L-p:A	ziozkan	gintuen|gi(n)tuzten|-|-|gintutzun|gintutzuen	gintuen|gintuzten|-|-|gintutzun|gintutzuen
2R	L-L-p:A	ziozkan	zintuen|zintuzten|zintutan|zintugun|-|-	zintuzkien|zintuzten|zintuztan|zintugun|-|-
2.PL	L-L-p:A	ziozkan	zintuzten|zintuzten|zintuzten|zintuzten|-|-	zintuzten|zintuzten|zintuzten|zintuzten|-|-
1.SG	L-L-nB:A	ziozkan, zazkun	nintuen/ninduen|nintuzten/ninduten|-|-|nintutzun|nintutzuen	nintuzkien|ninduzkiten|-|-|nintuzkitzun|nintuzkitzuen
1.PL	L-L-nB:A	ziozkan, zazkun	gintuen|gintuzten|-|-|gintutzun|gintutzuen	∅|gintuzten|-|-|gintutzun|gintutzuen
2R	L-L-nB:A	ziozkan, zazkun	zintuen|zintuzten|zintu(d)an|zintugun|-|-	zintuzkien|zintuzkiten|zintu(zki)an|zintu(zki)gun|-|-
2.PL	L-L-nB:A	ziozkan, zazkun	zintuzten|zintuzten|zintuztean|zintuztegun|-|-	zintuzten|zintuzten|zintuztean|zintuztegun|-|-
1.SG	L-L-nG:A	ziozkan	nituen|nituzten|-|-|nitutzun|nitutzuen	nituen|nintuzten|-|-|nintutzun|nizkitzuen/nintutzuen
1.PL	L-L-nG:A	ziozkan	gintuen|gintuzten|-|-|gintutzun|gintutzuen	gintuen|gintuzten|-|-|gintutzun|gintutzuen
2R	L-L-nG:A	ziozkan	zintuen|zintuzten|zintudan|zintugun|-|-	zintuen|zituzten|zintudan|zintugun|-|-
2.PL	L-L-nG:A	ziozkan	zintuzten|zintuzten|zintuztetan|zintuztegun|-|-	izatu zaituzte|izatu zaituzte|izatu zaituztet|izatu zaituztegu|-|-
1.SG	L-L-nG:S	ziozkan	nituen|nituzten|-|-|nitutzun|nitutzuen	nintuzkian|ninduzkiten|-|-|nintutzkitzun|nintutzkitzuen
1.PL	L-L-nG:S	ziozkan	gintuen|gintuzten|-|-|gintutzun|gintutzuen	gintuzkien|-|-|-|-
2R	L-L-nG:S	ziozkan	zintuen|zintuzten|zintudan|zintugun|-|-	zintuzkien|zintuzkiten|zintuzkian|-|-|-
				nint-/nind-uzkien|nint-/nind-uzkiten|-|-
1.SG	L-Ar-A:A	ziozkan	ninten|nintuzten|-|-|nintuzun|nintutzin	|nintuzkitzun|nintuzkitzin
1.PL	L-Ar-A:A	ziozkan	gintin|gintuzten|-|-|gintuzun|gintutzin	gintuzkien|gintuzkiten|-|-|gintuzkitzun|gintuzkitzin
2R	L-Ar-A:A	ziozkan	zintin|zintuzten|zintu(d)an|zintuun|-|-	zintuzkien|zintuzkiten|zintuzkian|zintuzkiun|-|-
2.PL	L-Ar-A:A	ziozkan	zintuzten|zintuzten|zintuzte(d)an|zintuzteun|-|-	zintuzkiten|zintuzkiten|zintuzkit(e)an|zintuzkiteun|-|-
1.SG	L-Ar-p:A	ziozkan	nintin|nintuzten|-|-|nintuzun|nintuzin	nint(uzk)in|nintuz-ten/-kitzin|-|-|nintu(zki)tzun|nintu(zki)tzin
