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► **To cite this version:**

Anne Zribi-Hertz, Song-Nim Kwon. Differential Function Marking, Case, and information structure: Evidence from Korean. *Language*, 2008, *Language*, 84 (2), pp.258-299. halshs-00109892v3

HAL Id: halshs-00109892

<https://shs.hal.science/halshs-00109892v3>

Submitted on 30 Jan 2008

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Differential function marking and focus structure.

Some evidence from Korean.

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June 2006

Eomeomeo, jeo ai hwibalyu masigo issne!

‘Oh dear, this child is drinking petrol!’

1. Introduction¹

This article will be dealing with *bare* subjects and objects in Korean, i.e. those which occur without a functional particle.² The occurrence of bare subjects and objects makes Korean a *Differential Marking* (DM) language, in Aissen’s (2003) terms. Aissen adapts her terminology from Bossong’s (1985) work on Differential Object Marking (DOM), a phenomenon which she informally characterizes in the following way: ‘It is common for languages with overt case-marking of direct objects to mark some objects, but not others, depending on semantic and pragmatic features of the object’ (Aissen 2003: 435). A number of detailed studies of DOM in various specific languages are available in the linguistic literature³. However, a remarkable property of Korean is that it exhibits DM not only for objects but also for subjects — it has both DOM and what Aissen (2003) calls DSM (Differential Subject Marking). In this study we shall present a description of DOM and DSM in Korean, arguing that both types of DM fall under a single linguistic generalization.

While there are various analyses of bare objects and DOM, Aissen’s (2003) theory, which is cast within the Optimality Theory framework is, to the best of our knowledge, the

¹ Acknowledgements

² Our terminology thus departs from that used by Kuroda (2004), who calls *bare subjects* subject noun phrases formed of a lexical noun and a subject marker, as in (i):

(i) *inu -ga neko -o oikakete iru.*
 dog ga cat o chase be
 ‘Dogs are chasing cats.’

[adapted from Kuroda 2004, ex. (2)]

We call the subject of (i) a GA-subject.

³ Cf. a.o. (in chronological order): Lazard (2001), Samvelian (2001), Dayal (2003), Lidz (2006) (on languages other than Japanese and Korean); on Japanese, cf. a.o.: Alfonso (1966); Fuji & Ono (2000); Fukuda (1993); Kuno (1973); Masunaga (1988); Matsuda (1996); Minashima (2001); Mori & Givón (1987); Niwa (1989); Saito (1985); Watanabe (1986); on Korean, see a.o.: Ramstedt (1939), Sin, H.-S. (1982); I, G.-H. (1988); Lyu, G.-S. (1988, 2001); I, C.-S. (1993); Woo, H.-S. (1993); Son, I.-H. (1995); Mok, J.-S. (1998); Kim, Y.-S. (1979); Go, S.-J. (2001); I, S.-H. (2004); Hong, Y.-C. (2004); I, M.-J. (2005).

only available theory of DM which covers both DOM and DSM. We shall therefore take this theory as a starting point for exploring the data of Korean, where DOM and DSM are respectively illustrated in (1) and (2). The coarse English translations proposed here will be refined at a later stage:

- (1)a. Minsu-neun sagwa-leul meog-go iss -da.⁴
 Minsu TOP apple LEUL eat PROG DEC
- b. Minsu-neun sagwa meog-go iss -da.
 Minsu TOP apple eat PROG DEC
 ‘Minsu is eating apples.’
- (2)a. Minsu-neun o -ass -ni ?
 Minsu TOP come PST Q
- b. Minsu-ga o -ass -ni ?
 Minsu GA come PST Q
- c. Minsu o -ass -ni ?
 Minsu come PST Q
 ‘Has Minsu arrived ?’

Before examining the data of Korean in further detail, we shall summarize Aissen’s theory of DM, which crucially involves an assessment of subject and object markedness in terms of animacy and definiteness. It will turn out that Aissen’s theory is empirically confirmed in Korean up to a certain point, but that it leaves a number of facts unexplained. We shall argue that DM in Korean regularly correlates with an interpretive contrast which is independent from animacy and definiteness, and which we shall propose to characterize in terms of focus

⁴ Our transcription of Korean follows the recent *Revised Romanization of Korean* (National Academy of the Korean Language, Seoul: Ministry of Culture and Tourism, 2000. This is not a phonological transcription, but a Roman transposition of Korean spelling, which is officially recommended for academic uses (namely, linguistic works).

Abbreviations used in the glosses of the Korean examples: COM = comitative; DEC = declarative (neutral register); DEC^{INF} = declarative (informal register); DM = demonstrative; DN = dependent noun (functional N used to fill an N-head supporting a clausal complement, for instance); EXCL = exclamative; GA = *ga/i* « subject marker »; GEN = genitive; HON = honorific; LEUL = *leul/eul* « object marker »; LOC = locative; NEG = negation; PROG = progressive; PRS = present; PST = past; Q = interrogative; REL = relative marker; TOP = *neun/eun* « topic marker ».

Hyphens in the examples indicate suffixation, and small capitals in the English translations signal focal stress.
 #: syntactically well-formed but infelicitous in its discourse context.

structure, using Erteschik-Shir's (1997) theory as a heuristic tool: Korean bare subjects and objects fail to stand as constituents in focus structure. Our analysis of DM in Korean will lead us to depart from Erteschik-Shir's theory in one respect: we shall be led to assume that some clauses altogether fail to have focus structure. Basing ourselves on empirical evidence, we shall argue that our claim is nevertheless consistent with Erteschik-Shir's more central assumptions. We shall finally attempt to reconcile our own results with Aissen's theory of DM, as well as with Hopper & Thompson's (1980) theory of transitivity.

2. Aissen's theory of Differential Marking and the data of Korean

2.1. Aissen's theory: iconicity and markedness

Aissen (2003) proposes a formalized theory of DM, cast within the Optimality Theory framework, and based on descriptive results drawn from the functional and typological linguistic literature. First dealing with object marking, she starts out with the informal generalization reproduced in (3):

- (3) The higher in prominence a direct object, the more likely it is to be overtly case-marked.

[Aissen 2003: 436]

Prominence is assessed along the two scales in (4) and (5):

(4) Animacy scale

Human > Animate > Inanimate

(5) Definiteness scale

Personal pronoun > Proper name > Definite NP > Indefinite specific NP >
Non-specific NP⁵

[Aissen 2003: 437]

The scales are assumed to be universal, though DOM may vary across languages as to the relevant scale(s) (object marking may be sensitive to animacy only, definiteness only, or

⁵ Throughout this article, we shall be using *NP* as a nontechnical abbreviation referring to any kind of nominal phrase, regardless of its internal structural make-up.

both), and as to the cut-off point on each scale (e.g., object marking may occur with humans only, or with both humans and animates, etc.).⁶ As regards objects, prominence along the semantic scales is then correlated with markedness, and markedness is crucially reversed for objects and subjects — what is marked for an object is unmarked for a subject, and vice versa (cf. Silverstein 1976, 1981, Comrie 1979, Battistella 1990, 1996, Croft 1988, 1990):⁷

(6) Markedness reversal for subjects and objects

	Unmarked	Most marked
Object	Nonspecific inanimate	Definite animate
Subject	Definite animate	Nonspecific inanimate

Aissen uses the OT framework to develop a precise model for DM, whose leading idea is that marked associations are penalized by natural-language grammars. In some languages, they are simply avoided. DM is assumed to occur in languages where marked associations are tolerated rather than avoided: for instance, definite objects will occur (with morphological marking) in a language where a condition penalizing patients not realized as objects outranks the condition penalizing definite objects. DM is analysed as resulting from a tension between two conflicting general principles: iconicity, which states that semantic markedness should be reflected by morphological marking; and economy, which states that morphological marking should be avoided whenever possible. Within the Optimality Theory framework, this kind of tension between conflicting principles is solved by means of a ranking of constraints: thus, the constraint which penalizes zero-case human objects will be ranked higher than the constraint which penalizes zero-case inanimate objects.

In a nutshell, Aissen's theory predicts that in a language which exhibits both DOM and DSM, the distribution of bare subjects should be the mirror-image of that of bare objects: subjects occurring as bare should sit high on the Animacy and Definiteness scales, while bare objects should sit low.

We shall now determine whether this theory provides a satisfactory account of DM in Korean.

⁶ Aissen's theory is consistent with Lidz's (2006) syntax-based analysis of DOM in Kannada, which posits that overt accusative marking is parasitic on a functional head — D or Num — and that animate objects necessarily include Num. Lidz's analysis is a syntactic translation of Aissen's Animacy and Definiteness scales.

⁷ Markedness and markedness reversal are also discussed by Hopper and Thompson (1980), to whose work we shall return below.

2.2. DOM in Korean

The Korean object marker is spelt out as (*leul*) (the initial [l] is inserted after a vowel) as exemplified above in (1a)). It is commonly glossed as an *accusative case* marker,⁸ but we shall simply gloss it here as LEUL for reasons which will appear below. Bare objects, i.e. objects which fail to support a functional particle, have been noticed and discussed in both Korean and Japanese by a number of scholars (cf. fn.3). Available results drawn from corpus studies reveal that the acceptability of bare objects is favoured by a set of factors which crucially include the ones listed in (7), most of which were brought out for Japanese:

(7) *Factors favouring object bareness in Korean-Japanese*

- a. MORPHOPHONOLOGICAL WEIGHT:
Objects occur more frequently as bare when they are morphophonologically (Tsutsui 1984, Mori & Givón 1987) or syntactically (Abeillé & Godard 2004) *light*;
- b. OV ADJACENCY: objects occur more frequently as bare when they are strictly adjacent to the verb (Tsutsui 1984, Saito 1985, Watanabe 1986);
- c. INANIMACY: objects occur more frequently as bare when they are low on the Animacy scale (Minashima 2001);
- d. NONTOPICALITY, NONDEFINITENESS: objects occur more frequently as bare when they do not identify a given, discourse-linked referent (Ramstedt 1939, Niwa 1989, Fuji & Ono 2000, Minashima 2001);
- e. NONFOCALITY: objects occur more frequently as bare when they do not identify new (focused) information (Masunaga 1988);
- f. INFORMAL STYLE: objects occur more frequently as bare in informal conversation, and in short utterances (Alfonso 1966, Sakuma & Motofuji 1980, Tsutsui 1984, Matsuda 1996, Hong, Y.-C., 2004).

⁸ In the linguistic literature on Korean, the particle LEUL is analysed in three different ways:

(i) An accusative Case marker (cf., a.o., the special issue of *Hanggugeo Haghwe* (Research Project on the Korean eLanguage), 1999.

(ii) A bi-functional particle signalling both accusative case and a discourse feature ('intensive', 'focus', 'theme'): this is the dominant attitude, represented (in alphabetical order) by: I, G.-H. (1988); I, M.-J. (2005); I, S.-H. (2004); Im, H.-B. (1979); Kwon, J.-I. (1989); Lim, D.-H. (2004); Seong, G.-C. (1994); Sin, H.-S. (1991); Son, I.-H. (1994); Woo, H.-S. (1996); Yu, D.-S. (1984); a.o.

