

Defining the three binding domains of Basque

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ABSTRACT

In this paper¹, I will argue that Chomsky's revised binding theory (Chomsky 1986) has one main flaw: it is type-oriented, in the sense that the narrow binding category (NBC) and the wide binding category (WBC) it defines each concern a specific type of pronouns: the pronominals on the one hand, and the anaphors on the other. My main contention is that these BCs are in fact type-independent, since (eastern) Basque possesses five classes of (non-emphatic) pronouns: if some pronominals must be free in their NBC, others must be free in their WBC, and if some anaphors must be bound in their WBC, others must even be bound in their NBC; moreover, the reflexive possessive here is a typical pronominal anaphor, because it must be free in its NBC, and bound in its WBC. I will next sketchily discuss the nature of the two BCs, to conclude that if subjects must be incorporated into the definition of the NBC, Comp is the decisive element in the case of the WBC of non-emphatic pronominals. Finally, I will show that two distinct WBCs are in fact necessary, since the binding properties of the would-be emphatic pronoun(s) are different from those of the other pronominals: they must be free both in their NBC and in the domain of a c-commanding SUBJECT.

1. In Chomsky (1986), a new theory of binding is proposed, according to which the binding domains or B[inding] C[ategorie]s of anaphors and pronominals are not necessarily identical. This theory, necessary to account for such data as appear in note 2, thus states that a pronominal *p* must be free in the minimal complete functional category (or m.c.f.c. = S, or NP with a subject) which contains

(1) This is a completely rewritten version of a paper I first presented at J. Guéron's seminar (Paris, May 87), and, already modified, in San Sebastian (september 87). A third, much wider, array of facts and problems was also presented at the Dpt. of Language and Literature, Tilburg U., december 87. It is impossible to list here all the people who have helped me with their stimulating remarks and questions; I would nevertheless like to point out the following: M. Everaert, R. Huybregts, J. Ortiz de Urbina, B. Oyharçabal, H. van Riemsdijk, and K. Rotaetxe; special thanks are due to P. Altuna, E. Larre. B. Oyharçabal and K. Rotaetxe for their help with the data (all remaining errors being mine, naturally), and H. van Riemsdijk for his hospitality. I must also acknowledge the help of the following institutions: U.A. 04-1055 (CNRS), CERETYL (U. Nancy II), and the Dpt. of L. & L. (Tilburg U.).

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p and its governor, and within which a specific indexing of p is compatible with p 's pronominal nature; likewise, an anaphor a must be bound in the m.c.f.c. which contains a , its governor, and within which a specific indexing of a is, again, compatible with a 's anaphoric nature. «B. T. Compatibility» therefore claims that the BC of pronominals need not contain any potential binder, whereas that of anaphors must contain one (the «elemente γ » of Chomsky 1986, p. 172). Now, once Agr[reement] in Infl[exion] is eliminated from the class of (potential or real) binders (*ibid.*), it follows that this γ must be a c-commanding NP. Hence, if a is not a specifier or subject, the very subject of the m.c.f.c. which contains a will automatically be a potential binder of a ; on the other hand, if a is the specifier of the m.c.f.c. which contains it, the c-commanding NP γ will be outside this phrase; but, by definition, the m.c.f.c. which contains this potential binder will also have a subject, which, obviously, will c-command a and will also be a potential binder for it. As a consequence, all reference to γ or any potential binder can be eliminated, and the binding domains can be given the following, purely structural, definition².

- (1) The BC of x (x an anaphor or a pronominal) is the m.c.f.c. which contains x , its governor, and a subject *which c-commands x if x is an anaphor*.

2. In fact (1) contains four distinct propositions, the last three of which deserve full revision:

- (2) a. The Narrow Binding Category of x (x an anaphor or a pronominal) is the minimal syntactic category which contains x , its governor, and a subject.
 b. The Wide Binding Category of x is the minimal syntactic category which contains x , its governor, and a subject which c-commands x .
 c. A pronominal must be free in its NBC.
 d. An anaphor must be bound in its WBC.

2.1. The most conspicuous defect of this approach is point (c): in many languages, there are two types of possessives, traditionally called reflexive and non-reflexive (i.e. anaphoric and pronominal, respectively); Basque is a case in point³:

- (3) Peio_i [bere_{i,*j} / haren_{*i,j} txakurra] ikusi du
 Peio -*k* his dog seen Aux
 Peter_i has seen his_{i/j} dog

(2) (1) does not only account for the non-complementary distribution of anaphors and pronominals in English —(A) below—, it also explains such data as in (B) (Chinese, Aoun 1986):

- (A) *They read their / each other's books*
 (B) *Zhangsan shuo [ta[+pr] / ziji[+anaph] hui lai]*
 Zh. says he[+pr/+anaph] will come.

