

Concessivity, Conditionality, Scalar Implicatures, and Polarity – with Reference to Contrastive Topic/Focus

Chungmin Lee

Dept of Linguistics and Cognitive Science Program
Seoul Nat'l University
clee@snu.ac.kr <http://plaza.snu.ac.kr/~clee>

Abstract

This paper investigates the systematic relatedness between the concessive *-to* (or *mo*)-marked polarity phenomenon and the high tone *-nun* (or *wa*)-marked Contrastive Topic phenomenon with respect to underlying concessivity and thereby derived scalarity. I also investigate the correlations between Contrastive Topic and PA conjunction (*-ciman*) on one hand and between Contrastive Focus and SN conjunction (*ani-i-ra*) on the other to show the linkage between information structure and argumentation structure of Q- and R-implicatures crosslinguistically. I will touch on the scalar features of the exhaustivity focus marker *-man* (or *dake*) in inherently scalar numeral, quantifier and predicate contexts. In the meanwhile, it will also be shown that there is a close relation between polarity/negativity and implicature (suspension).

1 Introduction

The concessive *-to* (or *mo*)-marked (attached to an Indefinite) polarity phenomenon and the high tone *-nun* (or *wa*)-marked Contrastive Topic (CT) phenomenon show a close relatedness, with respect to underlying concessivity and thereby derived scalarity. The scalar but not concessive features of the exhaustivity focus marker *-man* (or *dake*) in inherently scalar numeral, quantifier and predicate contexts will also be described. Some relatedness between polarity/negativity and implicature (suspension) will be investigated. Negative CT sentences invoke affirmative weaker implicatures connected by a PA 'but' and metalinguistic negation constitutes a Contrastive Focus construction. I argue that both polarity, based on *-to* 'even,' and CT, *-nun* with a high tone, involve conventional scalar implicatures motivated by concessivity.

2. The Scalar Nature of Contrastive Topic

Here type-subtype inter-type scalarity and subtype intra-type scalarity are distinguished and CT's inherent tendency of subtype intra-type scalarity even in individual entities is advocated. Further, scope relations between scope bearers and CT and CT's narrow-scope nature are shown, together with non-narrow-scope topicalization effect, which has to do with presupposition. Contrastive Predicate Topic and the scope relation between CT and REASON clause are also explored. All the so-called 'scope ambiguity' and constituent negation are also proposed to be underlyingly associated with Contrastive (Predicate) Topic.

2.1. Intra-Type Scalarity.

Note that Ladd's (1980) following example shows that there is a whole-part (poset) relation between 'the state of New York' and 'Ithaca' in concessive admission of CT (19AB):

- (1) A: Harry's the biggest fool in the state of New York.
B: In ITHACA_{CT}, maybe. [-*nun* or -*wa* CT situation] (_{CT} marking mine)
C: In THE WHOLE WORLD_{CF}, maybe. [Contrastive Focus situation] (metalinguistic negation 'not in the state of New York (but)' assumed) (_{CF} marking mine)

(1B) is a CT utterance, whereas (1C) is a CF utterance. (1) shows a potential Topic 'the biggest fool in the state of New York' and the response in (1B) is a concessive partial admission of the potential Topic given in the previous discourse context (1A), giving rise to the implicature 'but not in the rest of New York.' The implicature can be 'but not in the [whole] state of New York,' being the denial of evidently a stronger element (or type here) in the scale. But 'in Ithaca' has already been admitted and [whole] (=type) – part (=subtype; 'in Ithaca') = the rest of state of New York is really affected or contrasted with the given utterance. Particularly, speakers tend to regard the residual element ('in the rest of state of New York') as a relevant stronger element in the scale, as contrasted with the restricted partial element 'in Ithaca.' Therefore, the negatively posed implicature is what the speaker wants to convey. On the other hand, the response in (1C) is possible when its speaker metalinguistically negates (1A) such that 'not in the state of New York (but)' is implicit. Then, it can be naturally connected with (1C), which has a heavily stressed CF.

Consider another kind of scalar interpretation of nominals. This is adaptation from van Rooy's (2004) that does not introduce fall-rise as here but it is a typical CT situation.

- (2) Q: Which Beatle's autograph do you have? cf. Do you have Beatles' autographs?
A: George Harrison's_{CT}. [_{CT}-marking mine]
 > ¬John Lennon's, though Ringo Star's
 "Standard" partition: 4 Beatles > 16 cells.
Autographic prestige:
Star < Harrison < {Lennon, McCartney}

Van Rooy does not distinguish between a semantic scale arising from the (inter-type) hierarchy between the sum of Beatles' autographs (type) (whole) and the individual Beatles' autographs (subtype) (parts) on one hand and a pragmatic scale arising from different weights among different alternative Beatles (intra-type scale). He addresses the latter type of scale without CT-marking of (2A). Without any CT contour on (2A), unlike the given, particularly as an answer to (2Q), which calls for a focused answer, it may have an exhaustive interpretation with "standard" partition, evoking no particular scale among alternative Beatles. If (2Q) happens to be 'Do you have Beatles' autographs?' with 'Beatles' autographs' as a potential Topic, the CT-marked (2A) is more natural and an inter-type scale implicature may be 'but not the rest of Beatles' autographs.' What I advocate is not this part-whole poset scale but the weight or prestige scale among alternative Beatles, as an intra-type scale. If we use the Contrastive (fall-rise) Contour on the answer "George Harrison's," preferably with the question 'Do you have John Lennon's autograph?' the scalar implicature of 'but not John Lennon's' is unmistakable and because of the linguistic device used (a contrastive pitch contour in English or a morpheme + a high tone in Korean) it is a conventional implicature. It can hardly be cancelled. The scale has the intra-type elements. In a nutshell, Contrastive Topic is also employed to convey this kind of implicature, in addition to an inter-type or part-whole (poset) implicature, concessively admitting the uttered proposition.

(3) is negative and an affirmative proposition with a weaker value than 'well' in the scale is implicated, such as 'but I know just a little bit.' This is sharply distinguished from an utterance without CT-marking:

cal molla ‘I don’t know it well,’ which can be used when the speaker knows (almost) nothing about it. Chierchia’s (2002) discussion lacks the idea of CT. The CT marker, which is a functional category in K and J, has a high tone. It can be attached to adverbs as well as nominals. Observe:

- (3a) *cal -un moll-a*
 well-CT no-know-DEC
 ‘(I) don’t know (it) well_{CT}.’

