Semi-Free Relative Clauses and the DP Hypothesis : Basque Evidence and Theoretical Consequences

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0. Introduction*

The traditional partition between headed (restrictive) relatives and free or headless relatives is not sufficiently fine-grained: once a distinction is made between *lexical* and *functional* heads and projections, there no longer is the simple dichotomy illustrated by the nominal expressions (1a) vs. (1b), but also a third possibility, in which some phonetically realized element outside of the relative clause (RC) *is* present, but carries no lexical information, as in (2).

(1)   a   Whoever helps the blind
        b   The man that helps the blind

(2)   El que ayuda a   los ciegos   [*Spanish*]
        the that helps ACC the blind

Thus, in phrases like (2), the Det. position is filled, but they contain no explicit noun: it is this type of complex nominal phrases which I have chosen to label "Semi-Free Relative Clauses", henceforth SFRs.[1] Note that English possibly also exhibits SFRs, as witnessed by (3), borrowed from Quirk *et al.* (1972): to admit that it *is* one, it is sufficient to recall Postal's (1966) work on pronouns as intransitive determiners.[2]

(3)   [[$_{DET}$ He] ... [$_{CP}$ who helps the blind]]

Here, I will investigate the properties of Basque left-dislocated SFRs, which exist in all the dialects of the language, and have been attested all along its five century long history.[3] Their

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[1] SFRs are to be distinguished from Citko's (in press) "Light-Headed Free Relatives", a construction which corresponds to left-dislocated pure free relatives, the analysis of which crucially relies on the possibility of interpreting the "correlative" (or "resumptive") pronoun as a copula.

[2] Another possible candidate is provided by *The one who ...* where *one* is not a (generic) personal pronoun; an important difference, though, is that the N'/NP position *is* occupied, contrary to the example (2), and contrary to an analysis *à la* Postal of (3) – more on this in 6.4.

[3] The Eastern dialects (those spoken in the French Basque Country and in the Spanish province of Navarre) also have pure free relatives, but there are simply no contexts in which they cannot be replaced by SFRs. An example of such truly Free Rels. is provided in footnote 4 below.

apparently surprising semantic, syntactic, and morphological properties will be used to argue for a structure like the one in (4a), in which no NP is present, but in which, contrary to Kayne's (1994) influential suggestion, what moves to the Spec,CP position is not an (empty) NP, but an empty operator. Evidence will be provided to justify a further movement of that operator from Spec,CP to Spec,DP, either after, or sometimes before, Spell-out, as shown in (4b) – leaving aside the Head Parameter which, descriptively at least, places most Basque functional heads to the right of their complements: the fundamental Spec,Head Agreement relation will then naturally account for the empirical properties that first appeared to be exotic.

(4)   a $[_{DP} [_{D'} D° [_{CP} Op_i [_{C'} ...t_i...]]]]$
       b $[_{DP} Op_i [_{D'} D° [_{CP} t'_i [_{C'} ...t_i...]]]]$

The paper is organized as follows: § 1 summarizes some of the various options available within the GB paradigm that allow distinct analyses of free, and "semi-free", RCs. Common Basque ordinary restrictive relatives and SFRs are next introduced (§ 2), and evidence for the DP analysis of Basque nominal expressions is provided in § 3. In § 4, some unexpected semantic properties of SFRs are described, which all lead to the conclusion that they are sometimes best understood as expressing *properties* rather than maximal individuals. In § 5, a widely attested, but little known property of left-dislocated SFRs, namely, that the morphological case of the relativized position (t_i in (4) sometimes percolates to the outer DP itself, is described. In section 6, the properties described in the preceding sections are accounted in terms of the operator raising to Spec,DP either before Spell-out, thereby visibly transmitting its case feature to the Det head (whence to the whole DP) or possibly only after, in which case only its formal semantic property, that of being a λ-operator, is transmitted to the outer DP; the prediction that other phi-features (those of person and number) can also be transmitted from the relativized position in the CP to the outer DP is also argued to play a hidden, but essential, role for interpretability reasons. In 6.4, true SFRs are distinguised from elliptical ones. Section 8 summarizes the results and draws some theoretical consequences.

1. THE SYNTACTIC BACKGROUND

Around 1980, there were two main analyses of free relatives – the phrases in (1a) above: either the *Wh*-P was considered to be within the S' (the *Headless* or *Comp analysis*), or without (the *Headed analysis* – cf. Groos & van Riemsdijk (1981) or Hirschbühler & Rivero (1983), and Bresnan & Grimshaw (1978), respectively. In both cases, the relative clause, a CP in the *Barriers* framework, but an S or S' at that time, was considered to be adjoined to a respectively empty, or realized, NP, as shown in (5):

(5)   a   *Headless/Comp Analysis*
$[_{NP} [_{NP} \emptyset] [_{S'}[_{COMP} \text{whoever}_i] [_S t_i]]]$

        b   *Headed Analysis*
$[_{NP} [_{NP} \text{whoever}_i] [_{S'}[_{COMP} \emptyset] [_S e_i]]]$

        c   *Headed Analysis* à la Bresnan & Grimshaw (1978)
$[_{NP} [_{NP} \text{whoever}_i] [_S e_i]]$

This external adjunction approach is still currently adopted without discussion today, e.g. in van Riemsdijk (2000) – with, of course, the substitution of DP and CP for NP and S' – in his typology of Free Relatives analyses in the past twenty years:[4]

(6)   a $[_{DP} [_{DP} \emptyset]$ $[_{CP} \textit{what}_i$ $[_{C'} ... t_i ...]]]$
        b $[_{DP} [_{DP} \text{PRO/pro}]$ $[_{CP} \textit{what}$ $[_{C'} ... t_i ...]]]$
        c $[_{DP} [_{DP} \textit{it/that}_i]$ $[_{CP} \textit{wh-}_i$ $[_{C'} ... t_i ...]]]$
        d $[_{DP} [_{DP} \textit{what}_i]$ $[_{CP} \emptyset_i$ $[_{C'} ... t_i ...]]]$

Although such analyses are compatible with some version of compositional semantics (cf. Bach & Cooper (1978))[5], they altogether ignore the more standard version, according to which restrictive relatives are adjoined to N' (in the NP al-analysis of nominal expressions), thereby yielding a very simple input to an intersective interpretation, both the N' (semantically a CN) and the relative clause being translated into properties.[6] Now, on this approach, X-bar theory offered another structural possiblity, by allowing the Spec,NP position to be activated, as shown in (7b) (I replace the old-fashioned S, S' symbols by more recent ones).

