

# Metalinguistic Comparatives in Greek and Korean: Attitude Semantics and Expressive Content

Anastasia Giannakidou  
Dept. of Linguistics  
University of Chicago

Suwon Yoon  
Dept. of Linguistics  
University of Chicago

giannaki@uchicago.edu

suwon@uchicago.edu

## Abstract

In this paper, we present a parallel between Greek and Korean in metalinguistic comparatives (MCs), and propose an analysis for both languages that combines an *attitudinal* semantics (building on Giannakidou and Stavrou 2008) with *expressive* meaning. The comparative morpheme supplies the former, and the *than*-particle supplies the latter. We discuss also data from Korean showing a two way distinction between “regular” MCs, and *antiveridical* MCs. 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. Our analysis has two implications: first, it allows the hypothesis that *all* metalinguistic functions in language are indeed part of the grammar in the particular way formulated here; second, our use of expressive indices supports Potts’s view of the expressive component as separate, but interacting, with the descriptive content: the *than* particle is not vacuous, but the place where descriptive and expressive meaning interact.

## 1 Introduction: metalinguistic comparative in English and 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, just like with metalinguistic negation (Horn 1989).

In a recent paper, Giannakidou and Stavrou (GS) argue that MCs in Greek are indeed grammatical creatures, with a syntax and semantics distinct from that of regular comparatives. In Greek, MCs are realized with the preposition *para* ‘than’, which is lexically distinct, as we see, from the regular clausal comparative *apoti*:

- (1) Ta provlimata su in 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.’
- (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.’

*Para* comparatives have the meaning of metalinguistic comparison, reinforced in English with the order reversal between *financial* and *more*, which is only allowed in MC, and the use of *rather*. The sentence in (1) is intended to convey that the speaker believes it is more appropriate to say that the addressee’s problems are financial, than that they are legal; likewise, (2) conveys that the speaker believes that the proposition “Paul is philologist” is more appropriate than the proposition “John is a linguist”.

Using *para* is optional mostly, 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. The use of *rather* in English, likewise, conveys some kind of emphatic dispreference too, and implies that the speaker believes John to be not a good linguist.

In this paper, we maintain that the lexicalization of MC observed in Greek is not an accident—Korean too, we show, exhibits a MC *than* like *para*: *kipota*. Strikingly, Korean lexicalizes additionally a “negative” comparative morpheme, *charari*, the analysis of which, we will argue, carries over to *rather*. The discussion proceeds as follows. First, in section 2 we present the properties of *para* and *kipota* comparatives which render them distinct from regular comparisons. In section 3, we give an attitudinal semantics for MCs, and in section 4, we further identify *charari* as an antiveridical (i.e. negative) version of MC. In section 5, we augment the attitudinal semantics with expressive indices (Potts 2007) that range over a negative interval. This is the contribution of the *than*-particles. We conclude with brief comments on NPI licensing—which we discuss more thoroughly in Giannakidou and Yoon 2008).

## 2 Metalinguistic Comparatives in Greek and Korean

In this section we summarize the properties of MCs following GS. In particular, the *than*-clause in the MC is clausal, and that it has undergone ellipsis (in the sense of Merchant 2006). In the literature on Greek comparatives (Stavrou 1982, Merchant 2006), two types are distinguished: a **clausal** one, introduced by *apoti* “than.wh” (with a variant *aposo* for amounts), and a **phrasal** one, introduced with *apo*. The *para* clause is a variant of the *apoti* syntactically.

Regarding the comparison forms used, in Greek, 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:

- (3) I Kiki ine psiloteri apoti i Ariadhni.  
 the Kiki is taller than the.nom Ariadne
- (4) I Kiki ine {pjo/perissotero} psili apoti i Ariadhni.  
 the Kiki is more tall than the.nom Ariadne  
 ‘Kiki is more tall than Ariadne.’
- (5) I Kiki pezi kithara kalitera apoti i Ariadhni.  
 the Kiki plays guitar better the.nom Ariadne  
 ‘Kiki plays the guitar better than Ariadne.’

