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When quantifiers do not agree: three systems

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Abstract

Basque weak quantifiers optionally agree with the inflected verb in number. This papers' main aim is to study the dialectal variation shown by this phenomenon. The study will show that it is necessary to differentiate at least three systems: the western-central system, one that we will call the transition system, and the eastern system (souletin). The western-central system allows the presence of non-agreeing weak quantifiers in every case-marked position, ergative, dative or absolutive; the transition system does not allow it with ergative case arguments, and the oriental system allows it only with absolutive case arguments. In the latter system, the distribution of non-agreeing quantifiers is identical to that of bare nouns: bare nouns are only possible in those positions where absolutive case is assigned.

Keywords

Weak quantifiers, agreement alternation, plurality.

1. Introduction: the phenomenon

Basque plurality denoting nominal expressions trigger obligatory agreement in number with the inflected verb.[i]

(1) Anek   liburu-ak   erosi ditu/*du

    Ane.erg book-D-pl buy have.pl/have.sg

    'Ane has bought (the) books'

This rule has an exception in so called 'vague' weak quantifiers in Basque, which optionally agree in number with the inflected verb (2a-d) (see Rotaetxe 1979; Txillardegi 1977, 1978; EGLU 1985; Etxepare, 2000).[ii]

(2) a. Bezero   asko etortzen   da/dira halako egunetan

      customer many come-hab is/are   such   days-in

      'A lot of customers come in such days'

    b. Bezero   gehiegik   eskatu du/dute   arrain zopa

      customer too-many-erg asked aux-sg/aux-pl fish soup

      'Too many customers asked for fish soup'

    c. Maiak   lagun gutxi ikusi du/ditu   gaur

      Maia.erg friend few   seen aux.sg/aux.pl today

      'Maia has seen few students today'

The notion of what we mean by 'vague' weak quantifier can be intuitively grasped by means of the following contrast:

(3) a. Mila   ikasle   etorri dira/*da

thousand student come aux-pl/aux-sg

'One thousand students came'

b. Milaka   ikasle   etorri dira/da

thousand-suffix student come aux-pl/sg

'Thousands and thousands of students came'

Whereas (3a), which involves a 'definite' quantity, triggers plural agreement in the inflected verb, (3b), which involves a non-definite quantity (equivalent to *thousands of* in English), only optionally triggers agreement. Cardinal quantifiers always trigger plural agreement in standard basque. Vague quantificational expressions constructed out of them, on the other hand, may not.

This phenomenon is general in the Basque area, with some interesting and systematic dialectal variation that we will try to synthesize here. The present paper offers a descriptive account of the variation involved in optional number agreement in the Basque area, as well as some basic generalizations that provide syntactic cues for a unified analysis. A full syntactic explanation of the dialectal variation related to this phenomenon is beyond the scope of this paper. One solid conclusion that follows from our discussion is that non-agreeing quantificational expressions are not counting expressions, but rather expressions related to what Borer (2005) has called a "stuff divider": a functional head whose semantic contribution is to portion out the denotation of count terms so that they can interact compositionally with the counting function. In that context, vague quantifiers merely measure the noun. Measures constitute the other quantificational domain in Basque that presents an agreement alternation in number.[iii]

3

(4) Hiru litro ardo edan   du/ditu

three liter wine drunk aux-sg/aux-pl

'He/she drank three liters of wine'

We may wonder at this point what the agreement alternation is: is it an alternation between plural number features and singular ones? Or is the singular agreement form just a default, selected in the absence of any number feature? It is not easy to answer to this question by looking at the inflected forms directly. However, if we move to other syntactic contexts, the answer seems to favor the conclusion that third singular agreement, in the context of vague quantifiers in Basque, is just a default, with no correspondence with actual number features. One such context is provided by secondary predication, which requires agreement in number (see Artiagoitia, 1994). The example in (5) gives an illustrative example with a Small Clause complement.

(5) Liburuak   hondatu(*-ak) ikusi ditut

book-D.pl worn-out.pl   seen aux.pl

'I've seen (the) books worn-out'

The sentence (5) contains a Small Clause predicate *hondatuak* 'worn-out' which obligatorily agrees in number with the subject *liburuak* 'books'. Now consider the contrast in (6).

