

Metalinguistic comparatives in Greek and Korean: Attitude semantics, expressive content, and negative polarity items

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Abstract

In this paper, we propose an analysis of metalinguistic comparatives (MCs) in Greek and Korean which combines an *attitudinal* semantics (Giannakidou and Stavrou 2008) with an *expressive* component. The comparative morpheme supplies the former, and the *than*-particle supplies the latter. Following Giannakidou and Stavrou, we assume that the MC involves the speaker's attitude towards the *than*-proposition— which is deemed less appropriate or preferable— and we discuss novel data from Korean showing a two way distinction between “regular” MCs (signaled by the particle *kipota*), and *negative* MCs (signaled by *charari* “rather” and the particle *nuni*). We argue that the use of MC *than* particles, in all variants, brings about an individual's emotive state, and propose that the morphemes contain expressive indices in the sense of Potts 2007. Indices allow a range from mildly negative to very negative stance, so we capture the fact that expressive particles convey negativity, without positing negation in syntax— a result consistent with the fact that MC-*than* itself does not license strong NPIs that need negation. We further show that NPI sanctioning in comparatives is very limited, contrary to what is generally thought.

Besides NPI-sanctioning, this analysis has two, we believe, important implications. First, it allows the generalization that metalinguistic functions in language are indeed part of the grammar as a combination of attitude semantics and expressivity. Additionally, our use of expressive indices supports Potts's view of the expressive component as separate, but interacting, with the descriptive content. Finally, we show that the *than* particle is not vacuous (as is generally believed) but contentful: it is the locus of the interaction between descriptive and expressive meaning in the comparative.

1 Introduction: metalinguistic comparatives in Greek

Metalinguistic comparatives (MCs) are a topic that remained largely unexplored in the literature on comparatives. With the exception of very brief discussions (McCawley 1968, Bresnan 1973, Embick 2007), until recently very few works addressed the question of how MCs differ, if at all, from ‘regular’ comparisons of degrees. MCs were easy to think of as just non-canonical uses of regular comparatives, and just like with metalinguistic negation (Horn 1989), it was unclear if MCs belong to the realm of grammar proper to begin with.

In a recent paper, Giannakidou and Stavrou (GS) argue that MC in Greek are indeed grammatical creatures, with a syntax and semantics quite distinct from that of regular comparatives. Morphologically, MCs also differ from regular comparatives: in Greek, they are introduced by the complementizer *para* ‘than’:

- (1) Ta provlimata su ine perissotero ikonomika **para** nomika.
 the problems yours are more financial than legal
 ‘Your problems are financial more than legal.’
 ‘Your problems are financial **rather** than legal.’

Para comparatives have the meaning associated with metalinguistic comparison, reinforced in the English example with the order reversal between *financial* and *more*, which is only allowed in MC. Another good paraphrase, as we see, is with *rather*. The sentence in (1) is intended to convey that, as McCawley puts it: “it is more appropriate for me to say that your problems are financial, than to say that your problems are legal.”

The *than* used—*para*— is lexically distinct from the regular comparative “than’ *apoti*. Here is another example:

- (2) O Pavlos ine perissotero filologhos **{para/apoti}** glossologhos.
 the Paul is-3s more philologist than linguist
 ‘Paul is more of a philologist than he is a linguist.’
 ‘Paul is a philologist *rather* than a linguist.’

Using *para* is optional; but when *para* is used, the sentence is not simply a variant of the *apoti* comparative. Sentences with *para* are more emphatic, expressing disapproval or dispreference towards the *than* part; and this is the case also in Korean where designated complementizers are likewise used, as we see later. The use of *rather* conveys some kind of emphatic dispreference too, and may imply that the speaker believes John to be not be a philologist at all.

GS present very specific differences between regular comparatives and metalinguistic ones, which we will review in section 2, since they will form the basis for our identification of two types of MCs in Korean in section 3. In section 2.9, we give the semantics of GS that will serve as the basis for our discussion, and in section 3 we further define a negative version of MC, lexicalized by *charari* in Korean. In section 4, we augment the attitudinal semantics with expressive indices, which we treat as the contribution of the *than*-particles and which, we believe, are responsible for the emphatic character of MC comparatives. We conclude with discussion of NPI sanctioning. We show that the previous literature has considerably overestimated the occurrence of NPIs in comparatives, and often misidentified free choice items as NPIs. Strong NPIs are overall excluded in the comparative, regular and metalinguistic alike, and only the very weak NPI type (*any*) can be *rescued* (in the sense of Giannakidou 2006) there, not *licensed*. The use of the negative comparative *charari* “rather” in Korean will be shown to save the day, as expected by the analysis we give in 3.7. This result captures the role of English *rather* in licensing NPIs too. Greek lacks this type of negative MC, NPI licensing will thus uniformly be impossible in comparatives.

2. How metalinguistic comparatives differ from ‘regular’ comparatives

In the literature on Greek comparatives (Stavrou 1982, Hila-Markopoulou 2007, Merchant 2006), two types are distinguished: a **clausal** one, introduced by the complementizer *ap-oti* “than.wh” (with a variant *aposo* for amounts), and a **phrasal** one, introduced with *apo*. GS offer arguments that *para*- clauses are clausal comparatives that undergo ellipsis, just like *apoti*, and

we will adopt this position here (though the semantic analysis we propose can also be cast out in a framework that does not impose strict parallelism between syntax and semantics, and allows a non-propositional syntax to map onto propositional semantics). In terms of the form of the compared constituent, two types are distinguished: (a) a **synthetic** form, based on the bound morpheme *-(o)ter-* attached to the adjectival stem and followed by the inflectional affix, and (b) two **analytic** forms consisting of the free morphemes *pjo* or *perissotero* ‘more’ followed by the adjective. The two ways of forming comparatives (adjectives/adverbs) in Greek are normally in free variation (with the notable exception of *para* comparatives, where only the analytic form is allowed, as we see shortly):

Clausal; synthetic

(3) I Kiki ine psiloteri apoti i Ariadhni.
 the Kiki is taller than the.nom Ariadne

Clausal/phrasal; analytic

(4) I Kiki ine pjo psili {apo tin/apoti i} Ariadhni.
 the Kiki is more tall than the.acc/than the.nom Ariadne
 ‘Kiki is more tall than Ariadne.’
 (5) I Kiki ine perissotero psili {apo tin/apoti i} Ariadhni.

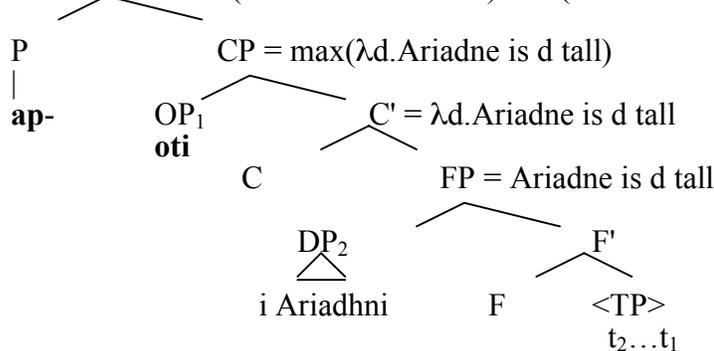
We see here that *apo* assigns accusative, but *apoti* preserves the case of the remnant (in this case, nominative).

Clausal/phrasal; synthetic

(6) I Kiki pezi kithara kalitera {apo tin/apoti i} Ariadhni.
 the Kiki plays guitar better than the.acc/than the.nom Ariadne
 ‘Kiki plays the guitar better than Ariadne.’

We assume, following Merchant (2006), that *apoti* comparatives involve clausal ellipsis with movement of the remnant to the Specifier of FP, as illustrated below:

(7) PP = max(λd .Ariadne is *d* tall) (Merchant 2006)



apoti i Ariadhni ‘than Ariadne <is *d*-tall>’

Apoti comparatives, in this structure, end up denoting the (maximal) degree *d* to which a property holds; this degree serves as the standard of comparison (for various implementations of

see Kennedy 1997, Heim 2000, and references therein). *Para* clauses, GS argue, do not involve degree abstraction of the kind we find in regular comparison.

