On disjunctive dependencies*

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Abstract

This paper argues that some Spanish syntactic structures contain lexically selected null wh- disjunctive operators, and that a number of apparent subordinate declarative clauses turn out to be hidden indirect questions. It also argues that these operators appear in sentential adjuncts as well, giving rise to a variety of so-called *unconditional structures.* It is shown that disjunctive phrases in structures with selected and unselected null wh- operators are subject to similar locality conditions. In the final section, new arguments are presented in favour of analyzing disjunctive expressions as a variant of free-choice phrases in certain contexts.

Key words: disjunction, wh- operators, free-choice, unconditional structures, syntactic dependencies.

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1. Introduction

Early research on the formal syntax of particles —and most notably, van Riemsdijk (1978) and Emonds (1985)— revealed that prepositions and conjunctions share important properties. Many contemporary syntacticians take them to be variants of the same syntactic category, since both of them head maximal projections, allow for specifiers, take similar complements and may behave as complementizers. Granting this formal similarity, the syntax of coordinate and subordinate conjunctions differs in important respects, mostly derived from the need to associate multiple parallel terms in coordinate structures, whether copulative or disjunctive.

Disjunctive conjunctions have been analyzed in much more detail from a semantic point of view than from a syntactic perspective. One of the most interesting aspects of the grammar of these particles is their sensitivity to polarity configurations. In fact, disjunctive phrases are not entirely autonomous or independent expressions, since they are subject to scope relations (much like intensional indefinites) and give rise to structures of the "operator-variable" type. In this paper I will shortly address a few aspects of this intricate, and somehow unexpected, property of their grammar. In the next section I will argue that the syntax of Spanish contains null disjunctive wh- operators in complement clauses. In section 3 I will show that they are present in adjunct clauses as well, and also that the disjunctive expressions in the structures created by these operators, whether selected or not, behave as variables subject to very similar locality conditions. In the final section I will present new arguments in favour of the hypothesis (already introduced in theoretical grammar) according to which disjunction structures can be reduced to free-choice dependencies in a number of cases.

2. Null selected disjunctive operators

At first sight, the following two Spanish sentences display very similar syntactic structures; namely, two subjunctive subject clauses in postverbal position:

(1) a. Me da rabia que llueva.
         'I am cross that it {is raining/ will rain}.'

     b. Me da igual que llueva.
         'It doesn't matter to me if it rains.'

But there is an important difference between them: only the latter licenses disjunction in the subordinate clause. The disjunctive fragment *o no* ('or not') can be added to (1b), but not to (1a):

(2) a. *Me da rabia que llueva o no.
         'I am cross whether it rains or not.'

     b. Me da igual que llueva o no.
         'It doesn't matter to me whether it rains or not.'

Llueva is a present subjunctive form. This is an ambiguous tense in Spanish. It may have a prospective interpretation, somehow pre-empting the future. In this reading, (2b) refers to some open option in relation to which the speaker has no particular inclination. The present subjunctive can also be interpreted as an actual tense, thus denoting some current situation. If this were the case, (2b) would express that the speaker considers some actual state of raining irrelevant as long as he or she is concerned.

The very fact that (2b) is grammatical raises some interesting questions, since *que* is not a disjunctive operator, and this sentence does not seem to contain an

indirect interrogative subordinate clause. I will argue that *que* is a complementizer in (2b), and also that this sentence contains a disjunctive null interrogative operator, approximately as shown in (3):

(3)   Me da igual [$_{CP}$ O [$_{C°}$ que] [$_{TP}$ llueva o no]]

The duplicated syntactic category in (3) is —arguably— TP, but CP is also an option, as in *Me da igual que llueva o que no*. In fact, other, more embedded constituents may also be duplicated in disjunctive coordination (see (22), below).[1]

The structure in (3) is very similar to that of indirect questions. In fact, the *or not* fragment provides the disjunctive variable characteristic of y/n questions, whether main or embedded. The variant of (3) in which *si* replaces *que* (that is, *Me da igual si llueve o no*) expresses the same meaning, but differs in the mood selected (indicative vs. subjunctive). As expected, other indirect questions are also allowed, such as those headed by wh- pronouns and adverbs: *quién* ('who'), *cuándo* ('when'), etc. *Dar igual* shares the property of admitting other nominal or sentential arguments with most predicates taking wh- clauses:

(4)   a.   Sus opiniones me dan igual.
           'I don't care about his/her opinions.'

      b.   Le daba igual un libro, un disco o un billete de 20 euros.
           'It did not matter to him/her (whether s/he would get) a book, a record or
           a 20 euro bill.'

      c.   Me da igual que llueva tanto como llueve.
           'I don't care about the fact that it is raining as much as it is.'