With *para*, the degree adverbial is usually the synthetic of the adverb *poli* ‘much’—*perissotero*—, but it can also be *pjo* ‘more’, the base adverb *poli*, and quite often *kalitera* ‘better’. *Kalitera* comparatives sound a bit more emphatic and “negative”, as we see later. The *para* remnant can belong to various syntactic categories:

- (6) 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”.’]
- (7) 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!]

Korean employs *pota* for both clausal and phrasal comparative (for diagnostic of the prepositional use of *pota* see Giannakidou and Yoon 2008). In the clausal comparative *pota* is a complementizer, preceded by a free-relative clause marker *kes*.

- (8) Kim-un [Lee-ka khun-kes]-pota (te) khu-ta. (clausal)  
 he-Top [Lee-Nom tall-FRel]-than more tall-Decl  
 ‘Kim is taller than Lee is tall.’

The comparative predicates (*taller*) are formed in free variation with or without the comparative modifier *te* (*more*) in Korean regular comparative, just like the Greek analytic form (the synthetic form is unavailable in Korean). Hence, we assume that the *pota* clause contains an operator yielding an ordering relation between two degrees of properties, following the standard semantic analysis (von Stechow 1984; Kennedy 1997; Heim 2000 among others).

In parallel to Greek, MCs are also lexically marked in Korean: by *kipota*:

- (9) Kim-un enehakca-la-*kipota* chelhakca-i-ta. (N)  
 Kim-Top linguist-Decl-saying.than philosopher-be-Decl  
 ‘Kim is more of a philosopher than he is a linguist.’
- (10) Ku-nun kongpwuhan-ta-*kipota* nolkoiss-ta. (TP)  
 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”.’

Importantly, clause types in Korean are distinguished by the use of sentence-ending illocutionary force markers such as interrogative *ni*, exclamative *ela*, and declarative marker *la* or *ta*. Since the role of these markers is to indicate the communicative purpose of a *sentence*, they only attach to a “propositional” content rather than a predicate. For instance, even when the declarative *ta* is attached to an apparent noun form as in *Sue-ta* (Sue-Decl), it is interpreted as ‘It is Sue’ rather than ‘Sue’. (This is unsurprising considering that Korean is a pro-drop language and the expletive subject ‘it’ is only optional.) Our *kipota* comparatives, as we see, are accompanied by *la* or *ta*, which mark them formally as clausal.

With this basic background, we can now proceed to show how *para* and *kipota* comparatives differ from regular comparatives in Greek and Korean.

## 2.1 *Para* and *Kipota* do not express “regular” comparison

Consider the simplest case of predicative comparative:

- (11) \* I Kiki ine pjo psili para i Ariadhni.  
 the Kiki is more tall than the Ariadne  
 [Intended: ‘Kiki is taller than Ariadne.’]
- (12) Kim-un Lee-{\**kipota/pota*} khu-ta.  
 Kim-Top Lee-saying.than/than tall-Decl  
 (Intended: Kim is taller than Lee.)

These sentences cannot be used to convey that the degree to which Kiki/Kim is tall is greater than the degree to which Ariadne/Lee is tall. The impossibility of *para* and *kipota* as predicative comparatives suggests that there is no degree abstraction of the regular kind in the *para*-clause.

## 2.2 Incompatibility with the synthetic comparative

*Para* is not compatible with the synthetic form of the comparative adjective or adverb:

- (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 suggests a deviation of the *para*-clause from the regular comparative in terms of routine degree abstraction. In Korean, as we noted earlier, synthetic comparatives are unavailable, but the difference arises in terms of the availability of *te* (“more”). While *te* is totally optional in regular *pota* comparatives, *kipota* is incompatible with it:

- (14) \* Lee-nun pwucireuha-ta-kipota te ttokttokha-ta.  
 Lee -Top industrious-Decl-saying.than more smart-Decl  
 ‘Lee is clever more/rather than industrious.’