(3) I.-E. examples are abundant; the following are translations of (3):

- (A) (Latin) *Petrus canem suum / *ejus vidit*
 (B) (Danish) *Peter har set sin / *bans hund*
 (C) (Polish) *Piotr zobaczył swojego / *jego psa.*

In contemporary Basque, this is only true, however, of 3rd p. possessives: the old distinction between reflexive and non-reflexive 1st and 2nd p. possessives, illustrated by (4), has been lost, so that both (5a) and (b) are grammatical today⁴.

- (4) a. † Peiok zure / *zeure txakurra ikusi du
 P.-k your [-refl] [+ refl]
 Peter has seen your dog
 b. † Zuk *zure / zeure txakurra ikusi duzu
 you-k Aux
 You have seen your (own) dog
- (5) a. Peiok zure txakurra ikusi du
 b. Zuk zure txakurra ikusi duzu

We must therefore reject (2c): if some pronominals, like today's *zure*, need only be free in their NBC, others, such as *haren*, must also be free in their WBC.

2.2. Now an obvious question is: are there two classes of anaphors too? Consider the reciprocal expression *elkar* which, as noted (but not explained) in Salaburu (1986), is possible in (6a), but not in (6b):

- (6) a. Peiok eta Mirenek elkarren ondoan egin dute lo
 P.-k and Miren-k each-other's near done Aux sleep
 Peter and Mary have slept side by side [lit. near each other]
 b. Peiok eta Mirenek *elkarren oheetan egin dute lo
 beds-in
 Peter and Mary have slept in each other's beds

The only visible difference between these two sentences is that the phrase which contains *elkarren* in (a) is a PP — hence, is not a syntactic category with a subject (but see 4.1. for some discussion), whereas the one which contains it in (b) is an NP with a subject (*elkarren* itself). Therefore, it appears that *elkar* is an anaphor which must be bound not only in its WBC, but in its NBC too⁵.

This is not, however, the case of a semantically equivalent expression, *bat(a) bestea*, lit. '(the) one the other', which only has to be bound in its WBC, since both (7a) and (b) are grammatical:

- (7) a. Peiok eta Mirenek bata bestearen ondoan egin dute lo
 [= (6a)]
 b. Peiok eta Mirenek bata bestearen ohean egin dute lo
 bed-in
 [cp. (6b)]

2.3. Not all anaphors which must be bound in their WBC have, however, the same property as *bat(a) bestea*, which can be either bound (7a), or free (7b) in its NBC. Thus, the possessive *bere* of (3) *must* be free in its NBC. To demonstrate

(4) This distinction is being consciously reintroduced in literary texts; for details on dialectal and diachronic variation, see Rebuschi (1986).

(5) In the Basque Academy's grammar (Euskaltzaindia 1985:107-112), not a single example of the 23 devoted to this word concerns its NP specifier use; there are a few such (counter-)examples though, but the head N is then typically relational ('friend' etc.), and *elkarren* normally represents the Object θ -role of the relation; see however ex. (20).

this, let us first show that it is a pronoun, not an adjective (contrary to Latin *suus* and the like in the examples in note 3); this is illustrated by (8), where *bere* is governed by a P — it being clear that Adjective Phrases cannot function as P complements:

- (8) Peiok_i [suge bat]_j ikusi du bere_{i,*j} ondoan
 P.-*k* snake one seen Aux his near
 Peter has seen a snake near him

(The reading with index *j* on *bere* is not only out for pragmatic reasons: see 4.1. below). Now, consider (9), which is ungrammatical with both index *i* and index *j*, at least in the eastern dialects (in the western ones, *j* would be all right, because *bere* there is a discourse oriented anaphor, not a sentential one):

- (9) Peio_i berekin_{*i,*j} mintzaten da
b-with speaking Aux
 Peter talks to [lit. with] himself

(The «heavy case» *-ekin* is in fact a P *-kin* which governs the genitive; thus, 'with you' is *zurekin*, when 'you' is *zu* and 'your' *zu-re*, cf. (4) and (5)⁶. Now if *bere* were allowed to be bound in its NBC, (9) should be grammatical, but it is not. Hence the conclusion that although *bere* as an anaphor is properly bound in its WBC — the sentence (9) — it is also improperly bound in its NBC, which happens to be identical to its WBC here: the double requirement that it be free and bound in the same domain cannot be satisfied.