Notice that the sentential complement in (4c) is a declarative (i.e. non-interrogative) clause. This sentence does not match the structure in (3), since it does not contain a null *wh-* operator. The disjunctive variable corresponding to the operator is not licensed in (4c), and the segment *o no* cannot be added:[2]

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1.   Notice that one cannot simply argue that *dar igual* takes a disjunctive complement, or that it directly "selects for disjunction" without any operator, since the disjunctive conjunction does not necessarily coordinate the two conjoined maximal projections that the predicate may select for: *Le da igual que su hijo lea libros de literatura o de biología* 'It doesn't matter to him/her whether his/her son reads books on literature or on biology'.
2.   The fact that *wh-* indirect interrogative words other that *si* ('whether') seem to be compatible with *o no* ('or not') in some contexts suggests that disjunction may take scope over wh- clauses. Sentence (ia) is, thus, acceptable with the interpretation in (ib):

     (i) a.   Me es totalmente indiferente quién haya ganado o no las elecciones.
              'I do not care at all about who might have won or not the elections.'

         b.   Me es totalmente indiferente [quién haya ganado las elecciones] o [quién no las haya ganado].
              'I do not care at all about who might have won the elections or who might have not won
              them.'

     The result is a sentence similar to (4b). Thanks to Luis A. Sáez for pointing this out to me.

(5) *Me da igual que llueva tanto como llueve o no.
'I don't care about the fact that it is raining as much as it is or not.'

The disjunctive operator in (3) provides the meaning of these hidden indirect interrogative clauses, but it is more restricted than wh- words in them. In fact, the null wh- operator does not freely alternate with *si* ('whether') with many predicates taking indirect questions:

(6)   a. *Juan no sabe [$_{CP}$ O que María llamó o no]]]
         'J. does not know whether M. called or not.'

      b. *El juez no ha decidido [$_{CP}$ O que Juan es culpable o no]
         'The judge has not decided whether J. is guilty or not.'

      c. *Debes averiguar [$_{CP}$ O que Luis vendrá o no]
         'You must find out whether L. will come or not.'

As expected, these sentences become grammatical if *si* ('whether') replaces *que*. A natural way to restrict the null operator O in (6) and similar structures is to think of null disjunctive wh- interrogative operators as lexically selected by predicates which take disjunctive complements; that is, predicates that cannot be interpreted if their internal argument does not denote an open option. Those expressing dependency are good candidates. These predicates form class "i" in Karttunen's (1977) well-known typology of predicates taking indirect questions. Interestingly, not only do they license *or not*, as in (7), but also alternative disjunctive coordination, as opposed to copulative, as shown in (8):

(7)   Todo depende de que llame o no.
      'It all depends on whether s/he calls or not.'

(8)   a. Depende de que sea jueves {*y / o} viernes.
         'It all depends on whether it is Thursday {*and / or} Friday.'

      b. Según (que) haga frío {*y / o} calor.
         'Depending on whether it is cold {*and / or} hot.'

      c. En función de que la velocidad sea mayor {*y / o} menor.
         'Depending on whether the speed is higher {*and / or} lower.'

