ECONOMY AND SCOPE:
DISTRIBUTIVITY IN ROMANIAN AND CHINESE

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A comparison between (strongly) distributive sentences in two typologically different languages, i.e. Romanian and Chinese is proposed. It is argued that the same factors, namely the inherent properties of the quantifiers more than the c-command relations obtaining between them constrain the possible interpretations of distributive sentences. The importance of the two factors is relatively different: in Romanian, the semantic factor cannot be superseded by the configurational one, whereas in Chinese c-command is at least equally important, thus partially confirming the isomorphism thesis.

Key words: Romanian, Chinese, distributivity, strong quantifiers, c-command, isomorphism.

1. Aim of the paper

The present paper draws a comparison between distributive sentences in Romanian and Chinese, in order to prove that, despite major typological differences[1], the syntax and semantics of quantification in both languages is, at least, partially similar. We consider the syntax and interpretation of quantifier phrases headed by the universal distributive quantifiers *fiecare* NP (*every* NP) in Romanian and *mei+* Cl.[2] in Chinese.

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[1] Romanian presents the following properties: Wh-movement, tense marking, S-V agreement, different moods and participles, clitic doubling, Comp., relative pronouns… whereas Chinese marks Wh- *in situ*, encodes aspectual differences, has no S-V agreement, no mood constrast, no participle(s), no clitic pronouns, no Comp., no relative pronouns.

[2] The abbreviations used here are: AgrOP: Agreement Object Phrase, AgrSP: Agreement Subject Phrase, Cl.: Classifier, CP: Complementiser Phrase, CQP: Counting Quantifier Phrase, DisP: Distributive Phrase, DO: Direct Object, DP: Determiner Phrase, DQP: Distributive Quantifier Phrase, GQP: Group Denoting Quantifier Phrase, LF: Logical Form, MP: Minimalist Program, Neg QP: Negative Quantifier Phrase, NomP: Nominative Phrase, NP: Noun Phrase, NPI: Negative Polarity Item, O: Object, PredP: Predicative Phrase, QP: Quantifier Phrase, QR: Quantifier Raising,

Sentences containing two QPs will be examined: the universal distributive QP *every*, a strong quantifier and several classes of weak DPs as Share Phrases (cf. Beghelli – Stowell 1997). Distributivity will be viewed as a syntactic and semantic dependence between the two QPs, the distributor and the distributee or Share Phrase.

We argue that the same factors, namely, the inherent semantic properties of the quantifiers more than the c-command relations obtaining between them, constrain the possible interpretations of distributive sentences. The importance of the two factors is relatively different: in Romanian, the semantic factor cannot be superseded by the configurational one, whereas in Chinese c-command – i.e. configuration – is at least equally important, thus (partially) confirming the isomorphism thesis (May 1985, Huang 1981, Huang 1983, Ernst 1998).

1.1. On the analysis of scope phenomena and scope shifting operations

The problem that we address is that of the syntax of scope. Early GB theory proposed that quantifier scope is determined by c-command relations at LF, and hence the assumption that *all* QPs are assigned scope by movement to scope-taking positions. This view, expressed in May (1985), is known as "The Uniformity of Quantifier Scope Assignment" hypothesis and states that Quantifier Raising (= QR) applies uniformly to all QPs. Neither QR nor any particular QP is landing site selective.

May's views are refined by Aoun – Li (1993), and more recently, by Ernst (1998), who bring in the essential idea that traces may be taken into account for the computation of scope and that a trace is bound by the closest potential binder.

Hornstein (1996) expresses a radically different view. He claims that, given the requirements of the Minimalist Program – noted MP – (Chomsky 1995), there are sound reasons for the elimination of QR as a rule of UG. The most important one is that the MP presumes that movement serves to check morphological features. Thus, if QR occurs, then its end must be the checking of [+ Q] features. However, in contrast to Wh-features, Focus or Topic features, each of which has overt morphological realisations in some languages, [Q] features are unattested overtly. This suggests that no rule of QR should be allowed to exist.