1.PL	L-Ar-p:A	ziozkan	gintin|gintuzten|-|-|gintuzun|gintutzin	gintin|gintuzten|-|-|gintuzun|gintutzin
2R	L-Ar-p:A	ziozkan	zintin|zintuzten|zintuan|zintuun|-|-	zintuzkin|zintuzkiten|zintuzkian|zintuzkiun|-|-
2.PL	L-Ar-p:A	ziozkan	zintuzten|zintuzten|zintuztean|zintuzte(u)n|-|-	zintuzten|zintuzten|zintuztean|zintuzteun|-|-
			nintuen|nintuzten|-|-	
1.SG	L-S-A:A	ziozkan	|nintutzun|ni(n)tuzuen/ninduzuen	nintuzkien|ninti-/nindi-zkiteian|-|-|nintuzkitzun|nituzkitzuen
1.PL	L-S-A:A	ziozkan	gintuen|gintuzten|-|-|gintutzun|gintutzuen	gintuzkien|gintuzkiten|-|-|gintuzkitzun|gintuzkitzuen?
2R	L-S-A:A	ziozkan	zintuen|zintuzten|zintudan|zintuzuen|-|-	zintuzkien|zintuzkiten|zintuzki-dan/-tan|zintuzkigun|-|-
2.PL	L-S-A:A	ziozkan	zintuzten|zintuzten|zintuztedan|zintuztegun|-|-	zintuzkiten|zintuzkiten|zintuzkite(da)n|zintuzki(te)gun|-|-
1.SG	L-S-S:D	ziozkan	ninduen|ninduten|-|-|ninduzun|ninduzuen	ninduzkien|ninduzkiten|-|-|ninduzkitzun|ninduzkitzuen
1.PL	L-S-S:D	ziozkan	giotuen (#)|gintuzten|-|-|gintuzun|gintuzuen	gintuzkien|gintuzkiten|-|-|gintuzun|gintuzkitzuen
2R	L-S-S:D	ziozkan	zintuen|zintuten|zintuten|zintuun|-|-	zintuzkien|zintuzkiten|zintuzkiten|zintuzkiun|-|-
2.PL	L-S-S:D	ziozkan	zintuzten|zintuzten|zintuzten|zintuzteun|-|-	zintuzkiten|zintuzten|zintuzkiten|zintuzteun|-|-
1.SG	L-S-U:T	zizkidan	ninduen|ninduten|-|-|ninduzun|ninduzuen	∅|ninduzkiten|-|-|ninduzkitzun|ninduzkitzuen
1.PL	L-S-U:T	zizkidan	gintuen|∅|-|-|gintutzun|gintutzuen	∅|∅|-|-|gintu(zki)tzun|∅
2R	L-S-U:T	zizkidan	zintuen|zintuzten|zintudan|zintugun|-|-	∅|∅|∅|∅|-|-
2.PL	L-S-U:T	zizkidan	zintuzten|zintuzten|zintuztedan|zintuztegun|-|-	∅|∅|zauzteten|∅|-|-
1.SG	L-S-Z:I	zazkitzun	ninduen|ninduten|-|-|ninduzun|ninduzuen	ninduzkien|ninduzkiten|-|-|ninduzkitzun|ninduzkitzuen
1.PL	L-S-Z:I	zazkitzun	gintuen|gintuzten|-|-|gintuzun|gintuzten	gintuen|gintuzuen|-|-|gintuzun|gintuzten
2R	L-S-Z:I	zazkitzun	zintuen|zintuten|∅|zintugun|-|-	zintuzkien|zintuten|∅|zintugun|-|-
2.PL	L-S-Z:I	zazkitzun	∅|∅|∅|∅|-|-	∅|zauzten|∅|∅|-|-
1.SG	L-S-p:A	ziozkan	ninduen|ninduten|-|-|ninduzun|ninduzuen	nintuen/nizduzkien (#)|ninduz(ki)ten|-|-|nintutzun|