With *para*, the degree adverbial is usually the synthetic comparative form of the adverb *poli* ‘much’—*perissotero*—, but it can also be (more rarely) its analytic counterpart *pjo* ‘more’, the base adverb *poli*, and quite often *kalitera* ‘better’. *Kalitera* comparatives sound a bit more emphatic and “negative”. What appears after *para* can belong to various syntactic categories:

- (8) Perissotero xazevi para dhjavazi. (TP)
 more is goofing off than studying
 ‘He is goofing off rather than studying.’
 [‘It is more accurate to say that “he is goofing off” than to say that “he is studying”.’]
- (9) Perissotero taksidhevi me to treno para me to leoforio. (PP)
 more travel-3sg with the train than with the bus
 ‘He travels more with the train than with the bus.’
- (10) Kalitera na pijeno ekdhromes para na kathome brosta (CP)
 better to go excursions than to sit in front
 stin tileorasi.
 to-the TV
 ‘I prefer going on trips rather than sitting and watching TV.’
- (11) Kalitera na se dino para na se taizo!
 better to you dress than to you feed
 ‘I would rather clothe you than feed you.’
 [= It costs me more to feed you than to clothe you—i.e., you eat a lot!]

We see here that the *para* clause can be anything from a full sentence (CP), with no ellipsis, to a TP or PP. We now review the asymmetries between *para* and *apoti* clauses that GS noted, and which motivates the attitude semantics we lay out in 2.9.

2.1 *Para* does not express “regular” comparison

The point that the *para* comparative does not express “regular” comparison becomes clear when we consider the simplest case of predicative comparative:

- (12) * I Kiki ine pjo psili para i Ariadhni.
 the Kiki is more tall than the Ariadne
 [Intended: ‘Kiki is taller than Ariadne.’]

Unlike the *apo/apoti* versions mentioned earlier, this sentence cannot mean: the degree to which Kiki is tall is greater than the degree to which Ariadne is tall. The fact that *para* cannot function as a predicative comparative suggests that there is no degree abstraction in the *para*-clause.

2.2 *Para* is incompatible with the synthetic comparative

Para is not compatible with the synthetic form of the comparative adjective or adverb, unlike *apo/apoti*, which is compatible with either the synthetic or the analytic form (Stavrou 1982):

- (13) *O Pavlos ine eksipnoteros para erghatikos.
'#Paul is smarter than he is industrious.'

The same effect has been observed for MCs in English (McCawley 1988, Embick 2007 and references). Again, this fact suggests no predicate degree abstraction of the regular kind in the *para*-clause.

2.3 No *para* in comparison of deviation

Para is not possible in a comparative of deviation:

- (14) I Mesoghios ine pjo vathia {apoti/*para} i Adhriatiki
the Mediterranean Sea is more deep than the Adriatic
ine rixi.
is shallow.
'The Mediterranean Sea is deeper than the Adriatic is shallow.'

The impossibility of *para* in the comparative of deviation is another manifestation of the general inability of this type of comparative to express a comparison between degrees of predicates. Additionally, these structures are telling of the role of focus in the *para* comparative: the *para* remnant must contain one term of comparison, not more, as is the case here where two pairs are compared: the Adriatic and Mediterranean, and the predicates *deep* and *shallow*. (More on the focus conditions on *para* in GS 2008, summarized here in 2.7).

2.4 *Para* cannot introduce a measure phrase

Para is incompatible with a measure phrase:

- (15) Kathe pektis s'afti tin omadha exi ipsos parapano
each player in this team has height more
{apo 1.95/*para 1.95}.
{than 1.95/than 1.95}
'Each player on this team is taller than 1.95.'

According to GS, such cases fail because the measure phrase cannot be (re)analyzed as a proposition. They also evidence that *para* clause cannot be phrasal ellipsis like the *apo* clause.

2.5 Comparative float

The comparative morpheme *perissotero* can “float”: it can precede or follow the contrasted constituent, but can also appear sentence-initially. In normal comparatives it can only immediately precede the adjective, as we see below. Recall also the flexibility of the English *more*, which in the case of the MC can follow the predicate:

- (16) a. Ine (perissotero) eksipnos (perissotero) para erghatikos
 is (more) clever (more) than industrious.
 b. Perissotero ine eksipnos para erghatikos.
- (17) Perissotero ine o Janis eksipsnos {*??apoti/*apo*} erghatikos.
 more is the John clever {than.what/than industrious}

This flexibility of MORE with *para* encourages us to think of it as a sentential adverb, rather than a degree operator on a predicate.

2.6 No extraction of the *para* constituent

While in regular comparatives involving *apo* the target of comparison may be moved to form an (unbounded) *wh*-question (of the usual type in Greek), what follows *para* cannot move:

- (18) a. Apo pjon ine perissotero eksipnos o Petros?
 than whom is cleverer (more clever) the Peter?
 b. *Para ti ine o Petros perissotero eksipnos?
 than what is the Peter more clever?
 (cf. *O Petros ine perissotero eksipnos para erghatikos*
 ‘Peter is more clever than industrious’)

- (19) *Para pjon ghnorizis perissotero tin Elena?
 than whom know-2sg more the Elena?

This is evidence, again, that *para* and its remnant do not behave like clausal ellipsis (*apo*).

2.7 No “correlate ambiguity” in the *para* comparative

Comparatives may be ambiguous if the target of comparison is expressed by *apo* (‘than’/‘from’), between what GS call the “subject correlate” and “object correlate” readings:

- (20) Katalaveno tin Elena perissotero apo ton adherfo tis.
 understand-1sg the Elena more than the brother her

Object correlate reading

- (a) I understand Elena more than I understand her brother.

Subject correlate reading

- (b) I understand Elena more than her brother does.

Clausal comparatives, on the other hand, only allow the object correlate reading. MC with *para* follows the *apoti* pattern and allows only the object correlate reading:

- (21) Katalaveno perissotero tin Elena apoti ton adherfo tis.
Unambiguous: ‘I understand Elena more than I understand her brother.’

- (22) Katalaveno perissotero tin Elena para ton adherfo tis.
Unambiguous: ‘I understand Elena more than I understand her brother.’

Para thus behaves, again, like a clausal comparative, a position that we adopt here.

2.8 Single remnant constraint

GS emphasize that *para* comparatives are followed by a single constituent. Contrast the sentences below with *apoti* and *para*:

- (23) a. Ghnorizo perissotero tin Elena apoti ghnorizo tin adherfi tis.
 know-1sg more the Elena than know-1sg the sister hers
 ‘I know Elena more than her sister.’
 b. *Ghnorizo perissotero tin Elena para ghnorizo tin adherfi tis.

The verb in the *para* version cannot be repeated, as it can in the *apoti* version. GS take it that the impossibility of V with *para* follows if we assume that the *para* phrase must be focus-marked, i.e. it must contain a feature [F]. This is a requirement not present with *apoti*, hence *para*, but not *apoti*, imposes strict syntactic parallelism in its ellipsis site (see Merchant 2001 as regards this point, and GS). Though the specifics of the implementation may be open to debate, we will not elaborate further on this point here, but assume that the single remnant constraint is somehow derivable from the more contrastive nature of the *para* comparison.

2.9 An attitude semantics for the MC

By choosing to use a comparative with *para*, the speaker expresses a disbelief or disapproval towards the *para*-proposition, and she believes the proposition expressed by the main clause to be more appropriate, desirable, or preferable. GS suggest that the MCs must have an attitudinal component in it, and define a metalinguistic MORE_{ML}, distinct from the “regular” MORE of the comparative which contains a propositional attitude. This attitude is anchored to an individual (hence the term *individual anchor* employed in the definition below); the anchor is typically the speaker.