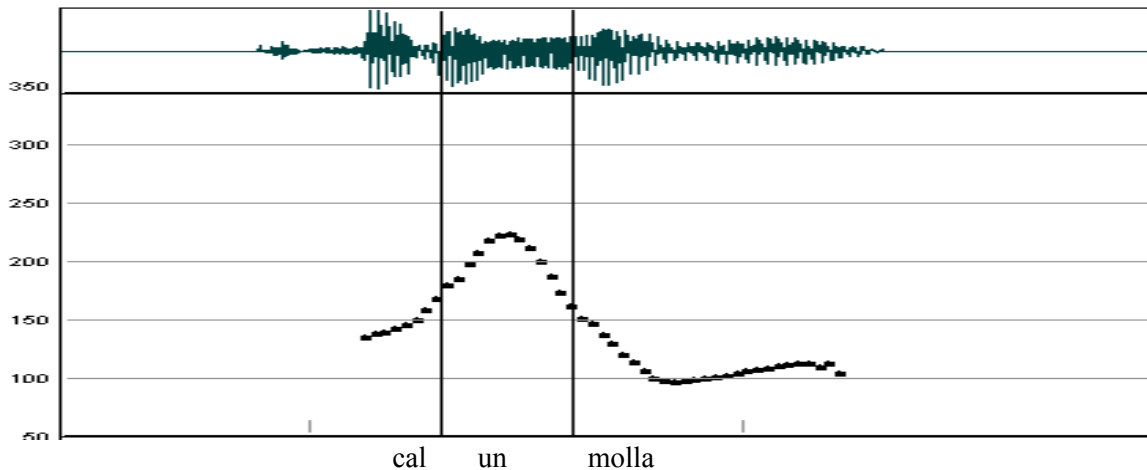


Figure 1. Adverb CT

The surface form *molla* in (3) is complex in meaning and the underlying structure of (3) must be:

- (3b) *cal al-ci -nun mot -hay*
 well know-CI-CT not -do-DEC
 ‘(I) don’t know (it) well_{CT}.’ ‘(I) know (it) just a little bit.’
- (3c) ?*cal-un al-a* cf1 *cal al-ki-nun hay* cf.2 Chae W.
 well CT know-DEC
 ‘(I) know (it) well_{CT}.’ ‘(I) don’t know (it) very well’
- (3d) ?**maywu cal-un al-a* cf. *maywu cal al-ki-nun hay* .
 well CT know-DEC
 ‘(I) know (it) very well_{CT}.’ ‘(I) don’t know (it) extraordinarily well’

In (3b) the CT marker is associated with the focal constituent *cal* ‘well,’ as will be explained shortly, and the verb and negation *become* one word. In 3c *-nun* is readily associated with the adverb *cal* well and may implicate ‘(I) don’t know (it) very well.’ But it may rather be associated with the entire predicate, as in cf1, to implicate (*cal selmyeng-ul mot hay* ‘cannot explain it (well).’ In (3d), because the degree modification is almost quantificationally maximal or universal, it is not easy to find a stronger modifier to deny, although a stronger predicate alternative may be found to be denied, such as ‘but she cannot apply it to practice.’

2.2. Contrastive Predicate Topic.

CT is not limited to a nominal type; it is also applied to a property (predicate) type:

- (4) She ARRIVED_{CT}. > ¬She went on the stage [- *-wa shitta -*]
 (5) She PASSED_{CT} > ¬She aced the exam. (Cf. She passed_f (Rooth's (1996) _f-marking).

The question whether she went on the stage may be a potential topic in the previous discourse, although it is not a referentially linked nominal Topic as 'she.' (4) evokes a scale of {*arrive < go on the stage*} in context and (5) readily evokes {*pass < ace the exam*}. If we consider a specific context in which 'go on the stage' requires 'arrive' as a precondition, the former entails the latter in that context and we can call it a pragmatic entailment. The latter scale may be semantic; 'ace the exam' entails 'pass the exam.' (Conventional) scalar implicatures are evoked by both pragmatic and semantic entailments. On the predicate part we can also have such a CT:

- (6) All the abstracts DID_{CT} get accepted. > but there may be withdrawals.

CT-marking on the aux (by *do*-support) or on a predicate ending in Korean may function as a verum CT in the sense that polarity of affirmative and negative (yes/no) is contrasted, as in (6), evoking a polarity-reversed implicature (negative here originally). Rooth's (1996) simple alternatives by F-marking cannot explain why fall-rise requires the relevant type of scalar implicatures. See Lee (2000) for further examples of scalar Contrastive Predicate Topic. Let us see how CT is equivalent to concessive construction and how its contraposition is impossible (6''), unlike in a regular conditional, as in (6'''a). In (6'''b), if it rains, we don't go on a picnic by implicature, making no concession but we make concession by going down the scale to an adverse situation of raining, then still the denial of our not going on a picnic, i.e., our going on a picnic by double negation, holds. Then, it scalarly entails our going on a picnic in all less adverse situations on the scale.

- (6') son-ul manci-ki-nun hay-ss-e
 I touched (her) hands
 > haciman kissu-nun ha-ci anh-ass-e
 but I didn't kiss her.
- (6'') a. son-ul manci-ki-nun hay-ss-e-to kissu-nun ha-ci anh-ass-e
 'Although I touched (her) hands I didn't kiss her.'
 -/-> kissu-rul hay-ss-umyen son-ul manci-ci anh-ass-e
 b. te-o sawa-ri-wa shitta keredo/*-mo kisu-wa shi-na-katta (cf. toshi-temo 'even if')
 -/-> kissu-o shitta-ra- te-o sawara nakatta (Mito, H. and people in Kyoto p.c.)
- (6''') a. pi-ka o-myen sophwung-ul ka-ci anh-nun-ta
 'If it rains we do not go on a picnic.'
 ---> sophwung-ul ka-myen pi-ka o-ci anh-nun-ta
 'If we go on a picnic, it does not rain.' [Contraposition]
 b. pi-ka o-a-to sophwung-ul ka-n-ta (> (6'''A)) cf. ame-ga hutte-mo/*keredo/*-ga
 'Even if it rains we go on a picnic.' (hutta/huru-ga/keredo/*-mo)
 -/-> sophwung-ul ka-ci anh-umyen pi-ka o-ci anh-nun-ta
 'If we do not go on a picnic, it does not rain.'

