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## Quantificational Objects and Agr-o

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### 1. Introduction<sup>1</sup>

In this paper I attempt to reconcile Chomsky's (1991, 1992) "checking" theory of NP licensing with Diesing's (1990) mapping hypothesis for NP interpretation. Checking theory assumes that all object NPs are in Spec,Agr-o at LF. The mapping hypothesis assumes that all VP-external NPs form tripartite structures and are interpreted quantificationally (Heim 1982). Combining the two, we are left with the prediction that all object NPs should receive a quantificational interpretation. Milsark (1974) shows that this is incorrect: some object NPs are quantificational, others are nonquantificational, and still others are ambiguous. The hypothesis I will support here is that those NPs interpreted quantificationally *do* move to a VP-external position, specifically, to Spec,Agr-o, while those interpreted nonquantificationally remain *in situ* in VP. Thus, the mapping hypothesis is maintained unchanged while checking theory is adjusted to allow at least some NPs to be licensed in VP.

Section 2 outlines in a bit more detail Chomsky's checking theory and Diesing's mapping hypothesis. Section 3 lays out the problem and the hypothesis that not every NP must move to Spec,Agr-o but those that do are interpreted quantificationally. Sections 4 through 7 form the bulk of the arguments in favor of this hypothesis. In Section 4, data from Icelandic suggests that object movement to a VP-external A position, by hypothesis Spec,Agr-o, results in a quantificational interpretation. In Section 5, de Hoop's (1992) thesis, that there is a correlation between structural/syntactic Case and quantification is discussed and found to support the hypothesis that Spec,Agr-o is the position for the quantificational NP, while nonquantificational NPs are in VP. In Section 6, the correlation between object agreement inflection and NP interpretation is explored in Hindi and Porteño Spanish, where overt agreement indicates a specific reading for the agreeing NP. In Section 7, I argue that bare objects in English and Spanish are a class of NPs which never leave VP and are never interpreted quantificationally, undermining the strictest version of checking theory, that all objects must be in Spec,Agr-o at LF; this supports the present hypothesis that only quantificational objects move to Spec,Agr-o. In Section 8 a (correct) prediction of the hypothesis is offered as part of a solution to the definiteness restriction in *there* sentences (Milsark 1974).

## 2. Background

### 2.1. Checking Theory

Further developing some ideas in Kayne (1989) and Pollock (1989), Chomsky (1991, 1992) argues that the position in which accusative Case is "checked" is the Spec of a functional projection dominating VP, Agr-o. What that means in a language like English is that an object NP which requires accusative Case must move to Spec,Agr-o at LF (see (a)). This covert movement is meant to parallel the overt movement of a subject NP from its VP-internal position to Spec,Agr-s (b); both movements are Case/agreement-driven and leave a trace in VP (c):

- (1) a. [...<sub>Agr-o</sub> [e] [<sub>VP</sub>...NP] → [...<sub>Agr-o</sub> NP<sub>j</sub> [<sub>VP</sub>...t<sub>j</sub>] (LF)  
b. [<sub>Agr-s</sub> [e]...<sub>VP</sub> NP... → [<sub>Agr-s</sub> NP<sub>i</sub>...<sub>VP</sub> t<sub>i</sub>... (S-S)  
c. [<sub>Agr-s</sub> NP<sub>i</sub>...<sub>Agr-o</sub> NP<sub>j</sub> [<sub>VP</sub> t<sub>i</sub>...t<sub>j</sub>... (LF)

There are a number of reasons given for adopting this account: first, a theoretical reason, is that it unifies nominative and accusative structural Case-assignment: both occur in the local Spec-head configuration and both can trigger agreement inflection. Secondly, object NPs as well as subject NPs in some languages appear to move to a VP-external position for structural Case and to trigger agreement inflection (Mahajan 1990). Thirdly, there is evidence in some languages for a head position outside of VP but below other inflectional (Agr-s, T, Neg) heads (Pollock 1989).

### 2.2 The Mapping Hypothesis

Diesing (1990) argues that the interpretation of an NP is crucially related to its position at LF, specifically, whether it is inside or outside of VP. She follows Heim (1982) and assumes that when an NP is interpreted quantificationally, it must form a "tripartite" structure; this includes the quantifier, a restrictor for the quantifier (what it's quantifying over) and a nuclear scope:

- (2) [quantifier] [restrictive clause] [nuclear scope]  
(3) a. Every cat meows.  
b. [every(x)]<sub>Q</sub> [x a cat]<sub>RC</sub> [x meows]<sub>NS</sub>

Diesing's aim is to account for the mapping between the syntactic representation of a sentence and its semantic representation. Her "Mapping Hypothesis" is that material in the IP area of a clause maps onto the restrictive clause of the semantic representation and material in the VP maps onto the nuclear scope. Thus, the way a sentence like (3a) is interpreted is via its syntactic structure:

- c. [<sub>IP</sub> [every cat]<sub>i</sub> [<sub>VP</sub> t<sub>i</sub> meows ]]

The mapping hypothesis maps the syntactic representation (c) onto a semantic representation like (b): *every<sub>i</sub>* is the quantifier, *cat<sub>i</sub>* forms the restrictive clause, and *t<sub>i</sub> meows* forms the nuclear scope. This results in the correct interpretation, roughly, "for all x, if x is a cat, x meows."