### 2.3 No *para* or *kipota* in comparison of deviation

*Para* is not possible in a comparative of deviation:

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

The impossibility of *para* here is another manifestation of the general inability of this type of comparative to express regular degree comparison. These structures also tell us that the *para* remnant must contain one term only, not more, as is the case here where two pairs are compared: the Adriatic and Mediterranean, and the predicates *deep* and *shallow*. Korean *kipota* follows the Greek pattern:

- (16) \* Cicwunghay-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.’

### 2.4 Comparative float

The comparative morpheme *perissotero* can “float”: it can precede or follow the contrasted constituent, and can also appear sentence-initially. In regular comparatives it can only immediately precede the adjective, as we see:

- (17) a. Ine (perissotero) eksipnos (perissotero) para erghatikos.  
 is (more) clever (more) than industrious  
 b. Perissotero ine eksipnos para erghatikos.  
 More is clever than industrious  
 He is clever more than he is industrious.

- (18) a. ??Perissotero ine o Janis eksipsnos apoti i Maria.  
 more is the John clever than Maria
- b. ??O Janis ine eksipsnos perissotero apoti i Maria.  
 John is clever more than Maria.
- c. O Janis ine perissotero eksipsnos apoti i Maria.  
 John is more clever than Maria.

*Apoti* is thus less flexible vis-à-vis adverb position, as we see. By contrast, the MORE adverbial can be positioned in various places when we have *para*. This flexibility of MORE with *para* encourages us to think of it as a (sentential) adverb. We cannot apply this test to Korean because *te* is incompatible with *kipota*.

## 2.5 Single remnant constraint

GS note that *para* comparatives contain only a single constituent. (This test cannot be applied to Korean.) Contrast the sentences below with *apoti* and *para*:

- (19) 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 must be omitted, but it need not in the *apoti* version; hence the ellipsis with *para* appears to be stricter than with *apoti*. A useful way of looking at this is to assume that it has to do with the *expressive* nature of *para*. It is helpful to note an observation by Potts and Roeper 2006 that some expressives—*expressive small clauses*—are predicate bare, and disallow systematically the use of verbal functional elements:

- (20) a. You fool!  
 b. \*You a fool.  
 c. \*You are fool.  
 d. You are a fool.

(The example in *d* is just a regular proposition.) According to Potts and Roeper, impoverished structure is part-and-parcel of the fact that expressives are generally very bad at combining directly with the material around them. As a result, they are either very minimal (like *a*, and the MC *para* clauses), or they are indifferent to what is around them (as in ‘*abso-fucking-lutely*’). If our analysis (to be fleshed out soon) that *para* contains expressive content is correct, then the predicate dropping can be understood as a typical behavior of the natural class *para* belongs to.

To conclude, we saw in this section Greek and Korean employ MC *than* markers that are lexically distinct from the *thans* used in regular clausal degree

comparisons. This is an impressive fact, first, because Greek and Korean are genetically not related, and second, because if metalinguistic functions are just pragmatic, we don't expect systematic lexicalizations. We now turn to the semantics.

### 3 An attitude semantics for metalinguistic MORE

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 MC must thus have an attitudinal component in it, and locate the attitude in metalinguistic MORE. We will rely here on this analysis, and define a metalinguistic MORE<sub>ML</sub>, distinct from the “regular” MORE of the comparative, which contains a propositional attitude. This attitude is anchored to an individual (the *individual anchor* employed in the definition below); the anchor is typically the speaker:

- (21)  $[[\text{MORE}_{\text{ML}}]] = \lambda p \lambda q \exists d [R(\alpha)(p)(d) \wedge d > \max(\lambda d' [R(\alpha)(q)(d')])]$  (GS: (40))  
 where R is a gradable propositional attitude supplied by the context: either an epistemic attitude such as belief; or an attitude expressing preference (desiderative or volitional);  $\alpha$  is the individual anchor (see Farkas 1992; Giannakidou 1998) of the attitude.