We give below GS’s semantics for metalinguistic MORE_{ML}:

- (24) $\llbracket \text{MORE}_{\text{ML}} \rrbracket = \lambda p \lambda q \exists d [R(\alpha)(p)(d) \wedge d > \max(\lambda d' [R(\alpha)(q)(d')])]$ (GS: (40))

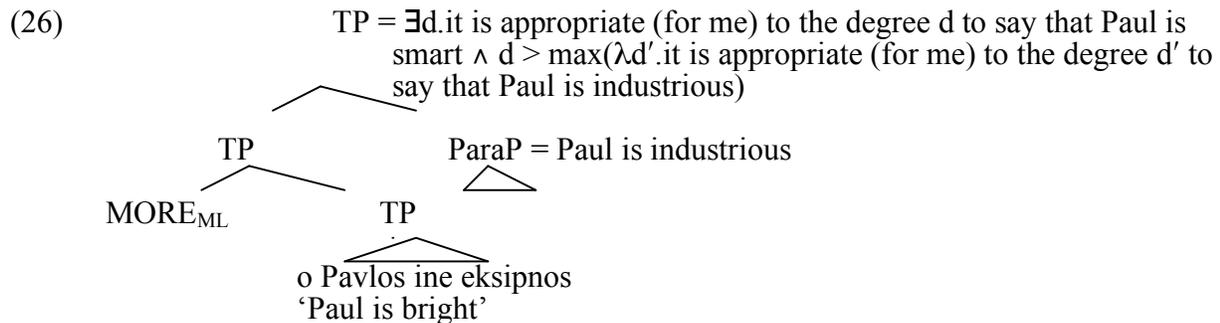
where R is a gradable propositional attitude supplied by the context: either an epistemic attitude meaning approximately “appropriate to say,” or an attitude expressing preference (desiderative or volitional); α is the individual anchor (see Farkas 1992; Giannakidou 1998, 1999 for coining the term) of the attitude.

Syntactically, MORE_{ML} is like a sentential adverb (recall its flexibility in positioning), and relates two propositions. In the semantics, MORE_{ML} relates two propositions in terms of how much they are R-ed by the speaker α : the proposition expressed by the main clause *p*, and *q*, the proposition of the *para* clause. MORE_{ML} compares the two propositions in terms of the degree to which α believes them to be appropriate, prefers them, or is willing to assert them. This individual is typically the speaker, as we said, and GS also emphasize that the individual anchor is implicit (i.e., it not syntactically present as an argument). This claim renders the individual anchor of the MC similar in status to Lasnik’s 2005 *judge*, i.e. the individual who is a

parameter for the evaluation of predicates of personal taste, *and* is also argued to *not* be syntactically present.¹ The *individual anchor* and the *judge* are very close in this respect; but the individual anchor expresses a parameter for evaluation more general than that of a judge (e.g. the individual anchor is crucial in mood choice and veridicality, Giannakidou 1998, 1999, a topic that we will not focus on here).

The semantics of GS, then, captures the perspective dependence of MC, by putting all the action in the comparative morpheme (no attitude is argued to be syntactically present). In this account, however, no special role is assigned to *para* apart from being selected by MORE_{ML}.

(25) O Pavlos ine perissotero eksipnos para erghatikos.
Paul is bright more than he is industrious.



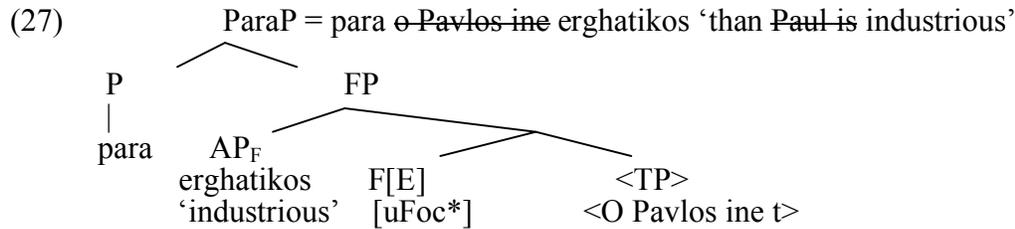
The structure of the *para* clause in particular is given in (45):

¹ GS note that other individuals may marginally be plausible, e.g. if we have a quantifier subject, as in *Kathe fititis pistevi oti o Pavlos ine perissotero glossologhos para filologhos*, ‘every student believes that Pavlos is a linguist rather than a philologist’. Laseroshn 2008 discusses similar cases of judges that give the illusion of being bound, and argues that this does not necessarily imply that the judge is syntactically present.

Additionally, in embedding, the main clause subject becomes indeed an available anchor:

- (i) I Maria pistevi oti o Janis ine perisotero eksipnos para ergatikos.
Mary believes that John is bright more than intelligent.

Here the MC can be anchored to the main clause subject, Maria, and need not be tied to the speaker only. This observation correlates again with Laseroshn’s (2008) that, although the judge is typically the speaker, occasionally judges can be third parties; and likewise, it is reminiscent of Potts’s (2007) observation that expressive meaning, though typically anchored to the speaker, in embedding, may get associated with the embedding individual. In both accounts, these extraordinary associations of the anchor do not threaten the general validity of the claim that the anchor is typically the speaker, nor do they motivate a claim that the anchor is syntactically present. We will not discuss these cases here, but see Laseroshn (2008) and Potts 2007 for more discussion.



We see that we have ellipsis of the TP in the *para* clause, consistent with the fact that clausal comparatives involve TP ellipsis in Greek.

In this paper we will work with the GS semantics for the MC just described, and propose a refinement by addressing the contribution of *para* itself. We claim that *para* adds to MORE an emotional stance towards *q*: the choice to use *para* signals a “negativity”, or disapproval on the part of the speaker towards *q*. The extreme case of this negativity is in fact lexicalized in yet another complementizer in Korean, as we see next—*nuni*—which combines with a more negative semantics for the MC, lexicalized in Korean in the comparative MORE *charari* which we will translate with *rather*, and define in 3.7.

Let’s move on now to the Korean data.

3 Two kinds of metalinguistic comparatives in Korean: a regular one, and a negative one

In the previous section, it was shown that there are regular and MCs in Greek, marked with distinct morphology: *apo/apoti* for regular comparatives and *para* for MCs. In this section, we identify a striking parallel in Korean. In this language too, morphologically distinct types of comparatives are revealed: *pota* for degree comparatives and *kipota* for MCs. But there is yet another kind of MC, introduced with *nuni* and selected by a special comparative morpheme—*charari* “rather”. We propose a semantics for *charari* in section 3.7 that renders it antiveridical. This semantics will explain why *charari*, but not regular MORE_{ML} can license strong NPIs (in 5.2). But first, we examine this connection between Greek and Korean comparatives more closely.

Before going into the details of MCs, let us present the basic properties of degree comparatives in Korean. While a degree comparative is marked by phrasal *apo* and clausal *apoti* in Greek, Korean adopts a comparative marker *pota* for both purposes. In a phrasal comparative, *pota* can be analyzed as prepositional, like *apo* in Greek, supported by the following three diagnostics. First, *pota* in (28) shows the ability of reflexives bound by the subject of the adjective to appear after it (Hankamer 1973). Second, pied-piping in phrasal comparatives indicates the prepositional property (Merchant 2006) of *pota* in (29). Third, the prepositional *pota* can introduce a measure phrase (2 meters) (30). On the other hand, *pota* is also a complementizer in a clausal comparative (31), which is normally followed by a free-relative clause marker *kes*.

Phrasal

- (28) a. No-one₁ is taller than himself₁.
 b. amwuto₁ casin₁-pota (te) ku-ci an-ta.
 noone self-than more tall-comp neg-Decl
 ‘Noone is taller than himself.’

- (29) a. Than whom did (you say that) Maria play(ed) guitar better yesterday?
 b. nwukwu-pota ney-ka malhal-ttay Mary-ka kita-lul te cal chinta-ko hays-ess-ni?
 who-than you-Nom say-when Mary-Nom guitar-Acc better play-Comp do-Pst-Q
- (30) Kim-un 2 mite-pota (te) ku-ta.
 Kim-Top 2 meters-than more tall-Decl
 ‘Kim is taller than 2 meters.’

Clausal

- (31) Kim-un [Lee-ka kun-kes]-pota (te) ku-ta. TPs
 he-Top [Lee-Nom tall-FRel]-than more tall-Decl
 ‘Kim is taller than Lee is tall.’