(7)   a $[_{NP} [_{N'} [_{N'} \emptyset] [_{CP} \text{wh-}_i [_{C'} ...t_i ...]]]]$

        b $[_{NP} \underline{\mathbf{D}} [_{N'} [_{N'} \emptyset] [_{CP} \text{wh-}_i [_{C'} ...t_i ...]]]]$

Something like (7b) could at least have been contemplated to account for examples like (3), and probably should have, for structures like (2) – cf. (8b), as against (8a), the so-called

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[4] The C° is not explicit in van Riemsdijk (2000), but this position is clearly activated in Germanic FRs, which exhibit a Verb Final word order, and in those dialects of Basque which have them, since an affixal C° (*bait-* or *(e)n*) is necessary, as in (i) below – note that de Rijk (1972) labelled what I am calling SFRs here "Free relatives", and did not mention such structures as the following:

(i)   Nork   ere huts egiten bait-du/du.en,   hura gaztigatua izanen da
       who-*k* ever error making C°+AUX AUX+C° he   punished will-be AUX
       'Whoever makes a mistake shall/will be punished'

[5] The mechanism they offer reduces to the adjunction of an S' (CP) to an NP, the former being able to bind a free property variable associated with the CN in the lower NP segment.

[6] When the lower N' is empty, the intersection reduces to the set denoted by the CP, whence the maximalization effect SFRs generally display.

Headed analysis, which would certainly have required some explicit argumentation in favour of *el* being analyzed as an N':

(8) a *Headed analysis*
         (i) [$_{NP}$ [$_{N'}$ [$_{N'}$ he] [$_{CP}$ who$_i$ [$_{C'}$ Ø [$_{IP}$ t_i helps the blind]]]]]]
         (ii) [$_{NP}$ [$_{N'}$ [$_{N'}$ el] [$_{CP}$ Op$_i$ [$_{C'}$ que [$_{IP}$ t_i ayuda a los ciegos]]]]]]
     b *Headless analysis*
         (i) [$_{NP}$ he [$_{N'}$ [$_{N'}$ Ø] [$_{CP}$ who$_i$ [$_{C'}$ Ø [$_{IP}$ t_i helps the blind]]]]]]
         (ii) [$_{NP}$ el [$_{N'}$ [$_{N'}$ Ø] [$_{CP}$ Op$_i$ [$_{C'}$ que [$_{IP}$ t_i ayuda a los ciegos]]]]]]

Today, with the advent of the DP analysis of nominal expressions, not only is the D° position obligatory, but a new position is also available, that of Spec,DP, the **α** in (9c) and (10b).

(9) a [$_{DP}$ [$_{D'}$ he [$_{NP}$ [$_{NP}$ Ø] [$_{CP}$ who$_i$ [$_{C'}$ Ø [$_{IP}$ t_i helps the blind]]]]]]]
     b [$_{DP}$ [$_{D'}$ el [$_{NP}$ [$_{NP}$ Ø] [$_{CP}$ Op$_i$ [$_{C'}$ que [$_{IP}$ t_i ayuda a los ciegos]]]]]]]
     c [$_{DP}$ **α** [$_{D'}$ D° [$_{NP}$ [$_{NP}$ Ø] CP]]]
(10) a [$_{DP}$ [$_{D'}$ D° [$_{CP}$ Op$_i$/*Wh*- C']]]
     b [$_{DP}$ **α** [$_{D'}$ D° [$_{CP}$ Op$_i$/*Wh*- C']]]

As claimed in the introduction, one empirical aim of this paper is to show that this spec,DP position is activated in Basque — but I shall also endeavour to show that both (9) and (10) are necessary, the former corresponding to elliptical complex DPs, the later to real SFRs, which have interestingly divergent properties. From a semantic point of view, note that both structures are motivated: ellipsis corresponds to contextually recoverable lexical material, whence a real intersective interpretation is possible, whereas the CP-as-D°-complement structure just implies no intersection, the translation of the Det directly combining with the property provided by the CP[7] to yield a maximal individual.[8]

2. COMMON BASQUE RELATIVE CLAUSES AND (SEMI) FREE RELATIVES

2.1. *Headed Relatives*

In order to better understand how Basque SFRs work, let us start with a quick description of common Basque relative clauses. Given a root sentence like (11), it is possible to build a DP

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[7] Partee's (1975) analysis of relative pronouns as λ-operators will be slightly qualified in § 6.

[8] One reason why I will not try to argue against the Vergnaud-Kayne hypothesis that *all* DPs that contain RCs are built after the CP-as-D°-complement model should be clear: on that theory, all one can hope for in the case of SFRs is that an empty NP will raise from within IP to Spec,CP; thus, if I am right in suggesting that some DPs have a phonetically unrealized NP within them, whilst others do *not*, the second option will simply be impossible to implement.

containing a restrictive relative as in (12), where *-(e)n* is the suffixal C°, and where the would-be "head noun" (of the DP) in fact follows the RC, as is normal in head-final languages.[9]

(11)   gizon.a.k   liburu.a irakurri du[10]
        man-SG-*k* book-SG   read   he-has-it(=AUX)
        'the man has read the book'

(12)   a   [_{CP} gizon.a.k *e* irakurri du.*en*]   liburu.a
             man-SG-*k*   read   he-has-it-*en* book-SG
             'the book [that the man has read *e*]'

        b   [[*e* liburu.a irakurri du.*en*]   gizon.a] jakintsu da
             book-SG read   AUX-*en* man-SG   wise   he-is
             '[the man [that *e* has read the book]] is wise'

        c   [*e* liburu.a irakurri du.*en*]   gizon.a.*k* egia   (ba-)daki
             book-SG read   AUX-*en* man-SG-*k* truth-SG (PRT-)knows
             '[the man [that *e* has read the book]] knows the truth'

Note the suffix *-k* on *gizona.k* in (11), which indicates that the DP is the subject of a transitive or unergative verb.[11] As might be expected, then, the morphological case of a DP that contains a relative clause depends on its grammatical function in the matrix clause, hence the zero or absolutive case in (12b) – not indicated in the glosses – and the ergative case in (12c). This apparently trivial fact will become crucial in section 4.

2.2. *Semi-Free Relatives (SFRs)*

Let us now delete the "head noun" in the relevant DP, either *liburua* in (12a), or *gizona* in (b,c). We get the data in (13) – the status of the dash in the glosses will be discussed later.