2.4. This is confirmed by the following data. In tenseless clauses, the direct object, if morphologically definite, can turn up in the genitive, instead of the absolutive, case. Now the question is: why is *bere* impossible in such contexts? Consider (10) for instance:

- (10) Peiok_i Mireni_j [PRO_j hura_{i,*j,k} / haren_{i,*j,k} / *bere ikusteko]
 P.-*k* M.-Dat him his *b.* to-see
 erran dio
 said Aux
 Peter_i has told Mary_j [Pro to see him_{i,k}]

Here, the embedded sentence is at the same time *bere*'s NBC (it contains a subject: PRO), and its WBC (this subject c-commands it). Again a conflict arises, and the sentence is ruled out⁷.

2.5. To summarize, the Basque pronouns examined up to now fall into five classes, as shown in the following table (F = free; B = bound)⁸.

(6) *Bere* has no independent absolutive case: **be*-Ø; the etymologically related word *bera* is a sentence-pronominal, whilst it is at the same time a typical discourse-oriented anaphor; see § 5.

(7) On an approach according to which there is no PRO in the embedded sentence, *bere* would still be out, the matrix sentence now qualifying as its NBC and WBC simultaneously, as in (9).

(8) I have found no Basque example for the 6th logical possibility: a pronoun that would be either F or B in both BCs; but Old Eng. *him* (Faltz 1985) and early Middle Dutch *bem* (Everaert 1986) illustrate it.

| | | | |
|------|--|----------|----------|
| (11) | Lexical property in: | NBC | WBC |
| | <i>baren</i> 'his [-refl]' | F | F |
| | <i>zure</i> 'your' | F | (F or B) |
| | <i>bere</i> 'his [+ refl]' | F | B |
| | <i>bata bestea(ren)</i> 'each other('s)' | (F or B) | B |
| | <i>elkar(ren)</i> 'each other('s)' | B | (B) |

3. Let us now turn to the definitions of the BCs. As predicted by Koster (1985), who first advocated the atomistic approach to binding adopted here, the results he obtained wrt. three Dutch anaphors need not carry over (globally) to any other language, since a BC, like any local domain, may be defined as in (12) [adapted from his (77)]:

- (12) X is a local binding domain for Y if X is the minimal maximal projection containing Z, and Z is a domain defining category (Comp, Agr, (governing) subject, *P, governor, etc.) accessible to the anaphor or pronominal Y.

It thus appears that the «SAD» (small anaphoric domain) and the «BAD» (big a.d.) he defined for Dutch as follows:

- (13) a. A SAD is the minimal maximal projection containing a [locative / directional] *P or a subject.
 b. A BAD is the m.m.p. containing a Comp or a governing subject;

are sheer coincidence; indeed, there seems to be no a priori reason why both subjects and *Ps, and only those, should be NBC inducing elements, and why Comp, and governing-subject, and only those, should be WBC defining entities.

3.1. Since example (6a) shows that *Ps are not NBC inducing elements (but see section 4.1.)⁹, I will concentrate on the definition of the wide binding category. According to (2b), the requirement is that a subject c-command the pronoun; according to Koster (*op. cit.*), the WBC (his BAD) must contain either a governing subject or a Comp; according to others still (e.g. Aoun 1986), the WBC must contain a SUBJECT, or an accessible SUBJECT.

Let us investigate these various possibilities in turn. Recall that accessibility relies on the *i / i filter; but this filter is not always relevant in Basque, as is illustrated by (14), where the equivalent of 'himself' is typically expressed by the complex expression [*bere_i burua_i*]_i lit. 'his[+ refl] head':

- (14) a. Peiok_i [*bere_i burua_i*]_i ikusi du
 P.k b. head seen Aux
 Peter has seen himself
 b. Peio_i [*bere_i buruarekin_i*]_i mintzaten da
 head-with speaking Aux
 Peter talks to [lit. with] himself

(9) See also (9): if *-kin* is, as I think, a *P, *bere* should be free within the PP *berekin*, and the sentence, grammatical, although it is not.

(The use of *haren* instead of *bere* would of course induce disjoint reference: 'he_i saw his_j head_k', and 'he_i talks to his_j head_k' respectively.)

Moreover, if accessibility were concerned with SUBJECTs (Agr in Infl replacing the subject NP in tensed sentences), even though the notion would work for (14a), because of the presence of the subject agreement morpheme -Ø in the Aux., it would not for (14b), where the absolutive formative *d-* is inaccessible; however, *bere* must be —and is correctly— bound here, although the sentence should not, on this account, qualify as a BC (compare (9)). This is confirmed by (15) where, in the conservative variety/ies of eastern Basque *bere* is absolutely ungrammatical (whereas it is acceptable in other varieties, admittedly):

- (15) Peiok_i dio [haren_{i,j} / *bere txakurra hil dela]
 P.-k says his dog died Aux
 Peter says his dog has died