These contrasts are explained if *depender*, *según* and *en función de* lexically select for a disjunctive operator in these clauses. Although some dependency predicates may allow for a structure not related to open variables at all —as in *John depends on Mary,* or in (4a) and (4c)— their nominal complements are usually interpreted as concealed questions (as in *depending on the time available*), or lexically denote alternatives and other open situations. I have in mind abstract nouns such as *contingency, option, choice, hypothesis, eventuality* and other similar to these which become natural complements of *depend on.*

   The variants of the sentences in (6) with subjunctive complements are equally ungrammatical. This suggests that mood features and the disjunctive conjunction are not strong enough to identify the null wh- operator, which has to be lexically selected. It is important to recall that the disjunctive interrogative operator under discussion is a wh- functional category. This means that open, disjunctive propositions, as in y/n indirect questions, are not equivalent to simple disjunctive phrases, regardless of whether or not phrase disjunction is to be interpreted as ultimately propositional in essence. Consider the contrasts in (9)-(10):

(9)   a. Quiero que asistan Juan o María.
          `I want Juan or María to assist.'

      b. *Quiero que asista Juan o no.
          `I want Juan to assist or not.'

(10) a. Me encanta que me llamen o me escriban.
          'I love it when someone calls me or writes to me.'

      b. *Me encanta que me llamen o no.
          'I love when someone calls me or not.'

Nothing prevents disjunction in the (a) sentences above, as opposed to their (b) counterparts. As explained, the *or not* fragment represents the variable of a wh- disjunctive operator, not licensed in these sentences for absence of the appropriate predicate.
   Since the null operator in (3) is a wh- word, one expects (at least weak) island effects if some material is extracted out of the y/n indirect interrogative complement introduced by *que*. The expectation is met:

(11) a. Todo depende de {si viene / que venga} o no mi padre.
          'It all depends on whether or nor my father is coming.'

      b. *¿Quién depende todo de {si viene / que venga} o no?
          'Who does all depend on whether or not is coming?'

As opposed to this, extraction out of a declarative subordinate sentence is possible, even if the clause is inserted in a PP, as shown in (12). Since there is no wh- operator in these subordinate clauses, no island effect is expected:

(12) a. Estoy contento de que venga mi padre.
          'I am happy that my father is coming.'

      b. ¿Quién estás contento de que venga?
          'Lit. Who are you happy that is coming?'

   We have just seen that predicates denoting dependency provide good candidates for selection of disjunctive wh- null operators. The other natural class of

predicates selecting for them, I will argue, is provided by those denoting irrelevance, as in (2b). This other paradigm includes *ser irrelevante* ('be irrelevant'), *dar lo mismo* ('not matter'), *dar igual* ('not mind, not matter'), *tener sin cuidado* ('not care') and other similar predicates. The prepositional locution *al margen (de)* ('regardless') is also a possible candidate to this second paradigm. Notice that irrelevance —as opposed to regret, surprise or other semantic notions— does not properly belong to the set of concepts that provide emotive factive predicates:

(13) a. Me tiene sin cuidado que te vayas o te quedes.
          'I don't care if you go or you stay.'

    b. *Me tiene muy sorprendido que te vayas o te quedes.
          'I'm very surprised if you go or you stay.'

The two semantic classes introduced above (dependency and irrelevance) are close, since in both of them some contingent state of affairs is evaluated, and predicated of an open situation. Predicates expressing dependency usually relate two parallel propositions, whereas irrelevance may or may not affect other participants. Some other semantic classes might be added, or perhaps interpreted as variants of these two. Notice that the predicate *dar igual* expresses irrelevance, but also identity. In fact, the syntactic relation between this predicate and the disjunctive conjunction *o* (*dar igual… o*) in the structure above is similar to the one that holds between the adjective *igual* ('same') and the comparative conjunction *que* (*igual… que*). More generally, this relation holds between comparative quantifiers and comparative conjunctions (Moltmann 1995). Both conjunctions, *or* and *que*, alternate in (14) with no difference in meaning, which confirms their dependent nature:

(14) Igual da que llueva {o / que} que no llueva.
        'It makes no difference whether it rains or it does not.'

It is natural to suppose that the syntax will make the features of the null disjunctive operator visible. Since the *o no* segment is not indispensable in these constructions, one may argue that the operator features are visible through the subjunctive mood. As pointed out in the outset, a mood change is obtained in the contrast between overt and covert disjunctive selected operators:[3]

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3. As in many other contexts, infinitives are the appropriate non-finite counterpart of subjunctives, as in *Me da igual ir o no* ('It doesn't matter to me whether I go or not'). An anonymous reviewer has suggested to me that the fact that English excludes infinitives in these structure (*It doesn't matter to me to go or not*) might be related to the fact that subjunctive-infinitive alternations are also absent in English, and, more generally, to the very different nature of English and Romance subjunctives. Other factors might be involved. Notice that the sentence with *dar igual* is a straightforward case of a deep null subject controlled by a dative, as opposed to its English counterpart.