Hornstein's positive proposal is that, given the MP theory of Case, as sketched in Chomsky (1995), it is feasible to construct an empirically adequate account of quantifier scope exploiting the already created Case chains. Quantifier scope interactions will piggy back on Case chains.

Borrowing from both May and Hornstein, Beghelli and Stowell (1997) – noted B&S – propose a hybrid theory whose basic claim is that QPs behave *non-uniformly*. Some QP types must undergo QR, while others, perhaps most, take scope in their Case position, remaining *in situ* at LF. Secondly, QPs that must undergo LF move-

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RefP: Referential Phrase, S: Subject, Sfx.: Suffix, ShareP: Share Phrase, SSO: Scope Shifting Operation, TP: Tense Phrase, UG: Universal Grammar, V: Verb, VP: Verb Phrase, Wh-QP: Interrogative Quantifier Phrase.

ment are *target selective*, in the sense that particular QP types move to particular LF scope positions, reserved for them in the functional structure of the clause.

B&S distinguish five major QP types, of which the following ones are relevant for the discussion below:
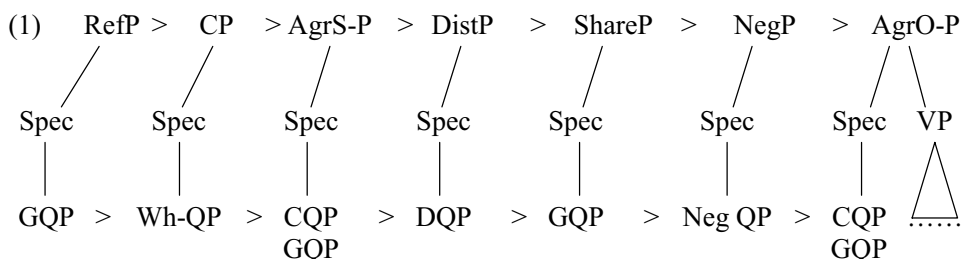
a) Distributive-Universal QPs (DQPs). These distributors are QPs headed by *every* and *each* in English, *fiecare* in Romanian and *mei* + Cl. in Chinese. Their semantic features are [+ Distributive] and [+ Universal].

b) Group-Denoting QPs (GQPs). These include indefinite QPs, headed by *mulţi/hen duo* ('many'), cardinal QPs *un student/yi ge xuesheng* ('one student') or *trei studente/san ge xuesheng* ('three students'), and definite QPs *oamenii/na xie ren* ('those people') in Romanian and in Chinese. These GQPs have two characteristic semantic properties: (i) when they take widest scope, they have the ability to refer directly; (ii) in their most natural interpretation, they refer to groups, i.e. to plural individuals, and may receive collective interpretation.

c) Interrogative QPs (Wh-QPs), characterised by a [+ wh-] feature: *cine/shei* ('who?'), *ce/shenme* ('what?').

d) The other two QP types proposed by B&S are Negative QPs (NQPs) and Counting QPs (CQPs); the latter include decreasing and increasing QPs like *few, fewer than five* and *more than two* etc. The characteristic property of CQPs is that they resist wide scope and specific interpretations.

B&S also identify several functional projections ordered as shown in (1), in the analysis of an English clause at LF. The topmost position is that of the Referential Phrases (RefP) followed by WhP (= SpecC). Fillers of RefPs are best understood as discourse topics. The (lower) Distributive Phrase (DistP) hosts only distributive QPs. The distributor *selects* a ShareP or Distributee Phrase, which is a QP position c-commanded by the distributor. The distributee may be a GQP, for instance an indefinite QP or a cardinal phrase.

(1)   RefP > CP > AgrS-P > DistP > ShareP > NegP > AgrO-P

    Spec   Spec   Spec   Spec   Spec   Spec   Spec VP

    GQP > Wh-QP > CQP > DQP > GQP > Neg QP > CQP
                  GQP   GQP

Distributive QPs, which are *strong distributors*, typically give rise to scope ambiguities. In the well-known English example (2), either the Subject or the Object may have wide scope, noted S>O and O>S.