Notice also that the comparative predicates (*taller*) are formed in free variation with or without the comparative modifier *te* (*more*) in Korean regular comparative (28-31), just like the Greek analytic form (the synthetic form is unavailable in Korean). Hence, we assume that the standard marker *pota* is the one that contains a degree operator yielding an ordering relation between two degrees of properties, following the standard semantic analysis (von Stechow 1984; Larson 1988; Rullmann 1995; Kennedy 1997; Heim 2000).

On the other hand, MCs are marked by *kipota* in Korean, which corresponds neatly to *para* comparatives in Greek. In parallel to Greek *para*-clauses, the syntax and semantics of *kipota* clauses gives evidence that MCs involve two propositions in a coordination structure.

Kipota can combine with various types of constituents in Korean, just like Greek *para*-clauses. However, the metalinguistic comparative marker *kipota* is preceded by the declarative particle *la/ta* in (32-35), which supports the earlier observation about Greek, namely that the MC morpheme is a distinct lexicalization, which contrasts only propositions but not predicates.

- (32) Kim-un enehakca-la-kipota chelhakca-ita. Ns
 Kim-Top linguist-Decl-saying.than philosopher
 ‘Kim is more of a philosopher than he is a linguist.’
- (33) nay-ka cal anun saram-un kuneyuy oppa-la-kipota Lee-ita. DPs
 I-Nom well know person-Top her brother-Decl-saying.than Lee-Decl
 ‘I know Lee more than her brother.’
- (34) ku-nun konpuhan-ta-kipota nolkoiss-ta. TPs
 he-Top studying-Decl-saying.than goofing off-Decl
 ‘It is more accurate to say that “he is goofing off” than to say that “he is studying”.’
- (35) ku-nun pesu-lo-la-kipota kicha-lo yehayngha-nun pyen-ita. PPs
 he-Top bus-with-Decl-saying.than train-with travel-tend to-Decl
 ‘He travels more with the train than with the bus.’

Next, we show that the asymmetries between *para*- and *apoti*-clauses in Greek hold between *kipota* and *pota* in Korean. We apply the tests we identified in the previous section for Greek, and show a very clear parallel between the two languages. (Two tests cannot apply: the single remnant and comparative float, for independent reasons that have to do with the structure of Korean). Then we identify a negative MC morpheme *charari* in 3.8, and propose for it a variant of that renders is negative, and predicts that it can license NPIs.

3.1 *Kipota* does not express “regular” comparison between degrees

In parallel to Greek *para* comparatives (2.1), *kipota* is ungrammatical in a regular comparison between degrees (36). As we see, *pota* is fine:

- (36) Kim-un Lee-*kipota/pota ku-ta.
Kim-Top Lee-saying.than/than tall-Decl
(Intended: Kim is taller than Lee.)

3.2 *Kipota* is incompatible with overt ‘more’

As noted earlier, synthetic comparatives are unavailable in Korean. Rather, the difference between regular comparatives and MCs arises in terms of the availability of *te* (“more”). While *te* is totally optional in regular *pota* comparatives, *kipota* is incompatible with it, as we see in (37). This strongly suggests that, just like Greek *para*-clause, there is no degree abstraction in *kipota*-clause.

- (37)* Lee-nun pucirenhata-ta-kipota te ttoktokha-ta.
Lee -Top industrious-Decl-saying.than more smart-Decl
‘Lee is clever more/rather than industrious.’

We take the unavailability of *te* “more” here to be additional evidence for the current assumption that MORE_{ML} is abstractly present in normal circumstances. Furthermore, the existence of abstract MORE_{ML} will soon be justified by the overt morphological presence of a negative MORE_{ML} *charari* (rather), that will be discussed in section 3.7.

3.3 No *kipota* in comparison of deviation

Although more than one predicate can be compared by regular *pota*-clause, metalinguistic *kipota*-clause does not show a comparison of deviation, just like Greek *para*.

- (38)* ciewunghay-nun aduriahay-ka nac-kipota kip-ta.
Mediterranean-Top Adriatic-Nom shallow-saying.than deep-Decl
‘The Mediterranean Sea is deep more than the Adriatic is shallow.’

3.4 *Kipota* cannot introduce a measure phrase

In contrast with regular *pota*, and just like Greek *para*, metalinguistic *kipota* cannot introduce a measure phrase.

- (39) *Kim-un 2 mitei-kipota ku-ta.
Kim-Top 2 meters-saying.than tall-Decl
‘Kim is tall more than 2 meters.’

3.5 No extraction of the *kipota* constituent

Extraction of the *kipota* constituent is not allowed (40b) in contrast with the *pota* constituent (40a). Thus, we take this evidence to argue for a coordinate structure constraint and non-phrasal analysis of *kipota* comparatives, just like for Greek *para* comparatives.

- (40) a. nwukwu-pota Peter-nun te ttokttokha-ni?
 whom-than Peter-Tom more clever-Q
 ‘Than whom is Peter cleverer?’
 b. *nwukwu-la-kipota Elena-nun Mary-wa talmass-ni?
 whom-Decl-saying.than Elena-Top Mary-with resemble-Q
 ‘Whom does Elena resemble more than Mary?’

3.6 No “correlate ambiguity” in the *para* comparative

Observe that Korean *pota*, just like Greek *apo/apoti*, shows a correlate ambiguity in a degree comparative (41).

- (41) Na-nun kunyeuy oppa-pota Elena-lul te cal ihayhan-ita.
 I-Top her brother-than Elena-Acc better understandDecl

Object correlate reading

I understand Elena more than I understand her brother.

Subject correlate reading

I understand Elena more than her brother does.

However, such correlate ambiguity disappears in a *kipota*-comparative (42), which confirms that MCs with *kipota* are clausal comparatives.

- (42) Na-nun kunyeuy oppa-la-kipota Elena-lul te cal ihayha-nunpyen-ita.
 I-Top her brother-Decl-saying.than Elena-Acc better understand-tend to-Decl
 Unambiguous: I understand Elena more than I understand her brother.

3.7 From *kipota* to *nuni* and *charari*: a more negative MC

Based on the semantic and syntactic asymmetries observed so far, we will claim that the *kipota*-clause is like a *para*-clause: it introduces the second argument of MORE_{ML}. Crucially, *kipota* is morphologically decomposed in *ki* (saying) and the regular comparative marker *pota* (than), and we take this composition as additional support that a *kipota*-clause compares two propositions. Therefore, the derivation of the following *kipota*-clause (43) follows what we described earlier for the Greek *para*-clause, expressing a contrast between two propositions based on a speaker’s preference or judgment.

- (43) a. Lee-nun pwucirenha-ta-kipota ttokttokhata-ta.
 Lee-Top industrious-Decl-saying.than bright-Decl
 b. O Lee ine perisotero eksipnos para ergatikos.

‘Lee is bright more than he is industrious.’

In Korean, there is no overt comparative morpheme, so we will hypothesize that MORE_{ML} is there abstractly—a claim further supported by *charari*, and by the fact that *te* is used in the regular *pota* comparative.

At this point we would like to bring into the discussion the case of *nuni*. *Kipota*, just like Greek *para*, is emphatic and expresses dispreference towards the proposition it embeds—the hallmark of MC; but this dispreference does not imply negation in the clause. In the sentence above, for example, I am not denying that that Lee is industrious—at least not by entailment (as was noted in GS already). The sentence may be uttered in a context in which I may believe that Lee is not industrious, but it is also compatible with a context where I believe that he *is* to some degree industrious. When the speaker wants to express a completely negative stance, *nuni* will be used in combination with *charari*. *Charari* is equivalent to *rather*, as can be seen in the translation below:

- (46) Ku-wa kyelhonha-nuni (charari) nay-ka cwukkeys-ta.
him-Dat marry-rather than rather I-Nom die-Dec
I would rather die than marry him’.

(47) It is not preferable for me that I marry him and it is preferable that I die.