(15) a. Me da igual si {tiene / *tenga} problemas o no.
         'I do not care if s/he {has-IND. / has-SUBJ.} problems or not.'

     b. Me da igual que {*tiene / tenga} problemas o no.
         'I do not care if [lit. *that*] s/he {has-IND. / has-SUBJ.} problems or not.'

(16) a. Todo depende de si te {gusta / *guste} o no.
         'It all depends on whether you {like-IND. / like-SUBJ.'

     b. Todo depende de que te {*gusta / guste} o no.
         'It all depends on whether [lit. *that*] you {like-IND. / like-SUBJ.} or not.'

Some mood variation is attested in indirect interrogatives with overt operators. For example, the subjunctive mood in (16a) is possible in the Spanish spoken in México and some parts of the Caribbean area. With predicates of dependency, both moods alternate with *depender* in all areas in embedded interrogatives constructed with overt wh- phrases:

(17) Todo depende de cuánto {quieres / quieras} apostar.
     'It all depends on how much you {want-IND. / want-SUBJ.} to bet.'

These options do not extend to null wh- operators, since indicative is strongly rejected in (15b) or (16b) by most speakers. One might naturally relate this "subjunctive only" restriction to Manzini's (2000) analysis of the subjunctive mood as a variable of a modal operator. We might also think that the role of the subjunctive in these sentences is similar to the one that Quer & Vicente (2009) attribute to it in unconditional structures; namely, a grammatical mark for a variable over worlds, thus providing a content similar to that of intensional indefinites. These are interesting (and, by the way, related) analyses worth to pursue, but I will not develop them here.

3. Null non-selected disjunctive operators

Selected wh- disjunctive operators may naturally be opposed to non-selected ones. The latter are characteristic of so-called *unconditional sentences* (see Quer 1998, Adger and Quer 2001, Sáez 2006, Rawlins 2008, Quer and Vicente 2009), also named *concessive-conditionals* or *universal concessive-conditionals*, as in König (1986). Just as argumental disjunctive interrogative sentences may be yes/no clauses (*I don't remember whether I had chicken or not*) or alternative clauses (*I don't remember whether I had chicken or beef*), disjunctive sentential adjuncts may also be yes/no, as in (18a), or alternative, as in (18b):

(18) a. Pienso salir llueva o no.
         'I intend to go out whether it rains or not.'

     b. Pienso salir llueva o truene.
         'I intend to go out whether it rains or it thunders.'

Both are always constructed in subjunctive and interpreted as the copulative coordination of conditional sentences, either with opposite polarity values, as in (18a), or as contrastive options, as in (18b). Notice that 'and' is given wider scope that 'if' in the interpretation of both variants: the unconditional clause in (18a) means 'Both if it rains and if does not rain'. Similarly, the disjunctive phrase in (18b) expresses the conjunction of two conditional clauses with different predicates, as in 'Both if it rains and if it thunders'. Variants of these paraphrases with disjunctive conjunctions (as in *Pienso salir si llueve o si no llueve*) are attested in child language.[4]

Since null wh- disjunctive operators are identified by selection in argumental clauses, the disjunctive conjunction is not indispensable in those structures. We can, thus, delete *o no* in (2b). We cannot do so in (18a), since the disjunctive clause is now an adjunct, and the operator cannot be lexically identified. Both mood inflection and the conjunction *o* are, thus, necessary to identify the operator in disjunctive sentential adjuncts.

There is a strict semantic parallelism between selected and non-selected disjunctive complements: yes/no clauses exhaust a binary set of opposite options, and alternative disjunctives provide sets of entities that equally exhaust a given paradigm. Unconditionals also parallel indirect questions in allowing for non-disjunctive variables (person, thing, place, etc.), as in *Llame quien llame* ('Whoever calls'), but these do not concern us here.

If we consider the syntactic side of disjunctive sentential constructions, we find two main differences between selected and non-selected clauses. First, there are no overt non-selected disjunctive operators in Romance, as opposed to English:[5]

(19) *Pienso salir si llueve o (si) no.
      'I intend to go out whether it rains or not.'