Diesing incorporates into her account a range of facts originally discussed by Milsark (1974). Milsark noticed that there is a set of determiners in English which are ambiguous between allowing a quantificational reading and a nonquantificational one. These are the determiners like *some*, *many* and the numbers (*one*, *two*, etc.):

- (4) Some unicorns entered. (Milsark 1974, 120)

On the nonquantificational (or cardinal) reading this means that an indefinite number of unicorns entered; on the quantificational (or proportional) reading the sentence means that some unicorns entered while others did something else, perhaps remain outside.

Diesing argues that these facts follow from the mapping hypothesis if we assume that LF-lowering can "undo" S-structure movement (following May 1977, 1985). The quantificational reading is derived in the same way as (3) above, by forming a tripartite structure following the mapping hypothesis:

- (5) a.  $[_{IP} [\text{some unicorns}]_i [_{VP} t_i \text{ entered} ]]$  (LF)  
 b.  $[\text{some}(x)]_Q [x \text{ a unicorn}]_{RC} [x \text{ entered}]_{NS}$  (Sem)

The nonquantificational reading is derived by lowering the subject NP back into the VP at LF. This results in a structure that, when mapped onto the semantic representation, has nothing in the IP area to map onto a restrictive clause, and everything is mapped onto a nuclear scope:<sup>2</sup>

- (6) a.  $[_{IP} [e] [_{VP} [\text{some unicorns}] \text{ entered} ]]$  (LF)  
 b.  $[[\text{some unicorns}] \text{ entered}]_{NS}$  (Sem)

Diesing further notices that object NPs with these ambiguous determiners can also be ambiguous between a quantificational and nonquantificational reading:

- (7) I saw some ghosts in the attic. (adapted from Diesing 1990)

On the nonquantificational reading, I am asserting that I saw an indefinite number of ghosts in the attic. On the quantificational reading I have seen some of a presupposed set of ghosts in the attic, and perhaps I also saw some others of them in the basement.

This contrast is accounted for straightforwardly by the mapping hypothesis if we assume QR optionally adjoins an object NP to VP for the quantificational reading:

- (8) a.  $[_{IP} \dots [_{VP} [\text{some ghosts}]_i [_{VP} \dots \text{saw } t_i \dots]]]$  (LF)  
 b.  $I \dots [\text{some}(x)]_Q [x \text{ a ghost}]_{RC} [\text{saw } x \text{ in the attic}]_{NS}$  (Sem)

QR moves the object outside of the basic VP so that when mapping occurs, a tripartite structure is formed and a quantificational reading is derived. If QR does not apply, the object remains *in situ* and the mapping hypothesis derives a non-quantificational reading:

- (9) a.  $[_{IP} \dots [_{VP} \dots \text{saw} [\text{some ghosts}] \dots]]]$  (LF)  
 b.  $I \dots [\text{saw} [\text{some ghosts}] \text{ in the attic}]_{NS}$  (Sem)

To summarize: on Diesing's account, if an NP is external to VP at LF, it forms a tripartite structure and is interpreted as quantificational; if an NP is internal to VP at LF, it forms only a nuclear scope and receives a nonquantificational interpretation. Thus, for an NP to be read quantificationally, it must move out of VP by LF. Conversely, for an NP to be read nonquantificationally it must be in VP at LF.

Independent evidence for the mapping hypothesis is found in languages like German, Dutch and Icelandic, which allow object NPs to occur VP-internally or VP-externally with a concomitant nonquantificational or quantificational interpretation, respectively. This will be discussed further in section 4.

### 3. Checking Theory meets the Mapping Hypothesis

#### 3.1. The Problem

If we assume Chomsky's (1991, 1992) checking theory, specifically the suggestion that object NPs move to Spec,Agr-o at LF, and combine it with Diesing's (1990) mapping hypothesis, an incorrect prediction is made. The prediction is that all object NPs should be interpreted quantificationally; this is because object movement to Spec,Agr-o is movement out of VP and NPs which are outside of VP at LF form tripartite structures in the semantic representation and are interpreted quantificationally. As we know from Milsark's (1974) thesis, as well as Diesing's work, this is not the case. That is, object NPs can be interpreted quantificationally or nonquantificationally.