As paraphrased in (47), the combination of *charari* and *nuni*-clause brings about a completely negative attitude: the speaker’s strong unwillingness to accept the first proposition (that I marry him) by juxtaposing itself with an extremely dispreferred proposition (that I die). In Greek, the effect of *nuni* and *charari* is achieved with *para* and *kalitera*. But notice that in this case, the use of *apoti* is excluded:

- (48) Kalitera na pethano {para/*apoti} na ton pandrefto!
I would rather die than marry him!

The fact that in Greek *apoti* is excluded suggests that we are dealing here with a qualitatively different comparison from regular MC, where *apoti* and *para* are generally interchangeable. The use of the comparative adverb *charari* “rather” in Korean can be taken to contribute to the more negative import of this type of MC.

In Korean grammars, we find the lexical definition of *charari* as “an adverb used when selecting a relatively better option than the other one, while implying that both options are not so preferable” (Dictionary of the *National Institute of Korean Language*). From this, we can infer that *charari* lexically entails some kind of negation of the proposition it embeds. We define *charari* below as the negative variant of MORE_{ML} which imposes a total dispreference of the *q* argument, i.e. the proposition supplied by the *nuni*-clause. The negative component is added as a third conjunct in the underlined part in the formula in below:

(28) Negative MORE_{ML} (Neg-MORE_{ML})

$\llbracket \text{charari} \rrbracket = \lambda p \lambda q \exists d [R(\alpha)(p)(d) \wedge d > \max(\lambda d' [R(\alpha)(q)(d')]) \wedge \underline{\max(\lambda d' [R(\alpha)(q)(d')])} = 0]$

where R is a gradable attitude provided by the context, expressing preference (desiderative or volitional); α is the individual anchor of the attitude.

This definition renders *charari* a narrower MC than MORE_{ML} – namely one that asserts zero preference of q by the speaker. Greek MC with *para* is obviously compatible with this meaning, and indeed in cases like (48) only this meaning is triggered. The question arises then: should we posit a covert Neg-MORE_{ML} in this case, or is it adequate to derive the effect as an implicature with *para*? Consider, in this connection, that although *charari* can be elided in normal circumstances, it becomes obligatory in contexts where negative force needs to be explicit, for instance with NPIs, as we shall see in section 5: with no *charari* present, there will be no NPIs that need negation to be licensed, and the *para*-clause generally does not license this kind of NPI. Our suggestion then will be that it is not desirable to posit a covert Neg-MORE_{ML} with *para*, and that the negative force must be derived as an implicature in this case. The implicature cannot be cancelled because *para* also contributes a negative expressive index, as we argue next, which would conflict with the cancellation of negativity. *Rather*, on the other hand, we will argue may indeed be a lexicalization of Neg-MORE_{ML} in English.

We have evidence, then, from Korean, Greek, and English that, when lexicalized, MC affects two positions: the comparative morpheme itself (MORE_{ML}, or Neg-MORE_{ML}), and the *than*- position. We find distinct lexicalizations in either or both positions, as we saw. We have given a semantics for two variants of MORE_{ML}, but thus far the role of the particle has remained unclear. In the next section, we will ask the question of what exactly the contribution of the particles *para*, *kipota* and *nuni* is, and we will propose that they augment the attitudinal semantics of the MC with expressive meaning. We are suggesting, then, that MC particles, belong to the realm of the expressive.

4. The expressive dimension of MC: the role of the metalinguistic *THAN*

When a speaker chooses to use a metalinguistic *THAN*, the utterance becomes emphatic. The lexical choice is thus not redundant, or a mere reflex of syntactic selection (as suggested in GS), but rather a reflection of the speaker’s emotive stance. The regular comparative morphemes—*apoti* and *pota*— contain no expressive meaning, and sentences with them, even in MC readings, are neutral and non-emphatic.

MC particles add the speaker’s heightened emotional perspective — a property typical of expressives such as *damn*, studied in Potts (2005, 2007). The hallmark property of expressives like *damn* and *bastard*, is that when uttered, they have “an immediate and powerful impact on the context” Potts (2007: 1). Almost invariably, “a speaker’s expressives indicate that she is in a heightened emotional state. They can tell us if she is angry or elated, frustrated or at ease, powerful or subordinated” (Potts 2007: 8). Potts call this property *perspective dependence*. In the semantics we are working with, MCs are indeed perspective dependent: they express an attitude of, typically, the speaker towards two propositions. The choice of particle in the comparative, additionally, in languages where there is a choice like Greek and Korean, signals the individual’s emotional state. Given that metalinguistic uses are also available with the regular

complementizers, a speaker will choose to use *para* instead of *apoti* if she is in a more emphatic state, and likewise for *kipota*, and *nuni*.

Before offering our specifics of this idea we would like to elaborate just a little bit more on the properties of the particles that we believe render them expressives. Besides perspective dependence, MCs structures are: (a) independent but interacting with the descriptive content of the sentence; (b) non-displaceable, i.e. they predicate something of the utterance situation; and (c) speakers are never fully satisfied when they try to paraphrase the MC clause with the regular *apoti* and *pota* clauses. These are all typical properties of expressives (Potts 2007).

Independence. Expressive content contributes a dimension of meaning that is separated from the regular descriptive content:

(29) That bastard Kresge is famous.

This sentence asserts that Kresge is famous (descriptive meaning), and it also conveys that “Kresge is a bastard in the speaker’s opinion” (expressive meaning):

- (30) a. Kresge is famous. (descriptive meaning)
 b. Kresge is a bastard/bad in the speaker’s opinion. (expressive meaning)

One can accept the assertion as truthful without also accepting the characterization of Kresge as “bastard”. At a technical level, “this means that the expressive and descriptive meanings that that a sentence can convey should not be combined in single unit” (Potts 2007: 3). This independence does not mean that the two levels of meaning are not related: indeed, Potts argues that “some expressive meanings act as bridges between the two realms, by mapping descriptive content to expressive content”. This is exactly how we envision the function of the MC particles.

Nondisplaceability, ineffability. Expressives always tell us something about the utterance situation itself, and cannot be used to report on past events, attitudes or emotions (Potts 2007: 5). This is what we find typically with MC particles, especially when they express the heightened emotion, as in the negative case we discussed earlier:

- (31) a Kalitera na pethano **para** na ton pandrefto!
 I would rather die than marry him!

Korean, as we saw in section 3, employs *nuni* with *charari* (which may be dropped):

- (32) Ku-wa kyelhonha-**nuni** (**charari**) nay-ka cwukkeys-ta.
 him-Dat marry-rather than rather I-Nom die-Dec
 I would rather die than marry him’.

These sentences are very much tied to the here and now, and they can only be understood with the possibility of marrying an undesired person as very imminent. Likewise, in the sentence below, we understand the doubt about John’s intelligence to have to do with something currently under discussion with *para*, rather than being a mere generic statement.

- (33) O Janis ine perisotero ergatikos {para/apoti} eksipnos.
John is industrious more than he is intelligent.

A speaker would intuitively judge the version of this sentence with *apoti* and *pota*, as not saying exactly the same thing: the *para* and *kipota* versions feel emphatic, and certainly more “personal”. With the negative MCs, the effect of non-equivalence in terms of emphatic content is even stronger—to the extent that the *apoti* version is excluded, as we noted earlier.

Immediacy. Potts (section 2.5) argues that expressives as a class have the property of being like performatives: the act of uttering an expressive *is* the emotive performance, e. g:

- (34) That bastard Kresge was late for work yesterday.
But he is no bastard today, because he was on time.

The oddity of the continuation here is due to the fact that the speaker has indicated that he regards Kresge negatively, and then denied this without any explicit indication that he has changed his mind, or that Kresge has changed, etc. The facts with performatives are the same: *#I promise that I'll do the dishes later, but I refuse to wash the dishes later* is a contradiction. With *para*, denying the second conjunct is equally contradictory:

- (35) O Janis ine perisotero ergatikos para eksipnos.
John is industrious more than he is intelligent.
Ke pistevo ston idio vathmo oti ine eksipnos.
And I believe as strongly that that he is intelligent.

The continuation is infelicitous because I am asserting what I just denied by using the *para* clause: that my belief that John is intelligent is (much) less strong than my belief that he is industrious.