(6) a. Liburu asko hondatuak   ikusi ditut

book   many worn-out.pl seen aux.pl

'I've seen many books worn-out'

b. *Liburu asko hondatua   ikusi dut

   book   many worn-out.sg seen aux.sg

'I've seen many books worn-out'

Whereas a vague quantifier that agrees in plural with the inflected verb licenses a secondary predicate with a plural suffix -*k* on it, a vague quantifier that does not agree in plural can not license singular agreement in the secondary predicate either. The conclusion seems to be that agreement in singular with the quantifiers that do not agree in plural with the verb is impossible, and that therefore, the relevant quantifier forms must lack number features, either plural or singular.[iv] That the problem is in number agreement and not, say, in the ability of non-agreeing quantifiers to license a secondary predication is shown by the following fact: if we allow for a secondary predicate that does not have number, secondary predication with vague quantifiers becomes possible. One relevant configuration involves the [-ta] suffix, an adverbial ending that attaches to participles, which does not agree in number in Basque. When the participial substitutes for the [determiner+number] suffix, secondary predication with vague quantifiers becomes possible (7).

(7) Liburu asko hondatu-ta   ikusi dut/ditut

     book   many worn-out.part seen aux.sg/aux.pl

'I've seen many books worn-out'

The paper is organized as follows: In section 2 we present the received analysis concerning the agreement alternation in Basque. Section 3 provides arguments against this view. Sections 4-7 show the properties of Basque non-agreeing quantifiers and their dialectal variation. We

5

distinguish three systems: (i) central, (ii) transition system (Lapurdian), (iii) eastern (Souletin). In section 8 we show the similarities between the non-use of the article in both Souletin and in some Romance languages. This section allows us to state a general syntactic condition on the non-agreeing cases. Section 9 concludes the paper.

2. A previous view: non-agreeing quantifiers are masses

The descriptive grammar of Euskaltzaindia (1985: 223-224) assimilates the absence of number agreement with weak quantifiers to the absence of number in mass terms. Take for instance the contrast in (8).

(8) a. Haragi asko jaten du

      meat   much eat-hab aux.sg

      'He eats a lot of meat'

   b. Haragi asko jaten   ditu

      meat   many eat-hab aux.pl

      'He eats many types of meat'

The presence of number agreement in (8b) triggers a count interpretation of the mass term *haragi* 'meat', which comes to denote a set of individualized meat types. The grammar of the Academy suggests that the absence of number agreement with count terms has the opposite effect: it converts count terms into mass terms. The grammar comments on the following sentences in (9).

6

(9) a. Liburu asko erosi dut

book many bought aux-sg

'I bought many books'

b. Liburu asko erosi ditut

book many bought aux-pl

'I bought many books'

According to the Academy's grammar, (9a) and (9b) do not have the same interpretation: whereas "in the first case we consider a mass of books; in the other case we consider one book and then another one, and another one, and so on" (1985: 223). To make things clearer, the grammar presents the following case.

(10) a. Harri asko bota dute

stone much thrown aux-sg

'They threw a lot of stone'

b. Harri asko bota dituzte

stone many thrown aux-pl

'They threw many stones'

In (10a) harri 'stone' is taken to be non-count, as a big quantity of stone. In (10b) it refers to a big quantity of stones (as a count term). The Academy's grammar does not go beyond the intuition above. Although we will not pursue this line of analysis, we share the intuition that (10b) offers more opportunities for an individualized treatment of the stone than (10a). For instance, (10b) would be more appropriate to describe a situation where demonstrators attack the police by throwing stones to them. This implies the existence of individualized pieces of

7

stone, and a multiplicity of stone-throwing events. (10a) on the other hand, would be more appropriate to describe loads of stone being dumped during some road construction. For argument's sake, if we were to reformulate the Academy's proposal slightly, it could be stated as saying that number morphology coerces masses into counts (11), whereas absence of number morphology coerces count nouns into masses (12).

(11) Mass:

    a. Ardoa edan dut

       wine-D drunk aux

       'I drank wine'

  Plural count:

    b. Ardoak   edan ditut

       wine-D-pl drunk aux-pl

       'I drank wines'

(12) Plural count:

    a. Ikasle asko ikusi ditut

       student many seen aux-pl

       'I have seen many students'

  Mass:

    b. Ikasle asko ikusi dut

       student many seen aux

       'I have seen much student'

3. Are non agreeing quantifiers mass?

It can be shown however that non-agreeing quantifiers are not mass terms. As a starting point, we consider Pelletier's well known thought experiment (1975) to characterize mass terms. He proposes the existence of two imaginary machines, that he calls the Universal Grinder and the Universal Objectifier. For the Universal Grinder, we are to imagine a device which can grind anything, no matter how big or small. Into one end of the device "is inserted an object of which some count expression is true, and from the other end spews forth the finely-ground matter of which it is composed. So a hat is entered into the grinder and after a few minutes there is hat all over the floor" (from Pelletier and Schubert 1989:342). This is so despite the fact that we could also have said that there is felt all over the floor, using a mass expression. Examples of this type "show that many count expressions can be seen to already have within them a mass sense or a mass use" (ibidem: 343). Taking the word *sagar* 'apple' as our putative count term, we could take (13) to involve the mass coming out of the Universal Grinder.