(13)   a   [[[gizonak *e* irakurri du.*en*]—].a]
             man-SG-*k*   read   AUX-*en*-SG
             lit.: [the [– [that the man has read *e*]]]
             = '[the [one [the man has read *e*]]]'

        b   [[[*e* liburu.a irakurri du.*en*]—].a] jakintsu da
             book-SG read   AUX-*en*-SG wise   he-is
             lit.: [[[the – [that [*e* has read the book]]] is wise'
             = '[the one [who has read the book]] has come'

        c   [[[*e* liburu.a irakurri du.*en*]—].a.*k*] egia   (ba-)daki
             book-SG read   AUX-*en*-SG-*k* truth-SG PRT-he-knows
             '[the [(one) [that has read the book]]] knows the truth'

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⁹ Contrary to prescriptive descriptions, the relative CP may also *follow* the head NP (Oyharçabal 1987), but that fact is not relevant here.

¹⁰ The following abbreviations will be used: ABS, absolutive; ACC, accusative; AUX, auxiliary; DAT, dative; EMPH, emphatic; ERG, ergative; GEN, genitive; IMP, imperative; INACC, inaccusative; NEG, negation; PL, plural; POSTP, postposition; PRT, (assertive) particle; SG, singular; SUBJ, subjunctive.

¹¹ Although Levin (1983) showed long ago that the Basque case system is not really ergative (in the morphological sense of the word), I will stick to the 'erg' and 'abs' labels for ease of exposition.

(Again, as expected, gain, the he DP's case is determined by the predicate of the matrix clause.)

Crucially, the English translations only give *one* possible interpretation out of two: an elliptical one, which, in English at least, is *not* headless, since the proform *one* rather than some null element sits under the lower NP of (7b), (8b) or (9a). But a non-referring interpretation is also possible: *what (ever) the man has read, who(ever) has read the book is wise*, and *who(ever) has read the book knows the truth*. The question, then, is whether such interpretations correspond to the same syntactic structures or not – in other words, if the distinction between the *referential* and *non-referential* readings of DPs those in (13) above is, as is generally assumed, a pure matter of pragmatics, or if it has something to do with the internal structure of the expression.[12]

3. THE BASQUE DP

Before turning to the "exotic" characteristics of Basque SFRs, let me now summarize two arguments in favour of the DP analysis of nominal expressions in this language — which will be taken up again in 6.2.3 As noted above, an important structural argument in favour of the DP "hypothesis" — independently of considerations of symmetry between nominal expressions and clauses — is that classical X-bar theory predicts that a word or phrase may appear external to the D+N'/NP subconstituent without being adjoined to it. Now work by Eguzkitza (1995) and Artiagoitia (1998) clealy shows that such a Spec,DP position is indeed necessary in Basque. In particular, a personal pronoun may optionally ocupy it, as in (14), where the brackets indicate that a small *pro* is also possible there.

(14)   Northern Basque
      a   [$_{DP}$ (gu) [$_{D'}$ [$_{NP}$ euskaldun].[$_{D°}$ ak]]]   'We Basques'
             we   Basque-PL[13]
      b   [$_{DP}$ (zuek) [$_{D'}$ [$_{NP}$ euskaldun].[$_{D°}$ ak]]]   'Ye Basques'
             you-PL   Basque-PL

What is more, in the Southern dialects, the plural D may *agree* in person with this pronoun, whether explicit or not, the form *-ok* replacing *-ak* if the person is 1st or 2nd person *plural*:

(15)   a   [$_{DP}$ (gu) [$_{D'}$ [$_{NP}$ euskaldun].[$_{D°}$ ok]]]   'We Basques'

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[12] Quirk *et al.* (*op. cit.*) put a question mark before *He who has helped me has gone*, but many native speakers I have consulted tell me that this sentence is only good if the subject phrase is used attributively (in Donnellan's sense).

[13] The suffix *-ak* is ambiguous between singular-ergative, and plural absolutive.

b   [$_{DP}$ (zuok) [$_{D'}$ [$_{NP}$ euskaldun].[$_{D°}$ ok]]]   'Ye Basques'

c   *[$_{DP}$ (haiek) [$_{D'}$ [$_{NP}$ euskaldun].[$_{D°}$ ok]]]   '*Those here Basques'

      they   Basque-*OK*

If, as much of last decade's work in generative grammar has shown, it is true that agreement facts can generally reduce to a specific relation between a Head and its Specifier, the bracketing in (14) and (15) is the null option: the ungrammaticality of (15c) is thus simply accounted for in terms of a clash in person features between the D° and its specifier.

Note furthermore that, as subject-inflected verb agreement shows, DPs are syntactically marked for person, as is illustrated in (16).

(16)   a   [$_{DP}$ *pro* [$_{D'}$ [$_{NP}$ euskaldun].ok]] etorri gara / zarete / *dira

                        Basque-PL   come we-are you[PL]-are they-are

        'We/ye Basques have come'

It follows that the person and number features of the whole DP are basically located in its Specifier: they are transmitted to the head, whence they percolate to D^{max}.[14] Interestingly, in Biscayan, the westernmost dialect, a demonstrative can also occupy this initial position, thereby duplicating the material under the Head, cf. (17b) vs. (a), typical of all the other dialects.

(17)   a   *Common Basque*   [$_{DP}$ [$_{D'}$ [$_{NP}$ neska] [$_{D°}$ hau]]]

                                  girl   this   'this girl'

      b   *Biscayan dialect*   [$_{DP}$ (h)au [$_{D'}$ [$_{NP}$ nesk(a)] [$_{D°}$-au]

                                  this   girl   this   (*ditto*)

Needless to say, only identical demonstratives may be so duplicated, a yet clearer instanciation of Spec,Head Agreement.

To summarize, a DP containing a restrictive relative like (12b) or (c) may be represented as in (18) — but whether the NP segments are necessary when no lexical material precedes the Det (i.e. in SFRs and related constructions) remains to be seen.

(18)   [$_{DP}$ [$_{D'}$ [$_{NP}$ [$_{CP}$ *Op$_i$* [$_{C'}$ [$_{IP}$ [t_i [$_{I'}$ [$_{VP}$ liburua irakurri] [$_{I°}$ du]]] [$_{C°}$ -en]]] [$_{NP}$ gizon]] [$_{D°}$ -a]]]]

4. STANDARD SFRS: SOME SEMANTIC FACTS

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[14] In fact, it is not important to decide whether the Spec. and the Head must *check* some inherent features one against the other, of whether the features are actually *transmitted*: what *is* essential is that the Spec,Head configuration be clearly acknowleged .

In this section, I describe four semantic properties of Basque Semi-Free Relatives, the first three of which are shared by all the dialects, and have been attested since the earliest texts, which date back to the 16th century.