Consider the following example (a) whose (simplified) LF would be (b):

- (10) a. I read many books.  
b.  $[_{Agr-s}\dots[_{Agr-o} \text{ [many books]}_i \text{ } [_{VP}\dots t_i]\dots]$

According to checking theory, the object NP *many books* must move to Spec,Agr-o at LF for Case reasons. The mapping hypothesis, which says that material outside of VP is mapped onto the restrictive clause of a tripartite structure, while material within VP maps onto the nuclear scope, derives the following semantic representation:

- c.  $I\dots[\text{many}(x)]_Q \text{ [x a book]}_{RC} \text{ [read x]}_{NS}$

This representation correctly gives the quantificational interpretation of *many books* which is that I have read many of some presupposed set of books, but perhaps haven't read some others of them. Combining the syntactic tree in (b) with the mapping hypothesis, however, does not allow for the nonquantificational reading of *many books*, which is that I read a large-ish number of books. As argued by Diesing (and Partee 1988), such a reading should not be represented by a tripartite structure. This reading requires the NP *many books* to be in VP when mapping occurs, as in (9) above.

#### 3.2. Towards a Solution

The solution I will argue for is that not every object NP must move to Spec,Agr-o by LF; those that move will leave the VP and form a tripartite structure for a quantificational reading; those that do not move will remain *in situ* in VP and be interpreted nonquantificationally as part of the nuclear scope of the semantic representation. Thus, Diesing's mapping hypothesis is maintained as is, while Chomsky's checking theory is adjusted to allow for the possibility of NPs to be licensed in VP.

An ambiguous sentence like (11) will have two different LF representations, corresponding to the two different NP interpretations.

- (11) I read many books.  
(12) a.  $[_{Agr-s}\dots[_{Agr-o} \text{ [many books]}_i \text{ } [_{VP}\dots t_i]\dots]$  (LF)  
b.  $I\dots[\text{many}(x)]_Q \text{ [x a book]}_{RC} \text{ [read x]}_{NS}$  (Sem)  
(13) a.  $[_{Agr-s}\dots[_{VP}\dots[\text{many books}]]\dots]$  (LF)  
b.  $I\dots[\text{read } [\text{many books}]]_{NS}$  (Sem)

On the quantificational reading of (11), the object NP moves to Spec,Agr-o at LF (12a); it then maps into the restrictive clause of a tripartite structure in the

semantic representation, deriving a quantificational interpretation (12b). On the nonquantificational reading of (11), the NP is *in situ* at LF (13a) and maps onto the nuclear scope in the semantic representation, deriving a nonquantificational interpretation (13b).

An open question at this point is how exactly NPs left in VP are licensed, as they are not licensed by structural Case checked in Spec,Agr-o. I will tentatively follow Belletti (1988) (see also de Hoop 1992) in assuming that verbs have the capacity to assign partitive Case to their objects in VP. This may be how these VP-internal NPs are licensed.

For English the account outlined above might be motivated based solely on the fact that it associates the right structures with the right interpretations; but it is difficult to find English-internal independent evidence for the distinct structures hypothesized in (12) and (13). Independent evidence could be of at least four types: first, evidence that a nonquantificational NP is in VP while a quantificational NP is outside of VP would support the idea that inside vs. outside of VP is crucial to interpretation (the basic claim of the mapping hypothesis); second, since Spec,Agr-o is the structural accusative Case position, evidence for two types of Case (one assigned VP-externally and one assigned VP-internally) correlating with the two interpretations would constitute evidence in favor of the hypothesis; third, since Spec,Agr-o is a position where object agreement inflection can be checked, a correlation between object agreement and interpretation would support the hypothesis; fourth, since this hypothesis allows for the possibility of an NP remaining in VP it allows for the possibility of a class of NPs remaining in VP and being interpreted nonquantificationally. In the remainder of this paper I will show that cross-linguistically there is ample evidence of the types just outlined for two distinct syntactic structures corresponding to the two interpretations in question.

#### 4. Internal vs. External Interpretations

The evidence in favor of correlating VP-external positions with a quantificational interpretation and VP-internal positions with a nonquantificational interpretation is discussed in detail in Diesing's (1990) thesis where she discusses the mapping hypothesis; she shows that VP-internal NPs in German and Dutch are interpreted nonquantificationally, while VP-external ones are interpreted quantificationally.

For German and Dutch it is difficult to know for sure if the object NP is in, or has passed through, Spec,Agr-o, because of the possibility of further scrambling which tends to destroy the A-type properties of the NP position in question (though see de Hoop (1992), who argues that such scrambling is A-movement). However, Deprez (1989, 1991) and Jonas (1992) have argued that object shift in Icelandic is movement to Spec,Agr-o. Object shift takes a VP-internal object and moves it to a VP-external position. Interestingly, this movement results in a quantificational reading for the moved NP (from Diesing & Jelinek 1992):

- (14) a. Ég les *bækur* ekki [<sub>VP</sub>] (Icelandic)  
I read books not  
'I don't read books...(I just buy them...)'