1.PL	L-S-p:A	ziozkan	gintuen|gintuzten|-|-|gintutzun|gintutzen
2R	L-S-p:A	ziozkan	zintuen|zintuzten|zintutan|zintuun|-|-
2.PL	L-S-p:A	ziozkan	zintuzten|zintuzten|zintuzte(ta)n|zintuztegun|-|-

nintutzuen/ninduzkitzuen
gintuzkien\|gintuzkieten\|-\|-\|gintu(zki)tzun\|gintuzkitzuen
zintuzkien\|zintuzkieten\|zintuzkietan\|zintuzkiegun\|-\|-
zintuzki(t)en\|zintuzkiten\|zintuzki(t)etan\|zintuzki(t)egun\|-\|-

4 Annex: DD doubling in the northern (L) group

DD doubling in the 3VP paradigms for the northern group (all L dialects):

TABLE: DD doubling for 3VP past in L

Dialect	Doubling form	DD
L-L-sA:S	3.P>2.P+ *zintuzkitzueten*	Complete
	1.P>2R+ *zintuzki(tz/g)un*	
	1.P>2.P+ *zintuzkitzuegun*	
L-L-sB:S	3.S/P, 1.S>2.P+ *zintuzkitzuen*	Complete
	1.P>2.P+ *zintuzkitzuegun*	
L-Ai-p:A	1.P>2R+ *zintuzkitzun*	Complete

TABLE: Labourdin 3VPPr doubling 2R.D (doubling celles shaded)

DAT	Dialect	ERG 3.S	3.P	1.S	1.P	2R	2.R
2R	L-L-p:B	∅, zaizkitzu	∅, zaizkitzute	∅, zaizkitzut	∅, zaizkitzugu	-	-
2R	L-L-p:A	∅, zaizkitzu	∅, zaizkitzue	∅, zai-/zau-zkitzut	∅, zaizkitzugu	-	-
2R	L-L-sA:S	∅, zaizkitzu	∅, zaizkitzute	∅, zaizkitzut	∅, zaizkitzugu	-	-
2R	L-L-sB:S	∅, zaizkitzu	∅, zaizkitzute	∅, zaizkitzut	∅, zaizkitzugu	-	-
2R	L-L-sH:A	∅, zaizkitzu	∅, zaizkitzute	∅, zaizkitzut	∅, zaizkitzugu	-	-
2R	L-L-sU:S	∅, zaizkitzu	∅, zaizkitzute/ zauzte	∅, zaizkitzut	∅, zaizkitzu	-	-
2R	L-L-nB:A	∅, zaizkitzu	∅, zuzaizkitzute	∅, zaizkitzut	∅, zaizkitzugu	-	-
2R	L-L-nG:A	∅, zaizkitzu	∅, zaizkitzute	∅, zaizkitzut	∅, zaizkitzugu/ zaitugu	-	-
2R	L-L-nG:S	∅, zaizkitzu	∅, zaizkitzute	∅, zaizkitzut	∅, zaizkitzugu	-	-
2R	L-S-p:A	dauzkitzu?, zaizkitzu	∅, zaizkitzute	∅, zaizkitzut	∅, zaizkitzugu	-	-
2R	L-S-S:D	∅, zaizkitzu	∅, zaizkitzute	∅, zaizkitzut	∅, zaizki-tzu/-tzuu?	-	-
2R	L-S-A:A	∅, zauzkitzu	∅, zaizkitzute	∅, zaizkitzut	∅, zaizkitzugu	-	-
2R	L-S-U:T	dazkitzu, ∅	dazkitzute, zaizkitzute	dazkitzut, ∅	dazkitzugu, ∅	-	-
2R	L-Ai-p:A	∅, zaizkitu/ zaizkitzu (#)	∅, zaizkitzute		∅, zaizkitzu	-	-
2R	L-Ar-A:A	∅, zaizkitzu	∅, zaizkitzute	∅, zaizkitzut	∅, zaizkitzuu	-	-
2R	L-Ar-p:A	∅, zaizkitzu	∅, zaizkitzute	∅, zaizkitzut	∅, zaizkitzuu	-	-