(2)   *Every man loves a woman*.

To explain such scope interactions, B&S start from the premise that the distributor always occupies the same LF position, i.e. Spec DistP. This means that the

possibility for a DQP to have wide or narrow scope over a GQP hinges on the position that the GQP occupies at LF. What may vary is the relative position of the distributee, the GQP. For instance in (2), one possibility is that the Object GQP is interpreted as a referential phrase, i.e., the sentence speaks about one particular woman. The GQP goes up to the RefP in (1), to a position above the DistP. The distributive *every* in Spec DistP has in its scope an existential operator in Spec ShareP, binding the event argument of the predicate in (2) (i.e., there are different eventualities of loving the same woman by different men). This configuration corresponds to the O>S inverse reading of (2).

On the other hand, the GQP may simply raise to the Spec ShareP in (1), below the distributive *every* phrase in Spec DistP. This configuration corresponds to the preferred S>O reading of (2). The analysis also offers evidence against the scope uniformity principle first proposed by May (1985).

In what follows, we will show that B&S' claims are somewhat too strong.

1.2. Our claim: B&S' position is too strong

The position we adopt is essentially that of Fox (2000) and Sauerland – Elbourne (2002). According to Fox, UG disposes of two Scope Shifting Operations (noted SSO), namely Quantifier Raising, already illustrated above, and Quantifier Lowering (Reconstruction). With reference to reconstruction, Sauerland and Elbourne stress the difference between *partial* reconstruction, which feeds binding dependencies and generally connectivity effects, without affecting scope relations, and *total* reconstruction where the whole of the moved constituents is interpreted *in situ*.

An example like (3a) involves partial reconstruction: the wh-word is interpreted in its higher position, while part of the wh-phrase has lowered – see (3b) –, to allow the pronoun to be bound by the quantifier. In total reconstruction, the whole of the moved phrase is understood in the lower position. A typical example of total reconstruction is (3c), involving SSR: the subject *an Austrian* may take scope below *likely*.

(3) a. [*Which relative of hers$_j$*]$_i$ *did every student $_j$ invite t$_i$?*
     b. [*Which relative $_i$*] *did every student $_j$ invite* [*relative of hers $_j$*]$_i$
     c. *An Austrian is likely* [*t to win the gold medal*].
     ($\exists$ > *likely*, *likely* > $\exists$)
     d. --- *is likely* [*an Austrian to win the gold medal*]

The novelty proposed by Sauerland – Elbourne, adopted here, is that total reconstruction is due to purely phonological movement. Movement that takes place in overt syntax, before Spell-out must be visible at LF and cannot be undone by reconstruction. Constituents that totally reconstruct are *in situ* at LF and undergo PF movement.

To conclude, as stressed by Fox, against B&S, no quantifiers raise obligatorily. SSO apply only if they have an interpretative effect, being ruled by economy conditions.

Secondly, as emphasised by Sauerland – Elbourne, as well as B&S, scope taking movement must not be completely undone. It is expected, however, that not all overtly expressed c-commanding configurations will be relevant for scopal interpretation. Against this general background, we claim that the distributive QPs obey a Scope Principle which has to be satisfied at LF and prove that this requirement can be met in a variety of syntactic (overt and covert) configurations, resulting from the syntactic functions of the distributor (i.e. the Case chain), the semantic properties of the distributee, the application of scrambling, and only sometimes the application of QR. It will also appear that there is no special projection where either the distributor or the distributee must take scope. QR is simply a last resort applying up to interpretability (cf. also Kennedy 1997).

2. Clause structure in Romanian and Chinese

2.1. Romanian has been described as a VSO language, with the functional structure as in (4), cf. Dobrovie-Sorin (1994). The Romanian verb always raises overtly to the highest inflectional projection, though it never reaches CP.