3.2. Wath (14b) and (15) teach us is that the notion of *accessible* SUBJECT is irrelevant (thus, in (15), the presence of an accessible Agr formative in the matrix clause should make *bere* good, and *haren* out, with index *i*). But *bere*'s WBC may still be defined in terms of its governor, plus either (i) a c-commanding SUBJECT¹⁰, or (ii) a governing subject¹¹, or yet (iii) a Comp. That the first two solutions are not viable in Basque is illustrated by sentences with secondary predicates or Small Clauses, as in (16), where *bere* is correctly bound by *Peiok*, although the intervening absolutive NP *Miren* both c-commands it, and is the subject/SUBJECT of the minimal domain which contains it:

- (16) Peiok_i < Miren_j [bere_{i,*j} lagunik hoberena] > dauka
 P.-k M. b. friend-ik best holds
 Peter_i considers < Mary [his_i best friend] >

So we are left with Comp as the only possible candidate: NBCs in Basque must be defined as in (2a), whereas the WBCs are to be characterized as in (17):

- (17) The Wide Binding Category of WBC of *x* is the minimal syntactic category which contains *x*, its governor, and a Comp.

— i.e. without any reference to a *P, or a g-subject respectively: Koster's approach has found totally independent evidence.

4. I would now like to introduce a few more facts which show that the definitions (2a) and (17) may however require some qualifications.

4.1. First consider (18), where *beren* indicates antecedent's plurality:

- (18) Haiek_i sugeak_j [_{PP}beren_{i,*j} / elkarren_{*i,j} ondoan] ikusi dituzte
 they-k snakes near seen Aux
 They_i have seen snakes_j near them_{i,*j,*k} / each other_{*i,j,*k}

(10) If the requirement concerned a c-commanding *subject*, *Peiok* in the matrix clause of (15) would do the job, contrary to the facts.

(11) A governing or g-subject of *x* is the subject of its governor, or of the governor of the minimal domain which contains *x* (Koster, *op. cit.*).

4.2. Just as intriguing is the fact that (empty) Comp is at times visible, and at times invisible, for the identification of WBCs. Thus, although the two embedded clauses below are tenseless and case-marked, only the first one behaves as if it had a Comp: *bere* cannot refer to the matrix subject in (21), but it can in (22).

- (21) Peiok_i Joni_j dio [PRO_j bere_{*i,j} / haren_{i,*j} etxean sartzeko]
 P.-k J.-i says his house-in to-enter
 Peter tells John to go into his house
- (22) Peiok_i Jon_j utzi du [PRO_j bere_{i,j} / haren_{*i,*j,k} etxean sartze-
 P.-k J. left Aux
 rat]
 Allative
 Peter has let John go into his house

Since *-tze-ko* nominalization is also used in purposive adverbial clauses, whereas *-tze-rat* sentences always seem subcategorized by the matrix verb, recourse might be had to (abstract) reanalysis in the second case, whence the absence of any Comp, and the transparency of the PRO. But independent arguments should be sought for this approach not to be ad hoc.

5. Finally, consider the would-be emphatic pronominal *bera*, genitive *beraren* (cf. n. 6), which behaves sometimes like *hura* / *haren* (23a-e), and sometimes like *bere* (24a-c):

- (23) a. Peiok_i beraren_{*i,j} txakurra ikusi du [cp. (3)]
 b. Peio_i berarekin_{*i,j} mintzatzten da [cp. (9) & (14b)]
 c. Peiok_i bera_{*i,j} ikusi du [cp. (14a)]
 d. Peiok_i dio [beraren_{i,j} txakurra hil dela] [ap. (15)]
 e. Peiok_i Joni_j erran dio [beraren_{i,*j,k} etxean sartzeko]
 [cp. (21)]
- (24) a. Peiok_i ez du nehor_j utzi [PRO_j beraren_i ikusterat]
 P.-k not Aux nobody left *bera's* see-Allative
 Peter has not let anybody see him
 b. Peiok_i ez du nehor_j utzi [PRO_j berarekin_{i,*j,k} sartzerat]
 Peter has not let anybody come / go in with him
 c. Peiok_i ez du nehor_j utzi [PRO_j beraren_{i,*j,k} etxean
 sartzerat] [cp. (22)] his house-in
 enter-Allative]

The foregoing examples seem to indicate that the local domain within which *bera(ren)* must be free is *not* the WBC within which *haren* must be free, and *bere*, bound: this new WBC is the minimal cyclic category which contains the pronoun, its governor, and a *c-commanding* SUBJECT, i.e. Agr in (23a-d), and PRO in (23e) and (24a-c).

The speculations concerning a possible connexion between an (in)visible PRO and an (in)visible Comp in 4.2. above thus seem devoid of any content, and the

necessity of a type-independent approach to binding problems consequently vindicated.

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