(iii) Three scholars specifically argue that LEUL is not a Case marker: Go, S.-J. (2001); I, N.-S. (1988); Mok, J.-S. (1998, 2003).

This list of correlations seems globally in keeping with Aissen's theory of DM: (7c) and (7d) are expected under the Animacy and Definiteness prominence scales; (7a) and (7e) could support the assumption that morphological bareness generally reflects unmarkedness. Correlation (7b) could be interpreted as a natural consequence of morphological underspecification — bare objects must be governed or identified by their verb. Correlation (7f) could result from a general contrast between informal speech and written style with respect to morphological economy.

Two sets of empirical problems however arise under Aissen's theory.

First, the expected correlations between semantic and/or syntactic markedness and morphological marking, are not systematically verified. In particular, Korean bare objects may be semantically animate and/or definite, as witnessed by (8b), where a proper-name object is bare; and they may be syntactically 'heavy', as witnessed by (9b), where a bare object contains a restrictive relative clause:

(8) a. Neo eotteohge Minsu -leul johaha -ni?
 2SG how Minsu LEUL like Q
 'How can you like MINSU?'

b. neo eotteohge Minsu johaha -ni ?
 2SG how Minsu like Q
 'HOW MUCH do you like Minsu?'

(9) a. Neo samchon -i ø sa -ju -si -n
 2SG uncle GA 2SG buy give HON REL
 baji -leul ib -eoss -ne!
 trousers LEUL put on PST EXCL
 'You've put on THE TROUSERS WHICH UNCLE BOUGHT YOU!'

b. Neo samchon -i ø sa -ju -si -n
 2SG uncle GA 2SG buy give HON REL
 baji ib -eoss -ne!
 trousers put on PST EXCL
 '(I can see that) you've put on the trousers which Uncle bought you!'

The fact that constraints may be violated is not a problem in the Optimality Theory framework, which assumes that all constraints are violable but crucially ranked with respect to one another. Under this theory, the acceptability of (8b) and (9b) simply goes to show that some constraint which favours object bareness is ranked higher, in Korean, than the constraints which penalize definite-animate and syntactically heavy objects. However, as hinted by our English translations, bare objects and LEUL-marked objects trigger different semantic construals of the clauses which contain them, and the interpretive contrasts do not straightforwardly boil down to the concept of markedness.

Other Korean data which seem problematic under Aissen's theory are exemplified in (10) and (11):

- (10) A — Minsu-neun mweo-l sa -ss -ni?
 Minsu TOP what LEUL buy PST Q
 'As for Minsu, what did he buy ?'
- B — Minsu-neun sagwa *(-leul) sa -ss -da.
 Minsu TOP apple LEUL buy PST DEC
 'Minsu (he) bought APPLES.'

- (11) Minsu-neun goyangi *(-leul) johaha -n -da.
 Minsu TOP cat LEUL like PRS DEC
 'As for Minsu, he likes {cats/the cat}.'

In (10), the object must be LEUL-marked although it sits at the bottom of both the Animacy and Definiteness scales. What triggers obligatory LEUL-marking is the fact that the object is q-focused, a term we borrow from Kuroda (2004): in (10B) it responds to the *wh*-phrase in the associated question. In order to accommodate this fact under Aissen's theory of DM, we could assume that, in Korean, a constraint penalizing q-focused bare objects is ranked higher than all other constraints.

LEUL-marking is also obligatory in (11), something we might consider deriving (under Aissen's theory) from a constraint which penalizes unmarked definite or presuppositional objects. However, we saw that a bare object is licensed in (8b), although proper names are assumed to sit higher than definite NPs on the Definiteness Scale in (5). A similar remark applies to (9b), whose bare relativized object supposedly sits as high as the object in (11) on

the Definiteness Scale. Animate-definite bare objects certainly cannot be banned as such in Korean, as confirmed by (12b):

- (12) a. Aa! \emptyset geu dodug -eul jab -ass -ni?
 Oh 2SG DM thief LEUL catch PST Q
 ‘Did you CATCH that thief?’
- b. \emptyset geu dodug jab -ass -ni?
 2SG DM thief catch PST Q
 ‘(Am I to understand that) you caught that thief?’

As above in (8) and (9), we intuitively perceive an interpretive contrast between the LEUL-marked and the bare object, which our English translations informally attempts to capture, and which needs to be accounted for.

2.3. DSM in Korean⁹

Aissen (2003) reports that DSM is globally less frequent and more restricted than DOM across languages. Since subjects are assumed to be unmarkedly animate and/or definite, DM theory predicts that in a DSM language, bare subjects should sit high on the Animacy and Definiteness scales. These predictions are largely confirmed in Korean. Although bare subjects are quite productive, they globally seem less varied than bare objects as to their internal make-up and the contexts in which they occur. In most of the examples we have made up or adapted from corpus research, bare subjects occur in interrogative or exclamative clauses, and are first or second-person pronouns. Some examples however show that they may also be proper names (16b), definite animate NPs (17b), or definite inanimate NPs (18b). In the illustrative examples given below, bare subjects are contrasted either with topical NEUN-marked subjects, or with simple GA-marked subjects, an issue to which we shall return below:

- (13)a. Na-neun baegop -a.
 1SG TOP be hungry DEC^{INF}

⁹ Diachronic studies on Korean mention the common omission of the particle GA/I in Old Korean, and generally analyse its development in Modern Korean as that of a nominative marker (cf. Bae, H.-I. 1999; Pak, Y.-J., 1999). In linguistic literature on Modern Korean, GA is generally glossed as *nominative* marker (cf. I, G.-H., 1999; Kim, S.-D., 1999) and NEUN as *topic* marker (cf. I, G.-G. 1999). Some authors, e.g. Pak, Y.-S. (1999), analyse GA as a pure nominative marker, and NEUN as a bifunctional particle (both Case [nominative] marker and discourse [topic] marker). Although bare subjects are now and then mentioned in Korean linguistics (cf. Hong, Y.-P., 1975, 1994; Kim, T.-Y., 2001), there is, to our knowledge, no systematic study of DSM in Korean.

‘As for me, I am hungry.’

- b. Na baegop -a.
 1SG be hungry DEC^{INF}
 ‘I’m hungry.’

- (14)a. Neo-neun eodi ga -ni?
 2SG TOP where go Q
 ‘As for you, where are you going?’

- b. Neo eodi ga -ni ?
 2SG where go Q
 ‘Where’re you going ?’

- (15)a. Neo-neun mweo-l meog-go iss -ni?
 2SG TOP what LEUL eat PROG Q
 ‘As for you, what are you eating?’

- b. Neo mweo-l meog-go iss -ni?
 2SG what LEUL eat PROG Q
 ‘What is it you’re eating?’

- (16)a. Minsu-neun eonje o -ni?
 Minsu TOP when come Q
 ‘As for Minsu, when is he coming?’

- b. Minsu eonje o -ni?
 Minsu when come Q
 ‘WHEN (in hell) is Minsu coming ?’

- (17)a. hwejang -nim-eun o -si -eoss -ni?
 president HON TOP come HON PST Q
 ‘As for the President, has he arrived (or not) ?’

- b. hwejang -nim o -si -eoss -ni?
 president HON come HON PST Q
 ‘Has the President arrived?’

- (18)a. Beoseu-ga o -go iss -da.

- bus GA come PROG DEC
 ‘There’s the bus coming.’
- b. Beoseu o -n -da.
 bus come PRS DEC
 ‘Here comes the bus.’

The acceptability of nonspecific inanimate bare subjects, illustrated by (19), is however unexpected under a theory solely based on the Animacy and Definiteness prominence scales:

- (19)a. Wa! Chaeg -i gwengjanghi manh -ne!
 wow book GA a lot many EXCL
 ‘Wow! (I see) there’s a huge number of books!’
- b. Wa! Chaeg gwengjanghi manh -ne!
 wow book a lot many EXCL
 ‘Wow! What a huge number of books!’

Another apparent problem for DM theory is that topical subjects — those which are associated with preidentified discourse referents and stand as categorical subjects (more on this below) — MUST be morphologically marked by NEUN, the Korean analogue of Japanese WA. This fact seems in conflict with the markedness theory sketched above in section (2.1.), since topicality (like definiteness) is assumed to be an UNmarked property for subjects.

Summarizing: the predictions of Aissen’s DM theory are partly verified by the properties of Korean bare subjects and objects: many bare subjects are 1st and 2nd-person pronouns, and statistics show bare objects to be more frequently light and unmarked with respect to animacy and definiteness. However, definite and/or animate bare objects, nonspecific bare subjects, and NEUN-marked topical subjects, seem to violate expectancies under the markedness theory of DM.

In the next section we shall introduce Erteschik-Shir’s (1997) theory of focus structure (f-structure), which we shall use in section 4 to bring out the regular interpretive effects of DM in Korean. Since the application of Erteschik-Shir’s theory to Korean leads us to propose descriptive assumptions which seem to contradict Kuroda’s (2004) theory of subject marking, we shall try and smooth out apparent conflicts before we return to the issue of DM.

3. F-structure theory and sentence interpretation

3.1. Erteschik-Shir's theory of focus structure

The term *f-structure* (focus structure), as used by Erteschik-Shir (1997), identifies a level of grammatical representation where the output of syntax is annotated for information packaging. It is important to emphasize that f-structure is conceived as pertaining to sentence grammar, not discourse grammar, although it is crucially sensitive to the discourse context. F-structures are structural descriptions where foci, instantiating new information, are paired up with topics, instantiating presupposed or old information. Erteschik-Shir's system incorporates ideas from Reinhart (1981) and Heim (1982): 'Utterances are conceived of as a set of instructions by a speaker to a hearer to update and organize a file so that the file will contain all the information the speaker intends to convey. The file consists of indexed cards which represent existing discourse referents. Information is entered on these cards according to well-defined principles. Each card has an indexed 'heading' and information pertaining to this heading can be entered on the card. Common ground information is thus ordered according to the 'topics' defined by each discourse referent' (Erteschik-Shir 1997:17). F-structure rules are reproduced below in (20):

(20) F-structure rules

- I. TOPIC instructs the hearer to locate on the top of his file an existing card (or an existing set of cards) with the relevant heading and index.
- II. FOCUS instructs the hearer to either
 - (i) open a new card and put it on the top of the file. Assign it a *heading* and a new index (in the case of an indefinite) or
 - (ii) locate an existing card and put it on the top of the file (in the case of a definite)
- III. PREDICATION instructs the hearer to evaluate the predicate with respect to the Topic where the predicate is taken to be the complement of the topic.

If the result is TRUE the UPDATE rule applies:

- IV UPDATE instructs the hearer to enter the focus on the topic card and then to copy all entries to all cards activated by the focus rule.