TABLE: Labourdin 3VPPr doubling 2.P.D (doubling cells shaded)

DAT	Dialect	ERG 3.S	3.P	1.S	1.P	2R	2.P
2.P	L-L-p:B	∅, zaizkitzube		∅, zaizkitzubet		-	-
2.P	L-L-p:A	∅, zauzkitzue/ zauz(ki)te	∅, zauz(ki)te	∅, zauzkitzuet/ zauz(ki)tet	∅, zauztegu	-	-
2.P	L-L-sA:S	∅, zauzkitzue	∅, zauzkitzue	∅, zauzkitzuet	∅, zauzkitzue(g)u	-	-
2.P	L-L-sB:S	∅, zaizkitzue	∅, zaizkitzuete	∅, zaizkitzuet	∅, zaizkitzuegu	-	-

12

2.P							
2.P	L-L-sH:A	∅, zauzkitzu(t)e	∅, zauzkitzute	∅, zauzkitzuet	∅, zauzkitzuegu	-	-
2.P	L-L-sU:S	∅, zauzkitzue/za(it)uzte	∅, zauzkitzue/za(it)uzte	∅, zauzkitzuet	∅, zauzkitzueu/zaituzteu	-	-
2.P	L-L-nB:A	∅, zauzte	∅, zauztete	∅, zauztet	∅, zauztegu	-	-
2.P	L-L-nG:A	∅, zaizkitzuete	∅, zaizkitzuete	∅, zauzkitzutet	∅, zaizkitzutegu	-	-
2.P	L-L-nG:S	∅, zaizkitzute	∅, zauzkitzuete			-	-
2.P	L-S-p:A	dauzkitzue, zauzkitzuet	dauzkitzuete, zauzkitzuete	dauzkitzuet, zauzkitzuet	dauzkitzuegu, zauzkitzuegu	-	
2.P	L-S-S:D	∅, zauzte	∅, zauzte	∅, zauztet	∅, zauzteu	-	-
2.P	L-S-A:A	∅, zauzkitzuete	∅, zauzkitzuete	∅, zauzkitzuetet	∅, zauzkitzue(te)gu	-	-
2.P	L-S-U:T	dazkitzue, ∅	dazkitzue, ∅	dazkitzuet, ∅	dazkitzuegu, ∅	-	-
2.P	L-Ai-p:A	∅, zauz(ki)te	∅, zauz(ki)te	∅, zauz(ki)tet	∅, zauz(ki)ten (#)	-	-
2.P	L-Ar-A:A	∅, zauzkitzue/zauzkitzi	∅, zauzki(tzi)te	∅, zauzkit(zu)et (#)	∅, zauzkitz-ueu/-iu	-	-
2.P	L-Ar-p:A	∅, za(it)uzte	∅, za(it)uzte	∅, za(it)uztet	∅, zaituzteu/zauztegu	-	-

TABLE: Labourdin 3VPPr doubling for 1.P.D (doubling cells shaded)