2.3. CT Requires a PA ‘but,’ whereas Contrastive Focus an SN ‘but’

Some linguists have found a very interesting distinction between PA and SN adversative conjunctive connectives in various languages such as Spanish, German and Hebrew, so far known, although a few exceptional languages such as English and French do not show the distinction in form (Anscombe and Ducrot 1996, Koenig and Benndorf 1998, Schwenter 2002). However, so far people failed to indicate how Contrastive Topic is related to PA and Contrastive Focus is related to SN. Consider the CT~PA correlation first:

- (7) a. I am not ecstatic, *but* I am happy. [pero, aber = PA]
 b. I am not ecstatic _{L+H*LH%..} Intonational P
- (8) a. na –nun hwangholha-ci-**nun** anh-*ciman* ha yngpokhay.
 I –TOP ecstatic –Nmlz-CT not-but happy
 b. na –nun hwangholha-ci-**nun** anh-a.
 I –TOP ecstatic –Nmlz-CT not-but happy

In (7), a scale of <happy, ecstatic> (*ecstatic* entailing *happy*) is triggered by the contrastive topichood of the predicate of the first conjunct. The predicate is linked to a potential Topic in the previous discourse. Prosodically, a CT utterance such as (7b) constitutes an Int(onational)P, just as in Korean, e.g., in *ney irum-UN?* ‘Your name?’ (Focus ellipsis), whereas a CF involved in metalinguistic negation is an A(ccentual)P. The scale is reversed by negation, with *not ecstatic* being weaker than *not happy*, i.e., <–ecstatic, –happy>. The first conjunct, with the Contrastive Predicate Topic, then, is contrasted with the second conjunct by means of the PA *but*. The first conjunct generates, as a potential scalar implicature, the denial of a stronger element *not happy* in the scale, resulting in *happy* after the double negation $\neg \neg$ *happy*. But the potential implicature part is explicitly expressed as a second conjunct *but I am happy*. If the first conjunct alone is uttered, as in (7b), the potential implicature becomes a real implicature. Here the different degrees of *happy*, *ecstatic*, with negation, must be ‘denotational’ (Lee 1999) or ‘descriptive’ (Horn 1989). In that interpretation, if *ecstatic* and *happy* are replaced by each other in (7a), the result is bad:

- (9) **I am not happy, but_{PA} I am ecstatic.* (with CT-intonation in particular)

This happens with all other PA conjunctions in different languages. What happens if there is no particular CT marking by intonation or morphological marker on the predicate of the first conjunct or a simple sentence in (7a, 7b, 8a, 8b) and its equivalents in other languages (10-15)? Levinson would suggest a *generalized conversational implicature* (GCI), here *scalar*, as a default interpretation. However, if a simple affirmative sentence with a scalar term is uttered, people do not seem to pay any special attention to its scalar implicature, although they accept the ‘exact’ interpretation by default. A simple negative sentence even with no CT marking tends to be more topical than its affirmative counterpart because a negative sentence occurs to deny given information. In Hebrew, a particularly strong stress [I assume it is contrastively topical] is required on the predicate, as in (11b), to get the relevant implicature, according to I. Hazout and M. Dascal (p.c.). In other words, CT marking by intonation/stress or markers is required to convey its conventional scalar implicature. Therefore, if conventional CT marking occurs but the context fails to support the required relevant polarity and alternatives, the utterance must be infelicitously true even if it is true. Its truth cannot be innocuous. The pure conjunction *and* (and its equivalents in other languages) and the contrastive conjunction *but* (and its equivalents in other

languages) are truth-conditionally identical in traditional truth-conditional semantics but this level alone cannot capture the real distinctions between the two.

The Korean counterpart (8a) well demonstrates that the predicate is a Contrastive Topic with the CT marker *-nun* and that CT requires the PA conjunction *-ciman* (or S-initial dialogal *haciman/kurechiman*). At times, another connective *-nun* may be used, though not typical for PA, contra H.K. Lee (2004), to show ‘telling-my-side’ or what the speaker found out as circumstantial and evidential ground to be shared with the hearer in the first conjunct to express his inference in the second conjunct. Or it is used without the second conjunct so that the hearer can infer the speaker’s intention (cf. Park 1999). The predicate of the second conjunct can also take the CT marker, as in *hayngpokha-ki-nun hay* ‘(I am) happy_{CT}’ instead of *hayngpokhay* ‘(I am) happy.’ (Alternatively the second conjunct alone may take the CT marker or both conjuncts may lack it to be contextually supported.) Still alternatively, without any explicit PA connective, a CT-marked sentence can be followed by its contrasted sentence of denial of stronger element in juxtaposition (as in *Sey myeng -un ani-i-ya. Twu myeng-i-ya/*Ney myeng-i-ya* [three-CL-CT not-be-DEC. two-CL-be-DEC/four-CL-be-DEC]‘(It) is not three-CT. (It) is two/*four.’ (see (18) below and Choi 2004). One crucial characteristics of CT, followed by a PA, is that its sentence is a concessive admission/compliance. Scalarity follows from concessivity. Thus, the first conjunct of (7a) can be paraphrased as ‘although/even though/if I am not ecstatic.’ Therefore, it can be called ‘concessive (cf. Horn 1989) contrast,’ in contrast with juxtaposing contrast. On the other hand, SN conjunctions of metalinguistic negation/correction to be discussed shortly lack this kind of concession.

Japanese also shows the distinction of PA *-ga* (or S-initial dialogal *shikashi/datte*) and SN *naku* (negation incorporated as in Korean) (A. Ikeya p.c.). In colloquial Dutch, the same *maar* is used for both PA and SN, as *but* and *mais* in French. But in formal Dutch, the SN ‘but’ is *echter*. Let us further observe crosslinguistic data below:

- (10) Ich bin nicht in Extase, *aber* glücklich. (German: U. Sauerland p.c.)
 ‘I am not in ecstasy, but (I am) happy.’
- (11) a. ani lo lilhav *aval* ani samex (Hebrew: I. Hazout, p.c.)
 I not ecstatic but I happy ‘I am not ecstatic but I am happy.’
 b. ani lo lilhav. ‘I am not ecstatic.’
- (12) Ni-sem ekstatieën, sem *pa* sreëen (Slovenian: I. Zagar p.c.)
 Not-I-am ecstatic I-am but happy
- (13) a. Mai dep **thi** khong dep (*nhung* de nhin) (Viet: Thu Ba Nguyen p.c.)
 Mai beautiful CT not beautiful (but easy look)
 ‘Mai is not beautiful, but she looks all right.’
 b. *Mai thi khong de nhin *nhung* dep [impossible]
 Mai CT not easy look but beautiful ‘Mai does not look all right but beautiful.’
- (14) Ta lao **shi** lao, *bu guo* shenti hen jiankang
 he old CT old but body very healthy
 ‘He is old but he is very healthy.’
- (15) Ol khyz ush yer bal-ny tasta-gan-men torteu-in tasta-mady (Khazakhstan) .
 3 that guy-ACC dump-PAST-but 4 -ACC dump-PAST-NEG
 ‘She dumped three guys but she didn’t dump four guys.’