[Erteschik-Shir 1997:18]

A point which will be of some relevance below is that this theory makes the assessment of truth value (rule (20-III) crucially dependent on f-structure. Every string of words conveying old information within a clause does not necessarily instantiate a *topic*, in Erteschik-Shir's sense: following Reinhart (1981), the author crucially stipulates (p.17) that Topic can only be assigned to syntactic constituents — an idea consistent with the assumption that in syntactic structure, topics occupy specifier positions in the clause periphery (cf. Kuroda 1992, Rizzi 1997). Under Erteschik-Shir's theory, a topic may be of two sorts: an *individual* topic denotes an entity or a set of entities, while a *stage* topic denotes a spatio-temporal locus: stage topics are characteristic of what Kuroda (1972) named *thetic clauses*. In (21) and (22) below, we illustrate by some English examples how we are planning to adapt Erteschik-Shir's theory to represent f-structure in the next sections:¹⁰

(21) a. *topical subject*

[Tell me about John/What is John doing?]

John is eating an apple.

[John]_{TOP} [is eating an apple]_{FOC}

b. *thetic subject*

[What is going on?]/[Why am I hearing strange noises?]

John is eating an apple.

s[∅]_{TOP} [John is eating an apple]_{FOC}

c. *restrictive-focus subject*

(i) [Are your neighbours (John and Mary) eating apples?]

(It is) JOHN (who) is eating apples (not MARY).[?]

[<John>_{FOC}]_{TOP} is eating apples.

(22) a. *focal object*

[What is John eating?]

He is eating {an apple/apples}.

[He]_{TOP} is eating [an apple/apples]_{FOC}

b. *topic-bound object* (= definite)

¹⁰ We freely adapt Erteschik-Shir's notation to represent f-structure. Category labels placed inside opening brackets indicate s-structure constituents, while labels placed outside closing brackets identify f-structure constituents. One exception is *sf* /_{TOP}, as in (20b), which designates a *stage topic*. When a sentence involves two or more levels of f-structure, we use digits to help the reader associate each focus with the appropriate topic, e.g.:

(i) [.....]_{TOP1} [[.....]_{TOP2} [.....]_{FOC2}]_{FOC1}

[What happened to the apple I had left on the counter?]

John ATE {it/the apple}.

$[\emptyset_z]_{\text{TOP}}$ [John ate [the apple_z]]_{FOC}

c. *restrictive-focus object*

[Did John eat pears?]

No. John ate APPLES.

[John]_{TOP1} [ate <apples>_{FOC2}]_{TOP2}]_{FOC1}

[I had left an apple and a pear on the counter. Did John eat them?]

No. He (only) ate THE APPLE.

[He]_{TOP1} [ate <(the) apple>_{FOC2}]_{TOP2}]_{FOC1}

In (21a) we illustrate a simple predication involving a topical subject, i.e. a categorical subject in Kuroda's sense. (21b) exemplifies athetic clause, whose subject lies inside the matrix focus constituent, and whose empty matrix topic is assumed to denote a spatio-temporal locus (stage topic). In (21c), the subject is crucially construed as contrastive and exhibits the complex reading which Erteschik-Shir calls *restrictive focus*, which combines focality and topicality. Restrictive focus, which we note by means of angular brackets (< >), involves selecting an item out of a topical set (rule (20-II-ii)). In (22) we use the same notation as in (21) to represent the simple-focus (22a) and restrictive focus (22c) readings of the object. In (22b), the focused definite object is assumed to be bound by an empty nominal in topic (clause-peripheral) position.

3.2. F-structure and subject marking

We now propose to use Erteschik-Shir's f-structure theory to help bring out some interpretive properties of Korean clauses which will be crucially relevant for the description of DM.

Starting with overtly marked subjects, we shall first argue that the well-known NEUN/GA contrast (which echoes in Korean the WA/GA contrast of Japanese) may be represented in terms of f-structure. To maintain our claim, we shall argue that it does not conflict with Kuroda's (2005) analysis of the WA/GA contrast, which is crucially coined within a theory of judgments, NOT within a theory of information packaging.

Like Japanese subjects, Korean subjects may support two different functional particles: the so-called topic¹¹ marker NEUN, and the simple subject¹² marker GA.¹³

Like Japanese WA, Korean NEUN in root clauses¹⁴ is ambiguous between a neutral-topic and a contrastive interpretation. This is exemplified by (23):

- (23) Minsu-neun gicha-leul ta -go ga -ss -eo.
 Minsu NEUN train LEUL get in and leave PST DEC^{INF}
 a. ‘Minsu (he) went by train.’
 b. ‘MINSU (he) went by TRAIN (while MINNA went by CAR).’

The NEUN-marked subject in (23a) is construed as what Kuroda calls a categorical subject, or more precisely, the subject of a categorical judgment. The categorical subject identifies an entity, with which the predicate associates a statement. Under the reading which (23a) attempts to capture, the sentence in (23) could be a natural response to the question: *What did Minsu do?* Under the contrastive reading translated in (23b), the NEUN-marked subject is

¹¹ Japanese WA is glossed *Theme marker* by Kuno (1973), and *Topic marker* by Kuroda (*passim*) who emphasizes in Kuroda (2004) that this gloss is but a convenient label which should be thought of as independent from discourse and information structure.

¹² NEUN and GA each have two phonologically-conditioned allomorphs: NEUN is realized as *eun* if preceded by a consonant and as *neun* if preceded by a vowel cf. (i); GA is realized as *ga* if preceded by a vowel and as *i* if preceded by a consonant, cf. (ii):

- (i)a. Minna-neun o -ss -da.
 Minna NEUN come PST DEC
 ‘As for Minna, she came.’
 b. Insil -eun o -ss -da.
 Insil NEUN come PST DEC
 ‘As for Insil, she came.’
 (ii)a. Minna-ga o -ss -da.
 Minna GA come PST DEC
 ‘Minna came.’
 b. Insil -i o -ss -da.
 Insil GA come PST DEC
 ‘Insil came.’

Hong, Y.-P. (1975) proposes a diachronic account of the *ga/i* allomorphy: these particles both result from the morphological split of a single bisyllabic morpheme, *iga*, formed of an ‘intensifying’ affix (*ga*) reanalysed as *iga* after a period of attaching mostly to verbs ending in *i*. The generalization of *ga* as a subject marker started in the 17th century and was finalized two centuries later. Japanese and Korean GA are commonly glossed as ‘nominative’ markers in the modern linguistic literature, but apart from ‘genitive’ (GEN), which we allow ourselves to use for mere convenience’s sake, we prefer to refrain from using case labels in our glosses of Korean. (We also use ‘locative’ in our glosses, but this may be regarded as a thematic role rather than a case value).

¹³ As emphasized by Kuroda (2004), the topic marker is not limited to subjects, since various nonsubject nominals may be topicalized.

¹⁴ To keep the length of this article within reasonable bounds, we mostly limit the present study to root clauses.

construed as selecting one entity out of a presupposed topic set: (23) could then be a felicitous response to: *How did Minsu and Minna reach that place?* Under Erteschik-Shir's theory, these two readings of the NEUN-marked subject may be respectively associated with the two f-structures in (24):

- (24)a. [Minsu]_{TOP} [went by train]_{FOC}
 b. [[<Minsu>_{FOC2}]_{TOP2}]_{TOP1} [went by train]_{FOC1}

(24a) is a simplex f-structure combining the topic *Minsu* and the predicate *went by train*. (24b), on the other hand, involves two levels of f-structure: at the embedded level (level 2), *Minsu* is selected (restrictive focus: foc2) out of a topical set (top2) — in this discourse context, the topical set includes *Minsu* and *Minna*; at the matrix level (level 1), *Minsu* is construed as the topic (the categorical subject) of a predication, as in (24a). The semantic contrast between (23a) and (23b) thus lies in the embedded level of f-structure which is present in (23b) but not in (23a). This analysis allows us to identify NEUN as a topic marker in both its noncontrastive and its contrastive readings: *neun* in root clauses signals topicality *at the matrix level* of f-structure.

Kuroda's (2004) objection to this type of analysis is that WA— the Japanese analogue of Korean NEUN — may, he says, indicate focality. A relevant Japanese example of his is reproduced in (25):

- (25) Q — dare ga oo-ganemoti desu ka?
 who GA very rich be Q
 'Who is very rich?'
 R — MicroSoft no syatyoo no Gates-san {wa/#ga} oo-ganemoti desu.
 Microsoft GEN president GEN Gates Mr. WA GA very rich be
 'Mr. Gates, the president of Microsoft, is very rich.'
 [Kuroda 2005, ex. (4)]

What makes the subject of (25R) focal, under Kuroda's analysis, is the fact that it responds to the *wh*-phrase in the associated question. However, as also emphasized by Kuroda, the WA and GA subjects do not respond to the *wh*-phrase in the same way: what makes GA infelicitous in (25R) is that unlike WA, it triggers an exhaustive-listing implicature, which we may gloss by a cleft structure in English: *It is he who is very rich (and nobody else)*. The WA subject in

(25R), on the other hand, triggers what Kuroda calls an *anti-exhaustive-listing* effect: it leads us to understand that other very rich people exist, apart from Bill Gates.

Our assumption here is that what Kuroda describes as a focus use of WA is actually an instance of the f-structure pattern exemplified above by (23b)/(24b), which crucially involves restrictive focalization within a topical set. Note that in the English translation of (25R), repeated below in (26R), the lexical subject bears contrastive stress:

- (26) Q — Who is very rich?
 R — BILL GATES is very rich.

The subject of this sentence is construed as a sample selected out of the presupposed set of people qualifying as ‘very rich’. Since the topical set denotes an open class, no uniqueness presupposition is associated with the property ‘very rich’ and the anti-exhaustive-listing effect arises. The interpretation of (25R) (with WA) and (26R) is thus essentially similar to the contrastive-topic reading associated with the NEUN subject in (23b):

- (27) = (25R) with WA
 [<Bill Gates>_{FOC}]_{TOP} is very rich.

What distinguishes (23b) from (25R) is the fact that (23b) has a complex f-structure (its predicate is the matrix focus), while that of (25R) is simplex.

We therefore hold on to the claim that NEUN-marked subjects in Korean root clauses (like WA-marked subjects in Japanese) always stand as matrix topics, regardless of their internal f-structure. This assumption seems to us consistent with Kuroda’s analysis of categorical judgments. NEUN-marked subjects which have no internal f-structure (as in (24a), but not (24b)) are subjects of categorical judgments, in Kuroda’s sense.

Let us now turn to GA, the other subject-marker, which Kuroda glosses as nominative. Like Japanese GA, Korean GA in root clauses is ambiguous between a neutralthetic reading, exemplified by (28a), and a contrastive reading exemplified by (28b):

- (28) Minsu-ga gawi -leul chaj -go iss -da.
 Minsu GA scissors LEUL look for PROG DEC
 a. ‘Minsu is looking for (the) scissors.’