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4. The absence of infinitival disjunctive clauses with null operators, as in (ia), follows from their status as adjuncts. Their DP subject cannot check its case features, when overt, and cannot be properly controlled when covert, as opposed to its counterparts in argumental clauses (ib):

    (i) a. *Pienso salir, llamar (Juan) o no.
            'I intend to go out, whether or not {Juan calls/ I call}.'
        b. Me da igual salir o no.
            'It does not matter to me whether I go out or not.'

    Recall footnote 3.

5. An anonymous reviewer suggests that *tanto…como* correlative coordination might provide an overt operator in these cases, as in *Pienso salir, tanto si llueve como si no* ('I intend to go out both if its rains and if it does not') or (for some speakers) *Pienso salir, tanto que llueva como que no* (same meaning). I am not sure that it might qualify as that, since *tanto… como* is a discontinuous copulative (i.e., non-disjunctive) conjunction not restricted to sentence coordination. Just like its English counterpart *both… and, tanto… como* is compatible with most non-sentential coordinate phrases: *tanto Juan como Pedro* ('both Juan and Pedro'), *tanto en París como en Roma* ('both in Paris and in Rome'), etc.

Second, there is no overt *que* in C° in these structures:

(20) *Pienso salir que llueva o (que) no.
     Lit: 'I intend to go that it rains or that not.'

To a certain extent, both restrictions may be considered historical accidents.[6] One may argue, in fact, that unconditionals and indirect questions display similar syntactic structures. Although disjunctive unconditionals lack overt complementizers in Spanish, V° to C° movement is attested in these structures, as confirmed by the rejection of preverbal subjects:

(21) a. Pienso salir, {quieras tú / *tú quieras} o no.
         'I intend to go out, whether you want me to or not.'

    b. Pienso salir, [$_{CP}$ O [$_{C°}$ quieras$_i$] [$_{TP}$ tú t_i o no]]

Both overt and non-overt disjunctive operators are subject to locality restrictions. A well-known property of disjunctive phrases is the fact that they give rise to wide scope (in fact, propositional) interpretations in a large number of contexts. That is, the coordinated phrase in (22) is *de política o de sociología*, but the alternatives to choose from in the interpretation of that sentence are propositional, namely 'Juan wrote the preface of an essay on politics' and 'Juan wrote the preface of an essay on sociology':

(22) No sé si Juan escribió el prólogo de un ensayo de política o de sociología.
     'I don't know whether Juan wrote the preface of an essay on politics or on sociology.'

Studies in English *either... or* expressions usually concentrate on how to provide the proper scope for *either*. The main options seem to be movement out of a disjunctive phrase, as in Larson (1975) or Johannessen (2003), or gapping of intermediate material, as in Schwarz (1999) or Han & Romero (2002), but other mixed alternatives have been worked out, such as Den Dikken (2006) or Kaplan (2008). Since I cannot compare these analyses here, I will simply point out that all sentences with wh- disjunctive operators in Spanish (whether overt or covert, selected or non-selected) are subject to similar locality restrictions. We thus have four options, the last of them excluded for lack of the appropriate lexical particle:

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6. In Old Spanish, overt *si* is attested in main yes/no questions as in *¿Si sera este don Florestán, fijo del rey Perión* [...]? (Rodríguez Montalvo, *Amadís de Gaula,* from CORDE), that is 'Would this one be don F., son of the king P.' A variant of (20) with *que* replacing *o* is attested in present-day colloquial Spanish, as in *que quieras, que no* 'Whether you want to or not'.

COVERT SELECTED DISJUNCTIVE OPERATORS

(23) a. Me da igual que te compres esta computadora o no.
      'It doesn't matter to me whether you buy this computer or not.'

   b. *Me da igual que te compres la computadora que le gusta o no a tu hermano.
      'It doesn't matter to me whether you buy the computer that your brother likes or not.'

OVERT SELECTED DISJUNCTIVE OPERATORS

(24) a. No sé si ha vendido el coche rojo o el azul.
      'I don't know whether s/he has sold the red or the blue car.'

   b. *No sé si ha vendido el coche rojo o azul.
      'I don't know whether s/he has sold the red or blue car.'