In (10), *aber* is required and *sondern* is not permitted except in the case where there was a previous claim that I was ecstatic and that part of expression *in Extase* is negated (metalinguistically) for correction. All the above crosslinguistic facts show that the PA conjunction is motivated by the concessive nature of the CT in the first conjunct and because of the concessiveness of the first conjunct scalarity arises with a stronger alternative element denied in the second conjunct. A weaker admitted and a stronger denied (by double negation if a first conjunct is negatively uttered), by which the speaker's argumentative direction/goal is achieved. Thus, the explicitly uttered second conjunct or a scalarly implicated identical proposition generated by CT has greater argumentative force. Naturally, if the first conjunct is affirmative, then a higher stronger predicate is denied with PA, as follows:

- (16) a. I am happy, but I am not ecstatic.
 b. I embraced her, but I didn't kiss her.
 c. *I kissed her, but I didn't touch her.

The scale mobilized is basically semantic with quantifiers, numeral indefinites and predicates (including modals, etc) but a particularized context can intervene for an argumentative goal-oriented pragmatic scale with short-circuit pragmatic entailments (semantically, *kiss -/-> embrace; kiss --> touch*). The wide scope denotational negation (over a scalar CT-marked element) (with the nature of external negation) is necessarily scalar, whereas the metalinguistic negation we will see now is not. The kinds of propositions explicitly given after the PA conjunction seem to be more flexible than those of corresponding implicatures that are evoked by the CT utterances.

A Q-implicature or its expression easily occurs with a CT or CT-related PA pattern. Consider.

- (16') a. She is a Republican but is honest.
 b. She is not tall but a good basketball player.
 c. (A) The man who is drinking martini is my uncle.
 (B) Yes, you are right but he is drinking water.
 d. (A) mwun com tat-e 'Close the door.'
 (B) mwun –un tat-kess-ciman (-nuntey) pan-mal-un samka-cwusipsio
 'I will, but don't use the half-speech.'

As in (16') generic entailments (Koenig and Benndorf 1998) of common belief, presupposition or speech act pre-conditions of manner, etc. evoked by the first conjunct or previous discourse are, I would claim, scalarly stronger in a sense and naturally denied by the second conjunct or the response utterance after PA. Therefore, the same principle of denial of a stronger element applies to these cases as well as quantificationally scalar elements of numerals, quantifiers, predicates, and scalar nominals. An R-principle-based implicature candidate, however, does not normally appear as an explicit expression as it is. If it has to appear it should be conjoined to the given utterance with 'and.' On the other hand, it can also be explicitly denied as a stronger scalar alternative in the second conjunct after PA (e.g. *pen han kay –rul ilh-e peri-ess-nun-tey/-ciman nay kes-un ani-iya* 'I lost a pen but it is not mine'; my pen->a pen; *She got pregnant and got married but not in that order*). In other words, R-inference-based implicatures can be fed into the PA pattern by denial of them. Thus viewed, all the potential Q- or scalar implicatures plus pre-conditional propositions of sentences can explicitly appear in the second conjunct of a PA conjunction by the same scalar principle of denial of a stronger

element. In like manner, even potential R-implicatures can be input to the second conjunct of a PA conjunction by the same denial of a stronger element principle. The concessivity of CT underlies this scalar principle.

Interestingly enough, the conjunction marker *-ko* can be followed by the CT marker or CONC(essive) marker, as follows:

- (16") a. caknyen sel nal cangkeri cenhwa-rul ha-ko-**nun** yenlak-i eps-ta
 last year New Year' Day long distance call-ACC-do-and-CT contact-NOM no-DEC
 '(He) made a long distance call on the New Year's Day last year and-CT there has
 been no contact.'
 b. ku i-nun nam-uy tari-rul pwuncile noh-ko-**to** chaykim-ul cici anh-nun-ta
 that person-TOP other's leg-ACC break put-and-CONC responsibility bear not

'He broke other's leg and-CONC does not bear any responsibility for that.'

The CT marker attached to *-ko* 'and' in (16"a) establishes the proposition in the first conjunct as a concessively past given member in the common ground between the interlocutors and some relevant but contrasted, often negative, proposition follows. In (16"b), we go down the scale of alternatives adversely to the first proposition of perfective event and still it is not the expected case in the second conjunct (by default, if-conditional the first event occurs, one is responsible for it). Without *-ko*, there occurs an irrealis (conditional) concessive meaning.

It is also interesting to learn that a scalar Q-implicature (e.g., - three – > **(but not four)**) but not an R-implicature (e.g., - a finger - > **(my finger)**) is reported to be part of what the speaker says by subjects in experiments conducted by Gibbs, R. and J. Moise 1997).

3.3.2 CF with SN

We can now turn to SN conjunctions that co-occur with metalinguistic negation and an alternative or correction. The contrasted alternatives are 'symmetrical' (Dascal and Katriel 1977); they express a pair of elements in Contrastive Focus explicitly. One element is totally rejected by denial and is replaced by another of the same order. The pair are in Contrastive Focus in the sense that the speaker accommodates an alternative question 'Are you happy or ecstatic,' after hearing some comment like 'You must be happy after your wedding.' Because the alternatives in the pair are contrastively focused, "extra heavy stress" falls on the negated item (Lasnik 1975) and presumably on the replacing item. SN conjunctions differ from PA in form in various languages including Korean. Consider:

- (17) a. I am not happy, I am ecstatic.
 b. I am not happy *but* (#I am) ecstatic. [sondern, sino = SN]
 c. I am not happy *but* miserable.
 d. I am not ecstatic *but* just happy..
 (18) .na-nun hayngpokha-n kes-i *ani-i-ra*/**ani-i-ciman* hwangholhay.
 I-TOP happy -N NominalZR not-be-CONJ ecstatic
 'I am not happy *but*_{SN/*PA} ecstatic.'
 (19) a. Ich bin nicht glücklich, ich bin in Extase.
 I am not happy, I am in ecstasy
 b. Ich bin nicht glücklich, *sondern*/**aber* (ich bin) in Extase.