- (i) ‘There’s Minsu looking for (the) scissors.’
- (ii) ‘It’s Minsu looking for (the) scissors.’
- b. ‘It is MINSU (and nobody else) who is looking for (the) scissors.’

In (28a), the entire predication ‘Minsu is looking for (the) scissors’ conveys new information. Under the reading glossed in (28a-i), the sentence stands as an objective perception report; under the reading glossed in (28a-ii), it provides an explanation for some independently-perceived state of affairs (e.g. the addressee might have questioned the speaker about the racket which just interrupted their telephone conversation). Under the reading glossed in (28b), the GA subject is in focus, and the sentence could be a sequel to ‘Is it Minna who is looking for (the) scissors?’. Kuroda brings together the interpretive patterns glossed in (28a) and (28b) under the *thetic* label, treating the contrastive effect in (28b) as an *exhaustive-listing* implicature parasitic on the *thetic* reading. Adopting this idea, we shall call the interpretive pattern glossed in (28a) the *neutral thetic* reading, and the one glossed in (28b), the *exhaustive-listing* reading. Kaneko (2002) assumes that in neutral *thetic* clauses such as (28a), an event is existentially quantified. This assumption is consistent with Kuroda’s idea that *thetic* clauses *affirm* a state of affairs. Kaneko (2002) interestingly compares Japanese *thetic* clauses similar to Korean (28a), to the *il y a*+pseudo-relative and *c’est*+pseudo-relative constructions of spoken French, where the predication is overtly dominated by an existential operator, and which trigger the same interpretive effects as the GA subject in (28a):

- (29) Il y a /c’est Jean qui cherche {des/les} ciseaux.
 there /it is Jean who is looking for (the) scissors
 ‘{There’s/it’s} John (who is) looking for scissors.’

French *il y a* and *c’est* combine an existential copula and a pronoun (*y*, *c’*) which overtly identifies the stage topic whose presence in *thetic* clauses is assumed by Erteschik-Shir (cf. (21b)). The predication *Jean qui cherche les ciseaux*, structured as a pseudo-relative, is interpreted under the scope of the existential operator, and its subject (*Jean*) is contained within the matrix focus. The fact that the French *c’est* construction in (29) exhibits an ambiguity (*neutral-thetic/exhaustive-listing*) which exactly parallels the ambiguity of the GA clause in (28), supports Kuroda’s intuition that the *exhaustive-listing* effect is but an *implicature parasitic* on the *thetic* pattern.

Rephrasing this assumption under Erteschik-Shir’s theory, we may represent the

exhaustive-listing reading glossed in (28b) by placing thethetic subject under restrictive focus:

- (30)a. $s[\emptyset]_{TOP}$ [Minsu is looking for (the) scissors]_{FOC} (= (28a))
 b. $s[\emptyset]_{TOP1}$ [[<Minsu>_{FOC2}]_{TOP2}] is looking for (the) scissors]_{FOC1} (= (28b))

Under these assumptions, GA subjects may be globally characterized by the fact that they do not stand as matrix topics.

Kuroda (2004) objects to this kind of analysis, claiming that GA subjects may be topical, a point he illustrates by the following Japanese examples:

- (31) P¹⁵ ano hito wa Toyota no dareka /hito desu.
 that person WA Toyota GEN someone/person be
 ‘That person is someone from Toyota.’
 Q — ano hito wa dare desu ka?
 that person WA who be Q
 ‘Who is that person?’
 R1 — ano hito wa/ga syatyoo desu.
 that person WA/GA president be
 ‘He is the president.’
 R2 — ano hito wa/#ga zimuin desu.
 that person WA/GA office worker be
 ‘He is an office worker.’

[examples and translations from Kuroda 2004, ex. (1) and (3)]

Kuroda’s argument runs as follows: in (31), the subject *ano hito* ‘that person’ is a topic in both the question and the associated replies, regardless of the choice of subject marking within the replies. The topicality of the subject is forced by the question, where *ano hito* is overtly marked by WA as topical. Therefore, GA cannot be characterized as ‘nontopical’, as we claimed above. According to Kuroda, the characteristic effect of GA marking brought out by (31) is not ‘focality’, but an exhaustive-listing implicature: this accounts for the fact that GA is felicitous in (31R1), since it is natural to presuppose that there is only one president (general

¹⁵ P = presupposition

manager) of Toyota, but not in (31R2), since it is not natural to presuppose that there is only one office worker on the Toyota pay-roll.

We counter-argue that GA and WA marking in (31R1) and (31R2) do not relate to topicality in the same fashion. In order to show this, we shall use French analogues of (31), for it so happens that French once again marks in morphosyntax the very contrast triggered by WA and GA in (31). Consider (32):

(32) [Ce type travaille chez Toyota]

‘That guy works for Toyota.’

Q — Qui est ce ?

‘Who is he?’

R1 — Il est PDG. (= (31R1 with WA)

‘He is (the) general manager.’

R2 — C’est lui le PDG. (= (31R1 with GA)

Lit. ‘It’s him the general manager.’

(33) R1 — Il est employé de bureau. (= (31R2) with WA)

‘He is an office worker.’

R2 — #C’est lui l’employé de bureau. (= (31R2) with GA)

Lit. ‘It’s him the office worker.’

= ‘He is the office worker.’

These French examples are exactly parallel to the Japanese examples in (31) as regards their interpretations and (in)felicitousness. In all cases the 3MSG pronoun, *il* or *lui*, corefers with the local discourse topic *ce type* ‘that guy’. The French examples however reveal a structural contrast between (R1), where *il* is the matrix topic, and (R2), where *lui* stands as an embedded inverted focus:

(34)a. = (32R1), (33R1)

[*il*_k]_{TOP} est [*PDG*]_{FOC}

b. = (32R2), (33R2)

s[*c*’]_{TOP1} [est [*lui*_k]_{FOC2} [*le PDG*]_{TOP2}]_{FOC1}

Although the French examples in (32) and (33) all contain a 3MSG pronoun coindexed with

the discourse topic ('ce type'), we see that the sentences in (R1) and (R2) differ with respect to syntax and morphology, a contrast we correlate in (34) with a difference in f-structure. Under the proposed representations, the clitic-subject clauses in (32R1)-(33R1) are categorical judgements whose subject is construed as the matrix topic, with the associated focus containing a function-denoting predicate. In (32R2)-(33R2), on the other hand, the nonclitic pronoun *lui* is overtly under focus (although it is coindexed with the discourse topic), while the function nominal ('(le) PDG', 'l'employé de bureau') is construed as topical — it denotes a social role which the definite article (*le*) leads us to presuppose as unique. In (34b) we thus have an inverse predication, which we assume to be anchored to the discourse context by a stage topic containing the uninflected deictic *c'*.¹⁶ The resulting semantic effect in (34b) is an exhaustive-listing implicature, which accounts for the pragmatically deviant character of (33R2), since we do not naturally presuppose that there is only one office clerk on the Toyota pay-roll. As pointed out by Kuroda, however, (31R2) with GA becomes felicitous if the pragmatic context licenses the unicity presupposition: 'For example, imagine an automobile show where each car company dispatches a crew consisting solely of one executive, one engineer and one office worker. In such a context, the GA version of [(31R2)] would be an acceptable response to [(31Q)]' (Kuroda 2004). As predicted by the parallel drawn above between GA in (31R1/R2) and French (34a/b), the French example in (33R2) becomes felicitous under the same pragmatic conditions.

We thus claim that although the subject *ano hito* 'that person' may be claimed to be topical in (31R) regardless of the nature of subject marking, the GA and WA subjects are not topical in the same way in (31R1) and (31R2): only the WA subject stands as a matrix topic; the GA subject, although bound by the matrix topic in this example, stands as an embedded focus in f-structure.

Summarizing, we contend that the NEUN/GA (WA/GA) contrast in Korean and Japanese signals properties which crucially pertain to f-structure: only NEUN/WA-marked subjects may occur in matrix topic position in f-structure, GA subjects cannot. GA subjects are always contained in the matrix focus. In Table (35), which summarizes these various f-structure patterns, X is the syntactic subject, 1 and 2 respectively represent matrix and embedded f-structure:

¹⁶ The analysis of *c'* (in *c'est*) is a traditional problem of French grammar, and the analysis sketched in (34b) is but a tentative proposal whose motivation is to help bring out the remarkable parallelism between French and Japanese in the examples under discussion.

(35) f-structures for NEUN and GA subjects

subject marking		f-structure representations	example(s)
NEUN	(a)	[X] _{TOP1} [Pred] _{FOC1}	(24a)
	(b)	[[<X>] _{FOC1}] _{TOP1} Pred	(27)
	(c)	[[[<X>] _{FOC2}] _{TOP2}] _{TOP1} [Pred] _{FOC1}	(24b)
GA	(d)	s[\emptyset] _{TOP1} [[X + Pred] _{FOC1}	(30a)
	(e)	s[\emptyset] _{TOP1} [[<X>] _{FOC2}] _{TOP2} Pred] _{FOC1}	(30b)
	(f)	s[\emptyset] _{TOP1} [[[X] _{FOC2} [[NP]] _{TOP2}] _{FOC1}	(31R1, R2) with GA

These descriptive assumptions seem to us consistent with Kuroda's theory of judgments. We could say that the two major types of judgments which he distinguishes — assertions (categorical judgments) and descriptions (thetic judgments) — crucially correlate with different f-structures. Neutral (noncontrastive) categorical subjects, as characterized by Kuroda, are those represented on line (a) in Table (35); neutral thetic subjects (those which do not trigger an exhaustive-listing implicature) are represented on line (d); contrastive effects and exhaustive-listing implicatures are represented on lines (b), (c), (e), (f), by means of embedded f-structure (restrictive focus). Every descriptive assumption we are phrasing here in terms of Erteschik-Shir's f-structure framework, could be rephrased in terms of Kuroda's theory of judgments.

4. F-structure and Differential Marking

We have argued above that the choice of a subject marker (NEUN vs. GA) is crucially sensitive to f-structure in Korean. We shall now proceed to show that the choice of function marking itself — i.e., *differential* marking, in Aissen's terms — is similarly sensitive to f-structure. Our leading descriptive assumption is the double generalization spelt out in (36):

(36) *DM and f-structure in Korean*

- a. When morphologically marked, subjects (+NEUN or +GA) and objects (+LEUL) are construed as f-structure constituents.
- b. When bare, i.e. morphologically unmarked, subjects and objects do not stand as f-structure constituents.

We use the term *morphological marking*, rather than *case marking*, for we do not believe that the three Korean particles considered in this study (GA, NEUN and LEUL) qualify as case markers. GA generally selects subjects and may thus generally be glossed as a subject marker, but the interpretive effects it triggers go — as shown above — beyond subject marking.¹⁷ NEUN is clearly not a case-marker since it may attach to nonsubjects as well as subjects (cf. (37)); *leul* is not an accusative marker since it may, for instance, be stacked on a locative (cf. (38)):

(37)a. \emptyset ppalga -n jangmikkoch **-eun** geunyang deuli -bni -da.
 1 red REL rose NEUN free give HON DEC
 ‘(As for) the red roses, I give (them to you) for free.’

b. I gisugsa **-e** **-neun** yeohagsaeng -eun
 DM boarding school LOC TOP female student TOP
 wisceung -eseo sigsaha -n -da.
 upstairs LOC take meal PRS DEC
 ‘In this boarding school, female students take (their) meals upstairs.’