(4)   CP>TP>NominativeP[3]>vP

In the typology proposed by Alexiadou – Anagnostopoulou (1998), Romanian is a VSO language, which checks Nominative Case in Spec NomP, by Agreement. Since the verb raises to T^0 – the highest inflectional position – the Nominative position is *postverbal*.[4] As a result, in Romanian, as well as in most Romance languages, all preverbal positions are A' positions. When it appears preverbally, the subject expresses a topic or focus role.

2.2. Chinese evidences both the typological characteristics of VO and OV languages. In general, while modifiers of the Noun always precede it, modifiers of the Verb precede or follow it. This explains while Chinese is sometimes treated as underlyingly V medial (see Mulder – Sybesma 1992) or underlyingly V final (see Li 1990 and Gasde 1998) – though at the level of S-structure the unmarked word order is SVO. We adopt Tang's (2001) clausal structure, cf. (5), where PredP reads as Predicative Phrase. (Manner adverbs are projected under PredP.)

(5)   CP> IP> PredP > VP

In the following sections, we analyse sentences containing the equivalents of the quantifier *every* in Subject and then in Object position.

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[3] In (4) TP corresponds to the MP (Mood Phrase) in Cornilescu (1997).
[4] See Cornilescu (1997) for a detailed discussion of Romanian positions.

3. Sentences with subject *every*

3.1. Romanian and Chinese: fiecare *and* mei + Cl. *as Subject*

Romanian sentences with *fiecare* in Subject position stand in contrast with English sentences with *every* in Subject position. As already said above, English (7) = (2) is ambiguous, but Romanian (6) is not: it clearly has only the S>O interpretation.

(6)   *Fiecare bărbat iubeşte o femeie.*
        every   man   love   a woman
        SVO order; S>O, *O>S
(7)   *Every man loves a woman.*
        SVO order; S>O, O>S

Remember that, in Romanian, the Nom Case position is postverbal. If a subject DP is preverbal, it must appear preverbally for interpretative reasons. To get a clearer picture of the data, let us consider now the full range of sentences with Subject *fiecare.* The general point we are trying to make is that, even in a language with free word order like Romanian, the overt c-command relations of the two QPs do not always determine relative scope. In all the following examples, we have indicated the word order facts and the scope possibilities of the two QPs.

(8)   *După regulament, corectează fiecare corector o   teză.*
        by   regulation   grades   each   examiner one   paper
        VSO order; S>O,*O>S
        "According to regulations, each examiner grades one paper."
(9)   *După regulament, fiecare corector corectează o teză.*
        SVO order; S>O,*O>S
        same translation as (8).
(10)   *După regulament, corectează o teză fiecare corector.*
        VOS order; S>O,*O>S
        same translation as (8).
(11)   *După regulament, o teză   corectează fiecare corector.*
        OVS order; S>O *O>S
        same translation as (8)

The sentences above exhibit considerable syntactic variation. In the VSO sentence (8), the Subject and Object are likely to be *in situ* or in their case positions. In the SVO sentence (9), the Subject has moved to SpecT, a left periphery position where it can function as a Topic. In sentence (10), the VOS order is the result of Scrambling of the Object past the Subject. The Object adjoins to *v*P or to NomP in (4), presumably to allow the subject to occupy an informational focus position (see Alboiu 2001).

In the OVS sentence, the Object has moved to some left periphery position, c-commanding the Subject.

As to the interpretation of (8)–(11), the data are very clear cut. Despite the considerable word order variation, *all* the sentences with subject *fiecare* NP are *unambiguous* and exhibit only the Subject over Object reading regardless of the relative positions, that is, the c-command configurations of the S vs. the O. Contra B&S, there is no need for Subject *fiecare* NPs to raise to scope positions, i.e. DistP at LF. These data apparently confirm Hornstein's theory: the S over O interpretation is expected in all examples since, in all of them, it can be read off the Case chains. What remains problematic in the framework of Hornstein or that of B&S is the absence of the O>S, in the VOS and OVS configurations above, where the O c-commands the S. Making use of the feature [± specific], as suggested by one of the reviewers, and characterising the O in all the examples as [– specific] will not really solve the problem. It is not clear why a [– specific] Object should move at all, since only [+ specific] Objects are expected to raise at LF or earlier to the RefP of B&S or to some other position of which c-commands the DistP.