Syntactically, MORE<sub>ML</sub> is like a sentential adverb (recall its flexibility in positioning), and in the semantics, MORE<sub>ML</sub> relates two propositions in terms of how much they are R-ed by the speaker  $\alpha$ : the proposition expressed by the main clause *p*, and *q*, the proposition of the *para* clause. MORE<sub>ML</sub> compares the two propositions in terms of the degree to which  $\alpha$  believes them to be appropriate, prefers them, or is willing to assert them.<sup>1</sup> This individual is typically the speaker, as we said, and GS emphasize that the individual anchor is implicit (i.e., it is not syntactically present as an argument). This claim renders the individual anchor of the MC similar Lasnik's 2005 *judge*, i.e. the

<sup>1</sup> A brief final comment is in order here regarding the extension of the attitude semantics we propose to metalinguistic uses that do not prima facie appear to involve propositions, e.g.:

- (i) Pío sixna leme “dear” para “darling”.
- (ii) More often we say “dear” than “darling”.

Such cases are often discussed in connection to metalinguistic negation (Horn 1989)—and metalinguistic negation is known to negate various aspects of the sentence including pronunciation, words (as in the examples here), and at any rate non-propositional aspects of the sentence. We will take it that even in these cases a propositional attitude is expressed (see also GS's analysis (section 6) of metalinguistic negation as a binary connective along this line). Recall that the propositional nature of the MC *than*-constituent is further evidenced in Korean by the use of the declarative marker *la* (or *ta*), which would be used even in cases like the ones here:

- (iii) Pothong wuri-nun “darling”-**la**-kipota “dear”-**la**-ko han-ta.  
 normally we-Top “darling”-Decl-saying.than “dear”-Decl-Comp say-Decl

individual who is a parameter for the evaluation of predicates of personal taste and is only implicit; but the individual anchor expresses a parameter for evaluation that, unlike the judge, can be explicit – as is the case, e.g., of the embedded subject in mood choice and veridicality (Giannakidou 1998).

GS note that individuals other than the speaker may be plausible individual anchors; for instance, we can have a quantifier subject:

- (22) *Kathe fititis pistevi oti o Pavlos ine perissotero glossologhos para filologhos.*  
Every student believes that Pavlos is a linguist rather than a philologist.

Here, the individual anchor of comparison ranges over *every student*— a fact that is expected since we have overt embedding under a propositional attitude verb, which makes the embedded (in this case, quantificational) subject a possible anchor. These cases suggest that the notion of anchor is the one we need for MC, and not a judge (which tends to be implicit only).

A singular main clause subject can also serve as an anchor:

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

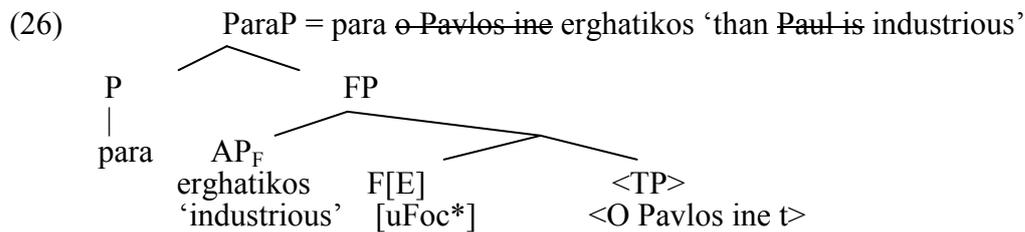
Here the MC can be anchored to the main clause subject, Maria, and need not be tied to the speaker only. This observation correlates with Lasersohn's (2008) that, although the judge is typically the speaker, occasionally judges can be third parties; and likewise, it is reminiscent of Potts's (2007) observation that expressive meaning, though typically anchored to the speaker, in embedding, may get associated with the embedded 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. In our account, overt embedding under a propositional attitude makes additional anchors available, and there is no reason why these should not serve as appropriate evaluation parameters for the *para* clause.

This semantics captures the perspective dependence of MC, by putting all the action in the comparative morpheme (no attitude is argued to be syntactically present):

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

- (25)
- 
- TP =  $\exists d$ .I believe to the degree  $d$  that Paul is smart  $\wedge d >$   
max( $\lambda d'$ .it is I believe to the degree  $d'$  that Paul is  
industrious)
- TP      ParaP = Paul is industrious
- MORE<sub>ML</sub>      TP
- TP      TP
- o Pavlos ine eksipnos  
'Paul is bright'

The structure of the *para* clause in particular is given in (38):



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.