(38) \emptyset neo-ui jib **-e** **-leul** eotteohge ga -ni?
 1PL 2SG GEN house LOC LEUL how go Q
 ‘How could we possibly go to YOUR PLACE (of all places)?!’

Under Erteschik-Shir’s assumptions, f-structure constituents are either topics or foci. Hence, what (36) means is that when subjects or objects fail to support a function marker in morphology, they correlatively fail to be identified as topics or foci in f-structure. It follows that in order to be interpreted, they must be incorporated into larger f-structure constituents.

¹⁷ As mentioned in fn. 7, GA is historically derived from an ‘intensifying’ morpheme, and it may still be found today in contexts where it does not qualify as a subject marker, cf :

(i)a. yeogi-e sagwa-leul noh-ala!
 here LOC apple LEUL put IMP
 ‘Put the apple here!’

b. yeogi-e -da -ga sagwa-leul noh-ala!
 here LOC DA GA apple LEUL put IMP
 ‘Put the apples HERE!’

(ii)a. Minna-neun teniseu -leul chi -da pal -eul dachi-eoss-da.
 Minna NEUN tennis LEUL play DEC arm LEUL hurt PST DEC
 ‘Minna hurt her arm while playing tennis.’

b. Minna-neun teniseu -leul chi -da -ga pal -eul dachi-eoss-da.
 Minna NEUN tennis LEUL play DEC GA arm LEUL hurt PST DEC
 ‘It was WHILE playing tennis that Minna hurt her arm.’

As we shall see, the descriptive generalizations in (36) will lead us to assume that some clauses altogether fail to have f-structure.

In the next sections we shall in turn consider subject marking, and object marking.

4.1. F-structure and DSM

The triplet of examples in (39) shows that the bare subject, in (39c), cannot be analysed as an elliptical variant of (39a) or (39b): the three forms in (39) trigger different interpretations, which we shall again seek to characterize in terms of f-structure. In our f-structure representations, Q stands for the question operator:

- (39)a. Minsu-neun ga -ss -ni?
 Minsu NEUN leave PST Q
 ‘As for Minsu, has he left?’
 $[Minsu_z]_{TOP1} [Q [[\emptyset_z]_{TOP2} [left]_{FOC2}]]_{FOC1}$
- b. Mingu-ga ga -ss -ni?
 Minsu GA leave PST Q
 ‘Was it MINSU who left?’
 $Q [s[\emptyset]_{TOP1} [[\langle Minsu \rangle_{FOC2}]_{TOP2} left]_{FOC1}]$
- c. Minsu ga -ss -ni?
 Minsu leave PST Q
 ‘Has Minsu left?’
 $Q [Minsu left]$

In (39a), the NEUN-marked subject must be construed as topical — as a categorical subject, denoting a preidentified entity (Minsu) about which a question is asked. We assume the topical subject to be interpreted above the question operator, as predicted by the assumption (Kuroda 1992, 2004) that the topical subject is structurally positioned in the left periphery. In (39b) and (39c), on the other hand, the subject is interpreted under the scope of the question operator. However, (39c), with a bare subject, is the only option if the question is based on the speaker’s direct perception of Minsu’s absence. In (39b), the GA subject triggers an exhaustive-listing implicature — the speaker presupposes that only one member of a preidentified set of people left, and asks whether that person was Minsu.

These interpretive contrasts are expected under (36): the NEUN and GA-marked subjects are construed as f-structure constituents (topic and restrictive-focus, respectively), while the bare subject in (39c) is not: it is incorporated within the clause ‘Minsu left’, which falls under the scope of the yes/no question operator. Correlatively, the bracketed predication in (39c) has no internal f-structure.

Returning to the examples quoted in section 2.3, we see that the interpretive contrasts between the marked and bare subjects in (13) through (16) fall into a regular pattern: subject marking by NEUN or GA forces us to construe the subject as an f-structure constituent, whereas bare subjects are incorporated into [subject+predicate] constituents.

First consider the pair of sentences in (13), completed below in (40):

- (40)a. Na-neun baegop -a.
 1SG TOP be hungry DEC^{INF}
 ‘As for me, I’m hungry.’
 [I]_{TOP} [am hungry]_{FOC}
- b. ?Nae-ga baegop -a.
 1SG GA be hungry DEC^{INF}
 (i) *‘There’s me who is hungry.’/‘It’s me being hungry.’ (neutralthetic reading)
 s[∅]_{TOP1} [[I]_{TOP2} [am hungry]_{FOC2}]_{FOC1}
 (ii) ‘It is ME who is hungry.’ (exhaustive-listing reading)
 s[∅]_{TOP1} [[<I>_{FOC2}]_{TOP2} am hungry]_{FOC1}
- c. Na baegop -a.
 1SG be hungry DEC^{INF}
 ‘I’m hungry.’
 [I am hungry]

In (40a), the NEUN-marked subject triggers the categorical reading, under which a property is asserted of the 1SG topic. In (40b), the neutralthetic reading is not available. This is due, we believe, to a conflict between the existential quantification of the event imposed onthetic clauses, the first-person referent, and the semantic content of the predicate: a neutralthetic reading would illegitimately involve objectivization by the speaker (existential quantification) of a situation whose perception may only be internal (his/her own hunger). This problem disappears under the acceptable exhaustive-listing reading glossed in (40b-ii), where the 1SG subject pronoun is construed as an identificational focus (‘the hungry one is ME’). As a result,

only the bare-subject option, illustrated by (40c), allows the clause to be construed as a simple subjective statement about the speaker's hungry state.

Next consider the 2nd-person subject of a *wh* question, as in (14) above completed in (41):

- (41)a. Neo-neun eodi ga -ni?
 2SG TOP where go Q
 'As for you, where are you going?'
 [you_z]_{TOP1} [where_k [[\emptyset]_{TOP2} [are going t_k]_{FOC2}]]_{FOC1}
- b. *Ne¹⁸-ga eodi ga -ni?
 2SG GA where go Q
 (i) where_k [s[\emptyset]_{TOP1} [[you]_{TOP2} [are going t_k]_{FOC2}]]_{FOC1}
 (ii) where_k [s[\emptyset]_{TOP1} [[<you>_{FOC2}]_{TOP2} are going t_k]_{FOC1}]
- c. Neo eodi ga -ni?
 2SG where go Q
 'Where're you going?'
 where_k [you are going t_k]

The bare subject in (41c) is the only available option if the question is uttered while the addressee is moving away from the speaker. Although (41c) is a question and (40c) is not, these two examples share a pragmatic feature: they involve a statement which is directly based on the speaker's immediate perception. On the other hand, the NEUN-marked subject in (41a) is read as the matrix topic and construed above the question operator. In (41b), the GA subject is ungrammatical both under the neutral-thetic reading (41b-i) and under the exhaustive-listing reading (41b-ii), although exhaustive-listing *ne-ga* subjects may occur in well-formed questions in other contexts, as witnessed by (42b):

- (42)a. Neo -neun mweo -l anda -go kkabu -ni?
 2SG TOP what LEUL know COM be arrogant Q
 'As for you, how can you be so sure?'
 [you_z]_{TOP1} [what_k [[\emptyset]_{TOP2} [know t_k]_{FOC2}]]_{FOC1}
- b. Ne -ga mweo -l anda -go kkabu -ni?

¹⁸ The 2nd-person pronoun *neo* is spelt out *ne* when it supports the GA subject marker.

2SG NOM what LEUL know COM be arrogant Q

‘What do YOU know?’

what_k [s[∅]_{TOP1}] [[<you>_{FOC2}]_{TOP2} know t_k]_{FOC1}]

c. *Neo mweo -l anda -go kkabu -ni?

2SG what LEUL know COM be arrogant Q

Unlike in (41), the question in (42) cannot be construed as based on the speaker’s direct perception. Correlatively, we observe that the 2sg bare subject goes unlicensed.

Next consider the examples in (17), completed below in (43):

(43)a. Hwejang -nim-eun o -si -eoss -ni?

president HON TOP come HON PST Q

‘As for the President, has he arrived (or not)?’

Q[[the president]_{TOP1} [has arrived]_{FOC1}]

b. Hwejang -nim-i o -si -eoss -ni?

president HON GA come HON PST Q

‘Is it the President who (just) arrived?’

Q[s[∅]_{TOP1}] [[<the president>_{FOC2}]_{TOP2} has arrived]_{FOC1}

c. Hwejang -nim o -si -eoss -ni?¹⁹

president HON come HON PST Q

‘Has the President arrived?’

Q[the president has arrived]

In (43a), the NEUN-marked subject is construed as preidentified (topicalized), while GA-marking in (43b) leads us to interpret the subject under restrictive focus. The bare-subject question in (43c) does not bear on the President’s arrival as such, but on whether or not the President’s arrival will allow the speaker’s need(s) to be fulfilled (e.g. he wants to talk to him).

Consider at last the pair of examples in (18), completed below in (44):

¹⁹ Under the interpretation glossed for (43c), primary stress falls on the verb.

- (44)a. Beoseu-neun o -go iss -da.
 bus TOP come PROG DEC
 ‘As for the bus, it is coming.’
 [the bus]_{TOP} [is coming]_{FOC}
- b. Beoseu-ga o -go iss -da.
 bus GA come PROG DEC
 ‘There’s the bus coming.’
 s[∅]_{TOP1} [[the bus]_{TOP2} [is coming]_{FOC2}]_{FOC1}
- c. Beoseu o -n -da.
 bus come PRS DEC
 ‘Here comes the bus.’
 [the bus comes]

All three options are acceptable here, with different interpretations. In (44a) and (44b), progressive aspect forces us to construe the coming of the bus as anchored to speech time. In (44a), the NEUN-marked subject is construed above TP, while in (44b) thethetic GA-subject is construed within the matrix focus. In (44c), the Korean simple present (like its English homologue) does not indicate temporal anchoring; the intuition that the clause is anchored to T0 however derives from its being construed as a direct-perception statement. The intuitive semantic contrast between thethetic-subject (44b) and the bare subject (44c) may be described in terms of point of view: as phrased in (44b), the perception statement is objectivized, the speaker is separating him/herself from the perceived event: (44b) suggests that (s)he is, for instance, standing on top of a hill and describing the scene down below. The bare-subject option in (44c) is on the other hand understood as reporting an immediate, unanalysed perception: the speaker utters (44c) standing at the bus stop, while the bus is approaching.