These examples are understandable, however, in terms of the distinction between total and partial reconstruction proposed by Sauerland – Elbourne. The interpretation of sentences (10) (VOS) and (11) (OVS) is an instance of total reconstruction, since the Object should be lowered in its Case /theta position. It follows that the derivation of these sentences involves PF movement, allowing the O to be *in situ* at LF.

The absence of the O>S reading in all the Romanian sentences follows from the particular properties of weak DPs. One might accept the proposal in Adger (1998), that in languages like Romanian or Italian, a [+ specific] O raises out of the *v*P by LF; Objects which are [– specific] up to LF remain *in situ*. Of course, even for objects which are *in situ*, a specific reading may arise, due to pragmatic inference, or to another means, such as the apposition of the object below.

(12) *Fiecare elev din clasă pregătise totuşi   o   poezie: Luceafarul.*
      every   pupil in class prepared however one poem: Hyperion
      "However every pupil from the class had prepared one poem: Hyperion."

In Chinese as well, sentences of this type are not ambiguous, but the syntax is much more constrained, since only the SVO word order is possible. Only the S over O reading is possible. It cannot be overridden by pragmatic inference, cf. (13).

(13) *Zai   zhei jian jiaoshi li, mei ge nanhai dou du-le   yi   ben shu*
      be-at this Cl. classroom in each Cl. boy   all read-Sfx one Cl. book
      SVO order; S>O,*O>S
      "In this classroom, each/every boy read a book."

3.2. More on the SVO word order in both languages

It is not the case that Romanian SVO sentences with quantified subjects always have the S over O reading. There are quantifiers which systematically lead to ambiguity, even when they are in S position. Such is, for instance, the case of counting quantifiers, which cannot have [+ specific] readings.
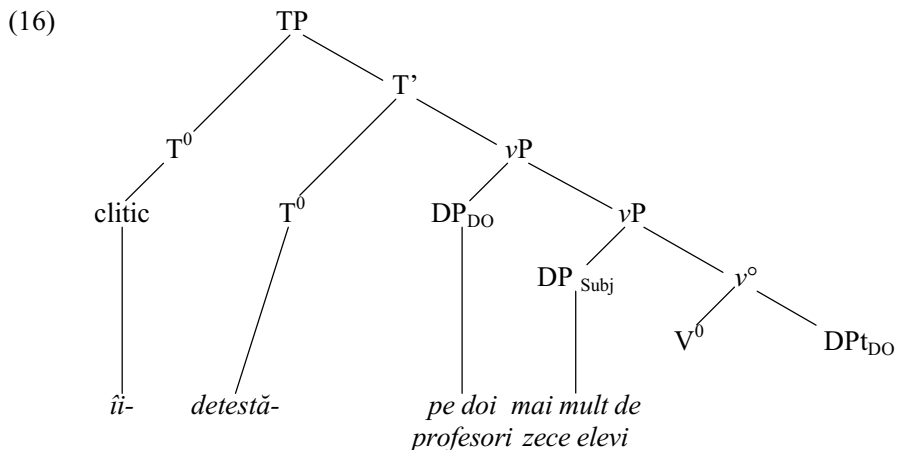
Consider the Romanian examples below: The subject is a Counting QP (inherently [– specific]), the Object is a weak DP, inherently [– specific], but capable to be strengthened to a [+ specific] reading in context. Such examples are systematically ambiguous, after LF at least, even if not at LF.

(14) *Mai   mult   de zece elevi   au   citit două romane.*
      more than   of   ten pupil have read   two   novel
      SVO order; S>O, O>S
      "More than ten pupils have read two novels."