Expressive indices. Expressive indices are the main objects manipulated by expressive denotations. We are not going to elaborate on the whole system here, but go directly to the definition that Potts offers (Potts 2007: (37)):

- (36) An expressive index is a triple $\langle a \mathbf{I} b \rangle$, where $a, b \in D_e$ and $\mathbf{I} \in [-1, 1]$.

Expressive indices are the foundation for expressive domains, and are contained in expressives such as *damn*. These indices encode the degree of expressivity as well as the orientation of the expressive, and they are defined via numerical intervals $\mathbf{I} \subseteq [-1, 1]$. We can read $\langle a \mathbf{I} b \rangle$ as conveying that individual *a* is at expressive level \mathbf{I} for an individual *b*. Mapping emotional stance onto expressive intervals has the advantage of allowing flexibility from very neutral (if $\mathbf{I} = [-1, 1]$)—in Potts’s words, “*a* has no feelings for *b*”—to very negative ones. Emotive relations emerges as we narrow down \mathbf{I} to proper subintervals of $[-1, 1]$; the more positive the numbers, the more positive the expressive relationship, and conversely. For example:

- (37) a. $\langle \llbracket \text{tom} \rrbracket [-5, 0] \llbracket \text{jerry} \rrbracket \rangle$: Tom feels negatively toward Jerry
b. $\langle \llbracket \text{ali} \rrbracket [-8, 1] \llbracket \text{jerry} \rrbracket \rangle$: Ali feels essentially indifferent to Jerry

b. <[[kevin]] [0, 1] [[jerry]]>: Kevin is wild about Jerry

Expressive indices are just entities—this explains why they are not amenable to paraphrases (ineffability), but they have propositional implications: we see that from objects like <[[tom]] [-5, 0] [[jerry]]> we tend to infer propositions, in this case that *Tom feels negatively toward Jerry*. Importantly, the indices are built by relating two individuals by means of **I**; in our case, however, we will need to express the fact that an individual stands in an emotive relation to a proposition.

We noted that the emotional state is not constant across MCs, but ranges from mildly negative (*para, kipota*), to very negative (*nuni*). This is captured if we suppose that *para, kipota*, and *nuni* contain expressive indices. The interval contained in the index gives us precisely the variable “negativity” we need for our MC items; these, we claim, contain expressive relations between an individual and a *proposition*, and this is our innovation on Potts:

- (38) *Expressive indices of metalinguistic comparative complementizers*
Nuni, kipota and *para* contain expressive indexes <a **I** q>, where a is the individual anchor, q the proposition they embed, and **I** \subseteq [-1, 0].

Para and *kipota*’s index ranges through the negative part of the interval. We cannot allow it to range through the entire interval because *para* never expresses a neutral stance. The lexical entries for *para* and *kipota* are given below:

- (39) a. *para/kipota*: <t, ϵ > : *para/kipota* combine descriptive content *t* (the type of propositions) and expressive content ϵ .
- b. [[*para/kipota*]]c : $\lambda p.p$ (identity function); c is the context
- c. Expressive content of *para/kipota* in c:
- i. *Para/kipota* contain an expressive index <a **I** q>, where a is the individual anchor, q the proposition they embed; and
 - ii. **I** ranges between [-1, 0].

So, *para/kipota* carry indices that are negative, i.e. they do not exceed zero. It is not crucial for our purposes to go into the details of how descriptive and expressive meaning combine here—see Potts (2007). What is important is to note that the semantic (in the sense of truth conditional) content and the expressive remain independent: truth-conditionally *para/kipota*, and *nuni*, as we argue next, are mappings from propositions to propositions. The negative interval that they contribute in their index is *not* going to affect their truth conditional meaning—i.e. will not render them negative in the sense of antiveridical (Zwarts 1995, Giannakidou 1998). That is, having a negative emotive stance to a proposition does not imply negating that proposition. This is consistent with what we have in section 5, namely that expressive force alone does not suffice to license NPIs.

With *nuni* we have an even narrower interval: the length of **I** cannot range more than -5. This is the very negative part of the interval:

- (40) a. *nuni*: $\langle t, \epsilon \rangle$
- b. $\llbracket nuni \rrbracket^c = \lambda p.p$ (identity function); *c* is the context
- c. Exressive content of *nuni* in *c*:
- i. *Nuni* contains an expressive index $\langle a \mathbf{I} q \rangle$, where *a* is the individual anchor, *q* the proposition it embeds; and
 - ii. \mathbf{I} ranges between [-1, -5].

With *nuni*, it may even be plausible to say that only the lowest *point* in the interval (-1) is allowed as a plausible extension, but we will leave it open at this point as we want to narrow down our options that much.

In sum, our analysis claims that MC has two components: an attitudinal semantics, which is hosted in the comparative morpheme, as well as an expressive component that is manifested in the choice of *than*-particle. By embedding MC morphemes into the realm of expressives, our analysis achieves a natural coverage of at least this kind of metalinguistic interaction, and allows the hypothesis that perhaps *all* metalinguistic functions in language are manifestations of expressivity, or combinations of attitudinal semantics and expressivity like MCs. Future work will show if this generalization is feasible. Now we move on to test the advantages of such an approach in the domain of NPI licensing.

5. NPIs in clausal comparatives

In this section, we discuss NPI licensing in comparative clauses. NPI licensing in clausal comparatives (Hoeksema 1983, von Stechow 1984, Giannakidou 1998, among others) is generally thought to be relatively free.² It has been rather controversial, however, whether clausal comparatives are negative, downward entailing, or nonveridical—the properties that are responsible for NPI-licensing of various kinds. Giannakidou 1998 notices that it is not obvious how comparatives are nonveridical, and claims that the culprit in clausal comparatives is *implicated* negation in the comparative clause (rather than nonveridicality which is the most general licenser). NPIs are thus not licensed in comparatives, but merely tolerated, or *rescued* (to use the updated terminology of Giannakidou 2006), a strategy that items like *any* and English minimizers often resort to: e.g. in veridical environments such as the complements of factive verbs (positive and negative) like *John regrets that I have any friends*, or *I am glad we got any tickets at all!* To date, the claim that NPIs are licensed in clausal comparatives has remained at odds with the purely semantic approaches to NPI-licensing.

² Other kinds of polarity items, namely free choice items (FCIs), appear in *phrasal* comparatives (Giannakidou 1997, 1998, 2001). These items will be relevant in 5.1, but we will not discuss phrasal comparatives here. We do want to clarify, however, that when we see *any* in a phrasal comparative—e.g. *John is taller than anybody*, Greek “*o Janis ine psiloteros apo ojondhipote/*kanenan*” — it will be the free choice version of it, and will not take this fact to be relevant for *negative* PI licensing which is what we focus on here. FCIs are *not* subject to licensing by nonveridicality or antiveridicality (Giannakidou 2001), but need *i-alternatives* to be licensed; comparatives provide just that (Giannakidou 1997, 2001), they are thus perfect environments for FCIs.

If, as Giannakidou argues, NPI-licensing in clausal comparatives is merely a case of rescuing rather than licensing proper, then the appearance of NPIs in comparatives should be not routine, but marked or marginal. Also, only the very weak kind of NPI should occur—stronger NPIs, that need to be in the scope of an antiveridical expression at LF for licensing, should be excluded, since the clausal comparative contains no negation or other antiveridical expression.

What we see in this section confirms indeed that NPI-licensing in comparative clauses has been highly overestimated, and to a great extent confused with free choice item licensing. In comparative clauses, NPIs are severely limited: only NPIs of the weakest type appear, typically *any*, which is the weakest type (Giannakidou 2006). Greek weak NPIs, the *kanenas* series, are only marginally acceptable, and only in the *para* clause, not *apoti* (5.1). This picture is consistent with the idea that NPIs in clausal comparatives are due to rescuing; in Greek, this strategy is generally much less available than with English *any* and minimizers (Giannakidou 1998, 2006), and it can only be made available with MC, which brings in negativity in the pragmatic via the expressive indices.