4.1. *The features [±restrictive] & [±appositive]*

Basque SFRs may be right-adjoined to a DP; however, they need not be interpreted as appositive, as shown by the following pair of examples: (19) is an example of a syntactically appositive SFR that is semantically non-restrictive; but (20), borrowed from Oyharçabal (1987), is a clear case of a a syntactically appositive clause which is semantically restrictive (see 6.2.3 for more on the internal structure of the SFR in (19)).

(19) Aita gure.**a**, Zeruetan zaude.n.**a**
      father our-SG, heavens-in you-stay-*(e)n*-SG
      Our Father, who art in heaven' [15]

(20) Etorriko da   egun.**a,** [orok igurikatzen dugu.n.**a**]
      come-FUT AUX day-SG   all awaiting we-have-it-*n*-SG
      'The day we have all been waiting for will come"

Note here a difference wrt. English: an appositive relative in English is a CP, whereas DP-adjoined relatives in Basque always contain the Det *-a*, and must therefore be analyzed as DPs — although the semantic contribution of the SFR in (20) is that of a property intersecting with the translation of *egun*. The question to be addressed therefore is: How is it possible for such constructions to be so interpreted? A good part of the answer correlates with other singular properties of SFRs in other contexts.

4.2. *No (in-)definiteness effects*

Basque SFRs can appear in existential sentences, within the scope of existential 'be', hence of an existential operator at LF. They are also possible after the verb *have* introducing new discourse referents. The same translator, Duvoisin, thus gives two different constructions in two distinct translations of the same text (resp.: ms., ±1860, and *Bible*, London, 1865):

(21) Rev 2,14 *[because] you have some there who hold the teaching of Balaam*

      a hor ba.ditutzu   Balaamen irakaspena daukate.**n**.**ak**
         there PRT -you-have-them B's   doctrine-SG they-hold-it-*(e)n*-PL

      b zeren ditutzun   hor B.'en irakaspenarentzat daduka.te.**n**   **batzu**
         because you-have-them+C° there B's doctrine-for   they-hold-it-*(e)n* some

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[15] This was the normal formula for 'Our Father, etc.' in the dialects spoken in Spain until the end of the 19th century – note the archaic positiion of the genitive pronoun to the right of the N.

Yet another possibility arises, in which the SFR is ajoined to an indefinite nominal expression introducing new referents, and clearly has a restrictive, or intersective, value, as in (22):

(22) Rev 3,4 *Thou hast a few names [=persons] in Sardis which have not defiled their garments*
      Sardesen ba.ditutzu   [[izen bakar batzu],
      in S.   PRT-you-have-them name few   some
      beren soinekoak zikindu ez dituzte.n.ak]   (Duvoisin 1865)
      their clothes   soiled NEG AUX-*(e)n*-PL

4.3. *Coordination*

Consider the following examples:

(23)   Liburua irakurri duen *gizon.*a   eta egia jakin du.en.—a   jakintsu **dira**
        book-SG read   AUX-*en* man-SG and truth learned AUX-*en*-SG wise   *they-are*
        'The man who has read the book and the (one) who has learned the truth are knowledgeable'
(24)   Liburua irakurri du.en.—a eta gia jakin du.en.—a   jakintsu **dira**
        book-SG read   AUX-*en*-SG and truth learned AUX-*en*-SG wise   *they-are*
        'The one who has read the ook and the (one) who has learned the truth are wise'
(25)   Liburua irakurri du.en.—a eta egia jakin du.en.—a jakintsu **da**
        book-SG read   AUX-*en*-SG and truth learned AUX-*en*-SG wise   *he-is*
        'He who has read the book and (who) has learned the truth is knowledgeable'
        lit. 'He who has read the book *and he who* has learned the truth *is* knowledgeable'

In (23), two DPs are coordinated, each referring to one individual, hence the plural verb form in the root clause – in the second conjoined DP, the NP is not visible, but *gizon* is understood: it is a clear case of ellipsis. In (24), the NP is not visible in either DP, but, as indicated by the plural finite verb form *dira* in the root sentence, the complex subject still refers to two distinct (atomic, or maximal plural) individuals. But (25) is different: the final verb form is singular, and the subject refers to *one* (maximal) individual, who has two properties: that of having read the book and that of knowing the truth. The inflected aux. *du* being present in the first conjunct, both the suffixal C° -*en* and the D° -*a* must appear, whence the literal translation: here again, semantically, an SFR must be interpreted as a predicate.

A possible objection to the foregoing conclusion is that the coordinating conjunction *eta* might perhaps better translate into *and/or*. This, however, cannot not the case. First, 'and/or' exists as a lexicalized word in Basque: it is *edota*, lit. 'or-and'. Second, and more importantly, the type (25) is attested in contexts which preclude such an interpretation, as in (26) – where the case suffix attached to the Det is not particularly light.

(26)   Mt 10,28 – *And fear not THEM WHICH [[kill the body], but [are not able to kill the soul]]*

a   Labourdin dialect, Harriet (1855)
    Ez.tuzuela beldurrik [[gorputza hiltzen dute.n.**en**]   eta
    NEG-have fear   body-SG killing AUX-*(e)n*-PL-GEN and
    [arima   hil ez.tezakete.n.**en**]]tzat
    soul-SG kill not-they-can-*(e)n*-PL-GEN+POSTP
    lit. 'Do not be afraid of those who kill the body *but of those* who cannot kill the soul'

b   Biscaian dialect, Uriarte (1857)
    Ez   eikijezube bildurrik euki gorputza ilten   dabe.n.**ai**,
    NEG AUX   fear   have body-SG killing AUX-*(e)n*-PL+DAT
    eta arimia   ezin   ill dabe.n.**ai**
    and soul-SG impossible kill they-have-it-*(e)n*-PL+DAT

c   Standardized Basque, EHEG (1980)
    Ez izan beldurrik [[gorputza hiltzen dute.n.**ei**],
    NEG have fear   body   killing AUX-*(e)n*-PL+DAT
    baina [arima ezin   hil dezakete.n.**ei**]]
    but   soul-SG impossible kill they-can-it-*(e)n*-PL+DAT

It is also possible to drop the second occurrence of the finite verb form to which the C° and the D° suffixes are attached, as in (27); in such cases, a plural verb form in the root clause is just impossible, indicating that only one (maximal) individual is referred to (see (42) too).

(27)   [[Liburua irakurri du.en.a]   eta [egia jakin Ø]], jakintsu **da** / ***dira**
      book-SG read   AUX-*en*-SG and truth learned   wise   he-is they-are
      'He whi has read the book and (has) learned the truth *si* wise'

Whatever import such a fact may have for a detailed theory of ellipsis in Basque, it clearly corroborates the idea that the superficial conjunction of two SFRs may, and sometimes even must, be interpreted as the conjunction of two predicates.