If the Object is syntactically marked for a specific interpretation by clitic-doubling, then the *only* reading is the inverse one, i.e. the Object has wide scope.

(15) *Mai   mult   de zece elevi   îi-detestă   pe   doi   profesori.*
      more than   of ten   pupils them-hate PE   two   professors
      SVO order; O>S,*S>O
      "More than ten pupils hate two professors."

Remark: It has been shown that the clitic-doubling construction involves movement of the doubled Object out of the *v*P, in a position which c-commands the thematic position of the Subject. The Object c-commands the trace of the Subject, which is sufficient for the O>S reading, as in (16).

(16)

While clitic-doubled DO necessarily raise out of the *v*P in syntax, undoubled objects may stay *in situ*. In (14) above, even if the Subject is interpreted in Spec-*v*P, it still c-commands the Object. Before discussing the Chinese examples, let us consider one more situation, that where both S and O are counting quantifiers.

(17) *Mai mult de zece elevi din clasă   au citit mai mult de două romane.*
      more   of ten pupil in   class have read more than of two   novel
      "More than ten pupils in class have read more than two novels."
      (S>O,*O>S)

The interest of this example is that, given the inherent lexical properties of counting quantifiers, one cannot "strengthen" the direct object by any means, so that the sentence always has only one reading, i.e. the configurational one.

In the interpretation we propose, weak DPs only have the non-specific (narrow scope) reading at LF, but some of them can be strengthened to specific wide scope readings by pragmatic inference. Alternatively, syntactic means such as Topicalisation must be used to render the wide scope, inverse reading. This is the general case in Chinese.

Let us now consider some Chinese examples. (18) below, just like its Romanian counterpart (17), is not ambiguous.

(18) *You shi ge yishang de xuesheng (dou) du-le   liang ben   duo xiaoshuo.*
      have ten Cl. above   DE student (all) read-Sfx. two Cl. much novel
      SVO order; S>O, *O>S
      "More than ten students read more than two novels."

Unlike Romanian though, (19), where the Direct Object Counting QP has been replaced by a Group Quantifier, a Cardinal, is *also* not ambiguous. The DO can only have narrow scope, as predicted by the LF of the sentence.

(19) *You shi ge yishang de xuesheng (dou) du-le   liang ben xiaoshuo.*
      have ten Cl. above DE student (all) read-Sfx. two   Cl. novel
      SVO order; S>O, *O>S
      "More than ten students read two novels."

Unlike Romanian, pragmatic inference cannot strengthen the Cardinal Quantifier to grant it wide scope. Overt movement of the O past the S – i.e. Topicalisation – is required to express the O over S reading in Chinese. The Object over Subject reading obtains in a configuration of c-command, conforming to the isomorphism principle, as shown in (20).

(20) *You liang ben xiaoshuo shi ge yishang de xuesheng (dou)   du-le.*
      have two Cl.   novel   ten Cl. above DE student (all) read-Sfx.
      (O>S)
      "There are two novels (such) that more than ten students read them."

Alternatively, as illustrated in (21), the Cardinal may appear in a Demonstrative phrase, i.e. a strong Quantifier with wide scope. Such a solution is similar to the Romanian CLLD construction.

(21)   *You shi ge yishang de xuesheng (dou) taoyan na liang ge   jiaoshou.*
       have ten Cl. above DE student   all   hate this two Cl. professor
       "More than ten students hate these two professors."

Careful consideration of the Chinese data further brings to light the importance of the inherent semantic properties of the QP, in that they apparently condition the possibility of applying SSOs as well as their effectiveness. Thus, in Chinese, the SVO sentences disallow inverse reading, even with QP types that lead to ambiguity in Romanian.
      The examples discussed so far allow us to draw the following conclusions.