If MORE<sub>ML</sub> gives attitude semantics, what is the contribution of *para* and *kipota*? So far, no special role is assigned to *para* (and likewise *kipota*), apart from being selected by MORE<sub>ML</sub>. In section 5 we address the role of the particles themselves; but before we do so, we want to identify next a more “negative” version of MORE<sub>ML</sub> that is lexicalized in Korean.

#### 4 Antiveridical metalinguistic comparatives in Korean

We claimed so far that the *kipota*-clause is like a *para*-clause: it introduces the second argument of MORE<sub>ML</sub>. In Korean, there is no overt comparative morpheme, so we will hypothesize that MORE<sub>ML</sub> is there abstractly. 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—but this dispreference does not imply negation in the clause. If one wants to express a completely negative stance, *nuni* will be used with *charari*, which is equivalent to *rather* below:

- (27) Ku-wa kyelhonha-nuni (charari) nay-ka cwukkeyss-ta.  
 him-Dat marry-rather than rather I-Nom die-Decl  
 ‘I would rather die than marry him.’

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

As paraphrased here, the combination of *charari* and *nuni* brings about a completely negative attitude: the speaker’s strong unwillingness to accept the first proposition (that I marry him) by juxtaposing itself with another dispreferred proposition (that I die). This latter proposition is obviously also dispreferred under normal circumstances, but *in the context*, it appears as more preferable than the *nuni*-clause.

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:

- (29) 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.

We will assume here that *charari* entails some kind of negation, though it is not itself morphologically negative. We define *charari* below as the negative variant of MORE<sub>ML</sub> 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:

- (30) Antiveridical MORE<sub>ML</sub> (Neg-MORE<sub>ML</sub>)  

$$\llbracket \text{charari} \rrbracket = \lambda p \lambda q \exists d [R(\alpha)(p)(d) \wedge d > \max(\lambda d' [R(\alpha)(q)(d')]) \wedge \underline{\max(\lambda d' [R(\alpha)(q)(d')]) = 0}]$$
 where *R* is a gradable attitude provided by the context, expressing preference (desiderative or volitional);  $\alpha$  is the individual anchor of the attitude.

This definition renders *charari* a MORE<sub>ML</sub> that asserts zero preference of *q* by the speaker. Zero preference will render *charari* antiveridical (though not strictly speaking negative, since there is no negation). Antiveridicality alone is sufficient to license NPIs, as is shown in Giannakidou and Yoon (2008). Greek *para* is obviously compatible with the Neg-MORE<sub>ML</sub> meaning, and indeed in cases like (42) only this meaning is triggered. However, we cannot posit a covert Neg-MORE<sub>ML</sub> in this case because the *para*-clause generally does not license NPIs that need antiveridical licenser—unlike the *charari* (Giannakidou and Yoon 2008).

We have evidence, then, from Korean, Greek, and English that, when lexicalized, MC affects two positions: the comparative morpheme itself (MORE<sub>ML</sub>, or Neg-MORE<sub>ML</sub>), and the *than*- position. We find distinct lexicalizations in either or both positions, as we saw. We gave an attitude semantics for two variants of MORE<sub>ML</sub>, and we are now finally ready to consider the contribution of the particle.

## 5 The expressive dimension of MC

When a speaker chooses to use *para*, *kipota* and *nuni*, the utterance becomes emphatic. The lexical choice is thus not redundant, or a mere reflex of syntactic selection, but rather a reflection of the speaker's emotive stance. MC particles, we suggest, add the speaker's heightened emotional perspective—a property typical of the class of expressive expressions such as *damn* and *bastard*, studied in Potts (2005, 2007).

The hallmark property of expressives 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*, and MCs exhibit this property clearly. Before offering our specifics of the idea that MC particles contain expressive content, we would like to elaborate just a little bit more on the properties of

the particles that we believe render them expressives. We are using here the typical properties of expressives we find in Potts (2007).