(13) Entsaladak sagar pixkat dauka

salad-D-erg apple bit   has

'The salad has a bit of apple in it'

Take, however, something like (14), with a non-agreeing vague quantifier.

(14) Ikasle asko   ikusi dut   gaurko batzarrean

student a lot of seen I-have today's meeting-D-in

'I have seen a lot of students in today's meeting'

The sentence in (14), with a non-agreeing quantifier, does not involve a mass term, in Pelletier's sense: what I have seen in (14) is not scattered pieces of student, but a number of students, all of them of a piece. True, the force of this argument against a mass-approach to non-agreeing quantifiers depends on the force of Pelletier's metaphor to characterize mass terms as a whole. We know that in this sense, the metaphor is not comprehensive enough. Other mass terms appear to reflect objects that we would better locate in the entering side of the machine. This is the case of mass terms like *furniture* or *crockery* (Chierchia 1998): ground-up furniture and furniture do not mean the same, despite the mass status of the term. In any case, even with simple ambiguous nouns such as *apple*, the mass-approach falls short of accounting for the range of interpretations that non-agreeing cases have. Consider a sentence like (15).

(15) Plater honetan sagar asko ikusten dut

    dish   this-in   apple many see   aux-sg

    (i) 'I see a lot of apple in this dish'

    (ii) 'I see a lot of apples in this dish'

As shown by the translations, non-agreeing quantifiers can be interpreted in two ways: either as mass terms, referring to a quantity of apple, or as referring to a plural set of (whole) apples. In other words: the sentence in (15) can be interpreted as making reference to, say, a dish containing a set of piled-up entire apples. The mass-approach has nothing to say about this second interpretation.

Other properties distinguishing mass terms from non-agreeing cases lead us to reject the mass approach to non-agreeing quantifiers. Lonning (1987) shows that masses cannot

entertain a predication relation with non-homogeneous predicates. Homogeneous predicates are those that are both cumulative and divisive. The examples in (16) involve a non-homogeneous predicate (to weigh more than 300 kilos). Whereas mass quantifications can not be the subject of the non-homogeneous predicate (16a), non-agreeing quantifiers with a count noun can (16b).

(16) a. *Ur   askok   300 kilo baino gehiago pisatzen   du

water a lot of 300 kilo than   more   weight-hab aux

'*A lot of water weights more than 300 kilos'

b. Zaldi askok   300 kilo baino gehiago pisatzen   du

horse a lot of 300 kilo than   more   weight-hab aux

'A lot of horses weight more than 300 kilos'

Finally, we note that some of the quantifiers that give rise to the alternation just cannot quantify over mass terms. This is the case of *zenbait* 'some' and *hainbat* 'a sizeable quantity'. (17) shows that even the non-agreeing cases do not support a mass interpretation.

(17) a. Zenbait ardo   edan dugu

some   wine drunk aux-sg

* 'We drank some wine'

√ 'We drank some wines'

b. Hainbat haragi ekarri   dugu

some   meat   brought aux-sg

* 'We brought some meat'

√ 'We brought some meats'

Up until now, we have concentrated on showing the differences that exist between non-agreeing quantifiers and mass terms. In the sections that follow, we will mainly concentrate on the dialectal variation that non-agreeing quantifiers show, and making as thorough a description as possible of this variation. As will be made clear, there are at least three systems in Basque when it comes to the distribution of non-agreeing quantifiers: Central-western, Transitional (Lapurdian), and Eastern (Souletin).

4. Non-agreeing quantifiers: Central-western system

4.1. Syntactic distribution of non-agreeing quantifiers

In this system non-agreeing quantifiers can occur in all syntactic positions and in all grammatical functions: in subject (S) position, both with ergative or absolutive case (18a); in indirect object (IO) position, with dative case (18b); and in direct object (DO) position with absolutive case.

(18) a. Subject:

Erg.: Azkenean **gazte asko-k**   altxatu behar izan zuen   harria

finally   young a lot of-erg lift   must have aux-sg stone-D

'Ultimately, many youngsters had to lift the stone'

Abs.: **Ikasle asko**   etorri da festara

student a lot of come aux party-to

'A lot of students came to the party'

b. Indirect object:

  Dat.:   Ugazabak **langile asko-ri**   eskatu dio   laguntza

       boss-erg   worker a lot of-dat ask   aux-sg help

       'The boss asked a lot of workers to help'

c. Direct object:

  Abs.:   Mirenek   **liburu asko**   ikusi du liburutegian

       Miren-erg book   a lot of see   aux library-in

       'Miren has seen a lot of books in the library'

4.2. The distributive nature of non-agreeing quantifiers

One of the characterizing properties of non-agreeing quantifiers (which further distinguishes them from mass terms) is their distributive nature (Etxepare 2000). They can only be interpreted distributively, and this sets certain restrictions on the kind of predicate they can attach to.