1)   No quantifiers, not even distributive ones, need to raise automatically to scope taking positions.
2)   The inherent semantic properties of the QPs contribute to the determination of the possible scope relations in some given syntactic configuration.
3)   There are specific syntactic means of scope fixing: for instance, clitic doubling of a weak DP in Romanian and Topicalisation in Chinese provide wide scope for the object.
      The same results will be strengthened by examining sentences with object *every*.

The point which will again come out clearly is precisely that of the importance of the semantic properties of the DP along side of the c-command relations obtaining between them. Additionally, we will notice that SSO, like QR, apply only to secure an interpretation which is not isomorphic and cannot be read off the overt c-command relations, as predicted by economy. Finally*,* attention will also be paid to the properties of *every* which account for its propensity for taking wide scope.

4. Sentences with *fiecare and mei* + Cl. in Direct Object position

In this paragraph we will examine *fiecare* in O position with Ss of different types and compare it with its Chinese counterpart *mei* + Cl. We will notice that *fiecare* as well as *mei* + Cl. tend to have wide scope, i.e., it will be interpreted as a universal *distributive* rather than a universal exhaustive quantifier.[5] Therefore, SVO sentences have the O over S reading or, sometimes, only have the O over S reading. This class of inverse scope readings is particularly interesting from a theoretical point of view, because in this case one cannot say that the O c-commands even the trace of the S. Even

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[5] Bartos (2000) has convincingly shown that *mei* + Cl. is a strong distributor, whereas *suoyou de* 'all' is a weak distributor: "[*suoyou de*] is really a GQP, rather than a DQP".

if the S were to reconstruct to the Spec-*v*P position, it would still be c-commanding with respect to the O. Empirical evidence will be brought in favour of the claim that, in such cases, QR of the distributive Phrase is involved. Since *fiecare* is a definite determiner, QR appears as an instance of Topicalisation (namely leaving the nuclear *v*P).

4.1. Consider the following Romanian and Chinese examples:

(22)   *Mai multi de douăzeci de turişti au   vizitat fiecare muzeu.*
         more than of twenty of tourists have visited each   museum
         SVO order; O>S,?? S>O
         "More than twenty tourists have visited every museum."

(23)   *You   er shi ge yishang de youke canguan-le mei jian bowuguan.*
         have two ten Cl. above DE tourist visit-Sfx each Cl. museum
         SVO order; O>S,?S>O
         same translation as (22)

(24)   *You er shi ge yishang de youke mei jian bowuguan dou canguan-le.*
         have two ten Cl. above DE tourist each Cl. museum   all   visit-Sfx.
         SOV order; O>S,?S>O
         same translation as (22)

In both languages, the O may take scope over the S in the preferred interpretation, as evidenced by the glosses. This is a comparatively clearer example of inverse scope in Chinese, going against the strong isomorphism thesis[6].

Particularly interesting for the discussion of inverse scope in Romanian is the distributive particle *cîte* + cardinal (approximately 'by groups of' + cardinal). *Cîte* QPs are inherent Share Phrases which must be in the c-command domain of a DistP at LF. With *cîte* QP in S position and *fiecare* QP in O position, the only reading of an SVO sentence is the inverse O over S reading, as in (25) below.

(25)   *Cîte   doi corectori   au   examinat fiecare teză.*
         groups of two examiners have graded   every paper
         (SVO, *S>O, O>S)
         "Groups of two examiners have graded each test paper."

If such examples only have the inverse reading and there is no pre Spell-Out configuration where the S is c-commanded by the O, then such examples provide strong evidence for the existence of a limited amount of QR viewed as a last resort strategy (as suggested by Kennedy, 1997) – thus observing the economy principles proposed by Fox (2000).

The hypothesis of QR is supported by the behaviour of *fiecare* in Romanian negative sentences. *Fiecare*, must be overtly c-commanded by negation, thus resem-

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[6] Thus confirming Lee, Yip and Wang's observations.

bling an NPI, cf. (26). The prediction, then, is that readings which involve the raising of *fiecare* past negation, so as to take scope over some operator, are blocked. As predicted, (27) is not acceptable.