COVERT NON-SELECTED DISJUNCTIVE OPERATORS

(25) a. Me llame [el jefe de Juan] o [María], no pienso salir de casa.
      'I won't go out whether Juan's boss or Mary tell me to do so.'

   b. *Me llame el jefe de [Juan o María], no pienso salir de casa.
      'I won't go out whether Juan's or Mary's boss tell me to do so.'

OVERT NON-SELECTED DISJUNCTIVE OPERATORS

      They do not exist in Spanish.

This similarity is particularly relevant, since overt disjunctive wh- words coincide with non-disjunctive ones in being subject to movement processes, as shown by Den Dikken (2006). Here is a brief summary of the main ideas presented above:

(26) a. Null disjunctive wh- operators in Spanish may be selected or non-selected.

   b. Null selected operators introduce indirect questions with predicates denoting dependency and irrelevance. As other null wh- operators (such as relative), they require overt features in C° (*que* structures) and give rise to island effects.

   c. Null selected disjunctive operators are identified by selection, but also by the disjunctive conjunction *o* (acting as a variable) and the subjunctive mood. The predicates that select for them also select for alternative disjunction and for embedded interrogatives.

   d. Null non-selected disjunctive operators provide unconditional structures. They lack overt counterparts, but give rise to V° to C° movement in CP. They are identified both by the disjunctive conjunction and the subjunctive mood.

e. Disjunctive phrases in structures formed by selected and non-selected operators are subject to similar locality conditions.

Most of these similarities follow from the fact that grammatical features of null wh- disjunctive operators coincide in both selected and non-selected clauses. Their differences come from the syntactic structures in which they are located and from the nature of these clauses as sentential arguments or adjuncts.

4. Disjunction and free choice

In this final section, somehow more speculative, I would like to argue in favour of the hypothesis, introduced by Higginbotham (1991), Amritavalli (2003) and others, according to which disjunction may be reduced to free-choice structures in a number of cases. Recall that the following operator-variable dependencies are generally accepted:

(27)

OPERATOR	VARIABLE
A. Negative triggers and affective predicates	Negative polarity items
B. Negation, interrogation, some modals	Subjunctive mood
C. Modal operators, intensional predicates	Free-choice items

I believe that the idea that disjunction may be interpreted as a subtype of C, set out in the references above, is particularly interesting, and can be supported with arguments of different sorts. Consider so-called *inclusive disjunction* (Hurford 1974) first. This is the reading obtained in (28) if *coffee or tea* is pronounced in a single intonation group with final rising tone. This interpretation (which allows a yes/no answer) contrasts with the pronunciation of the utterance in two intonation groups, giving rise to the exclusive disjunction reading:

(28) Would you like coffee or tea?

The exclusive reading trivially provides the wide scope interpretation or disjunction, but notice that the inclusive reading is not conjunctive, since the speaker is not suggesting that the hearer should have first coffee and then tea. It seems to me that an appropriate paraphrase of *coffee or tea* in the so-called *inclusive interpretation* is 'Anything, for example coffee, tea, etc.'. It this is correct, inclusive disjunction provides an INDEFINITE in an interrogative (hence modal) environment, as free-choice items do. The disjunctive inclusive phrase contains two or more SAMPLES of an open, non-exhausted paradigm.[7] The traditional term *inclusive* is, then, misleading,

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7. This analysis does not extend to parenthetical inclusive disjunction, which presents different properties, as in *Would you like coffee, or maybe tea?*

since it may lead to the wrong conclusion that conjunctive interpretations are correct.

The fact that English *either* is used both as a disjunctive operator (*Either John or Mary*) and a free-choice item (*Either option might work*) nicely fits in the hypothesis that extends (27C) to disjunction. One well-known fact about the dependencies in (27) is the observation that some sort of morphological agreement between the expression representing the operator and the indefinite providing the variable is often attested. So-called N-words (as *ninguno* 'any, none') morphologically agree with triggers (as in *No vino ninguno* 'No one came'). As argued in Bosque (1999), Spanish free-choice items contain the segment *-quiera* (*cualquiera, siquiera*) which grammaticalizes a tensed modal verb creating a variant of this morphological agreement.