4.2.1. Distributive readings

Consider for instance the contrast between (19) and (20).

(19) Azkenean gazte   askok   altxatu behar izan zuten   harria

    finally   young many-erg lifted   must have aux-pl stone-D

    'Ultimately, many youngsters had to lift the stone'

         √ collective   √ distributive

(20) Azkenean gazte   askok   altxatu behar izan zuen   harria

finally   young a lot of-erg lift   must have aux-sg stone-D

'Ultimately, many youngsters had to lift the stone'

         * collective   √ distributive

(19) involves an agreeing vague quantifier. This yields two possible readings for the predicate: a distributive one, where each of the youngsters lifts the stone, and a collective one, where the entire set of youngsters lifts the stone. (19) also allows intermediate readings, where the set of youngsters divides in small groups to lift the stone. The range of distributive readings in (19) is typical of count plural entities (see Krifka, 1992). Unlike (19), (20) only allows a strict distributive reading, where youngsters individually lift the stone, and several stone-liftings (as many as there are youngsters) occur.

4.2.2. Predicate classes

Non-agreeing quantifiers are incompatible with collective predicates (predicates that do not allow event distribution). The examples in (21)-(23) all contain a predicate that does not naturally allow atomic distribution (distribution down to the atomic entities making up a plurality). Whereas agreeing quantifiers can be combined with those predicates (a), non-agreeing ones cannot (b):

(21) a. Ikasle   ohi askok   festa horretan topo egin zuten

student ex many-erg party that-in   meet done aux-pl

'Many ex-students met at that party'

14

b. *Ikasle   ohi askok   festa horretan topo egin zuen

   student ex a lot of-erg party that-in   meet done aux-sg

   'A lot of ex-students met at that party'

(22) a. Lantegian, langile asko batzartu dira

   factory-in   worker many met   are

   'At the factory, many workers had a meeting'

b. ?*Lantegian, langile asko   batzartu da

   factory-in worker a lot of met   is

   'At the factory a lot of workers had a meeting'

(23) a. Jonek   liburu asko   ordenatu ditu

   Jon-erg book   many arranged aux-pl

   'Jon arranged many books'

b. ??Jonek liburu asko   ordenatu du

   Jon-erg book a lot of arranged aux-sg

   'Jon arranged a lot of books'

Having a meeting or arranging books in a certain order denote relations that require more than one individual and give rise to collective readings. Predicates that denote such a relation are incompatible with non-agreeing quantifiers.

4.2.3. Reciprocals

Non-agreeing quantifiers, unlike agreeing ones, are incompatible with reciprocals:

(24) a. Ikasle askok elkarren/bata bestearen antz handia dute

student many-erg each other-gen/one another-gen look big aux.pl

'Many students look like each other/one another'

b. *Ikasle askok elkarren/bata bestearen antz handia du

student a lot of each other-gen/one another-gen look big aux.sg

'A lot of students look like each other/one another'

(25) a. Irakasle askok elkar/bata bestea iraintzen dute

professor many-erg each other/one another insult aux.pl

'Many professors insult each other/one another'

b. *Irakasle askok elkar/bata bestea iraintzen du

professor a lot of-erg each other/one another insult aux.sg

'A lot of professors insult each other/one another'

We adopt Heim, Lasnik & May's (1991) analysis of reciprocals: in their view, reciprocals are complex quantificational expressions containing a distributive quantifier. This distributive quantifier is overt in some languages (cf. English *each other*). But if reciprocals possess a tacit distributive operator themselves, then the incompatibility between non-agreeing quantifiers and reciprocals can be easily explained: the distributive operator requires a plural set to operate on, one that can be broken into individual atoms. But if non-agreeing quantifiers are themselves distributive, there is no plural set to operate on. The incompatibility between reciprocals and non-agreeing quantifiers is thus a subcase of 'vacuous quantification'. The effect is analogous to (29), with a strong distributive quantifier:

(26) *Ikasle   bakoitzak elkar   ikusi du

    student each-erg   reciprocal seen aux.sg

  '*Each student has seen each other'

4.3. Enumeration and anaphora

Another difference between agreeing and non-agreeing quantifiers is that the latter cannot make reference to specific individuals. Thus, non-agreeing quantifiers cannot be antecedent to anaphoras, in opposition to what happens with agreeing quantifiers, as the examples in (27) show.