DAT	Dialect	ERG 3.S	3.P	1.S	1.P	2R	2.P
1.P	L-L-p:B	dauzkigu, gaitu	∅, gaituzte	-	-	∅, gaitutzu	∅, gaitutzube
1.P	L-L-p:A	∅, gaitu	∅, gaituze	-	-	∅, gaitutzu	∅, gaitutzue
1.P	L-L-sA:S	∅, gaituzki	∅, gaituzkite	-	-	∅, gaituzkitzu	∅, gaituzkitzue
1.P	L-L-sB:S	∅, gaizkigu	∅, gaizkite	-	-	∅, gaituzu/gaizkitzu	∅, gaizkitzue
1.P	L-L-sH:A	∅, gaituzki	∅, gaituzkite	-	-	∅, gaituzkitzu	∅, gaituzkitzue
1.P	L-L-sU:S	∅, gaituzki	∅, gaituz(ki)te	-	-	∅, gaituzkitzu	∅, gaituzkitzue
1.P	L-L-nB:A	dazku, ∅	dazkute, ∅	-	-	∅, gaitutzu	∅, gaitutzue
1.P	L-L-nG:A	∅, gaitu	∅, gaituzte	-	-	∅, gaitutzu	∅, gaitutzue
1.P	L-L-nG:S	∅, gaizkigu		-	-		
1.P	L-S-p:A	dauzk(ig)u, gaizkigu	dauzkite, gaituzte	-	-	∅, gaititutzu	dauzkitzue, gazkitzute
1.P	L-S-S:D	∅, gaituzki	∅, gaituzte	-	-	∅, gaitutzu	∅, gaitutzue
1.P	L-S-A:A	dauzkigu, gaituzkigu	∅, gaituzkigute	-	-	∅, gaituzkitzu	dauzkizuete, gaituzkitzue
1.P	L-S-U:T	dazku/dizkigu, ∅	da(u)zkute/dizkigute, ∅	-	-	da-/di-zkigutzu, gaitutzu	dau-/di-zkigutzue, gaituzkitzue
1.P	L-Ai-p:A	∅, gaituzki	∅, gaituzkite	-	-	∅, gaituzkitzu	∅, gaituzkitzue
1.P	L-Ar-A:A	∅, gaituzki	∅, gaituzkite	-	-	∅, gaituzkitzu	∅, gaituzkitzi
1.P	L-Ar-p:A	∅, gaitu	∅, gaituzte	-	-	∅, gaitutzu	∅, gaitutzi

A possible doubling of 1.SG.DAT, too unclear to be used with confidence, occurs in L-S-A:A 3.P>1.S+>3.PL past *nintuzkitei̯an, nindizkitei̯an* (by e.g. 3.S.E- *nintuzkien*, 2R.E- *nintuzkitzun*). However, it could just as easily be the MASC morpheme.

5   Annex: ED doubling

The following tables give all past tense (2VPt, 3VS/PPt) sub-paradigms that have doubling for every dialect, with information about the other past-tense sub-paradigms that lack doubling entirely, namely whether they have ED forms for the corresponding ERG-O1/O' combination or not (either no ED or lacunae). There are four tables, the first for dialects that have doubling in 2VPt and one or both 3VS/PPt sub-paradigms, the next two for dialects that have doubling only in 3VS/PPt sub-paradigms (differentiated according to what happens in 2VPt), and finally dialects that have doubling in only one sub-paradigm. The synopsis is useful in trying to find formal correlates of doubling, in terms of the φ-features of the arguments, which imply overt or covert morphemes such as O2.PL.

In the end, it seems that there are no absolute patterns in the relationship of doubling across the different paradigms. The closest relationship would be expected between 2VPt

leismo form and 3VSPt non-DD forms, which are generally identical for a choice of α:ERG-β:O1/O'. Generally, where these are comparable (ED applies, etc.), they are indeed identical; but some differences in doubling do occur in G-Bu-B:I, L-B-An:IA, L-E-pA:S, L-E-pAz:A, L-E-p:I, L-E-pL:A, sometimes simply in that doubling is optional in one and not present/obligatory in the other, sometimes however in that doubling is obligatory in one and not present in the other: G-Bu-B:I 2VPt leismo 2.P.E-1.P.O1 *zenduzain* vs. 3V *zindubein*; L-E-pL:A 2VPt leismo 1.P.E-2R.O1 *ginatzu(g)un* vs. 3V *ginatzun*. Like spell-out of other morphemes such as class markers discussed in section 00, doubling spell-out can take account of the 2V leismo vs. 3V difference.

Beyond these closest of forms, divergences are rampant: for α:ERG-β:O1/O' outside this range, doubling in one of the 2VPt, 3VSPt, 3VPPt sub-paradigms implies nothing necessarily about doubling in the other. The full listing therefore does not seem to add information beyond the minimal raw-numbers table above, which pinpoints relative frequencies and the fact that 1.S.ERG does not double.

TABLE: ED Doubling contrast 2V - 3VS - 3VP Pt.