- b. *Ég les ekki* [<sub>VP</sub>*bækur*]  
 I read not books  
 'I don't read books'

The strongest evidence for object shift being movement to Spec,Agr-o is that it manifests several A-type properties. Deprez (1989, 1991) argues that one test for A-movement is the ability to strand floating quantifiers. Object shift in Icelandic has this property:

- (15) *Hann las bækurnar ekki* [<sub>VP</sub> *allar*] (Icelandic)  
 he read books not all

A second test for A-movement, also discussed in Mahajan (1989), is the inability to license parasitic gaps. Object shift in Icelandic does not license these gaps (a), though other A' movement in Icelandic does (b) (Deprez 1989):

- (16) a. \**Ég boraði þetta grænmeti<sub>i</sub> ekki/aldrei t<sub>i</sub> [án þess að sjóða e<sub>i</sub>]*  
 I eat this vegetable not/never without cooking  
 b. *Hvaða grænmeti<sub>i</sub> borðar þú t<sub>i</sub> [án þess að sjóða e<sub>i</sub>]*  
 which vegetable do you eat without cooking

Deprez takes these facts to suggest that object shift is to a VP-external A position, Spec,Agr-o.

What we see then is the kind of correlation between position wrt VP and interpretation that first motivated the mapping hypothesis. This constitutes the first kind of evidence in support of the hypothesis above, that quantificational objects occur outside VP in Spec,Agr-o, and that nonquantificational objects occur within VP.

## 5. Two Objective Cases: de Hoop's Thesis

The second type of evidence for the hypothesis outlined above would be an overt correlation between Case and interpretation. My hypothesis is that an NP whose structural accusative Case is checked in Spec,Agr-o will receive a quantificational interpretation while an NP which remains in VP, perhaps assigned some other Case, will be interpreted nonquantificationally.

Much of de Hoop (1992) is devoted specifically to arguing for the following claim (p. 91):

- (17) An object bears strong Case if and only if it has a strong reading.

Strong Case, according to de Hoop, is (abstract) syntactic Case assigned at S-structure (as opposed to D-structure). A strong reading refers to the quantificational reading of an NP discussed above in Section 3.1. This claim is exactly the correlation between Case and NP interpretation that we are looking for. In Chomsky's (1991, 1992) terms, strong Case would be abstract Case assigned (or checked) in Spec,Agr-o; translating de Hoop's thesis into these terms, we get the following:

- (18) An object's Case is checked in Spec,Agr-o if and only if it has a strong reading.

(18) turns out to be a restatement of my basic hypothesis; so if de Hoop's thesis is correct, it provides support for the hypothesis defended here.

De Hoop discusses a number of languages which have two different objective Cases. What is relevant here is that the type of Case correlates with the type of reading the NP receives (p. 67, Turkish from Enç 1991):

- (19) a. Ostin *leivän* (Finnish)  
 I bought bread-ACC  
 'I bought the bread.'  
 b. Ostin *leipää*  
 I bought bread-PART  
 'I bought (some) bread.'
- (20) a. Ali *bir piyano-yu* kiralamak istiyor (Turkish)  
 Ali one piano-ACC to-rent wants  
 'Ali wants to rent a certain piano.'  
 b. Ali *bir piyano* kiralamak istiyor  
 Ali one piano to-rent wants  
 'Ali wants to rent a (non-specific) piano.'

Finnish has two different objective Cases, accusative and partitive. As the glosses show, choice of Case correlates with interpretation: accusative Case on an NP leads to a specific, or presuppositional, interpretation; partitive Case leads to an indefinite interpretation (see also Belletti 1988). The same correlation holds in Turkish, which has overt accusative Case and an unmarked Case: accusative Case results in a specific, presuppositional, reading while the unmarked Case gives an indefinite reading.

Further examples, not discussed by de Hoop, are found in Japanese and Persian. Tomioka (1992) argues that an overtly Case-marked measure NP in Japanese receives a specific interpretation, while an unmarked one is interpreted as indefinite (21). Krifka (1992, 3) gives examples from Persian suggesting that an object marked by the postposition *ra* (he calls it a Case-marker) belongs to the restrictor of a quantifier (22):

- (21) a. Robin-wa Tokyo-kara Chiba-made-no *10 mairu-o* hasit-ta  
 Robin-TOP Tokyo-from Chiba-to-gen 10 miles-ACC run-past  
 'Robin ran (the) 10 miles between Tokyo and Chiba.'  
 b. Robin-wa *10 mairu* hasit-ta (Japanese)  
 Robin-TOP 10 miles ran-past  
 'Robin ran 10 miles.'
- (22) a. Kowboyeeha tanbako mijavand. (Persian)  
 'Cowboys (usually) chew tobacco.'  
 b. Kowboyeeha tanbako ra mijavand.  
 'What cowboys do with tobacco is: they chew it.'

The Japanese and Persian cases seem to parallel the Turkish one: overt Case-marking leads to a presuppositional reading of the NP; lack of overt Case-marking leads to the indefinite interpretation.