(27) a. Bezero   asko$_i$ sartu dira gaur. _$_i$ ez   dira oso   pozik atera.

        customer many come aux today   neg aux very happy leave

        'Many customers came today. They didn't leave very happy'

    b. *Bezero   asko$_i$ sartu da gaur. _$_i$ ez da oso   pozik atera.

         customer a lot of come aux today   neg aux very happy leave

        'A lot of customers came today. They didn't leave very happy'

In (27a), we see that agreeing Basque quantifiers allow the enumeration of individuals, i.e. it is possible to make reference to the members of the set we are talking about. The enumeration of individuals denoted by the NP combined with non-agreeing quantifiers is not possible, (27b).

(28) a. Jonek   ikasle   asko ikusi ditu: Jon, Mikel, Pello, Martxel…

        Jon-erg student many see   aux

17

'Jon has seen many students: Jon, Mikel, Pello, Martxel…'

b. *Jonek   ikasle   asko   ikusi du: Jon, Mikel, Pello, Martxel…

Jon-erg student a lot of see   aux

'Jon has seen a lot of students: Jon, Mikel, Pello, Martxel…'

5. Transition system: Lapurdian

5.1. Syntactic distribution of non-agreeing quantifiers

The transition system shows some differences compared to the Central-western system when it comes to the distribution of non-agreeing quantifiers. In the Central-western system non-agreeing quantifiers are grammatical in all grammatical functions, whereas in the Transition system this is not so: non-agreeing quantifiers can appear in S position, but only with absolutive case (29a), they don't accept to appear with the ergative case (29b); they can appear in IO position, with dative case (29c); and they can also appear in DO position with absolutive case (29d). Thus, non-agreeing quantifiers appear to be unable to appear with the ergative case.

(29) a. Subject:

Erg.:   *Azkenean **gazte anitzek**   altxatu behar izan zuen   harria

finally   young many-erg lift   must have aux-sg stone-D

'Ultimately, many youngsters had to lift the stone'

Abs.:   **Ikasle anitz** jin   da festara

student many come aux party-to

18

'A lot of students came to the party'

 b. Indirect object:

  Dat.: Ugazabak **langile anitzi** eskatu dio laguntza

    boss-erg worker many-dat ask aux-sg help

    'The boss asked a lot of workers to help'

 c. Direct object:

  Abs.: Mirenek **liburu anitz** ikusi du liburutegian

    Miren-erg book many see aux library-in

    'Miren has seen a lot of books in the library'

5.1. The distributive nature of non-agreeing quantifiers

5.1.1. Distributive vs. collective readings

Since non-agreeing quantifiers cannot take ergative case in this system (cf. (30a)), it is difficult to establish their distributive nature with the full set of tests we used in the previous cases. Take (30) and (31):

(30) Azkenean gazte anitzek altxatu behar izan zuten harria

  finally young many-erg lift must have aux-pl stone-D

  'Ultimately, many youngsters had to lift the stone'

    √ collective   √ distributive

(31) *Azkenean **gazte anitzek** altxatu behar izan zuen harria

   finally young many-erg lift must have aux-sg stone-D

'Ultimately, many youngsters had to lift the stone'

∗ collective   * distributive

The sentence in (30), with a agreeing weak quantifier in subject position, can obtain two interpretations, a collective one and a distributive one (just as was the case in the Central-western system). Now, the fact that non-agreeing quantifiers do not accept ergative case makes it impossible to conclude whether there are any differences in this respect between the Central-western and the Transitional system.

However, the next two subsections make it clear that non-agreeing quantifiers in the transition system are also distributive.

5.1.2. Predicate classes

If non-agreeing quantifiers are really distributive, they will give an ungrammatical result when combined with collective predicates. The prediction, as shown by the examples (32-34), is borne out. Agreeing quantifiers on the other hand have no problem to combine with this kind of predicates.