Dialect	Pdgm	3.S|3.P|1.S|1.P|2R|2.P.O1/O' x 1.S 1.P 2R 2.P.ERG
G-Bu-B:I	2VPt	0000|0000|XX++|XX++|++XX|++XX|
	3VSPt	++++|++++|XX++|XX++|++XX|++XX
	3VPPt	++++|++++|XX++|XX++|++XX|++XX
L-B-Al:A	2VPt	++++|++++|XX++|XX++|++XX|++XX
	3VSPt	++++|++++|XX++|XX++|++XX|++XX
	3VPPt	++++|++++|XX++|XX++|++XX|++XX
L-B-An:IA	2VPt	++0+|++++|XX++|XX++|++XX|++XX
	3VSPt	++++|++++|XX++|XX++|++XX|++XX
	3VPPt	++++|++++|XX++|XX++|++XX|++XX
L-E-K:A	2VPt	++++|++++|XX@@|XX@@|++XX|++XX
	3VSPt	++++|++++|XX++|XX++|++XX|++XX
	3VPPt	++++|++++|XX++|XX++|++XX|++XX
L-E-pA:S	2VPt	++++|++++|XX@@|XX@@|0+XX|++XX
	3VSPt	++++|+++|XX++|XX++|++XX|++XX
	3VPPt	++++|+++|XX++|XX++|++XX|++XX
L-E-pAz:A	2VPt	++++|++++|XX@@|XX@@|++XX|++XX
	3VPPt	++++|++++|XX++|XX++|++XX|++XX
	3VSPt	++++|++++|XX++|XX++|++XX|++XX
L-E-pE:A	2VPt	++++|++++|XX@@|XX@@|++XX|++XX
	3VSPt	++++|++++|XX++|XX++|++XX|++XX
	3VPPt	++++|++++|XX++|XX++|++XX|++XX
EpGarAJ	2VPt	++++|++++|XX++|XX00|00XX|++XX
	3VSPt	0000|0000|XX++|XX++|++XX|00XX
	3VPPt	0000|0000|XX++|XX++|++XX|00XX
L-E-p:I	2VPt	++++|++++|XX@@|XX@@|@+XX|++XX
	3VSPt	++++|+++|XX++|XX++|++XX|++XX
	3VPPt	++++|++++|XX++|XX++|++XX|++XX
L-E-pL:A	2VPt	++++|++++|XX++|XX++|++XX|++XX
	3VSPt	++++|++++|XX++|XX++|++XX|++XX
	3VPPt	++++|++++|XX++|XX++|++XX|++XX
L-E-L:PIA	2VPt	++++|++++|XX++|XX@@|++XX|++XX
	3VSPt	++++|+++|XX++|XX++|++XX|++XX

```
                3VPPt   ++++|++++|XX++|XX++|++XX|++XX
G-H-nePD:ALO    2VPt    ++++|++++|XX±±|XX++|++XX|++XX
                3VSPt   +±±±|+++±|XX±±|XX++|+±XX|++XX
                3VPPt   ++--|++--|XX±±|XX++|++XX|++XX
G-H-nePS:ALO    2VPt    ++++|+++±|XX--|XX±+|++XX|++XX
                3VSPt   +±±+|++-+|XX--|XX±+|++XX|++XX
                3VPPt   ++±+|++-±|XX--|XX-+|++XX|++XX
```

TABLE: ED 3VS/PPt doubling comparison, No doubling in 2VPt

```
Dialect        Pdgm    3.S|3.P|1.S|1.P|2R|2.P.O1/O' x 1.S 1.P 2R 2.P.ERG
 L-Ai-p:A      3VSPt   ++±+|++++|XX@@|XX@@|@@XX|@@XX
               3VPPt   ++++|++±±|XX@@|XX@@|@@XX|@@XX
 HNn-Ir-RA     3VSPt   +?--|+±--|XX--|XX--|++XX|++XX
               3VPPt   +±--|+±--|XX--|XX--|++XX|++XX
 L-L-sH:A      3VSPt   ++++|+++±|XX@@|XX@@|@@XX|@@XX
               3VPPt   ++++|+++±|XX@@|XX@@|@@XX|@@XX
 L-L-sU:S      3VSPt   ++±+|+++±|XX@@|XX@@|@@XX|@@XX
               3VPPt   ++±±|+++±|XX@@|XX@@|@@XX|@@XX
 L-Ar-A:A      3VSPt   +++±|++++|XX@@|XX@@|@@XX|@@XX
               3VPPt   ++++|+++±|XX@@|XX@@|@@XX|@@XX
```