An interpretive pattern opposing bare, NEUN and GA subjects, is emerging from the above data. We see that NEUN-subjects are more freely licensed than GA and bare subjects, and that bare subjects characteristically occur in clauses involving direct-perception statements. Note that while direct-perception statements generally include stage-level predicates, all clauses containing stage-level predicates are not direct-perception statements (compare (44b)/(44c)). In order to formalize the three-way distinction with respect to Differential Subject Marking in Korean, we propose to analyse the bare-subject clauses

considered above as having NO f-structure. The idea that some clauses should fail to have f-structure however seems to conflict with Erteschik-Shir's theory, which states that truth-value assessments are crucially dependent on f-structure (cf. rule (20-III)). Under this theory, a clause which fails to have internal f-structure should correlatively fail to have a truth value, and this is not considered a possible option. We are however arguing that this IS a possible option, and that it is precisely exemplified by the Korean bare-subject clauses considered so far. These clauses either express global, nondistantiated subjective perceptions, or they are questions bearing on such perceptions. Correlatively, they have no objective truth value. Thus, the speaker's internal feeling of hunger as phrased in (40c) may only be assessed as true by the speaker himself; from the hearer's perspective it stands as neither true nor false and therefore cannot undergo rule (20.III). Further evidence supporting this idea is given below:

- (45) A — Minsu -neun jigeum mweo ha-go iss-ni?
 Minsu TOP now what do PROG Q
 'What is Minsu doing?'
 B — Minsu -neun jigeum ja -go iss -da.
 Minsu TOP now sleep PROG DEC
 'Minsu, he is sleeping.'
- (46) A — Minsu jigeum mweo ha-go iss-ni?
 Minsu now what do PROG Q
 'What's Minsu doing?'
 B — Minsu jigeum ja -go iss -neunde...
 Minsu now sleep PROG but...
 'Minsu is sleeping but...'

Unlike the exchange in (46), the one in (45) would be felicitous if Speaker A were a blind person asking Speaker B to describe for him what is going on in the movie they are following on television: in this case, the informative content of Speaker B's reply is 'Minsu is sleeping.' In (46), on the other hand, Speaker A is not interested in what Minsu is actually doing, but wants to know whether he can have access to Minsu for some personal purpose: the informative content of Speaker B's reply in (46B) is whatever follows 'Minsu is sleeping', e.g.: '...should I wake him up?' Correlatively, (46B) makes it irrelevant to enter the information 'Minsu is sleeping' on the 'Minsu' card in the discourse file.

Another interesting pair is given in (47):

- (47)a. Hwajangsil -e nu(gu) -ga iss -ni?
 bathroom LOC someone GA EX Q
 ‘Who is in the bathroom?’
- b. Hwajangsil -e nugu iss -ni?
 bathroom LOC someone EX Q
 ‘Is there someone in the bathroom?’

Here as above, the reply to (47a) (‘X is in the bathroom’) will need to be entered on some discourse referent’s card (the Bathroom card, or X’s card). The question in (47b), on the other hand, does not bear on the present occupant of the bathroom, but on whether or not the speaker is here and now going to be able to use the bathroom. Correlatively, X’s presence in the bathroom should not be entered on any card in the discourse file and may thus be regarded as having no objective truth value.

Under these assumptions, our analysis of the above bare-subject clauses is essentially consistent with Erteschik-Shir’s theory of f-structure.

Let us now confront these results with Aissen’s theory of DM. As witnessed by our examples, subjects which occur as bare are often — though not always — 1st and 2nd-person pronouns. Under Aissen’s theory, this follows from the assumption that 1st and 2nd person-pronouns sit at the top of the Animacy and Definiteness scales and are thus maximally unmarked in subject position. Regarding Korean, we may however consider a completely different line of explanation: due to their special speech-act status, 1st and 2nd-person subjects have a special affinity with direct-perception statements. 1st-person subjects occur in global internal-perception statements exemplified by (40c) (‘I’m hungry/thirsty/sleepy/etc.’). 2nd-person subjects occur in questions based on direct global perceptions engaging the addressee, exemplified by (41c) (‘where are you going?’). We however saw that 3rd-person subjects also commonly occur in direct-perception statements, as exemplified by (16b), (19b), (39c) and (44c).

The fact that bare subjects are neither topicalized nor focalized is straightforwardly expected under (36), and is quite independent from the prominence scales in (4) and (5). Under Aissen’s Optimality Theory, we might assume that in Korean, a constraint penalizing bare topics and foci outranks all other constraints. This would also account for two

problematic facts mentioned above (section 2.3.): (a) although topicality is claimed to be an unmarked property for subjects (Definiteness scale), topical subjects must be morphologically marked in Korean; (b) although nonspecific inanimates are claimed to be marked in subject position (Definiteness and Animacy scales), nonspecific inanimate subjects may be bare in Korean, as illustrated above in (19b).

In order to fit the above Korean data into Aissen's theory of DSM, we must therefore substitute a single constraint penalizing bare topics and foci to all constraints involving Definiteness and Animacy.

4.2. F-structure and DOM

We shall now argue that Differential Object Marking also follows the general pattern spelt out above in (36). We shall distinguish two classes of bare objects: in the first group, bare objects cannot include modifiers and are thus constrained as to their internal make-up; in the second group, bare objects seem far less constrained as to their internal structure. For description's sake, we shall call these two sets of cases *internally restricted* and *internally unrestricted* bare objects, respectively. We shall see that this syntactic distinction correlates with slightly different interpretive properties, which are nevertheless all consistent with (36). A crucial point is that object-marking in Korean does NOT correlate with a specificity effect.

4.2.1. Internally-restricted bare objects

Internally-restricted bare objects form OV strings denoting classified human activities. A first group of such examples involve a tight selectional relation between the V and its bare object. The verb may be the designated light verb *hada* 'do/make', as in (48), or another verb (49), with the resulting OV combination variably read as compositional or metaphorical, and intuitively perceived as having some degree of idiomaticity:

(48)	<i>bab hada</i>	lit. 'to make rice'	=	'to cook, to prepare food'
	<i>cheongso hada</i>	lit. 'to do house-cleaning'	=	'to clean up (the house)'
	<i>gongbu hada</i>	lit. 'to do study'	=	'to study'
	<i>yeohaeng hada</i>	lit. 'to do travel'	=	'to travel, to take a trip'
(49)	<i>babsang chalida</i>	lit. 'to lay dinner-table'	=	'to lay the table'
	<i>nolae buleuda</i>	lit. 'to blow song'	=	'to sing'
	<i>jang boda</i>	lit. 'to look at (the) market'	=	'to shop at the market'

<i>son boda</i>	lit. ‘to look at (one’s) hand’	=	‘to fix’/ ‘to slap’
<i>telebi boda</i>	lit. ‘to look at (the) TV’	=	‘to watch TV’
<i>geob meogda</i>	lit. ‘to eat fear’	=	‘to be afraid’
<i>miyeoggug meogda</i>	lit. ‘to eat seaweed soup’	=	‘to flunk an exam’
<i>kongbab meogda</i>	lit. ‘to eat bean-and-rice’	=	‘to do time in jail’

In such OV combinations, bare objects may not support an expansion or modifier (demonstrative, adjective, relative, genitive), as witnessed by (50b):

- (50)a. Eoje jeonyeog 6 si -e
 yesterday evening hour LOC
 Minna-neun bab ha -go iss -eoss -da.
 Minna TOP rice do PROG PST DEC
 ‘Yesterday at 6 P.M. what Minna was doing was: make rice (= cook)’
 [Minna]_{TOP} was [making rice]_{FOC}
- b. *Eoje jeonyeog 6 si -e
 yesterday evening hour LOC
 Minna-neun na-ui bab ha-go iss -eoss -da.
 Minna TOP 1SG GEN rice do PROG PST DEC
 Lit. ‘Yesterday at 6 P.M. what Minna was doing was: make my rice.’

This constraint suggests that OV combinations such as those mentioned in (48) and (49) are formed in the lexicon. All such OV combinations nevertheless allow LEUL-marking to be inserted on the object. Consider the following example, where LEUL has been affixed to the object in the combination *bab+hada*, lit. ‘make rice’:

- (51) Eoje jeonyeog 6 si -e
 yesterday evening hour LOC
 Minna-neun bab -eul ha -go iss -eoss -da.
 Minna TOP rice LEUL do PROG PST DEC
 ‘Yesterday at 6 P.M. what Minna was making was: rice/food.’
 [Minna]_{TOP} was making [rice/food]_{FOC}

Unlike the bare object in (50), the LEUL-marked object in (51) must be construed as focused, whether we interpret it literally ('rice') or hyperonymically ('food').

The focus effect of LEUL-marking is further exemplified by (52), where the OV combination receives a compositional reading:

- (52)a. Minsu-neun telebi bo -go iss -da.
 Minsu TOP TV look at PROG DEC
 'What Minsu is doing is: watch TV.'
 [Minsu]_{TOP} is doing [TV watching]_{FOC}
- b. Minsu-neun telebi-leul bo -go iss -da.
 Minsu TOP TV LEUL look at PROG DEC
 'What Minsu is {watching/looking at} is: (the) TV.'
 [Minsu]_{TOP} is {watching/looking at} [(the) TV]_{FOC}
- c. Minsu-neun Minna-ui telebi *(-leul) bo -go iss -eo.
 Minsu TOP Minna GEN TV LEUL look at PROG DEC^{INF}
 'What Minsu is {watching/looking at} is: Minna's TV.'
 [Minsu]_{TOP} is {watching/looking at} [Minna's TV]_{FOC}

The crucial semantic contrast between (52a) and (52b) is that in the first case the OV string is construed as activity-denoting, and does not provide a felicitous response to the question: *What is Minsu {watching/looking at?}*. (52b) on the other hand informs us about what Minsu is watching or looking at. In (52c) we see that in order to take a genitive modifier, the object *telebi* 'TV' must be LEUL-marked.

Although the above-mentioned OV strings containing bare objects vary as to their degree of idiomaticity, their syntax and semantics are regularly constrained: bare objects cannot be modified, and OV strings denote classified activities.