(26) *N-a   venit fiecare student.*
      not-have come every student
      "Not every student came."
(27) **fiecare student   n-a   venit.*
      every   student not-have come

The same argument does not hold for the Chinese distributor *mei + Cl. Mei+* Cl. may appear preceding negation and taking scope over it, as in (28), or it may be in the scope of negation, as in (29).

(28) *mei   ge xuesheng   dou mei   lai.*
      each Cl. student   all Neg come
      "All the students did not show up."
(29) *bu   shi mei ge xuesheng   dou lai-le.*
      Neg   be each Cl. student   all come-Sfx.
      "It is not the case that all the students showed up."
      "Not all the students showed up."

Result: The analysis in this section strengthens the conclusions reached before.
As mentioned in the introduction, B&S propose a hybrid theory whose basic claim is that QPs behave non-uniformly. Some QP types must undergo QR, while others – perhaps most – remain *in situ* at LF. B&S quote *every* as an example of a quantifier, which must take scope, raising to a DistP at LF.
The analysis of the Romanian and Chinese examples suggests that this hypothesis is too strong, even for *fiecare/mei + Cl.* 'each/every'. None of the sentences with Subject *fiecare/mei + Cl.* involved any movement of the distributive QP to a scope taking position. Movement of a DistP at LF is necessary only when inverse readings obtain, for instance when the DO distributive phrase takes scope over the subject. SSOs are available, but are constrained by economy.

4.2. An interesting question is why *fiecare/mei + Cl./'each/every'* should be a QP that takes wide scope in both languages.
The pairs of synonymous examples below show the different behaviours of various types of quantifiers in Object position, with the same type of Subject – a counting quantifier.
In (30)–(31), the Os are distributive QPs.

(30) *Mai multi de douăzeci de turişti au vizitat fiecare muzeu.*
      = (22)   (??S>O, O>S)

(31) *You ershi ge yishang de youke canguan-le mei jian*
      = (23) *bowuguan.*   (?S>O, O>S)
      "More than twenty tourists have visited every museum."
      In (32)–(33), which are also synonymous, the Os are bare NPs.
(32) *Mai mult de zece elevi din clasă au citit romane.*   (S>O, *O>S)
(33) *jiaoshi-li de shi ge yishang xuesheng kan-le xiaoshuo.* (S>O, *O>S)
      "More than ten students in the classroom have read novels."
      In (34)–(35), the Os are weak DPs.
(34) *Mai mult de zece elevi au citit două romane.*
      = (14)   (S>O, O>S)
(35) *You shi ge yishang de xuesheng (dou) du-le*
      = (19) *liang ben   xiaoshuo.*   (S>O only)
      "More than ten students have read two novels."

While Object *fiecare*/*mei* + Cl. must raise (30)–(31), other NP types in both Romanian and Chinese (bare plurals, for instance) never raise, as in (32)–(33). Romanian and Chinese differ with respect to Object GQPs: they may raise in Romanian, thus engendering ambiguities, cf. (34), but do not in Chinese, cf. (35).

5. Conclusions

1. The inherent semantic properties of QPs represent a factor that cannot be superseded by configurational considerations. Thus, even when various possible *word orders* are possible, as is the case in Romanian, they do *not* necessarily represent different *scope* interpretations.

2. Scope Shifting Operations (QR) apply only if there is an effect at the interface. They thus apply up to interpretability. This was apparent in sentences where the distributive Object phrases take scope over the Subject. The existence of such cases *partly* disproves the strong thesis of the syntax/semantics isomorphism in Chinese. However the co-variation between c-command and scope is much stricter in Chinese than in Romanian.

3. Both languages dispose of specific syntactic means of scope fixing: clitic-doubling of a weak DP in Romanian and topicalisation in Chinese. Both provide wide scope for the DO.

4. In both languages, and if Beghelli and Stowell are correct, in all languages, distributive phrases raise more than other types of quantifiers. One is led to believe that this is a form of topicalisation, deriving from their inherent definiteness.

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