The claim I am supporting is that an object NP which gets accusative Case in Spec,Agr-o is interpreted quantificationally, while an object NP which remains in VP and gets assigned some other (non-accusative) Case is interpreted nonquantificationally. Is there evidence that these two Cases involve different positions? At least in Turkish, the NP marked accusative can occur VP-externally,

while the unmarked NP can only occur adjacent to the verb (de Hoop 1992, citing Kornfilt 1990; see also Enç 1991):

- (23) a. Ben dün akşam [<sub>VP</sub>çok güzel bir biftek yedim] (Turkish)  
 I yesterday evening very nice a steak ate  
 'Yesterday evening, I ate a very nice steak.'  
 b. \*Ben çok güzel bir biftek dün akşam [<sub>VP</sub>yedim]  
 I very nice a steak yesterday evening ate  
 c. Ben *bifteg-i* dün akşam [<sub>VP</sub>yedim]  
 I steak-ACC yesterday evening ate  
 'I ate the steak yesterday evening.'

If the VP-external position is Spec,Agr-o then the correlation between Case and interpretation follows from the present hypothesis. Consider the LFs and semantic representations of the two sentences:

- (24) a. I...[<sub>VP</sub> [a very nice steak] ate ] (LF)  
 b. I...[ [a very nice steak] ate]<sub>NS</sub> (Sem)  
 (25) a. I...[<sub>Agr-o</sub>[a steak]<sub>i</sub> [<sub>VP</sub> t<sub>i</sub> ate ] ] (LF)  
 b. I...[a(x)]<sub>Q</sub> [x a steak]<sub>RC</sub> [ate x]<sub>NS</sub> (Sem)

In (24), which represents the nonquantificational reading, the object is in VP (a), as such it is not marked accusative; it maps onto the nuclear scope (b) and is interpreted nonquantificationally. In (25), the NP is in Spec,Agr-o (a), and is marked accusative; it maps onto the restrictive clause of the tripartite structure (b) and thus is interpreted quantificationally.

These facts corroborate the hypothesis that checking Case in Spec,Agr-o leads to a quantificational reading of an NP and allowing an NP to remain in VP leads to a nonquantificational reading. Crucially, not all NPs move to Spec,Agr-o for Case, or the differences in interpretation would remain unaccounted for.

## 6. Correlations between Agreement and Interpretation

Another type of evidence that would support the hypothesis that an NP in Spec,Agr-o is quantificational while one in VP is not would be a correlation between object agreement inflection and NP interpretation. If a language has object agreement inflection which is triggered by an NP in Spec,Agr-o, we would expect that such agreement inflection would be present with NPs interpreted quantificationally and perhaps absent otherwise. This section discusses two such cases.

### 6.1. Hindi

Mahajan (1990, 1991, 1992) argues that there is a correlation between object agreement and NP interpretation in Hindi. Direct objects which trigger object agreement are necessarily interpreted as specific (1990, p. 103):

- (26) a. siitaa-ne *laRkaa* dekhaa (object agreement)  
 Sita-erg boy-m saw-m  
 'Sita saw the boy.'  
 b. siitaa *laRkaa* dekh rahii hE (no object agreement)  
 Sita-erg boy-m see-prog-be-f  
 'Sita is looking for a (suitable) boy (to marry).'

Two kinds of evidence are given for the object NP having moved to a VP-external argument position. First, an agreeing direct object can precede an indirect object and bind a pronoun or reflexive in the IO as shown by the (a) examples. This contrasts with the basic order IO-DO in which such binding and agreement is impossible as shown in the (b) examples (Mahajan 1991):

- (27) a. *siitaa-ne kOn<sub>i</sub> sii tasviir uske<sub>i</sub> maalik-ko IOTaa dii* (Hindi)  
 Sita-erg which book(DO)(f) its owner(IO) returned(f)  
 'Which book did Sita return to its owner?'  
 b. \**siitaa-ne uske<sub>i</sub> maalik-ko kOn<sub>i</sub> sii tasviir IOTaa dii*  
 Sita-erg its owner(IO) which book(DO)(f) returned(f)
- (28) a. ?*siitaa-ne kOn<sub>i</sub> saa baccaa apne<sub>i</sub> pitaa-ko dikhaayaa*  
 Sita-erg which child(DO)(m) self's father(IO) show-per(m)  
 'Which child did Sita show to self's father?'  
 b. \**siitaa-ne apne<sub>i</sub> pitaa-ko kOn<sub>i</sub> saa baccaa dikhaayaa*  
 Sita-erg self's father(IO) which child(DO)(m) show-per(m)

Only if the DO has moved "above" the IO can it bind a reflexive in the IO. Mahajan takes this to suggest that the DO has moved to an argument position since movement to an A' position would not allow A-binding. Since this movement correlates with object agreement, he argues that the A movement is to Spec,Agr-o. And again, such agreement results in a specific interpretation of the NP.