A last class of verbs which productively license internally-restricted bare objects are cognate-object verbs, such as *meogda* 'eat', *masida* 'drink', *sseuda* 'write', *illgda* 'read', *piuda* 'smoke'. Leaving aside metaphoric uses, these verbs impose a strong selectional restriction on their internal argument: thus the object of 'eat' must denote 'food', while the object of 'buy' is far less restricted. Cognate-object verbs commonly and productively take bare objects in Korean, regardless of lexical choices: whatever the lexical nature of their bare object, it is construed as specifying the subtype of the cognate category to which the activity applies:

- (53) Eoje jeonyeog 6 si -e
 yesterday evening hour LOC
 Minna-NEUN chaeg ilg -go iss -eoss -da.
 Minna TOP book read PROG PST DEC
 ‘Yesterday at 6 P.M. what Minna was doing was: read books.’
 [Minna]_{TOP} was doing [book-reading]_{FOC}

As in the previous examples of bare objects, the OV combination is construed semantically as denoting an activity: (53) would provide a natural response to the question *What was Minna doing yesterday at 6 P.M.?* However, it is clearly impossible to regard the OV string in (53) as a lexical compound, for any object selectionally compatible with the verb may occur as bare: for instance, any noun denoting an edible fruit may occur as the bare object of *meogda* ‘eat’, under proper contextual conditions:

- (54) Minsu-neun sagwa meog -go iss -da.
 Minsu TOP apple eat PROG DEC
 ‘What Minsu is doing is: eat apple(s).’
 [Minsu]_{TOP} is doing [apple-eating]_{FOC}

The properties of internally-constrained bare objects, in Korean, are reminiscent of a familiar pattern associated with bare objects in various languages: the Korean bare objects considered above are morphosyntactically deficient nominals construed as property-denoting predicate modifiers, which may be assumed to undergo what has been called *semantic incorporation* (Van Geenhoven 1995, 1998, 2001, Farkas & De Swart 2003) or *pseudo-incorporation* (Massam 2001, Dayal 2003), and whose combination with the verb may vary as to its degree of idiomaticity. This line of analysis would be supported by the fact that internally-restricted bare objects exhibit narrow-scope effects with respect to sentence quantifiers, as witnessed by (54) through (57):

• Scope with respect to an intensional predicate

- (55)a. Minsu-neun chaeg-eul ilgeo-ya ha-n-da.
 Minsu TOP book LEUL read OBLIG DO.PRS.DEC
 (i) ‘What Minsu must read is: books.’

- (ii) ‘What Minsu must read is: the book(s).’
 (iii) *‘What Minsu must do is: read books.’
 (iv) *‘There are (some) books that Minsu must read.’
 [Minsu]_{TOP} must read [(the) book(s)]_{FOC}

b. Minsu-neun chaeg ilgeo-ya ha-n-da.

Minsu TOP book read OBLIG DO.PRS.DEC

- (i) *‘What Minsu must read is: books.’
 (ii) *‘What Minsu must read is: the book(s).’
 (iii) ‘What Minsu must do is: read books.’
 (iv) *‘There are (some) books that Minsu must read.’
 [Minsu]_{TOP} must do [book-reading]_{FOC}

• Scope with respect to Sentence negation

(56)a. Minsu-neun chaeg-eul ilgji anh –ass -da.
 Minsu TOP book LEUL read NEG PST DEC

- (i) ‘What Minsu read was not: books.’
 (ii) ‘What Minsu read was not: the book(s).’
 (iii) *‘What Minsu did was not: read books.’
 (iv) *‘There are (some) books that Minsu did not read.’
 [Minsu]_{TOP} did not read [(the) book(s)]_{FOC}

b. Minsu-neun chaeg ilgji anh –ass -da.
 Minsu TOP book read NEG PST DEC

- (i) *‘What Minsu read was not: books.’
 (ii) *‘What Minsu read was not: the book(s).’
 (iii) ‘What Minsu did was not: read books.’
 (iv) *‘There are (some) books that Minsu did not read.’
 [Minsu]_{TOP} did not do [book-reading]_{FOC}

• Scope with respect to a Quantified subject

(57)a. Daebubun -ui hagsaeng-deul -eun chaeg-eul ilg -go iss-eoss-da.
 most of student PL TOP book LEUL read PROG PST DEC

- (i) ‘What most students were reading was: books.’
 (ii) ‘What most students were reading was: the book(s).’
 (iii) *‘What most students were doing was: read books.’

- (iv) *‘There were (some) books that most students were reading.’
 [[<most of>_{FOC2} the students]_{TOP2}]_{TOP1} were reading [(the) book(s)]_{FOC1}
- b. Daebubun -ui hagsaeng-deul -eun chaeg ilg -go iss-eoss-da.
 most of student PL TOP book read PROG PST DEC
- (i) *‘What most students were reading was: books.’
 (ii) *‘What most students were reading was: the book(s).’
 (iii) ‘What most students were doing was: read books.’
 (iv) *‘There were (some) books that most students were reading.’
 [[<most of>_{FOC2} the students]_{TOP2}]_{TOP1} were doing [book-reading]_{FOC1}

These examples show that LEUL-marking is required if the object is to be construed as ‘definite’ (gloss (ii)), and disallowed if it is to be construed as a predicate modifier (gloss (iii)). These facts would be consistent with an object-incorporation analysis along the lines mentioned above. It however also appears that LEUL-marking is obligatory when the focused object is construed as nonspecific-indefinite (gloss (a-i)), and that LEUL-marked objects cannot be read as specific-indefinite (gloss (a-iv)). We thus cannot identify LEUL as a definiteness or specificity marker, or as a feature parasitic on a definite or specific determiner (as assumed by Lidz 2006 for the object marker of Kannada).

The semantic effect of LEUL in the above examples straightforwardly appears as focus marking: LEUL-marked objects are focused in all the above examples, regardless of specificity and definiteness. But this generalization must be articulated with the narrow-scope/incorporation effects which are associated with *bare* objects. These complementary properties are precisely what we expect under the double assumption in (36): objects need to be LEUL-marked in order to be construed as f-structure constituents. While topics are marked by NEUN, LEUL-marked objects are generally construed as focused. Bare objects, on the other hand, fail to stand as f-structure constituents. In the examples reviewed in this section, bare objects are incorporated into OV foci, construed as activity-denoting and correlatively restricted as regards object modifiers.

We shall now turn to another class of bare objects, whose properties provide further evidence in support of the proposed analysis.

4.2.2. Internally-unrestricted bare objects

With weak-selection verbs (those which do not take cognate objects), such as *sada* ‘buy’, bare objects are also syntactically productive, but we note that their felicitousness is sensitive to the choice of subject marking. Consider the paradigm in (58):

- (58)a. Minna-neun chima -leul sa -go iss -da.
 Minna TOP skirt LEUL buy PROG DEC
 ‘What Minna is buying is: {a/the} skirt/skirts.’
 [Minna]_{TOP} is buying [{a/the} skirt(s)]_{FOC}.
- b. ??Minna-neun chima sa -go iss -da.
 Minna TOP skirt buy PROG DEC
 ‘What Minna is doing is: buy skirts.’
 [Minna]_{TOP} is doing [skirt-buying]_{FOC}
- c. Minna-ga chima -leul sa -go iss -da.
 Minna GA skirt LEUL buy PROG DEC
 (i) ‘(It so happened that) Minna bought skirts.’
 s[∅]_{TOP1} [[Minna]_{TOP2} bought [skirts]_{FOC2}]_{FOC1}
 (ii) ‘It was Minna who bought the skirt(s).’
 s[∅]_{TOP1} [[<Minna>_{FOC2}]_{TOP2} bought the skirt]_{FOC1}
- d. Minna-ga chima sa -go iss -da.
 Minna GA skirt buy PROG DEC
 (i) ‘(It so happens that) Minna bought skirts.’
 s[∅]_{TOP1} [Minna bought skirts]_{FOC1}
 (ii) ‘It was Minna who bought skirts.’
 s[∅]_{TOP1} [[<Minna>_{FOC2}]_{TOP2} bought skirts]_{FOC1}

In this class of cases, bare objects seem to us more felicitous with a GA-subject (58d) than with a NEUN-subject (58b), a contrast we propose to describe in the following way. In (58b), NEUN-marking forces us to construe the subject as the matrix topic, hence the OV string as the matrix focus. Because it is read as an f-structure constituent, the OV string is construed as activity-denoting, as in the examples discussed in the previous section. But since ‘skirt-buying’ does not stand as a classified-activity, a conflict arises between the classified-activity effect and our knowledge of the world. With a GA subject, on the other hand, OV is crucially NOT construed as an f-structure constituent. Correlatively, no classified-activity effect correlates with the bare object in (54d). In this case the bare object simply contrasts with its

LEUL-marked counterpart with respect to its f-structure status: the bare object in (58d) fails to stand as an f-structure constituent, while the LEUL-marked object in (58c) is either construed as a subordinate focus (i), or read as definite, i.e. associated with a uniquely-presupposed discourse referent (ii). It thus generally appears that GA-marking on subjects licenses bare objects WITHOUT a classified-activity effect.

The interpretive contrast between the bare-object structure exemplified in (58d), and those exemplified in the previous section, correlates with a syntactic difference: bare objects of the type exemplified in (58d) may take modifiers, as witnessed by (59):

- (59) a. Minsu -ga Minna-ui chima -leul dali -go iss -da.
 Minsu GA Minna GEN skirt LEUL iron PROG DEC
 ‘There’s Minsu ironing MINNA’S SKIRT.’
 $s[\emptyset]_{\text{TOP1}} [\text{Minsu is ironing } [\langle \text{Minna's skirt} \rangle_{\text{FOC2}}]_{\text{TOP2}}]_{\text{FOC1}}$
- b. Minsu -ga Minna-ui chima dali -go iss -da.
 Minsu GA Minna GEN skirt iron PROG DEC
 ‘It’s Minsu who’s ironing Minna’s skirt.’
 $s[\emptyset]_{\text{TOP1}} [[\langle \text{Minsu} \rangle_{\text{FOC2}}]_{\text{TOP2}} \text{ is ironing Minna's skirt}]_{\text{FOC1}}$

‘Heavy’ and/or referential bare objects such as those illustrated above in (8), (9) and (12), repeated below, pattern with those in (58d)-(59b) with respect to syntax and interpretation: they are unrestricted as to their internal make-up and do not form activity-denoting OV strings:

- (8) a. Neo eotteohge Minsu -leul johaha -ni?
 2SG how Minsu LEUL like Q
 ‘How can you like MINSU?’
 how (come) [you like [$\langle \text{Minsu} \rangle_{\text{FOC}}]_{\text{TOP}}$]
- b. Neo eotteohge Minsu johaha -ni ?
 2SG how Minsu like Q
 ‘HOW MUCH do you like Minsu?’
 how (much) [you like Minsu]

- (9) a. Neo samchon -i \emptyset sa -ju -si -n
 2SG uncle NOM 2sg buy give HON REL

baji -leul ib -eoss -ne!
trousers LEUL put on PST EXCL

‘ You’ve put on THE TROUSERS WHICH UNCLE BOUGHT YOU!’

EXCL [you have put on [<the trousers which Uncle bought you>_{FOC}]_{TOP}]

b. neo samchon -i ø sa -ju -si -n
2SG uncle NOM 2sg buy give HON REL
baji ib -eoss -ne!
trousers put on PST EXCL

‘ (I see) you’ve put on the trousers which Uncle bought you!’

EXCL [you’ve put on the trousers which Uncle bought you]

(12) a. Aa ! ø geu dodug -eul jab -ass -ni?
Oh 2SG DM thief LEUL catch PST Q

‘Did you CATCH that thief?’

[ø_z]_{TOP} Q [you caught [that thief_z]]_{FOC}

b. ø geu dodug jab -ass -ni?
 2SG DM thief catch PST Q

‘(Am I to understand that) you caught that thief?’