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

(31) 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). One can accept the assertion as truthful without also accepting the characterization of Kresge as “bastard”. Potts argues that “the expressive and descriptive meanings that a sentence can convey should not be combined in single unit” (Potts 2007: 3), but also 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:

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

(33) Ku-wa    kyelhonha-**nuni**    (**charari**) nay-ka    cwukkeyss-ta.  
him-Dat    marry-rather than    rather    I-Nom    die-Decl  
I would rather die than marry him’.

These sentences can only be understood with the possibility of undesired marriage as very imminent.

*Structural isolates.* Potts, and Potts and Roeper 2006 argue that expressives tend to not connect with the linguistic material around them, they are in this sense isolates: e.g. ‘*abso-fucking-lutely*’. This property is certainly consistent with the predicate dropping and restriction to one remnant that we observed earlier with *para* clauses, as well as the fact that all metalinguistic particles are incompatible with the synthetic forms of the adjective. They exhibit in this case a discontinuity that can be seen as a manifestation of their expressive nature.

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

(34) 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. Emotive relations emerge 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:

- (35) 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  
 c.  $\langle \llbracket \text{kevin} \rrbracket [0, 1] \llbracket \text{jerry} \rrbracket \rangle$ : 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  $\langle \llbracket \text{tom} \rrbracket [-.5, 0] \llbracket \text{jerry} \rrbracket \rangle$  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  $\mathbf{I}$ ; 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 negative (*nuni*); we thus argue that *para*, *kipota*, and *nuni* contain expressive indices. We thus claim that the particles contain expressive relations between an individual and a *proposition*, and this is our innovation on Potts:

- (36) *Expressive indices of metalinguistic comparative complementizers*  
*Nuni*, *kipota* and *para* contain expressive indexes  $\langle a \mathbf{I} q \rangle$ , where *a* is the individual anchor, *q* the proposition they embed, and  $\mathbf{I} \subseteq [-1, 0]$ .

*Para/kipota*’s index ranges through the negative interval, at most approaching zero:

- (37) a. *para/kipota*:  $\langle t, \varepsilon \rangle$  : *para/kipota* combine descriptive content *t* (the type of propositions) and expressive content  $\varepsilon$ .  
 b.  $\llbracket \text{para/kipota} \rrbracket c : \lambda p.p$  (identity function); *c* is the context  
 c. Expressive content of *para/kipota* in *c*:  
*Para/kipota* contain an expressive index  $\langle a \mathbf{I} q \rangle$ , where *a* is the individual anchor, *q* the proposition they embed; and  $\mathbf{I}$  ranges between  $[-1, 0]$ .

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

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

What is important is to note here is that the semantic (in the sense of truth conditional) content and the expressive remain independent: truth-conditionally *para/kipota* and

*nuni* 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 (Giannakidou 1998). In other words, a negative emotive stance to a proposition does not imply negating that proposition. This means that expressive force alone does not suffice to license NPIs:

(39) \* That bastard Kresge said anything!

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

(41) \* Na-nun [kuren-saramtul **amwuto** manna-**nuni**] cipey issko sip-ta.  
I-Top such-people anyone meet-rather.than home be want-Decl  
'I would rather stay home than meet anyone among such a crowd.'

We see here that the negative expressive force of *bastard* does not suffice to license *any*; and in Korean and Greek, minimizers (which are strong NPIs and need an antiveridical licenser) are simply ungrammatical in *para* and *nuni* clauses. The negativity that comes the expressive intervals is *not* part of the descriptive content, where truth conditions are calculated. Improvement happens only if we add *charari* because it is antiveridical, as we argued earlier:

(42) Na-nun [kuren-saramtul **amwuto** manna-**nuni**] **charari** cipey issko sip-ta.  
I-Top such-people n-person meet-rather.than **rather** home be want-Decl  
'I would rather stay home than meet anyone among such a crowd.'

More on NPIs in Giannakidou and Yoon 2008. Here, it is important to emphasize that when we posit negative expressive force in the particles, we do not render them equivalent to negation.