A second argument that the object NP is in Spec,Agr-o is that an adverb like *quickly* has a different interpretation depending on whether it follows or precedes an agreeing direct object (Mahajan 1991):

- (29) a. *pulis-ne jaldii-se cor pakaR liyaa* (Hindi)  
 police-erg quickly thief(m) arrested(m)  
 'The police quickly arrested the thief.'  
 b. *pulis-ne cor jaldii-se pakaR liyaa*  
 police-erg thief(m) quickly arrested(m)  
 'The police arrested the thief quickly.'

Mahajan follows Travis (1988) in assuming that event adverbs are attached to some projection of I, while process adverbs are adjoined to a projection of V. These examples suggest, then, that the agreeing object is in a position between I (subject agreement/tense) and VP.

Combining these observations, we find that Hindi provides just the type of evidence we are looking for: object NPs which move to Spec,Agr-o, evidenced by overt agreement, are interpreted specifically as opposed to objects which remain in VP, do not trigger agreement, and are interpreted nonspecifically. Assuming that this specific interpretation can be assimilated to other quantificational interpretations (see de Hoop 1992), the fact that it correlates with Agr-o provides support for the present hypothesis, that an NP in Spec,Agr-o maps onto the restrictive clause of a tripartite structure while an NP in VP maps onto the nuclear scope.

## 6.2. *Porteño Spanish*

Suñer (1988) argues that clitic-doubling in Spanish is a manifestation of object agreement (see also Borer 1984). She supports this claim by studying the behavior of clitic-doubling in *Porteño Spanish*, which while allowing a greater variety of such constructions than in Standard Spanish is still constrained in a revealing way. As it turns out clitic-doubling is allowed in *Porteño Spanish* if the direct object is interpreted as specific. This restriction is reminiscent of the Hindi facts above, and I will suggest can be treated analogously.

In all varieties of Spanish clitic-doubling is obligatory if the direct object is pronominal, and thus necessarily specific (30); in *Porteño Spanish*, direct object clitic-doubling is also possible if a full NP is interpreted as specific (p. 396):

- (30) a. \*(La<sub>i</sub>/los<sub>j</sub>/nos<sub>k</sub>) llamaron a *ella/ellos/nosotros<sub>k</sub>*. (Standard Spanish)  
3sg.f/3pl.f/1pl.m they-called her/them/us  
'They called her/him/us.'
- (31) a. La oían a *Paca/la niña/la gata*. (Porteño Spanish)  
3sg.f they-heard Paca/the child(f)/the cat(f)  
'They listened to Paca/the girl/the cat.'  
b. *Diariamente, la escuchaba a una mujer que cantaba tangos*.  
daily, 3sg.f he/she-listened a woman that sang tangos  
'Daily, he/she listened to a woman who sang tangos.'
- (32) a. No (\*lo) oyeron a *ningún ladrón*.  
not 3sg.m they-heard any thief  
'They didn't hear any thieves.'  
b. (\*La) buscaban a *alguien que los ayudara*.  
3sg.f they-looked-for someone who 3pl.m help  
'They were looking for someone who could help them.'  
c. (\*Lo) alabarán *al niño que termine primero*.  
3sg.m they-will-praise A the boy who finishes first.  
'They will praise the boy who finishes first.'

In (30) and (31) where the direct objects can all be interpreted as specific, clitic-doubling is allowed. However, in (32) the direct objects are all nonspecific NPs and as such do not allow clitic-doubling.

If Suñer (1988) is correct, that clitics are object agreement morphemes (p. 393), then we have found another case of a correlation between agreement and NP interpretation. Assuming that such agreement must be triggered (or checked) in a Spec-head relation, the triggering object NP must move to Spec,Agr-o to check agreement. Thus, an object which triggers agreement is necessarily VP-external and can map onto the restrictive clause of a tripartite structure, correctly deriving the quantificational interpretation observed.

To summarize, Hindi and *Porteño Spanish* object agreement correlates with NP interpretation; agreeing objects are interpreted quantificationally. This follows from the present hypothesis that an object NP which moves out of VP to Spec,Agr-o will form a tripartite structure and be interpreted quantificationally.

## 7. Bare Objects

A fourth type of evidence in favor of this hypothesis can be found in the behavior of bare plural objects in English and bare (determinerless) objects in Spanish. Since this hypothesis allows for the possibility of an NP remaining in VP it allows for the possibility of a class of NPs remaining in VP and always being interpreted nonquantificationally; I will argue that bare plural objects in English and bare objects in Spanish are such classes.

### 7.1. Bare Plural Objects in English

Carlson (1977) points out that bare plural objects in English, in contrast to other types of NPs, can never get a wide scope interpretation (p. 21):

- (33) a. Jack saw *a dog* on his lawn at 3:30, 4:00 and 5:30.  
b. Jack saw *dogs* on his lawn at 3:30, 4:00 and 5:30.
- (34) a. Bull noticed *an actor* in every scene of the film.  
b. Bull noticed *actors* in every scene of the film.