- (20) a. ani lo sameax *ela* (#ani) nilhav. (Hebrew)
 I not happy but ecstatic
 b. ani lo nilhav *ela* rak sameax
 I not ecstatic but only happy
 ‘I am not ecstatic but only happy.’
- (21) Ni-sem sreccen, *temvecc* ekstaticcen. (Slovenian)
 not-I-am happy but ecstatic ‘I am not happy but ecstatic.’
- (22) a. yer bala-ny usheu-in tasta-gany *emes*, torteu-in tasta-gan (Khazakhstan)
 that guy-ACC 3-ACC dump-PAST not 4 –ACC dump-PAST
 ‘She dumped not three guys but four guys.’
 b. kongil-ku-im jakhsy bolga-ny *emes*, ote keremet dengi-ide
 my feeling-1st good became not very happy degree-at
 ‘My feeling became not good but very happy (in degree).’
- (23) Wo bu shi xihuan ta, er shi ai ta. (Chinese)
 I not SHI like him but SHI love him
 ‘I do not like him but love him.’

In (17a), two full sentences are juxtaposed without *but* unlike in (17b), where *but* appears but then the second conjunct must be a constituent rather than a full clause, matching that in the first conjunct under the immediate scope of the metalinguistic negation. This tendency is witnessed crosslinguistically, as we can see in Hebrew (20a) and German (19b). This is in sharp contrast with (7a), where the PA *but* is followed by a full clause. Prosodically, the PA *but* mediates Intonational Phrases (IntPs), whereas the SN *but* mediates Accentual Phrases (APs) in general (Lee (IN PREPARATION)). A similar but weaker intent of metalinguistic negation can be conveyed by the *A rather than B* (e.g., *He's more negligent than vicious*). or *B-i-ra-ki-pota A* in Korean without any explicit negation.

In (7b), even without a CT contour and without the second conjunct the utterance ‘I am not ecstatic’ can constitute an S with a conversational scalar implicature of ‘but I am happy,’ depending on the context. The same thing happens with (16a) without the second conjunct, still generating the second conjunct as a conversational implicature, depending on context. This is a Weak Contrastive Topic situation for me. If the first conjunct without the second one happens to have a contrastive contour of L+H*LH% or a hat accent in German on ‘happy’, ‘happy’ becomes a Contrastive Topic (or Strong Contrastive Topic) and you cannot avoid conveying the conventional scalar implicature of ‘but I am happy’ (affirmative weaker) (Lee, C. 2003, 2000). If we have the ‘but’ part explicitly as in (7a), it is a PA (*pero* in Spanish and *aber* in German, see Schwenter (2002)). This corresponds to (8) in Korean.

In (17a), we have a focus stress on ‘happy’ and ‘ecstatic’ and in the first conjunct the normal implicature of affirmative weaker ‘I am all right’ is blocked (or cancelled/suspended) and dramatically ‘I am ecstatic’ is contrastively asserted. In this case, the second conjunct is essential and cannot be deleted (to become an implicature, differently from (7b)). (17a) fits my definition of CF, with an accommodated question ‘Are you happy or ecstatic?’ (17b) is an SN (*sondern* and *sino*). In Korean, we use ‘-nun’ (or -wa in J) attached to ‘ecstatic’ and ‘but’ (-*ciman*) for (18a) but the Nominative marker -*ka* (or still-wa in J), Negation marker *ani*, Copula -*i-* and -*ra* (embedded DEC) for (18). This negation in the form of *andi-ra* is witnessed very early in Korean, around 13 C. (Seungjai Lee p.c.). ((18) is Horn’s metalinguistic negation. I dealt with it and sharply distinguished it from CT (Lee, C. 1999).

A sentence such as *She was not able to solve the problem* evokes an R-based implicature *She did not solve the problem*. Therefore, its denial *She solved it* cannot be the second conjunct because it leads to a contradiction. But if *ABLE* is extraordinarily stressed (with the modifier *just* before it, preferably) and

SOLVED in the second conjunct is also stressed (again with the modifier *actually*, preferably), then SN metalinguistic negation construction arises. This means that Koenig and Benndorf's (1998) argument that R-based inference cannot occur in SN categorically is not correct. We can see how it is sensitive to focus stress. Horn's (1989) example *Chris didn't MANAGE to solve the problem --- it was quite easy for him* is another such example.

In Slovenian, unusually, there is no distinction in form between the coordinative conjunction 'and' and the contrastive PA conjunction 'but.' They are both *pa* but the SN 'but' is distinct from this and is *temvecc*, as in (21). So far, the PA/SN conjunction distinction has been shown to be correlated with CT and CF, respectively. This correlation has not previously been explicitly explicated.

2.4. CT as a Narrow-Scope Bearer.

CT has been claimed to have narrow-scope over other scope-bearers. I agree with the claim, although Buring (1997) disagrees. I claim that the narrow-scope CT is scalar, as in (23). If a CT is fronted to the initial position of a sentence it tends to get topicality effect with wide scope unlike *in situ*.

- (23) euysa-euy sam-pwun-euy i-**nun** hayko-ha-ci anh-ass-ta.
 doctor-of 3 -division-of-2-CT fire not-PAST-DEC
 '(The Government) did not fire two thirds of the doctors.'

In (23), the CT narrow-scope non-partition scalar reading ($\neg 2/3$) [up to $2/3$] is obtained, with an assumed null or realized Topic in the initial position. We can get a CT (partition) wide-scope reading ($2/3 \neg$), if we have the CT constituent before the subject such as 'the Government.' It tends to have topicality effect, with a low tone on *-nun* or *-wa*. CT basically takes narrow-scope over scope-bearing elements and reveals scalarity.

A REASON adjunct clause is another scope bearer and it interacts with negation in various languages. Linguists say (21) is ambiguous but REASON > NEG if it has no CT marker and no high tone. If *-ci* gets a high tone, REASON < NEG.