4.4. *The Labourdin pronoun **haina***

A fourth property (dialectally more limited) is provided by the fact that a special pronoun, *haina*, which was only used in the Labourdin dialect from the 16th till the 19th century, could be A-bar bound by a left-dislocated SFR (or pure Free relative, for that matter). This *haina* basically translates as 'every such individual' (Rebuschi (1998) – but see also Siegel (1994) on the semantics of *such*). Here are *haina*'s specific properties, illustrated in (28) below: (i) it never takes definite antecedents; (ii) it may *not* be c-commanded by its indefinite or quantified antecedent if the latter is in an *argumental* position, (iii) it never appears after a SFR followed by a universal quantifier like *oro* or *guz(t)ia* 'all'; (iv) finally, when *haina* replaces an ordinary demonstrative pronoun in the apodosis of a conditional sentence, no adverbial quantification (by the Basque counterparts of 'always', 'often', 'seldom' etc.) is attested.

(28)   a   Jonek huts   egin du; hura / *pro* / *HAINA gaztigatua izanen da
        J.-*k*   mistake done AUX that-one he   *h.*   punished   will-be AUX
        'Jon has made a mistake; he will be punished.'

b   Gizon orok/guztiak uste du [hura / bera / *pro* / *HAINA*
       man   every-*k* all-*k*   belief has that-one he[EMPH] he   *h.*
       salbatuko da   /   salbatua izanen da
       will-save AUX[MIDDLE] saved   will-be AUX
       'Every man believes he'll be saved'

c   Huts   egiten du.en   *guztia*,[16] hura / pro / *haina* gaztigatua izanen da
       mistake making AUX-*en* all/every   that-one he   *h.*   punished   will-be AUX
       'whoever makes a mistake will be punished'

d   *Maiz* baldin norbaitek   huts   egiten ba-du,   HURA / *pro* / *HAINA* ...
       often if   somebody-*k* mistake making if-AUX, that-one he   *h.*
       'Often, if someone makes a mistake, he/they...'

On the other hand, *haina* would have been typically fine in (c) and (d) if *du.en.a*, lit. 'the-that-AUX' replaced*duen guztia*, lit. 'every-that-AUX' in the first case, and if there were no temporal adverb in the second. These four properties clear show that *haina* itself contributes universal quantification to the matrix clause it appears in – hence, also binds indefinites like *somebody* in the protasis of a conditional sentence. But if it is so, how could *haina* ever refer to the content of the Left Dislocated SFR?

4.5. *SFRs as predicates*

One solution is to assume that Basque SFR can undergo a type-shift, and be semantically transformed into predicates. Under such conditions, the Left Dislocated SFR will simply provide the predicate variable *such* in the approximate translation 'every such individual' given above. Moreover, this will explain why apparently appositive relative clauses are in fact semantically restrictive (see (20)) – provided we accept some version of the Bach & Cooper (1978) treatment of external relatives, why they can appear in existential sentences, see (21-22), and finally why they can be coordinated and still refer to the same (maximal) plural individual, as in (25-28). Of course, suggesting such a type-shift will sound quite bold: DPs normally shift into predicates only when they are used predicatively (Partee (1987)). Fortunately, there are good arguments that show that this sort of type-shifting may simply be the result of a syntactic process for which there is clear morphological evidence.

5. NON-STANDARD SFRS

5.1. *The facts*

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[16] In contemporary Basque, *guz(t)i* 'all' tends to be preferred in the plural when the N'/NP restricts the quantified domain to human being: *guztiak* in the absolutive, *guztiek* in the plural; see below.

Especially in 18th and 19th C. texts, left-dislocated SFRs sometimes do not agree in case with the resumptive pronouns in argumental position which they bind: they are externally marked for the internal case which is determined by the predicate-argument structure of the inner, relative, CP, as appears in (29), where the "internal" case suffix is in boldface (the sentence would be fully standard if the ergative suffix -*k* were *not* present).

(29) Huts   egiten du.ena.**k**,   (hura) gaztigatua izanen da
      mistake making AUX-*en*-SG-***k*** he   punished   will-be AUX
      lit. '(t)he[ERG] that makes a mistake, he[ABS] will be punished'

To my knowledge, such a phenomenon was never described before Rebuschi (2000) — whose appendix provide some 115 examples borrowed from 23 different authors — because it is everywhere regarded as a "mistake"; moreover, owing to the development of standardized Basque, it is difficult to check it today with native speakers. What is significant, however, is that this construction is attested in *every* dialect, even in texts which are incompatible with a colloquial register, such as the translations of religious texts that were done in the 19th century.

As shown in (29), this externalization of the internal case typically takes place when the inner case is the ergative, and the expected, outer, case is the absolutive, whether the resumptive pronoun is explicit or not — in such cases, the finite verb form of the main clause helps identify the morphological case of *pro*, noted Ø in the following attested examples (detailed references can be found in Rebuschi (2000)). Here are some illustrations.

(30)   Biscayan, Añibarro (ms., ±1800): Mt 5,19
        Egiten ditu.an.a.**k,** au   andiá deituko da   zeruetako erreinuan.
        doing AUX-*en*-SG-***k*** this(-Ø) great will-be-called heaven's in-the-kingdom
        lit.: '(t)he[ERG] that does it, he/this[ABS] (-one) will be called'
        'Whosoever shall dot hem, the same shall be called great in the kingdom of heaven'
(31)   Baztanese, Echenique (ms, ±1860): Mt 5,22
        bere anaiai   erten diona.**k**,   Raka, obligatua izain **da** **Ø**   kontziliora.
        his brother-DAT saying AUX-*en*-SG-***k*** R.   obliged   will-be AUX *pro*-ABS to-the-council
        'Whosoever shall say to his Brother, Raca, shall be in danger of the council'
(32)   Southern High-Navarrese anon. (ms., first half of 19th C.): Mt 10,38
        Ez.tu.en.a.**k**   artzen soñean   bere gurutzea eta neri segitzen, eztá **Ø**   nere dignó
        NEG-AUX-*en*-SG-***k*** taking on-shoulder his cross   and to-me follow, NEG-is *pro*-ABS of-me worthy
        'He that taketh not his cross and followeth after me, is not worthy of me'

However, there are also (admittedly rarer) inverse cases, where an absolutive (zero) case ending replaces an expected ergative one, as in (33), but also cases where a dative ending replaces an absolutive one, as in (34) (see also (38) for an ergative suffix replacing a dative suffixe).