(32) a. Lantegian, langile anitz bildu dira

   factory-in   worker many met   aux.pl

   'At the factory, many workers had a meeting'

   b. ?*Lantegian, langile anitz bildu da

      factory-in   worker many met   aux.sg

   'At the factory, a lot of workers had a meeting'

(33) a. Jonek   liburu anitz ordenatu   ditu

Jon-erg book   many arranged aux.pl

'Jon arranged many books'

b. ??Jonek   liburu anitz ordenatu du

Jon-erg book   many arranged aux.sg

'Jon arranged a lot of books'

(34) a. Mikelek   ikasle   anitz ikusi ditu   talde bakar bat osatzen

Mikel-erg student many see   aux.pl group single one forming

'Mikel has seen many students forming a single group'

b. *Mikelek   ikasle   anitz ikusi du   talde bakar bat osatzen

Mikel-erg student many see   aux.sg group single one forming

'Mikel has seen many students forming a single group'

5.1.3. Reciprocals

Reciprocals come to show exactly the same thing, that is, non-agreeing quantifiers have a distributive nature in this system. As was the case in the Central-western system, non-agreeing quantifiers are incompatible with reciprocals, as the ungrammaticality of (35b) shows.[v]

(35) a. Gazte   anitz joaten dira   elkarrekin (ostatu   horretara)

youngster many go   aux.pl together   restaurant that-to

'Many youngsters go together (to that restaurant)'

b. *Gazte   anitz joaten da   elkarrekin (ostatu   horretara)

youngster many go   aux.sg together   restaurant that-to

'Many youngsters go together (to that restaurant)'

5.2. Enumeration and anaphora

As expected, in the transition system non-agreeing quantifiers cannot make reference to specific individuals. As a consequence, non-agreeing quantifiers cannot be antecedent to anaphors (36b) and they don't allow the enumeration of individuals, i.e. it is possible to make reference to the members of the set we are talking about, (37b).

(36) a. Bezero   anitz$_i$ sartu dira   gaur. _$_i$ ez dira   oso pozik atera

   customer many come aux.pl today   neg aux.pl very happy leave

   'Many customers came today. They didn't leave very happy'

   b. *Bezero   anitz$_i$ sartu da   gaur. _$_i$ ez da   oso pozik atera

   customer many come aux.sg today   neg aux.sg very happy leave

   'Many customers came today. They didn't leave very happy'

(37) a. Jonek   ikasle   anitz ikusi ditu: Jon, Mikel, Pello, Martxel…

   Jon-erg student many see   aux.pl

   'Jon has seen many students: Jon, Mikel, Pello, Martxel…'

   b. *Jonek   ikasle   anitz ikusi du: Jon, Mikel, Pello, Martxel…

    Jon-erg student many see   aux.sg

   'Jon has seen many students: Jon, Mikel, Pello, Martxel…'

Thus, the main difference between the Central-western and the Transition system is related to the possibility of non-agreeing quantifiers to appear with the ergative case. Non-agreeing quantifiers in the former system have no problem to appear with ergative case whereas in the latter system, non-agreeing quantifiers cannot take ergative case.

6. Eastern system: "Souletin"

6.1. Syntactic distribution of non-agreeing quantifiers

For the third system, we follow the description provided by Coyos (1999) for the dialect of Arbailles. In this system, as was the case in the Transition system, non-agreeing quantifiers cannot appear in all grammatical functions. They can appear in S position, but only with absolutive case (39a), not with ergative case (38a). They cannot appear in IO position, with dative case (40). A quote by Coyos is in order here: "N avec le datif et déterminé par un quantificateur indéfini: si l'indice de datif est present dans le syntagme verbal, ce sera celui avec le pluriel". Finally, non-agreeing quantifiers have no problem to appear in DO position; in fact, the non-agreeing case is more commonly used than the agreeing one (41).[vi]

(38)   Subject:

Erg.:   a.   ***Auzo   anitzek**   jan du

neighbour many-erg eat aux.sg

b.   **Auzo   anitzek**   jan dute

neighbour many-erg eat aux.pl

23

'Many neighbours have eaten'

(39)   Subject:

     Abs.:   a.   **Auzo   anitz** jin   da

          neighbour many come aux.sg

          'Many neighbours came'

         b.   **Auzo   anitz** jin   dira

          neighbour many come aux.pl

          'Many neighbours came'

(40)   Indirect object:

     Dat.   a.   Ugazabak **langile anitzi**   eskatu die   laguntza

          boss-erg   worker many-dat ask   aux-pl help

          'The boss asked many workers to help'

         b.   *Ugazabak **langile anitzi**   eskatu dio   laguntza

           boss-erg   worker many-dat ask   aux-sg help

          'The boss asked many workers to help'

(41)   Direct object:

     Abs.:   Mirenek   **arraultze anitz** jan du

          Miren-erg egg   many eat aux.sg

          'Miren has eaten many eggs'

As expected, the absolutive non-agreeing vague quantifier is incompatible with the presence of a reciprocal modifier:

(42) *Ikasle ainitz jin da elgarrekin

    Student many come is each-other-with

24

"Many students came together"

And it does not license enumeration:

(43)   *Anek pottiko zumait nahi dizü ezagutu: Jon, Peru eta Mikel
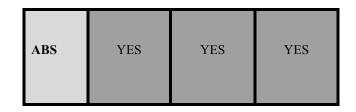
Ane-erg boy some want aux.sg know Jon, Peru and Mikel

"Ane want to meet some boys: Jon, Peru and Mikel"

7. Non-agreeing quantifiers in the three systems: summary

In the table in (44) we offer a summary of the behaviour of non-agreeing weak quantifiers and non-agreeing cardinal quantifiers in the different dialectal areas.