- (24) pwuca -yese kyelhon-ha-ci anh-ass-e
 rich-be-because marry not REASON > NEG (no high)
 '(He) didn't marry (her) because she is rich.' REASON < NEG (high tone)

In the written text without any intonation marking, the sentence may be ambiguous. With intonation marking, it is not. If a Contrastive Predicate Topic marker *-nun* is attached to *-ci*, (24) gets the REASON < NEG reading, just like when a high tone lies on *-ci*. If the CT marker is deleted, its **compensatory high tone** remains and its interpretation is the same as when it has the CT marker with a high tone. Because CT is topical and focal, it becomes focally associated with the reason clause and the reason comes to have the CT effect. The interpretation of the CT-marked S is [I married her not because she is rich_{CT}] or [It is not because she is rich_{CT} that he married her]. Then, its implicature may be: [I married her because she is nice], 'nice' being weaker than 'rich' in the pragmatic scale. There is an exact correlation between intonation and interpretation, and intonation may be claimed to be compositional. On the other hand, if a heavy stress lies on *pwuca -yese* 'because she is rich' and the intonation goes down for the rest of the sentence, it is a CF situation where the metalinguistic negation part is assumed from the discourse (e.g., 'It is not because she is his boss but --- that he did not marry her' for the question 'Isn't it because that she is his boss that he did not marry her?'). All the scope relations involving quantifier-negation and REASON-negation depend on whether the sentences in question have inherently Contrastive Predicate Topic, related to the previous discourse context. If that is the case, the sentences must take the wide-scope negation, with the Contrastive Predicate Topic focally

associated with the relevant quantifiers/REASON clause or arguments/adjuncts. Thus viewed, scope ambiguity is not present. Constituent negation also involves Contrastive Predicate Topic, with the latter being focally associated with the relevant constituent; even constituent CTs without negation may come from predicate part (Lee in preparation).

3. Polarity: Concessivity and Scalarity

3.1. Where Does Scalarity Come from?

When the concessive marker *-to* (in K)/*-mo* (in J) is attached to an indefinite such as a numeral/minimizer and INDefinite-*wh-/amu-* (and *any* with implicit *even* (Lee, Y. and Horn 1994)) (Lee, C 1993, 1996), it generates an NPI, as in (25) and (27):

- (25) a. *han saram -to an w-ass-ta*
 one person-CNC not come-PAST-DEC
 b. *hitori -mo ko-nakatta* (a, b) ‘One person-CNC didn’t come.’
- (26) a. *han saram -i[NOM] an w-ass-ta* (NOM=Nominative)
 b. *hitori (-ga) ko-nakatta* (a, b) ‘One person didn’t come.’
- (27) a. **han saram -to w-ass-ta*
 b. **hitori -mo kita*
 (a, b) ‘*Even one person came.’ (cf. Not even one person came.)

In (25), *han saram* ‘one person’ is indefinite, nonspecific and not a partition requires a negation as an NPI, if it is followed by the Concessive (CNC) marker, reaching universal negation by reversed entailment. If it is followed by a NOM, as in (26), however, it must be either specific or a partition, though not definite, taking wide scope over the negation as an existential, in the S. So, ‘more didn’t come’ is not scalarly entailed by (26). Attributing polarity simply to focus, as done by Rooth (1985), Krifka (1994) and partly Lahiri (1998) or to simple scalar implicature suspension, as proposed by Chierchia (2002) is not adequate enough. Chierchia’s approach simply lacks an ultimate motivation behind polarity. Concession triggers an adversity scale and suspends scalar implicatures. So, contrary to his expectation, an implicature of ‘not both’ is suspended in the following S because of the concessive ‘even’ without any negative predicate such as ‘doubt’:

- (28) Even Kim or Lee will show up
 (‘Both will show up’ is OK). (Oliver Omrod, p.c.)

With *even*, it is suspended. Rooth’s focus alternatives are not scalar and his simple extension to an English morpheme *even* for likelihood implicatures lacks a general explanation. The motivation of scalar alternatives lies in the strategy of making concession. Concession is scalar: a bigger concession entails a smaller concession. When you make concession you go down the scale of alternative adverse steps. So, the weakest bound in a given situation must be negatively rendered. Thus total negation of the maximization of the relevant *wh*-domain is possible if the bound is the lowest like *hana* or *one* in any language. The emphatic concessive adversity reaches maximization reversely. (25) has the original assertion part (5) and the likelihood hierarchy implicature part (30):

- (29) $\neg\exists x[\mathbf{one}(x) \wedge \text{person}(x) \wedge x \text{ came}]$ (assuming that **one** is true of any entity that contains at least one atomic part) ‘No one came.’
- (30) For every cardinality natural numeral predicate U, U' such that
 $\forall x[U(x) \rightarrow U'(x)]$,
 likelihood ($\neg\exists x[U(x) \wedge \text{person}(x) \wedge x \text{ came}]$)
 $>$ likelihood ($\neg\exists x[U'(x) \wedge \text{person}(x) \wedge x \text{ came}]$)

(If a numeral U is larger than U,' then U's coming is more likely and U's not coming is less likely.)
 [The implicature part is fully scalarly defined here unlike Lahiri's]

Positive scalarity is reversed to negative scalarity in (30). Lahiri's (1998) formalization along with Rooth's (1985) about simple alternatives as opposed to **one** fails to show any relative scalarity based on concession, unlike the above formalization. The maximality of U above is that of the relevant *wh*-domain, which can hardly be definite, and the minimality of U' is **one**.

3.2. Not the Lowest but any Indefinite Lower Bound Can Function as an NPI.

The process of conflict itself except full scalarity and its ultimate motivation was well captured in Lahiri (1998). Lack of concessivity and scalarity in Rooth and Lahiri, however, leads to the failure of distinguishing between (contrastive) focus and concession. (Contrastive) focus induces simple alternatives and simple alternatives to 'three' include not only numbers larger than 'three' but also numbers smaller than 'three,' whereas concession requires 'three' with CNC as a lower bound in the quantitative scale from the least as expected in the discourse, denying propositions with larger numbers scalarly. This may cause difficulty treating a case of NPI with a non-lowest bound in a scale such as (31), (32), and (33a,b):

- (31) sey saram -to an w -ass -ta
 three person-CNC not come-PAST-DEC
- (32) SAN NIn -MO KO -nakat -ta
 three person-CNC come-NEG-PAST
 (a, b) 'Not even three persons came.' (≈'Less than three came.')
- (33) a. Mary-nun sey muncey-**to** *(mot) phul-ess-e [- mondai-o mitsu -**mo** (deki-na-katta)]
 -TOP three problem-CONCESS not solve-PAST-DEC
 'Mary could ?*(not) **even** solve three problems.'
 b. Mary could ?*(not) **even** solve three problems.
 Scalar Implicature: Mary could solve less than three problems.