Q [you caught that thief]

Internally-unrestricted bare objects nevertheless contrast with their LEUL-marked counterparts in a way predicted by (36): in the above examples, LEUL-marked objects are under focus, while bare objects are not. Like all the other bare objects examined above, those in (8b)-(9b)-(12b) are construed neither as focused, nor as topics: they do not form constituents in f-structure, hence must be incorporated within larger constituents placed under the scope of a discourse (question or exclamative) operator. In (8b)-(9b)-(12b), we see that the bare object is incorporated within a clausal constituent. This interpretive effect is consistent with the fact that (8b)-(9b)-(12b) contain not only a bare object, but also an unmarked 2nd-person subject — bare in (8)-(9) and null in (12). In (8b)-(9b)-(12b), the unmarked-subject/bare-object combination is the only available strategy to trigger the observed clausal interpretation, which, under our assumption, lacks f-structure and — correlatively — objective truth-value.

A last piece of interesting empirical evidence regarding LEUL-marking is provided by the pair of examples in (60):

- (60) a. gae -ga [juin -i o -n-jul -eul] al -go jij-eoss-da.
 dog GA master GA come REL DN LEUL think COM bark PST DEC
 The dog_z barked,
 [\emptyset_k]_{TOP} [\emptyset_z knowing [that his master had arrived]_k]_{FOC}
- b. gae -ga [juin -i o -n -jul] al -go jij-eoss-da.
 dog GA master GA come REL DN think COM bark PST DEC
 The dog_z barked,
 [\emptyset_z thinking that his master had arrived]

The bracketed sequence in these two examples is a nominalized object clause governed by the same verb of mental attitude, *alda*, translated in English by ‘know’ (60a) and ‘think’ (60b) to help bring out the factivity effect of LEUL-marking. In (60a), the LEUL-marked complement clause stands as an f-structure constituent conveying presupposed information — we assume it to be topic-bound; in (60b), the bare nominalized complement clause is contrastively construed as nonfactive and incorporated into the adjunct clause which we analyse as lacking f-structure. Note, correlatively, that the adjunct clause is construed in (60b) as a direct-perception report. If our description of (60a,b) is correct, we may conclude that LEUL-marking generally signals f-structure constituency, but not necessarily focality — although it does correlate with focality in a majority of cases.

4.2.3. DOM, f-structure, and markedness

Bare objects in Korean do not boil down to lexical compounds or idiomatic expressions. They are syntactically productive and regularly contrast with LEUL-marked objects in a way predicted by the generalizations in (36): LEUL-marked objects are f-structure constituents while bare objects are not. The contextual factors which contribute to favour or disfavour the licensing of bare objects include selectional restrictions and subject marking. More generally, any factor which disfavors f-structure incorporation of the object, correlatively favours its LEUL-marking, and vice versa. Consider for example (61):

- (61) Minna-neun nachseo -n dosi -leul
 Minna TOP new REL city LEUL
 bangmunha -l ttae mada,
 visit REL time every
 daesongdang *(-eul) meonjeo chaj -neun -da.

cathedral LEUL first look for PRS DEC
 ‘As for Minna, every time she visits a new city,
 she first looks for the cathedral.’
 [Minna]_{TOP} first looks for [(the) cathedral]_{FOC}

This context clearly requires the object ‘the cathedral’ to be singled out as an f-structure constituent and placed under focus, hence it cannot be realized as bare.

Let us see how our own descriptive assumption regarding DOM in Korean, viz. (36), might be articulated with the corpus-study generalizations summarized above in (7), and with Aissen’s general theory of DM. Interpreted in the light of (36), the corpus-study generalizations in (7) first indicate that objects are more frequently incorporated in f-structure if they are morphologically light (7a) and linearly adjacent to the verb (7b): this is not altogether unexpected. We however suspect that these two statistical results only hold when OV strings are construed as denoting classified activities. When such is not the case, bare objects are internally unrestricted, and may then be morphologically heavy or linearly separated from the V, as in (62):

- (62)a. \emptyset sagwa-leul masissge meog -eoss -ni?
 2SG apple LEUL with pleasure eat PST Q
 ‘Did you enjoy eating THE APPLE?’
 Q [you enjoyed eating [<(the) apple>_{FOC}]_{TOP}]
- b. \emptyset sagwa masissge meog -eoss -ni?
 2SG apple with pleasure eat PST Q
 ‘Did you enjoy (your) apple-eating?’
 Q [you enjoyed apple-eating]

What statistical results thus suggest is that bare objects are altogether more frequent under activity-denoting readings. This might be correlated with the lexicalized or idiomatic character of many OV strings, some of which might recur in the scanned corpora.

Corpus-study results further indicate that objects are more frequently realized as bare when they denote inanimates (7c) and are construed as indefinite (7d), nontopical (7d) and nonfocal (7e). In the light of (36), these generalizations should be examined separately. That bare objects should be neither topical nor focal is straightforwardly predicted by (36), which states that these constraints should suffer no violations. On the other hand, inanimacy and

indefiniteness are but statistical tendencies for bare objects (unverified by (8b), (9b), (12b), (59b)), which might again correlate with the recurrence of idiomatic activity-denoting OV strings in the scanned corpora.

Corpus studies finally indicate that bare objects are characteristic of informal style, as opposed to written, formal style. As regards Japanese, this result is confirmed by Aissen (2003), who gives written Japanese as a non-differential object marking language — one in which objects get systematically marked. According to our own corpus research, this seems true of written Korean in root declarative clauses, where objects generally seem to fall under sentence focus. However, in root clauses where focus falls on some other constituent, as in (63), or in embedded clauses, as in (60) or (64), bare objects are perfectly available even in written style:

- (63) Minna-neun sageon dangsi icheung -eseo chaeg ilg-go iss -eoss -da.
 Minna TOP incident moment second floor LOC book read PROG PST DEC
 (i) ‘When the incident occurred, Minna (she) was book-reading
 ON THE SECOND FLOOR.’
 (ii) ‘Minna (she) was book-reading on the second floor WHEN THE INCIDENT
 OCCURRED.’
- (64) Minna_z-neun [∅ cheongso ha -l -ttae -mada] ul-eoss-da.
 Minna TOP house-cleaning do REL time every cry PST DEC
 ‘Minna used to cry every time she cleaned the house (did house-cleaning).’

We saw, on the other hand, that a number of bare subjects and objects occur in utterances which typically pertain to spontaneous spoken language. These should naturally fail to appear in written style.

Summarizing, it seems that the descriptive generalizations proposed above in (36) are altogether consistent with the results of corpus studies on Japanese and Korean bare objects. Our own findings regarding DOM may be predicted under Aissen’s theory, provided we assume, as we did for subject marking, that a constraint penalizing bare topics and foci outranks all other constraints in the grammar of Korean.

5. Concluding remarks: f-structure, markedness, transitivity, and the nature of case-markers

The central descriptive assumption proposed in this study is that Differential Marking of subjects and objects is ruled, in Korean, by the double constraint phrased in (36), which crucially applies at the level of focus structure. A subset of bare objects are restricted as to their internal make-up and form OV strings denoting classified activities: due to their lexicalized or idiomatic character, a number of such OV strings might be recurrent in scanned corpora, leading to the low-animacy/low-definiteness tendencies statistically associated with bare objects. Bare objects however also productively occur in contexts where they are unrestricted as to their syntactic content, exhibit neither lexicalization nor idiomaticity, and do not form activity-denoting OV strings. Like bare subjects, internally-unrestricted bare objects are insensitive to the Animacy and Definiteness scales on which Aissen bases her theory of markedness. It would however be possible to reconcile Aissen's theory with our own results, should we assume that prominence and markedness are assessed in Korean not in terms of Animacy and Definiteness, but in terms of f-structure constituency:

(65) f-structure constituency scale

+fsc > -fsc

(fsc: f-structure constituency)

If our above descriptive results are correct, the prominence scale in (65) should outrank the Animacy and Definiteness scales in the grammar of Korean DM. But this approach might end up throwing some doubt on the validity of Aissen's theory of DM, since we saw that Korean — a language which, we argued, does NOT assess markedness along the Animacy and Definiteness scales — provides statistical results which seem to CONFIRM Aissen's theory (cf. (7)). Korean thus leads us to suspect that statistical results based on corpus studies might be misleading. Another result which might be problematic for Aissen's theory is that no markedness reversal seems to be observed in Korean between DSM and DOM: objects do not need to stand as f-structure constituents any more than do subjects (and conversely). We have argued that DSM and DOM equally abide by the generalizations phrased in (36): unmarked subjects and objects fail to be construed as f-structure constituents. It follows that some clauses (e.g. the one quoted above the Introduction) altogether fail to have internal f-structure, a result we have claimed to be consistent with Erteschik-Shir's theory of focus structure under the assumption that such clauses corelatively lack objective truth value.

Our results regarding DOM seem partly consistent with Hopper & Thompson's (1980) theory of transitivity, which views transitivity as a scalar property resulting from a set of

independent factors, one of which is object individuation. We could say that Korean clauses which contain bare objects are ‘less transitive’ than those which contain *LEUL*-marked objects, since zero marking correlates with no f-structure ‘individuation’. We could even generalize this idea and say that by signalling f-structure constituency, subject and object marking both and independently contribute to raise sentence transitivity. Another important ingredient of Hopper & Thompson’s theory is, however, the contrast between backgrounding and foregrounding: highly transitive clauses are assumed to typically convey foreground information. It seems correct to say that *LEUL*-marking generally correlates with foregrounding, since it usually signals focality, hence contributes to make the narrative move forward. We however saw that *LEUL*-marking may also correlate with topicality, hence with backgrounding (cf. ex. (60a)). And we also saw that subject marking correlates with f-structure individuation regardless of the topic/focus contrast — hence, regardless of the background/foreground distinction.

A final remark is in order regarding Case, since Aissen’s theory of DM is phrased as a theory of case marking. Although Korean *GA* and *LEUL* (Japanese *GA* and *O*) are commonly glossed as nominative and accusative case markers in the linguistic literature, we have avoided glossing them this way because their distribution and interpretive properties suggest that, like the topic particle *NEUN* (Japanese *WA*), they signal f-structure properties, rather than case properties. Note that our assumption that Korean *leul* is not an accusative-case marker seems equally relevant for *râ*, the Farsi ‘object marker’ (cf. Lazard 1994, 2001, Samvelian 2001), whose occurrence is not restricted to direct objects and whose function, according to Lazard (2001), is to signal ‘autonomy’ (which might mean ‘f-structure constituency’). Our assumptions regarding Korean are consistent with diachronic studies, which show that the Korean particles *GA* and *LEUL* are derived from ‘intensive’ or ‘emphatic’ morphemes — i.e. focus-markers — which have respectively specialized as subject and object markers. Our descriptive results regarding Korean suggest that at least in some languages, the grammar of Differential Marking and Semantic Incorporation pertains to f-structure, rather than s-structure and Logical Form. It might therefore be a good idea to return to the various ‘case markers’ of DM languages, to work at clearly separating case-marking from focus structure.

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