The (a) examples are ambiguous: each allows a reading where the object NP can be interpreted inside or outside the scope of the underlined portion. This is expected according to the present hypothesis since an indefinite object can be interpreted *in situ* in VP, with narrow scope, or outside of VP, with wide scope. However, the (b) examples, with bare plural objects, are unambiguous: the bare plural always takes narrow scope. In fact this phenomenon can occur with other VP-internal material:

- (35) a. Calvin sent *a letter* to every fan.  
b. Calvin sent *letters* to every fan.
- (36) a. Hobbes put *a book* by *Charlie Brown* on every shelf.  
b. Hobbes put *books* by *Charlie Brown* on every shelf.

Again, the (a) examples are ambiguous, while the (b) examples allow only a narrow scope reading for the bare plural object.

Correlating with the lack of wide scope for bare plural objects is the lack of a quantificational reading: in the above examples, the bare plural objects all have an existential reading (see Diesing 1990); if a bare plural is interpreted quantificationally, it can receive a generic interpretation as in subject position: *Dogs don't eat fish*. If, as I am arguing here, the bare object can never leave VP, as suggested by the scope facts, it can never create the tripartite structure necessary for a quantificational interpretation. Thus, the scope facts and the interpretation facts both support the idea that bare plurals remain in VP and do not move to Spec,Agr-o.

If Chomsky's (1991, 1992) checking theory were correct as is, and every object NP had to move to Spec,Agr-o at LF, it is not clear why the bare plural objects in the (b) examples above cannot, in principle, have wide scope over VP-internal material. In that system, the LF for a sentence like (35b) would be the following:

- (37) Calvin...<sub>[Agr-o]</sub> [letters]<sub>i</sub> [<sub>VP</sub> sent t<sub>i</sub> [<sub>PP</sub> to [every fan]]]... (LF)

Even if the NP in the PP *to every fan* moved to a higher position, it is not clear why there should be a difference between the (a) and (b) examples above. What appears to be the case is that bare plural objects *do not move* out of VP at LF.

This fact undermines the strictest version of checking theory, that every object NP moves to Spec,Agr-o; however, it supports the present hypothesis, that *some* NPs move to Spec,Agr-o and some do not. Bare plurals are a class of NP which does not.<sup>3</sup>

## 7.2. Bare Objects in Spanish

Krifka (1992), citing Laca (1990), discusses contrasts like the following (p. 3):

- (38) a. Los vaqueros mascan *tabaco* (Spanish)  
'Cowboys (usually) chew tobacco.'  
b. Los vaqueros mascan *el tabaco*  
'What cowboys do with tobacco is: they chew it.'
- (39) a. Los noruegos comen *salmón* los domingos  
'On Sundays, Norwegians (usually) eat salmon.'  
b. Los noruegos comen *el salmón* crudo.  
'What Norwegians do when they eat salmon is: they eat it raw.'

According to Krifka, the definite determiner in these cases signals that the NP should be part of the restrictor of a quantifier; an object NP without a determiner, however, must be interpreted within the nuclear scope. In the terms used here, that means that only an NP with a determiner can move to Spec,Agr-o and into a restrictive clause of a tripartite structure. The bare NP must remain *in situ* in VP and be interpreted within the nuclear scope.

What other evidence is there that the bare NP is actually in VP while the NP with a determiner is outside of VP? As was the case with bare plurals in English, the bare object in Spanish necessarily takes narrow scope with respect to other VP-internal material:

- (40) a. Los religiosos mandan *dinero a cada evangelista*  
the religious send money to every evangelist  
'The religious send money to every evangelist.'  
b. Los religiosos mandan *el dinero a cada evangelista*

In (a), *cada evangelista* must take wide scope over *dinero*. However, (b) is ambiguous: on one reading each evangelist is sent (some) money--this is the narrow scope reading of *el dinero*; on the second reading each evangelist is sent the same (amount of) money--this the wide scope reading of *el dinero*. Clearly, the bare NP must remain *in situ* in VP or we would have no explanation for why it cannot have scope over other VP-internal elements; however, the NP with a determiner does leave VP and can get scope over VP-internal material. And again, such movement correlates with the quantificational interpretation.

The bare object in Spanish, then, appears to be another class of NP which cannot move at LF. This further undermines the strict view of checking theory, while supporting the view held here, that not every NP must move out of VP at LF.

To summarize, we have seen that the strict view of checking theory, that every object NP must move to Spec,Agr-o at LF, cannot be maintained. This is because there are classes of NPs, bare plurals in English and bare objects in Spanish, which allow only an interpretation in which they are in VP. The existence of such classes of NP supports the hypothesis that not every NP must move to Spec,Agr-o

at LF, but those that do receive a quantificational interpretation, while those that do not are interpreted nonquantificationally.