(33a) involves concessivity down to a lower bound 'three problems' because of the concessive marker/morpheme. But the lower bound has to do with the CT meaning of minimum expectation *sey muncey-nun phul-ess-e-ya hay* 'She should have solved (at least) three problems.' This way, a concessive and a CT are closely intertwined. The CT fall-rise or *-nun*-marked clauses in (34) can be paraphrased into concessive clauses in (35). CT is also based on concessivity. (36) shows how scalarity works with the lowest natural number 'one' and the CT marker in K (and J). One person cannot but mass can have partitions. The former with *-nun* cannot occur with negation but the latter can as in (36b) and (37). A weak NPI 'one person'- *i--ra-to* but not a CT or the strong NPI can occur in a monotone-decreasing context like a conditional, as in

- (34) a. Mary solved [three problems – L+H*LH%].
 b. Mary-ka sey muncey-**nun** phul-ess-e [- mondai-o mitsu-**wa** -]
 ~> 'Mary solved not more than three problems.'
- (35) a. *Even* if (Although) Mary solved three problems, she didn't solve ---.
 b. Mary-ka sey muncey-**nun** phul-ess-e-to, te -nun not phul-ess-e
- (36) a. han saram-**un** o-ass-e as opposed to (3), with -**to**, NPI S
 one person-CT came
 Scalar Implicature (conventional): 'More than one person did not come.'
 b. * han saram-**un an** 'not' o-ass-e Not scalar; no lower affirmative possible.
- (37) soju han pyeng -**un an** masi-ess-e Mass-partitions, OK scalar
- (38) han saram-*i--ra-to* (weak NPI) o-ki-**nun** (CT) hay-ss-e/o-ass-e (did/came) ((but not satisfied))

- (39) a. han saram- *i--ra-to* (weak NPI)/*han saram-
 one person be-DEC-CONC
un/*han saram-**to**) o-**myen**, sicakha-kess-ta
 -CT -CNC come-COND start-will-DEC
 'If one person *i--ra-to* (weak NPI) comes, I will start.'
 b. han saram -i o-a-to sicakha-kess-ta

'Even if one person comes I will start.'

- (40) a. ku-nye-nun tasi-**nun** o-ci anh-ass-ta/*w-ass-ta [*tasi* 'again' -*nun*: NPI]
 'She did not come ever again.' [though he came once].
 b. kanozo-wa ni-do-to-**wa** ko nakatta [*ni do to -wa* NPI]

CT is concessive admission of the uttered part and the speaker's intent is to convey the polarity reversed scalar implicatures denying a stronger element, if the uttered part is affirmative, and to convey those affirming a weaker element in the scale evoked in the context.

3.3. The Genesis of Free Choice and Negative Polarity: Concessive Clause.

Another concessive is *ever*, typically attached to *wh-*, and its equivalents in other languages, forming Universal Concessive Conditionals (UCCs) (König 1986, Gawron 2001)(e.g., *John would accept whatever (*every) salary they offered*). If the main clause happens to be negative, it develops into NPIs. Depending on the discourse presupposition of the clause, it may require a modal main predicate (FC), interrogative etc. (settle-for-less, weak NPI) or negative main predicate (strong NPI). This is demonstrated in Russian, as in (41).

- (41) a. *kto by ni* prishol (concessive (conditional)), my (ne) budem privetstvovat. (A. Ogloblin p.c.)
 'Whoever would (may) come, we would (not) greet him' (If *kto ni prishodit*
 <Indicat> occurs, a predicate like 'asks the time' follows.
Discourse presupposition: less desirable persons (not easy/likely to greet from the beginning) Then: we would greet him.
Discourse presupposition: the opposite – desirable ones, then a negative predicate ('not greet'.) follows, making the concessive construction. *ni-kto*.
 b. We would (did) not greet *any* (?*undesirable) persons (even the most desirable persons (including undesirable ones).

Adversely going down to the weakest endpoint on a quantity (*hana-to* or *sey muncsey-to/mondai-o mitsu-mo*) or quality (*amu-to, dare-mo*) scale (easy/likely for the other party to win) is making concession and if even in that situation it is not the case regarding the given predication then it is also not the case in all the relevant alternative stronger situations in the scale. Here, *amu, dare-* or *any/what*[Indef] are the weakest predicates, as witnessed in (42).

- (42) Whatever happens, we will not give up and go to the beach tomorrow.

4. The Exclusive –*MAN* 'ONLY' is Scalar as Well as Logical but Unlike –*TO* 'EVEN' and –*NUN* (CT)

Unlike –*to* 'even' and –*nun* the CT marker we have so far treated, –*man* 'only' may be logical in the sense that the denial of relevant alternatives is entailed in it. It is different from *only* in English in the sense that it typically has the agent's intentional or controllability meaning and various scalar meanings denoted by *only* in English are put in different expressions in Korean and Japanese. *Only* in English is

interpreted in its exhaustivity as well as in its scalarity in the predicate and elsewhere. On the other hand, *-man* in Korean is interpreted often in its exhaustivity and in its scalarity in quantificational (including numeral and predicate) contexts. This is largely the case in Japanese, although there are some interesting differences between K and J. In English, *only* in (43a), (44a), (30a) and (31a) are scalar but their counterparts in Korean are not *-man* ‘only’ but some other expressions. Consider:

- (43) a. I *only* talked to a secretary. [scalar or logical (ambiguous)]
 b. pise-hako *pakk-ey* yayki-ha-ci *mot* hay-ss-ta [not - except] [scalar]
 secreatary-with except talk not did
 c. pise-hako-*man* yayki-hay-ss-ta [exclusion] [logical]
- (44) a. I only jumped 1.90m. [scalar]
 b. na -nun 1.90m *pakk-ey* *mot* ttwi-ess-ta [high or long jump (or running)] [scalar]
 c. na-nun 1.90m -*man* ttwi-ess-ta [running situation, not high or long jump, exclusion interpretation]
- (45) a. I am only a secretary. [scalar]
 b. na-nun pise -i-l ppwun/ttarum-i-ta
 I -TOP secretary-be-PreN-PPWUN-be-DEC
 c. * na-nun pise -man-i-ta
- (46) a. I became only a secretary. [scalar]
 b. na-nun pise-ka toy-ess-ul ppwun-i-ta
 c. na-nun pise *pakk-ey* mos -toy-ess-e