(33)   Aezcoan, Anon. (±1860), *Garraldako Dotrina*-1

Erori de.n.**a**   bekatu mortalean, nola disponitu bear **du**   **Ø**   komekatzeko?
fallen he-is-*(e)n*-ABS sin   mortal-in   how act   must AUX *pro*[ERG] to-receive-communion
'The[ABS] (one) who has fallen[INACC] into mortal sin, what must he[ERG] do to receive communion?'

(34)   Mt 26,48 – Whomsoever I shall kiss, that same is he.

      a   Southern High-Navarrese, anon. (±1800):
          Nik ápa ematen dioda.n.a.**ri,**   óri   **dá.**
          I-*k*   kiss giving I-have-it-to-him-*(e)n*-DAT that-one[abs] it/he-is
          lit. 'To him that I will give a kiss, it's him'

      b   Roncalese, Hualde (±1860)
          nik bixiko emoitan du.da.n.a.**ri,**   **kori**   **da.**
          I-*k* kiss   giving   I-have-it-*(e)n*-DAT that-one[ABS] it/he-is

The sharp statistical contrast between the typical cases, where an ergative suffix that corresponds to the relativised position appears on the Det of an SFR that should be in the absolutive, and the reverse situation, is probably due to the case morphology itself: the so-called Basque absolutive has no (audible) suffix, whilst the would-be ergative is marked by a -*k*. Now, we must recall that in general cases of parasitic case marking consist in *adding* a segment to an item that already is in a morphologically zero case, as in the "hypercorrect" English example *Here's the girl whom Peter thinks – loves John.* On the other hand, the low frequency of unexpected dative endings seems to be rather due to the fact that subjects, rather than indirect objects, tend to constitute discourse topics, and therefore be encoded as dislocated phrases.

5.2. *Case (dis-)connectedness*

The fact that this non-standard case-marking only surfaces in left-dislocated SFRs is highly significant: recent, and not so recent, work on left dislocation has shown that in languages like German (see van Riemsdijk (1997) and references therein), the nominative case may turn up on the left-dislocated DP even if the corresponding resumptive pronoun is in another case. In Basque, it is difficult to say whether it is the absolutive, or the ergative, case which is unmarked (since the former is morphologically simpler, whereas the latter is syntactically unmarked), but the same *lack of case-connectedness* effects appears. Indirect support for this approach is provided by the fact that certain authors never use the non-standard forms, *except* in those very cases when there is either no resumptive pronoun at all, as in (35) – which also illustrates the case duplication described in 5.1, or when that pronoun is not an argument of the root-clause predicate, as in (36) (for a change, the examples are now borrowed from the *O.T.*).

(35) Guipuzcoan, Uriarte (*Salomonen Proverbioetaco Liburua*, ms., ±1860): Prov 28,24
Bere aitari   eta bere amari   zerbait   kentzen   dio.n.a.**k**,
his father-DAT and his mother-DAT something taking-away AUX-*(e)n*-SG-*k*
eta esaten du.en.a.**k**   ez   dala au bekatu, gaiztakeria au da gizona
and saying AUX-*(e)n*-SG-*k* NEG is-C° this sin   misdeed   this is man
iltzen   du.en.a.ren   gaitzakeriaren antzekoa.
killing he-has-him-*en*-SG-GEN misdeed-GEN comparable
'Whoso robbeth his father or his mother, and saith, It is no transgression, the same is the companion of
a destroyer' – *lit.* 'the[ERG] (one) that steals something from his father or his mother, *and the[ERG]*
(one) that says it is no sin, this offence is comparable to the offence of the[GEN] (one) who kills a man'

(36) Guipuzcoan, Uriarte (*Leviticoco Liburua*, London, 1859): Lev 20,9
Aita, edo ama   madarikatu zu.en.a.**k**,   bere odola betor   bere gañera.
father or mother cursed   AUX-en-sg-*k* his blood fall[IMP] him onto
'He hath cursed his father or his mother: his blood shall be on him' – *lit.* 'the[ERG] (one) that curses
father or mother, let his[GEN] blood fall on him'

Clearly, the coindexation between the (base-generated) left-dislocated SFR and the resumptive pronoun (if there is one) is sometimes too weak to allow the former to inherit the case of the resumptive pronoun – and if there is none, the SFR, being a DP, remains submitted to the Case-filter; it must therefore find a case so as to pass that filter. In German, the nominative being the default case, it will rescue the structure; but, in Basque, where, as explained above, there is no clear default case, another strategy is available, to which I now turn.

6. TOWARDS A STRUCTURAL ANALYSIS

6.1. *The hypothesis*

We have found that, on their semantic side, Basque SFRs are sometimes interpreted as properties, and, on their morphological side, sometimes exhibit the internal case that is determined by the embedded clause predicate. An optimal solution would cover both cases. As mentioned in the introduction, I propose that the empty operator or abstract relative pronoun that raises from its argumental position within IP to Spec,CP, may (in fact, must — see § 6.3-4) raise again to Spec,DP, as shown in (4b).

Suppose now that this movement may sometimes take place *before* Spell-out. Through Spec-Head Agreement, the operator, once in Spec,DP, should be able to transmit its morphological case to the D° head — which, in its turn, should be able to receive it provided it is not in a case-marked position, i.e., typically, if it is in a base-generated left-dislocated position. Technically, we thus account for those idiolects which, cross-dialectally, allow(ed) what I have dubbed, for want of a better word, non-standard SFRs.

Now this mechanism also provides a clue for the semantic data, because the empty operator also has semantic content. As already noted, a relative pronoun, whether phonetically realized or not, is best interpreted as a λ-operator (Partee 1975): the IP that contains its trace translates as an open proposition, and the CP to the Spec of which it has been raised correspondingly translates as λ-expression containing individual variables, i.e. as a property. But how could a λ-operator transform the Det -*a*, basically a σ- or ι-operator, into a λ-operator? Just as we saw that, in certain contexts, the DP may be caseless, and consequently inherit its case from the empty relative, it is also arguably the case that certain SFRs, in some contexts (e.g. when adjoined to another DP) just cannot be interpreted as a normal DP. In connexion with this, note that the Det -*a* itself does not always translate as expected; thus, a sentence like (37) is ambiguous between a definite, and an indefinite, purely quantificational, interpretation of the direct object DP, as indicated by the translations:

(37)   — Zer jan duzu?   — Ogi.**a**   jan   dut
         what eaten you-have   bread-*a* eaten I-have
         'What have you eaten?'   'I've eaten bread / the bread'

The possibility of interpreting -*a* as an indefinite clearly shows that this item can be somehow semantically transparent, or invisible, or more specifically, may sometimes contribute nothing to the meaning of the sentence it appears in. As a consequence, the operator movement from Spec,CP to Spec,DP may now seem to be semantically either driven, or at least justified, perhaps for LF "readability", in particular when a an SFR (a DP) is adjoined to another.