(44)   Non-agreeing quantifiers and cardinal numerals

	Central-Western	Transitional	Souletin
	Non-agreeing quantifiers	Non-agreeing quantifiers	Non-agreeing quantifiers
ERG	YES	NO	NO
DAT	YES	YES	NO

25

ABS	YES	YES	YES

As shown by the table, the possibility of optionally agreeing with a vague quantifiers progressively reduces as we go from central dialects to the eastern ones. The central dialects allow optional number agreement with vague quantifiers in all cases: ergative, dative and absolutive. The transition system, Lapurdian, allows optional agreement with dative and absolutive vague quantifiers. Finally, the easternmost variety called Souletin, only allows optional number agreement with absolutive vague quantifiers.

8. The distribution of the article

8.1. Souletin

The absolutive restriction shown by the non-agreeing weak quantifiers in Souletin resembles the syntactic distribution shown by Souletin bare nouns (BNs). BNs, i.e. nouns with no article or quantifier, are possible in Souletin, but only in DO position.[vii]

(45) a. Bortüan   ikusi dut   **behi, ardi eta mando** (Coyos 1999: 232)

     mountain-in see   aux.sg cow   sheep and mule

     'I have seen cows, sheeps, and mules in the mountain'

   b. Marik   librü emaiten   dizü   haurrer (*Basyque*, informant from Urdiñarbe, Soule)

     Mari-erg book give.hab aux.sg child-dat

   "Mari gives books to children"

   c. **Sagar** ebatsi dü   (Manterola 2006)

apple   steal   aux.sg

'S/he has stolen apples'

These BNs get the so-called existential (Carlson 1977) interpretation. That is, in the examples in (45) we are talking neither about a specific set of apples, cows, sheeps, and mules, nor a specific quantity of money. In order to get the specific reading Souletin speakers make use of the definite article [–ak]. So it seems that BNs in Souletin are interpreted as plurals: the set of elements denoted by the nouns in the examples in (44) must contain more than a single element.

BNs, as we mentioned above, are allowed neither in ergative subjects nor in IO position as the examples in (46-47) clearly demonstrate.

(46)   Subject:

Erg.   a.   *Ikaslek   egin du   hori

                   student-erg do   aux.sg that

          b.   Ikasleek   egin dute   hori

                   student-D.pl-erg do   aux.pl that

                   'The students did that

(47)   Indirect Object:

          a.   *Ikasleri   eman diot   liburu

                   student-dat give   aux.sg book

          b.   Ikasleei   eman diet   liburu

                   student-D.pl-dat give   aux.pl book

                   'I gave the student books'

8.2. Rest of dialects

The rest of Basque dialects do not accept BNs and the presence of the article is necessary if the sentence is going to be grammatical (cf. Laka 1993, Artiagoitia 1997, 2002).[viii]

(48) a. *Mendian   ikusi ditut   **behi, ardi   eta mando**

        mountain-in   see   aux.pl cow   sheep and mule

    b. Mendian   ikusi ditut **behiak,   ardiak   eta mandoak**

      mountain-in see   aux.pl cow-D.pl   sheep-D.pl and mule-D.pl

      'I have seen cows, sheeps, and mules in the mountain'

(49) a. *Ricardok   **ardo** edan du   bazkaltzeko

       Ricardo-erg wine drink aux.sg lunch-for

    b. Ricardok   **ardoa**   edan du   bazkaltzeko

       Ricardo-erg wine-D.sg drink aux.sg lunch-for

       'Ricardo drank wine for lunch'

In these dialects (i.e. Central-western and Transitional), the [DO+D] sequences in the examples in (48b) and (49b) can get two interpretations: (i) specific (equivalent to the reading we get by using French *les*, Spanish *los* or English *the*); (ii) existential (talking about a non-specific set or quantity; see section 8.3)

8.3. Romance languages

The distribution of Souletin BNs reminds us of the distribution of bare nouns in Romance languages (some of them, at least). In Spanish, for example, BNs are only possible in DO position (50a,b,c) –or in postverbal S position, (49d) –; cf. Bosque (1996) for a complete description of BNs in Spanish.