When we move to strong NPIs, i.e. the ones that need to be in the scope of negation or an antiveridical operator (Giannakidou 1998), it becomes evident that these NPIs are excluded from clausal comparatives, regular and metalinguistic alike. We will illustrate with two kinds of strong NPIs in Greek and Korean: minimizers, and emphatic n-words—KANENAS and *amwu-to* in Greek and Korean respectively. These NPIs have been shown to be triggered only in antiveridical environment (Giannakidou 1998, 2000; Sells 2006; Lee et al 2000; Yoon 2008 among others), and are ungrammatical in both regular and metalinguistic comparatives, headed with *para*, *kipota*. Our comparable strong English NPI will be *either* which is also excluded from the comparative.

The non-licensing of strong NPIs is consistent with the semantics of MC we are assuming, which does not posit syntactic negation in the comparative clause. The negative expressive content we postulated on the complementizer does not render the clause antiveridical, since it does *not* contribute to the descriptive meaning. Notice also:

(41) * That bastard Kresge said anything!

This sentence is pretty bad because the negativity that comes from the expressive interval of *bastard* is not part of the descriptive content, where truth conditions are calculated. The sentence remains veridical, hence no licensing. Thus, it is important to emphasize that the particles themselves do not contain negation—just the negative expressive intervals. The expressive force alone is not sufficient to license NPIs.

Interestingly, the strong NPIs improve if *charari* is added, as we show in section 5.2. The semantics for *charari* that we proposed earlier (3.7), renders it antiveridical in the *nuni*-clause, so the improvement is unsurprising if NPI licensing is regulated by antiveridicality (Giannakidou 1998, 1999, to appear): *charari*, as a negative MC, is antiveridical. *Rather*, we take it, is exactly the same.

5.1. Non-free appearance of NPIs in comparatives

Giannakidou (1998) offers sentences like the one below as evidence that weak NPIs appear in clausal comparatives:

- (42) I Maria etrekse grigorotera apoti perimene kanenas.
Mary run faster than anybody had expected.

Kanenas is the weakest kind of NPI in Greek, licensed in nonveridical contexts (Giannakidou 1998, 1999). Though this sentence is indeed good, upon closer inspection, it turns out that *kanenas* is not so free in its distribution in comparatives. The following sentences have been judged as odd or ungrammatical (by a total of 7 native speakers, Giannakidou included):

- (43) ??/*I Maria diavase perisotera arthra aposa tis ixē protini *kanenas kathijitis*.
Mary read more articles than any professor suggested.
- (44) ??/*I Maria agapa ton Petro perisotero apoti ton agapa *kanenas simathitis tou*.
Mary loves Peter more than any of his fellow students.

(And likewise, for similar examples that we have tested with). Notice, crucially, the contrast with *any*, which is good. Just like *any*, in this case the FCI *opjiosdhipote* is also good, as we see:

- (45) I Maria diavase perisotera arthra {aposa/apoti} tis ixē protini *opjiosdhipote kathijitis*.
Mary wrote more articles than any professor suggested.

FCIs are routinely licensed in comparatives, phrasal and clausal alike (recall our earlier footnote; for full data see Giannakidou 1997, 1998, 2001). It makes sense, then to claim that the *any* we observe in our examples here is FCI. First, it can be paraphrased by *almost*; NPI-*any* cannot (Horn 2006):

- (46) a Mary wrote more articles than almost any professor suggested.
b ??/*Mary didn't buy almost any book.

Second, consider a context where we are talking about 3 professors—Frans, Jack, and Jerry. Imagine that Frans suggested 2 books, Jack 4, and Jerry 5. For our sentence with *any* to be true it has to be the case that Mary read more than 5. If Mary read 3 books, which is more than what *some* professor suggested, the sentence is false. (Thanks to Jason Merchant for discussion of this). This suggests that *any* is interpreted as a universal quantifier in this comparative, a typical interpretation of FCI-*any*. Heim 2000, and especially Schwarzcild and Wilkinson 2002 argue for a non-movement analysis of universal quantifiers in the comparative in order to derive precisely this reading. We will assume here that universality is derived via exhaustive variation over *i*-alternatives for *any*, as in Giannakidou 1997, 2001, and not via scoping of *any* above the comparative, a result consistent with the in-situ analysis of true universals just mentioned.

So we can generalize that only FCIs will be fine in regular clausal comparatives. The good case of *kanenas* originally cited in Giannakidou is an instance of arbitrary *kanenas/kanis* that has been reported for Greek (Giannakidou 1993, Veloudis 1982; this use is comparable to generic *Man, on* in German and French, and similar items in other languages).

NPIs thus do not appear in regular clausal comparatives. In English, this can be demonstrated with *either*, which is indeed an NPI, licensed only in a very narrow set of antiveridical environments (Giannakidou 2006; see Nathan 1999 for more extensive distribution):

(47) * John is taller than Bill (is) either.

Para clauses, on the other hand, seem to allow weaker NPIs like *kanenas* (as well as FCIs):

(48) Kalitera na mino spiti moni mou, para na miliso me {kanenan/opjondhipote}!
I'd rather stay home by myself than talk to anybody.

The more emphatic character of *para*—with the disapproval that comes from the MC, notice that the example here is more on the “negative” *nuni* side, reinforced by *kalitera* ‘better’—licenses indeed a global inference that *I'd rather not talk to anybody*, and this in turn can be thought of being responsible for *kanenas*.

The stronger kinds of NPIs, on the other hand, KANENAS, and minimizers, than need negation or antiveridicality, remain ungrammatical in the *para* clause:

(49) *Kalitera na mino spiti moni mou, para na miliso me KANENAN!
I'd rather stay home by myself than talk to anybody.

(50) *Kalitera na mino siopili, para na po KOUVENDA!
I'd rather be silent than say a word.

(Notice the contrast with English, to which we return.) We see a contrast in Greek, then, between the weak type of NPI that can be OK in MC clauses, and the stronger types that are excluded. This supports our view that there is no negation in the *para* clause, so NPIs will simply not be licensed. To the extent that *kanenas* can appear in *para* clause, we will claim that it is rescued in the sense of Giannakidou 2006:

(51) *Rescuing by nonveridicality* (Giannakidou 2006)

A PI α can be rescued in the scope of a veridical expression β in a sentence *S*, if (a) **the global context C** of *S* makes a proposition *S'* available which contains a nonveridical expression β ; and (b) α can be associated with β in *S'*.

Giannakidou 2006 claims that “association with a nonveridical proposition” means “be in the scope of a nonveridical expression at a level other than LF”, however we are to define it, perhaps at the expressive *Emph-layer* (suggested in Yoshimura 2007, building on Potts 2005). The global context *C* of *S* is the set of propositions that arise from *S* without necessarily being *entailed* by it. *C* thus contains the assertion (entailments), and presuppositions, implicatures. The negative proposition that is responsible for rescuing will be conventionally contributed by some expression in the sentence—in this case by *para* which contains a negative index.

Rescuing builds on what was called *indirect licensing* in earlier work (Giannakidou 1998, 1999). Most importantly, rescuing happens in violation of scope at LF—an idea consistent with Horn's 2002 *assertoric inertia*. Given that the option of rescuing exists, languages may exploit it to a varying degree for the various items. English seems to be more liberal than Greek in this respect, but Greek must resort to it in the case of MC. Crucially, only weak NPIs can be rescued, a fact consistent with what we observed here (KANENAS, “a word” were ungrammatical).

How about English? Why are minimizers and *any* fine in the *rather* clauses? We move on to the Korean data now, and show that *rather* and *charari*, as negative MCs, do an important job in actually *licensing* NPIs.

5.2. From Greek to Korean: NPIs in negative metalinguistic comparatives

Strong Greek NPIs, as we just saw, are excluded from clausal comparatives-- regular and metalinguistic alike. These NPIs must be in the scope an antiveridical expression (Giannakidou 1998) in the sentence, and in comparatives there is just no such expression. We illustrate here the situation in Korean, which is strikingly similar to Greek.