An interesting argument for considering disjunction a variant of (27C) comes from languages without disjunctive conjunctions. A partial list of these languages is found in Moravcsik (1971). Some of them use juxtaposition in order to express disjunction, but others use *in situ* modals with this purpose:

> Dixon in his description of `Dyrbal logic' [….] suggests that [disjunction] can be expressed in Dyrbal by using the particle *yamba* 'maybe'. Thus, to translate 'I saw a fish. It was either a barramundi or a red bream' one could say the equivalent of 'I saw a fish, what was it?— maybe a bream, maybe a barramundi' (Goddard 1998: 170).

Constructions with *in situ* modals expressing the meaning of disjunctive conjunctions suggest a structure somehow similar to the one that characterizes *-quiera* words in Spanish. It also confirms the repeatedly attested observation that intensional indefinites licensed at a distance by operators are expected to display some morphological or lexical agreement with them, or —more generally— that modal or negative features in operators are expected to be visible in the indefinites licensed in their scope.

A final argument for interpreting disjunction as free-choice comes from the fact that the disjunctive variable that *or not* provides is also attested with nominalizations. Somehow surprisingly, the appropriate triggers are not just predicates selecting for null disjunctive operators, as in (29), but also some modals, as in (30):

(29) a. Ello depende de la existencia o no de recursos suficientes.
        'It depends on the existence or not of enough resources.'

   b. Me tiene sin cuidado la presencia o no de asesores militares en la zona.
        'I don't care about the presence or not or military advisors in the area.'

(30) a. La posible existencia o no de petróleo en el país.
        'The possible existence or not of oil in the country.'

   b. *La segura existencia o no de petróleo en el país.
        'The sure existence or not of oil in the country.'

Needless to say, a number of points must be worked out. One specific problem related to these phenomena has received much attention in the semantic literature, namely, how it is possible that *or* gets wider scope than modals in utterances denoting permission, as in *You may go or stay,* which implies 'You may go or you may stay'. Zimmermann (2000), Simons (2005), Alonso-Ovalle (2006) and others deal with this much-debated issue.

If narrow scope disjunctive expressions are like indefinites under the scope or modal and intensional (or non-veridical, in Giannakidou's 2001 terms) expressions, one should find out whether or not the set of potential licensors coincide in both paradigms, and also whether or not locality restrictions are similar in both cases. Another relevant question concerns the syntactic nature of wide-scope disjunctive expressions. Free-choice items lacking a proper modal or intensional environment produce ungrammatical sentences, as in (31a), since they reduce to unbound variables. *Or not* fragments are also ungrammatical in these contexts, as in (30b), but simple alternative disjunctive phrases are possible, and give rise to wide scope interpretations, as in (31b), rather than ungrammatical sentences:

(31) a. *Juan leyó ayer cualquier periódico.
         'Juan read any newspaper yesterday.'

     b. Juan leyó ayer un periódico o una revista.
         'Juan read a newspaper or a magazine yesterday.'

As expected, (31b) means 'Either Juan read a paper yesterday or he read a magazine'. However, notice that it is somehow strange to hold that alternative disjunction comes for free in main clauses (as opposed to *or not* disjunction: **Juan leyó ayer un periódico o no* 'Juan read a newspaper or not yesterday'), since we saw in (8), (13a), (18b) or (22b) that it may also be dependent in subordinate structures. One possibility would be to suppose that licensing of disjunctive phrases such as the one in (31b) somehow parallels Heim's (1982) existential closure of indefinite expressions. It is also intriguing that most of these disjunctive structures are interpreted as manifestations of the speaker's state of lack of knowledge. This might suggest that they depend of a higher epistemic operator which provides the relevant features for that interpretation. There are other options, but I cannot be more precise at this point.

We have seen that a number of disjunctive phrases are dependent expressions that reduce to operator-variable structures. It may simply happen that disjunctive phrases (unlike indefinites) do not lexically encode scope differences. But it might also be true that all disjunctive phrases, and not just some of them, are ultimately syntactically dependent expressions. If this could be proved, we would both reduce the number of our syntactic primitives and advance in our understanding of them.

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