The Korean counterpart of the scalar reading of (43a) is (43b). In (43b), an exception phrase *pakkey* ‘except’ has been employed together with an ability modality negation marker *mot* ‘not able to,’ denoting unfavorable circumstances. (43c), with *-man*, can only denote exhaustivity. A parallel relation of scalarity holds between (44a) and (44b). (44c), with its exhaustivity/exclusion interpretation and intentional meaning, can only be used in a running situation felicitously because we can hardly adjust a high or long jump. With an identificational predicate nominal, as in (30), *only* in English is scalar and its equivalent in Korean is another morpheme, not *-man*.

However, *-man* in Korean is also applied to a lower element in inherent scales of numerals, quantifiers and predicates, not to a highest or higher element, as in (41), (42) and (43):

- (47) a. Yumi-nun sakwa-rul sey kay-man mek-ess-ta
 -TOP apple-ACC three CL-only eat-PAST-DEC
 ‘Yumi only ate three apples.’
 b. * Yumi-nun sakwa-rul yel kay-man mek-ess-ta
 -TOP apple-ACC ten CL-only eat-PAST-DEC
 ‘Yumi only ate ten apples.’ [when the total is ten] (*pakkey* may be better to show dissatisfaction)
- (48) Yumi-nun sakwa-rul ilpwu/celpan/3-pun-uy-2-man mek-ess-ta
 -TOP apple-ACC some/half/2/3 only ate
 ‘Yumi only ate some/half/2/3 of the apples.’
- (49) *Yumi-nun sakwa-rul motwu/taypwupwun-man mek-ess-ta
 -TOP apple-ACC all/most -only ate
 ‘Yumi only ate all/most of the apples.’
- (50) Yumi-nun Inho-rul mil-ki-man hay-ss-ta
 -TOP -ACC push-NMN-only do-PAST-DEC
 ‘Yumi only pushed Inho.’ [not a higher predicate such as ‘hurt.’]

In *taypwupwun-man* ‘only most’ in (49), if *-man* is replaced by *-nun*, the sentence becomes quite all right with the implicature of ‘not all.’ The quantifier *taypwupwun* ‘most’ in Korean, on the other hand, leans toward the positive totality and seems to block the attachment of *-man*, which otherwise requires

exclusion of a higher alternative ‘all.’ (50) shows that *-man*, applied to a predicate, denies a stronger one, turning out to be scalar. Different scalar ‘limiting’ meanings arise below. The correspondence for (51) in K. is still another expression.

(51) Only yesterday did we have a phone-call from her.

(52) Only yesterday, we had a phone-call from her. (Taglicht 1984, Harada et al 1992)

Some quantificational operator head *ONLY* may be posited so that its agreement association with its marker and its scopal behaviour (38) may be explained (Y. Lee 2003) and for blocking implicatures (Sauerland 2004) in my Contrastive Focus (or Horn’s metalinguistic negation) situation (54). But scalar meanings involved in *only* are semantically/pragmatically important.

(53) a. Sue-man(-un) motu-ka cohaha-n-ta (In the underlying order, ($\forall > \text{only}$) [not ambiguous])
--only-TOP all-NOM like

(i) ‘All like only Sue.’ ($\forall > \text{only}$) (ii) ‘Sue is the only all like.’ ($\text{only} > \forall$) [ambiguous]

b. Sue-man-ul motu-ka cohaha-n-ta
-only-ACC all -NOM like

‘All like only Sue.’ ($\forall > \text{only}$) [not ambiguous]

(54) a. They did not play MANY of Beethoven’s symphonies. They played ALL of them.

b. They did not play **only** MANY of Beethoven’s symphonies. They played ALL of them.

c. *They did not play only MANY of Beethoven’s symphonies. They played a few of them.

d. Dia bukan memutuskan dengan hanya tiga lelaki, tetapi empat/*dua.

she not cut ties with only 3 guys but 4/*2 (Indonesian, D. N. Rosidin)

‘She dumped not only three guys but four of them/*two of them.’

As in (54a, b), the CF pairs are mediated by metalinguistic negation. (54a) can be said to be equivalent to (54b), but if *only* occurs with quantificational expressions such as numerals, quantifiers and scalar predicates in its scope, it necessarily gets a scalar interpretation under the scope of negation to block the denial of stronger alternatives but not all alternatives including denial of weaker alternatives. Therefore, Sauerland’s (2004) postulation of *ONLY* under negation for a metalinguistic negation cannot account for cases like (17c), where a correction alternative is offered in the second conjunct. If we want to incorporate such corrections into a broader range of metalinguistic negation, we may have to consider postulating a Contrastive Focus (CF) operator under negation so that only the metalinguistically negated expression is picked up and all the denials of relevant alternatives can be negated and any relevant affirmative alternative can occur in the second conjunct or sentence. In Indonesian (54d), --- *dumped not hanya’only’ 3 tetapi ‘but’ 4* is all right but --- *tetapi ‘but’ 2* is ungrammatical, which exactly shows that *hanya’only’* is only scalar here and *tetapi ‘but’* functions as SN here.

5. CONCLUSION.

The concessive markers *-to* (and *-mo*) evoke scales strategically to make a negative or modal assertion/request, combined with an Indefinite, whereas the Contrastive Topic markers *-nun* (and *-wa*) evoke scales to convey conventional implicatures of denial of a stronger element (or affirmation of a weaker element). The two mechanisms are systematically related via negativity and concessivity. The correlations between Contrastive Topic and PA conjunction (*-ciman*) on one hand and between Contrastive Focus and SN conjunction (*ani-i-ra*) on the other have been explored to show the linkage between information structure and argumentation structure of Q- and R-implicatures crosslinguistically. The Exclusive marker *-man* is more logical than *only* and is also scalar with inherently scalar quantificational expressions. The scalar meanings of *only* are expressed by the exceptive phrase *-pakkey* and negation. The denial force in *-man* is entailed and *-man* does not involve overt concessivity unlike in the other markers.

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