6.2. *Predictions*
If I am on the right track, two sorts of phenomena are expected: (i) that both the morphological and the semantic effects can be conjugated in the same structure, and (ii) that every feature which one would expect to be associated with a natural language operator may thus be transferred to the DP whose head D takes a CP as complement.

6.2.1. The first prediction is borne out is cases like (35) above where, if the first occurrence of the ergative suffix is purely morpho-syntactic, its second occurrence must also be semantic, given that the second conjunct must, as is clear from the context (and other versions), be read as a predicate binding a property variable within (the logical translation of) the first one.

6.2.2. The second prediction concerns the features of person and number. Being a λ-operator is a purely semantic property of silent relative pronouns; but if these silent operators are real *syntactic* objects that have case, they should also have the other two typical phi-features, those of person and number: they would then closely resemble other natural language operators,

such as Dets or interrogative pronouns, whose semantic tranlation is always associated with a restrictor.

The question of number may sound trivial, but it is obvious that there should be some sort of agreement between the relativized position in the relative CP and the full SFR/DP: if they are to be interpretable at all, they should be consistently singular, or plural. So the question of cheking number is raised, and, naturally, the same movement as above from Spec,CP to Spec,DP will do the work: once in Spec,DP, the silent operator will be able to check its number feature against that of the head D, or *vice versa*. In (38), where the SFR has been extraposed, the operator, which has raised to Spec,DP before Spell-out, has transmitted the internal ergative suffix *and* its plural marking to the D° – or checked it against the D°' number.

(38) Aezkoan, Anon. (19th C.): *Orbarako Dotrina-2*
     (Zer eskatzen duzu   petizio gortan?) — Jangoikoak barka dazkigula   guri
     What asking   you-have prayer that-in   God-*k*   forgive he-them-to-us[+SUBJ] to-us
     gauren zorrak ala   nola guk barkatzen bai.tez.**te**.gu
     our   debts thus how we-*k* forgiving C°-we-them-to-them
     [gu injuriatu eta agrabiatu gituzte.n.**e**.**k**].
     us abused   and offended they-have-us-*(e)n-PL-k*
     '(What do you ask by this prayer?) 'That God forgive us our own faults just as we forgive them *to those* [*lit.* they[ERG]] that have abused and offended us'

In fact, it is only because plural SFRs are rarer, and quite often just cannot exhibit non-standard case-marking (in the Guipuzcoan and Biscayan dialects, the ergative plural ending is also -*ak* rather than -*ek*) that so little heed has been paid to number up to now.

6.2.3. Turning to the feature of person, the data are more telling. This is so because Basque does not allow normal relative clauses to modify 1st or 2nd person pronouns, as in *I who know the truth* – recall (19). It follows that such expressions will be translated as in (39a), (40a), or (41), but never as in (39b) or (40b): in the grammatical examples, the person feature only appears on the finite verb inside of the relative CP.[17]

(39)   a   Egia   daki.da.n.a.
            truth-SG I-know-it-*(e)n*-SG
            'I who know the truth', *lit. 'the that I*-know the truth'
       b   *Egia   daki.da.n / daki.en ni
            truth-SG I/he-know-it-*(e)n* I

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[17] The examples (39) and (40) are typical of the northern dialects (where the Det is the normal suffixal form, -*a* in the singular, -*ak* in the plural), and those of (41), characteristic of the southern dialects, which can the -*ok* ending by demonstratives that somehow agree in Distance (I/II/III) with the relativized position.

(40) a Egia   dakizue.n.ak
         truth-SG you[PL]-know-it-*(e)n*-PL
         'Ye that know the truth', *lit the[PL] that ye*-know the truth'
     b *Egia   daki.zue.n   zuek
         truth-SG you[PL]-know-it-*(e)n* you[PL]≈ye
(41) a Egia   daki.da.n   hau   / *hori   / *hura
         truth-SG I-know-it-*(e)n* DEM[+I.SG] DEM[+II.SG] DEM[+III.SG]
         (=(39a)), *lit. 'this that I*-know the truth'
     b Egia   daki.zue.n   horiek / *hauek / *haiek
         truth-SG you[PL]-know-it-*(e)n* DEM[+II.PL] DEM[+I.PL] DEM[+III.PL]
         (=(42a)), *lit.* 'those that ye-know the truth'

These facts are reminiscent of those described wrt. (15): there, the personal pronoun was base-generated in Spec,DP, and had to match its counterpart in the Det, which, in its turn, transmitted the said feature to the whole DP (so as to enable it to check it against the finite verb). In (39-40), on the other hand, the problem is, just as above, to relate the empty position in the inner CP with the person feature of the whole SFR-DP – and, raising of the abstract operator to Spec,DP will again do the job, owing to the same Spec-head agreement mechanism: the MP project of reducing all agreement relations to Spec-Head Agreement is thereby vindicated, at least descriptively.

6.2.4. Interestingly, there are examples that show that the pre S-S or pre-Spell-out movement of the silent operator to Spec,DP triggers not only the non-standard case marking, but also the upward percolation of the person and number features. This is the case in the following example, where the SFR is in apposition to a vocative proper noun:

(42)   Baztanese, Echenique (1857, London): Mt 23,37
         Jerusalem, Profetak iltzen ditu.zu.na.k,[18]   eta arrikatzen zure   gana bidaliak
         J.   prophets killing you-have-them-*n*-SG-*k* and stoning you-GEN to   sent-PL
         dire.n.ak,   zenbat   aldiz nahi izan ditut bildu zure umeak?
         those-who-are how-many times wanted have AUX gather your children
         'O Jerusalem, thou that killest the prophets, and stonest them which are sent unto thee, how often
         would I have gathered thy children?' – *lit.* 'J., the[ERG] that kill**est** the prophets[…]'

6.3. *Preliminary conclusions*
What has been shown in the foregoing paragraphs is that in fact *any* of the linguistic properties of silent relative operators may turn up on the external DP: it may be its pure semantic value of a λ-operator, its person and number features, and, if the movement takes place before S-S or Spell-out, its uninterpretable phi-feature of case. However, a closer examination of the contexts which trigger the Op raising from Spec,CP to Spec,DP shows that such a movement

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[18] The finak -*k* is erg. sg. since the -*zu* suffix is referentially singular – as against -*zu.e* in (40b) and (41b)). Note also that the coordination pattern here is after the typee illustrated in (27).

is in fact necessary at LF at the latest, since the two interpretable phi-features of person and number must be checked against those of the resumptive pronoun, or those of the DP the SFR is adjoined to. As a consequence, the PF percolation of the inner case, due to the predicate-argument structure of the relative CP, would simply be evidence that this operator movement can take place before Spell-out rather than after – a basic parameter of the earlier MP, originating in Chomsky's (1986) typology of Wh-movement.