(50) a. Juan ha comido patatas

      'Juan has eaten potatoes'

  b. Pedro ha visto leones

      'Pedro has seen lions'

  c. Mikel ha bebido café

      'Mikel has drunk coffee'

  d. Llegaron estudiantes

      'Students arrived'

The BNs in (50) can only get the so-called existential interpretation, as was the case in Souletin.

Now, in subjects of transitive predicates and subjects not allowing an existential reading, the presence of the determiner is necessary for the sentence to be grammatical.[ix]

(51) a. *(Los) estudiantes han comido patatas

      the.pl students   aux eaten   potatoes

    'The students has eaten potatoes'

  b. *(Los) dinosaurios están extintos

      the.pl dinosaurs   are   extinct

'Dinosaurs are extinct'

c. *(Las) girafas son altas

the.pl giraffes are tall

'Giraffes are tall'

8.4. Number marking: Spanish vs. Souletin

Despite similarities, there's a significant difference between BNs in Souletin and in Romance languages: number marking. Spanish BNs must necessarily appear with the plural marker [-s] (52), whereas Souletin BNs are real BNs with no marker at all (53).

(52) Spanish BNs:

patata-**s**, leone-**s**, estudiante-**s**…

potato-s, lion-s, student-s

(53) Souletin BNs:

behi, ardi, mando…

cow, sheep, mule

However, the absence of number marking in Souletin BNs does not eliminate their plurality (cf. (45)).[x] At this stage, a question that comes to our mind is the following: do Souletin BNs possess a non-overt plural marker? In Basque, the overt number marker is [-k]. The presence of this overt number marker is closely related to the presence of the definite article [-a] (cf. Etxeberria 2005, 2011, in prep). Etxeberria & Etxepare (2008, 2009, in prep), on the other hand, propose (in line with Borer 2005) that number is represented by two distinct syntactic positions in nominal expressions: by means of a number head ([-k] in

Basque) and by means of a classifier head which portions-out count BNs to make them countable in order to interact with the counting function. In Central and Western dialects, this covert function is only available when a vague quantifier is present. In Souletin, it would seem that this covert function can apply directly on the noun. This classifier does not have phonological realization, but it is able to pluralize BNs in this dialect. Note that non-agreeing weak quantifiers show exactly the same syntactic distribution as BNs. We leave the relationship between these two phenomena for future research (cf. Etxeberria & Etxepare, in prep).

9. Conclusions

Basque weak quantifiers display a number agreement alternation with the inflected verb. This paper has investigated the dialectal variation of this phenomenon in Basque. We have seen that at least three different systems must be distinguished: central-western, transitional (Lapurdian), and eastern (Souletin). The paper has centered on the following grammatical issues and their geographical distribution: (i) syntactic contexts where the absence of agreement is allowed: in the central-western variety non-agreeing quantifiers can appear in all grammatical functions; the transitional system does not allow non-agreeing quantifiers with ergative case; and the eastern system only allows non-agreeing quantifiers in DO position; and (ii) the parallel distribution of non-agreeing quantifiers and bare nouns in Souletin: Souletin, and only Souletin, allows BNs in Basque, and the syntactic distribution of these BNs is parallel to the one shown by non-agreeing cardinal quantifiers.

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[i] The reader is referred to Artiagoitia (2000, to appear), or Etxeberria (2005, 2010, in prep) for possible analyses of the various readings the Basque definite article can force.

[ii] The phenomenon extends to all arguments of the verb: transitive subjects (ergative case), indirect objects (dative case), and direct objects (absolutive case); cf. section 6.3 for examples.

[iii] For measure expressions and their syntax in Basque, cf. Etxeberria & Etxepare (in prep) and Goenaga (2008, to appear).

[iv] Despite the fact that non-agreeing quantifiers lack number features and show no agreement with the verbal predicate (i.e. the inflected verb shows default third person singular agreement), we will continue using 'aux-sg' in the glosses for ease of exposition.

[v] *Elkarrekin* is transparently formed out of the reciprocal *elkar* "each other" and the comitative declension suffix –*kin* "with".

[vi] These sentences are created by us, based on the description provided by Coyos (1999).

[vii] We will not consider the predicative use of the Basque article in this paper (cf. Eguren 2006, to appear, Etxeberria in prep).

[viii] Cf. Artiagoitia (2002, to appear), Eguren (2006), or Etxeberria (2005, 2007, 2010), for different possible analysis of the Basque article. These works do not consider Souletin.

[ix] See Bosque (1996: 73).

[x] Following Chierchia (1998) we assume that masses are plurals.