### 8. *There* sentences in English

The hypothesis I am defending makes an interesting, and apparently correct, prediction with respect to *there* sentences, potentially paving the way to solving the long standing problem of the "definiteness restriction". It has been known for quite some time that the interpretation of an NP in a *there* sentence in English is quite restricted. Milsark (1974) points out that only nonquantificational NPs are allowed (p. 117):

- (41) a. \*There is/are *all/both/every/each dog(s)* in the room.  
b. There is/are *a/two/several/some/many dog(s)* in the room.

Unambiguously quantificational NPs are prohibited (a); ambiguously quantificational (proportional) and nonquantificational (cardinal) NPs are allowed, but only the nonquantificational reading results. A similar restriction holds of *there* sentences with verbs other than *be*:

- (42) a. \*There arrived *all/both/every/each package(s)* at noon.  
b. There arrived *a/two/several/some/many package(s)* at noon.  
(43) a. \*There appeared *all/both/every/each face(s)* in the window.  
b. There appeared *a/two/several/some/many face(s)* in the window.

There are a number of interesting restrictions on this construction (see Milsark's thesis, and for a recent view, McNally 1992, and the references there), but I would like to focus on just two of them. The first, just pointed out, is the restriction to nonquantificational NPs in *there* sentences. If the mapping hypothesis is correct, this means that the NP in a *there* sentence must remain *in situ* and be interpreted as in a nuclear scope; crucially, it cannot move to form a tripartite structure.

The second restriction to note is that the class of verbs which productively allow a *there* subject is small; besides *be*, *arrive* and *appear*, there are not many more. However, interestingly, this class is a subset of the so-called unaccusative verbs. So, an unambiguously unergative verb does not allow a *there* subject:

- (44) a. \*There laughed a happy man at the party.  
b. \*There sang an opera singer last night on TV.

As expected, a verb which in principal is ambiguous between an unaccusative and unergative reading, allows only the unaccusative version in a *there* sentence. I find a contrast in the following:

- (45) a. ?There ran a tear down Bill's cheek.  
b. \*There ran a boy to the store.

One of the claims that has been made about unaccusative verbs is that they are special in part because they do not assign accusative Case (Burzio 1986). Not being able to assign accusative Case, in Chomsky's (1991, 1992) system, presumably means not having an (active) Agr-o projection. Without Agr-o, there is no accusative-Case position, so an NP requiring structural Case must move to Spec,Agr-s, if available.

We now have almost everything in place to explain the first restriction noted above, that only nonquantificational NPs are allowed in *there* sentences. Since only unaccusative verbs are allowed in *there* sentences, and unaccusative verbs

lack an Agr-o projection, that means that there will be no Agr-o projection in a *there* sentence. Now, if, as I have claimed throughout this paper, a VP-internal NP which wants to form a tripartite structure to be interpreted quantificationally must move to Spec,Agr-o to do so, then no tripartite structure will be able to be formed in a *there* sentence since there is no Agr-o; the NP will remain *in situ* and be interpreted nonquantificationally, as observed.<sup>4</sup>

## 9. Conclusions

In this paper I have attempted to reconcile Chomsky's (1991, 1992) checking theory with Diesing's (1990) mapping hypothesis. I have argued that object movement to Spec,Agr-o correlates with a quantificational reading of the NP while a VP-internal NP is interpreted nonquantificationally. This follows from the mapping hypothesis just in case we allow for the possibility of an NP *not* moving to Spec,Agr-o at LF. I supported this hypothesis in four ways: first, I showed that in languages like Icelandic, overt A-movement to (possibly) Spec,Agr-o, derives a quantificational reading; second, in languages with two objective Cases, like Finnish, Turkish, Japanese and Persian, an NP assigned the structural Case in Spec,Agr-o is interpreted quantificationally; third, in languages with overt object agreement, like Hindi and Porteño Spanish, an NP which moves to Spec,Agr-o and triggers agreement is interpreted quantificationally; and fourth, there are classes of NPs, in English and Spanish, which cannot move to Spec,Agr-o at LF and are always interpreted nonquantificationally. Finally, I suggested that the definiteness restriction in *there* sentences can be accounted for if we recognize Agr-o as relevant to the building of a tripartite structure for NP quantification.

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2. See Partee (1988) for a number of semantic arguments for treating these determiners in the manner represented in the (b) examples.
3. However, bare plural objects of psych predicates appear to require a generic reading; this surely relates to their unusual argument structure and D-structure NP positions.
4. It is implicit in the above discussion that I do not accept the "expletive replacement" account of *there* sentences (Chomsky 1991). There are a number of reasons, both syntactic and semantic, for rejecting it; among them is the lack of an explanation of the definiteness restriction discussed here (see Runner 1992 for details).

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