## 5 Conclusion

In sum, our analysis claims that MC has two components: an attitudinal semantics, which is hosted in the comparative morpheme, and 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 combinations of attitudinal semantics and expressivity.

## Acknowledgements

Many thanks to Chris Potts, Jason Merchant, Marcel den Dikken, and Chris Kennedy for their comments, as well as to the audience of *Sinn und Bedeutung* in Stuttgart for their very encouraging reactions and suggestions.

## References

- Bresnan, Joan (1973). Syntax of the comparative clause construction in English. *Linguistic Inquiry* 4(3), 275–343.
- Embick, David (2007). Blocking effects and analytic/synthetic alternations. *Natural Language and Linguistic Theory* 25, 1–37.
- Farkas, Donka F. (1992). On the semantics of subjunctive complements. In P. Hirschbuhler et al. (eds.), *Romance Languages and Linguistic Theory*. John Benjamins, 69–104.
- Giannakidou, Anastasia (1998). *Polarity Sensitivity as (Non)veridical Dependency*. Amsterdam and Philadelphia: John Benjamins.
- Giannakidou, A. and M. Stavrou (2008). Metalinguistic comparatives and negation in Greek. *MITWPL*, ed. By Daivid Hill.
- Giannakidou, A. and S. Yoon 2008. Metalinguistic comparatives in Greek and Korean: attitude semantics, expressivity, and negative polarity items. Ms. University of Chicago.
- Heim, Irene (2000). Degree operators and scope. In *SALT X*, 40–64.
- Horn, Larry (1989). *A Natural History of Negation*. Chicago University Press.
- Kennedy, Chris (1997). *Projecting the Adjective*. Ph.D. dissertation, University of California, Santa Cruz.
- Laserson, Peter (2005). Context dependence, disagreement, and predicates of personal taste. *Linguistics and Philosophy* 28, 643–86.
- Laserson, Peter (2008). Quantification and Perspective in Relativist Semantics. University of Chicago Compositionality Workshop, May 9.
- Lee Chungmin, Daeho Chung and Seungho Nam (2000). The Semantics of *amwu N-to/-irato/-ina* in Korean—Arbitrary Choice and Concession. in *Language Research* 38.1, 319–337. Language Education Institute, Seoul National University.

- McCawley, Jim (1968). The role of semantics in a grammar. In E. Bach and T. R. Harms (eds.), *Universals in Linguistic Theory*, New York: Holt, Rinehart and Winston, 124–69.
- McCawley, Jim (1988). *The Syntactic Phenomena of English*. Chicago: University of Chicago Press.
- Merchant, Jason (2006). Phrasal and clausal comparatives in Greek and the abstractness of syntax. Under revision for *Language*.
- Potts, Christopher (2005). *The Logic of Conventional Implicature*. Oxford University Press.
- Potts, Christopher (2007). The expressive dimension. *Theoretical Linguistics*.
- Potts, Christopher and Tom Roeper. 2006. The narrowing acquisition path: From expressive small clauses to declaratives. In Ljiljana Progovac, Kate Paesani, Eugenia Casielles, Ellen Barton, eds., *The Syntax of Nonsententials: Multi-Disciplinary Perspectives*, 183-201. John Benjamins.
- Schwarzschild, Roger and Karina Wilkinson. (2002). Quantifiers in Comparatives: A Semantics of Degree based on Intervals. *Natural Language Semantics* **10**, 1-41.
- Sells, Peter (2006). Interactions of Negative Polarity Items in Korean. *Proceedings of the 11th Harvard International Symposium on Korean Linguistics*, Harvard University, 724-737.
- Von Stechow, Arnim. 1984. Comparing semantic theories of comparison. *Journal of Semantics* **3**, 1-79.
- Stavrou, Melita (1982). Some remarks on comparative complements in Modern Greek [in Greek]. In *Studies in Greek Linguistics*, Thessaloniki: Kyrjakides, 73–105.
- Yoon, Suwon (2008). From Non-Specificity to Polarity: a compositional account of even and n-words, *Proceedings of the Northwest Linguistics Conference*.