TABLE: ED 3VS/PPt doubling comparison, No corresponding ED in 2VPt

```
Dialect        Pdgm    3.S|3.P|1.S|1.P|2R|2.P.O1/O' x 1.S 1.P 2R 2.P.ERG
 G-Bu-O:I      3VSPt   ++++|++++|XX++|XX+±|++XX|++XX
               3VPPt   ++++|++++|XX+±|XX++|++XX|++XX
 L-E-pAr:A     3VSPt   ++++|++++|XX±±|XX±±|++XX|++XX
               3VPPt   ++++|++++|XX±±|XX±±|++XX|++XX
 L-E-p:B       3VSPt   +000|0000|XX0±|XX00|00XX|00XX
               3VPPt   0000|0000|XX±0|XX00|00XX|00XX
 EpGarMC       3VSPt   ++++|+++±|XX00|XX00|00XX|++XX
               3VPPt   ++++|+++±|XX00|XX00|00XX|++XX
 EpMayAl       3VSPt   ++++|++++|XX+±|XX±±|++XX|++XX
               3VPPt   ++++|++++|XX±±|XX±±|++XX|++XX
 HNn-Ir-RF     3VSPt   ++++|++++|XX--|XX@-|++XX|++XX
               3VPPt   ++++|++++|XX--|XX±+|++XX|+±XX
```

TABLE: ED doubling only in one paradigm, status of other paradigms

```
Dialect        Pdgm    3.S|3.P|1.S|1.P|2R|2.P.O1/O' x 1.S 1.P 2R 2.P.ERG  Pattern
B-V-O:G        2VPt    ++++|+0±±|XX@@|XX@@|@@XX|@@XX   3VP=3VS no doubling
B-V-O:O        2VPt    ++++|++±±|XX@@|XX@@|@@XX|@@XX   3VP=3VS no doubling
B-B-wA:A       3VSPt   ++++|++++|XX++|XX±±|++XX|++XX   2V no cor. ED, 3VP no dbl.
G-H-U:A        3VSPt   ++±±|++--|XX--|XX--|++XX|++XX   2V no dbl, 3VP no cor. ED
HNn-Ir-OG:K    3VSPt   ++±±|++++|XX++|XX++|++XX|++XX   2V, 3VP no doubling
L-E-pAr:Go     3VSPt   0+0+|0000|XX0±|XX00|00XX|00XX   2V, 3VP no cor. ED
B-Sa-pM:A      3VSPt   +?+±|+++±|XX±±|XX±±|+?XX|++XX   2V no dbl., 3VP no cor. ED
HNn-Ir-p:Br    3VPPt   ++±+|++++|XX++|XX++|++XX|++XX   2V, 3VS no doubling
HNn-Ir-HM:A    3VPPt   ++--|+±--|XX@@|XX--|++XX|++XX   2V, 3VS no doubling
HNn-Ir-RL      3VPPt   ++++|+±++|XX++|XX±+|++XX|++XX   2V, 3VS no doubling
HNn-Ir-RZE     3VPPt   ++++|++±+|XX--|XX-±|+±XX|+±XX   2V no dbl., 3VS no cor. ED
```

```
L-S-A:A     3VPPt   +++±|++++|XX@@|XX@@|@@XX|@@XX   2V, 3VS no doubling
L-S-U:T     3VPPt   ++++|+++±|XX@@|XX@+|++XX|++XX        2V, 3VS no doubling
```