Strong Korean NPIs, like emphatic n-words KANENAS and minimizers, are ruled out in comparatives: *amwuto*, a strong NPI, and the minimizer *budge an inch* require an antiveridical licenser (i.e. negation). The regular comparative *pota-* and *apo(ti)-*clauses cannot supply it:

(52) * Kim-un **amwuto-pota** te ku-ta.
 Kim-Top anyone-than more tall-Decl
 ‘Kim is taller than anyone.’

(53) I Kiki ine pliloteri **apo** kanenan.
 The Kiki is taller than anyone

(54) * Sue-nun [Tom-i **kkwumccetokhan-kes]-pota** te manhi wumcikyess-ta
 Sue-top Tom-Nom budge an inch-FRel-than more much moved-Decl
 ‘Sue moved more than Tom budged an inch.’

(55) * I Kiki milouse perisotero **apoti** I Maria ipe leksi.
 * Kiki talked more than Maria said a word.

The ungrammaticality of strong NPIs also holds in MCs, irrespective of *kipota-* or *nuni*. Observe below that *amwuto* or *budge an inch* triggers unacceptability in both *kipota-*clause and *nuni-*clause (unless we add an overt negation inside the MC-clause).

(56) * na-nun [kuren-saramtul **amwuto** manna-**kipota**] cipey issko sipta.
 I-Top such-people anyone meet-rather.than home be want
 ‘I would rather stay home than meet anyone among such a crowd’

(57) * na-nun [kuren il-lo **kkwumcceкто ha-kipota**] kamanhi issko sipta.
 I-Top such task-for budge an inch-rather.than still stay want
 ‘I would rather stay still than budge an inch to do such a task.’

(58) * na-nun [kuren-saramtul **amwuto** manna-**nuni**] cipey issko sipta.
 I-Top such-people anyone meet-rather.than home be want
 ‘I would rather stay home than meet anyone among such a crowd’

(59) * na-nun [kuren il-lo **kkwumcceкто ha-nuni**] kamanhi issko sipta.

I-Top such task-for budge an inch-rather.than still stay want
 ‘I would rather stay still than budge an inch to do such a task.’

As noted earlier, the non-licensing of strong NPIs in MCs is a welcome result for our analysis, since it is consistent with our assumption that there is no negation in the comparative clause-- recall that the MC complementizers *kipota*, *nuni*, and *para* are claimed to contain negative expressive intervals, but this is not equivalent to containing syntactic negation.

There is, however, indeed a case of MCs that is antiveridical, and licenses NPIs: the negative MC, introduced by *charari*. Recall the semantics we gave for it in section 3:

$$(60) \text{ Neg-MORE}_{ML} \\ \llbracket \text{charari} \rrbracket = \lambda p \lambda q \exists d [R(\alpha)(p)(d) \wedge d > \max(\lambda d' [R(\alpha)(q)(d')]) \wedge \max(\lambda d' [R(\alpha)(q)(d')]) = 0];$$

where R is a gradable attitude provided by the context, expressing preference (desiderative or volitional); α is the individual anchor.

Rather, we suggested earlier, is also Neg- MORE_{ML} . This definition renders *charari* narrower MCs than MORE_{ML} – namely one that asserts zero preference of q by the speaker. This give antiveridicality for the *charari/rather* clause:

$$(61) \max(\lambda d' [R(\alpha)(q)(d')]) = 0 \text{ entails that } \neg R(\alpha)(q)$$

We thus expect that if *charari* is present, it will behave like any other antiveridical operator (negation, *without*) and licensed strong NPIs. This is indeed what we find: the otherwise unacceptable strong NPIs *amwuto* and *budge an inch*, in *nuni*-clauses notably improve when *charari* is present.

(12) na-nun [kuren-saramtul **amwuto** manna-nuni] charari cipey issko sipta.
 I-Top such-people n-person meet-rather.than **rather** home be want
 ‘I would rather stay home than meet anyone among such a crowd’

(13) na-nun [kuren il-lo **kkwumccekto ha-nuni**] charari kamanhi issko sipta.
 I-Top such task-for budge an inch-rather.than **rather** still stay want
 ‘I would rather stay still than budge an inch to do such a task.’

This is unsurprising in the semantics of *charari* we have suggested—where *charari* is the negative variant of MORE_{ML} .³ Native speakers seem to feel that the negativity of *nuni*-clause is weaker without *charari*, and definitely not strong enough to allow strong NPIs. *Nuni*, then, is just like *kipota* and *para*: the negative expressive index on its own cannot turn the environment

³ According to Potts (2007), repetition of expressives leads to strengthening the emotional state (e.g. *Damn, I left my damn keys in the damn car*) and consequently the expressive index is dramatically changed. In the same vein, we could say that the addition of *charari* (*rather*) to the *nuni*-clause (*rather*) renders it significantly enhanced in negativity. The key for NPI-licensing, however, is that *charari* itself is antiveridical.

antiveridical, and it is only the presence of a true antiveridical operator—*charari*—that can sanction NPIs.⁴

6 Conclusion

In this paper we offered an analysis of a largely unexplored area of comparatives: metalinguistic comparatives. We followed Giannakidou and Stavrou 2008 in adopting an attitudinal semantics for the comparative morpheme MORE_{ML} , and further suggested that the *than*-particle supplies an expressive dimension, in the form of a negative expressive index. Our evidence was drawn from Greek and Korean data. The parallel in metalinguistic comparative structures between these two typologically unrelated languages is striking.

We also proposed that there is a *negative* version of the metalinguistic comparative morpheme— $\text{Neg-MORE}_{\text{ML}}$, signaled by *charari* in Korean, and as we suggested, *rather* in English. We argued that $\text{Neg-MORE}_{\text{ML}}$ is antiveridical, and showed that it licenses strong NPIs in Korean, as expected by current theories of NPI-licensing (Giannakidou 1998, 2006, to appear). Greek does not lexicalize $\text{Neg-MORE}_{\text{ML}}$, hence strong NPIs are uniformly excluded from comparatives in this language. This variability in the meaning of MORE is consistent with a view where the meaning of what we think of as comparative MORE is not uniform, but rather it encompasses a family of related, but also distinct, meanings. English *rather* belongs to this family too.

Regarding NPIs in particular, it is important to emphasize a number of conclusions. First, we showed that the previous literature often confused free choice items for NPIs. Once we clear up this point, it turns out that NPI licensing in comparatives is actually very limited: true NPIs (i.e. strong ones) never appear in the comparative, and this holds for all clausal comparatives with the exception of $\text{Neg-MORE}_{\text{ML}}$. NPIs that appear in comparatives are only of the weakest type, i.e. NPIs that can be rescued (Giannakidou 2006), like English *any*, English minimizers, and very marginally in Greek only *kanenas* in the metalinguistic *para* comparative. Since there is no NPI-licensing in comparatives, there is no longer a need to show that comparatives are downward entailing or nonveridical (the two properties responsible for *licensing*)—a task that seemed truly impossible in the semantic theories of the comparative currently available.

Besides NPI-sanctioning, we would like to point out two more implications of our analysis. First, it allows the generalization that metalinguistic functions in language are indeed part of grammar: a combination of attitude semantics and expressivity. Our use of expressive indices supports Potts's view of the expressive component as separate, but interacting, with the descriptive content: it is separate because expressive content alone cannot license NPIs, but interacting, because expressive content can *rescue* NPIs (in the *para* and *rather* clause). Finally,

⁴ Notice that although *rather* allows minimizers, it is still not able to license strong NPIs in English: *either*, for example, remains ungrammatical with *rather*:

- (i) */?/? I'd rather remain silent than talk to John either!

If *rather* is a Neg-MC , as we are suggesting, this fact remains puzzling, and more research is needed to establish what the actual judgements with *rather* and strong NPIs are. It could be that *rather* is more like regular MORE_{ML} and that *any* and minimizers are good with it because they are rescued, a strategy these particular items in English (but not in Greek (Giannakidou 2006) or Korean) favor. At this point we will just remain undecided as to what exactly the proper analysis of *rather* is, but hope that our analysis will provide a solid basis for future inquiry.

we showed that the *than* particle is not vacuous (as is generally believed) but contentful: it is the locus of the interaction between descriptive and expressive meaning in the comparative.

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