6.4. *True SFRs and Elliptical SFRs*

If we take a closer look at the circumstances under which the upward percolation of the internal case takes place, we must note that the SFRs may be construed as attributive, generic, or denoting a maximal plural individual, but *never* strictly referential: more specifically, there are no examples of *elliptical* (apparent) SFRs (as in the second half of (23) above) that exhibit the "non-standard" inner case. Better known languages such as French also display this distinction. Thus, in (43), *celui* is interpreted anaphorically (i.e. elliptically), and helps recover whatever grammatical and lexical information is provided by its antecedent in the linguistic context; but in (44a), it is not, whence the [+human] default value of *celui*, the form *ce* corresponding to the opposite value [–human] (it does not seem absurd to posit that whenever an NP is present, the minimal [±human] property of the N° must be marked – cf. the discussion in *Aspects* concerning that feature in relative pronouns).

(43)   Le livre / garçon qui est debout et *celui   qui* est tombé
        the book boy   that stands   and the one that has fallen

(44)   a   Celui qui tombe
             the one[+human] that falls = 'He who falls'
        b   Ce qui tombe
             DEM[–human] that falls = 'Whatever falls'

It thus seems reasonable to say that the French semi free relatives exemplified above are built after the pattern of (45), where the RC is adjoined to a phonetically empty, but grammatically (and possibly lexically) partially specified NP, as in (45a) and/or (b) (cf. (9a,b)).

(45)   a $[_{DP} [_{D'} ce(lui) [_{NP} [_{NP} [±human]] [_{CP} Op_i [_{C'} que/qui [_{IP} ...t_i ...]]]]]]$
        b $[_{DP} [_{D'} ce [_{NP} [_{NP} lui/Ø] [_{CP} Op_i [_{C'} que/qui [_{IP} ...t_i ...]]]]]]$

Now, significantly, a Basque DP like (46) is totally ambiguous with respect to the [±human] feature, even if it is not used anaphorically:[19]

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[19] The fact that *dena*, lit. 'the that is', only means 'everything' today is a late lexicalization, as shown by the history of the word,cf. Michelena *et al.* (1992: 97-107). Moreover, this should be correlated with the fact that, probably under Romance influence, there has been a progressive specialization of singular forms for universal

(46)   erortzen de.n.a
        falling   is-*(e)n*-SG
        (i) 'He who falls' ≈ (ii) 'That which falls'

It follows that, as has been taken for granted up to now, non-elliptical SFRs really are as indicated in (4), i.e. with a CP as a directly complement of the D°, whereas elliptical or anaphoric (pseudo) SFRs would contain some features that necessarily belong under the node NP.

Interestingly, the foregoing leads us to a natural explanation for why there is neither non-standard case marking nor type-shifting in elliptical phrases of the type (23): the adjunction of a CP to an empty NP simply blocks the raising of the operator to Spec,DP. As the Operator in Spec,CP is only dominated by a segment of the NP, there is no barrier-like account available. But a semantic one is possible. Recall that the compositional interpretation of restrictive relatives ends up coordinating two open propositions closed by the same λ-operator. Now if the operator has raised to Spec,DP, its trace has no semantic import, whence the totally uninterpretable association of a property (the translation of the NP) and an open proposition. To put it another way, we might just as well say that such a movement is syntactically "perfect" (if required for some reason or other), but would lead to "semi-uninterpretable gibberish" — just another way of acknowledging the semantic (or interface) nature of the constraint.

7. CONCLUSIONS

I have defined semi-free relatives as non-referring, generic or maximal, DPs which contain a D and a CP, but, crucially, no NP – not even, in Basque at least, the minimal feature [±human], cf. (46). These syntactic objects are not, however, built *à la* Kayne: what moves to Spec,CP is a standard phonetically empty operator, whereas elliptical pseudo-SFRs in fact do contain a phonetically unrealized, but lexically (partially) specified, NP. Moreover, this operator raises higher up to the Spec,DP position that the DP hypothesis predicts to exist. Semantic facts (the reinterpretation of SFRs as predicates, cf. § 4), syntactic facts (the percolation of the person and number features of the relativized position to the DP, see § 6), and morphological facts (the widely attested – if non-standard – percolation of the case of the relativized argument to the outer DP when it is left-dislocated, see § 5) all point to the same conclusion: the operator, once in Spec,DP, transmits its relevant feature(s) to the D° head, whence they percolate to the maximal projection.

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quantification over a [-human] domain, and of plural forms for such quantification over a [±human] one (see footnote 16).

Concerning the motivation of this further movement, we have also noted that it is in fact always necessary anyway, since there must be some means of checking (the identity of) the person and number specifications of the relativized position (which is also marked on the embedded finite verb form) against those of the full DP, a fact which is particularly conspicuous in Basque, a language in which personal pronouns may not be modified by a relative clause (see (39-40)).

Whatever other features the silent operator possesses and will transmit to D° when it sits in Spec,DP will depend on one of two factors: one, whether the DP is interpretable as such; if it is not, the operator will contribute its purely semantic property of being a λ-operator to the interpretation of that DP, thereby allowing it to be interpreted as a predicate (cases of adjunction and of non-additive coordination); the second dimension is whether the movement of the silent operator to Spec,DP takes place before, of after, Spell-out[20] In the former case, if the SFR, a DP, is left-dislocated and the resumptive pronoun does not transmit its own case to it, the operator will transmit its case feature to D°, whence the "non-standard" appearance of the relativized argument's morphological case on the D°/DP itself. (Another way of putting it would be to say that if the raising takes place early enough, and the DP is not in a case-marked position, it may either get its case from the resumptive pronoun or from the operator itself).

Note, however, that such LF and PF phenomena may be seen as pure consequences of a grammatically determined movement which is more fundamental, that of the operator *qua* carrier of the formal *and* interpretable features of person and number: in particular, since case cannot be realized on a phonetically unrealized category, there is just no reason whatsoever why it should be checked and eliminated — but both the uninterpretable (formal) case feature and the purely semantic property of the silent relative are piedpied along, as might be expected.

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[20] See Chomsky (1986) on the typology of wh-movement, and the various MP offshoots of that problem.

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