Negative Polarity Items and Free Choice in Korean and Japanese: A Contrastive Study*

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1. Introduction

Monotone-decreasingness (Ladusaw 1979) and non-veridicality (Zwarts 1995) are nice function types to characterize the licensing contexts of NPIs and Free Choice Items (FCIs) but the former fails to account for weak NPIs and the latter for weakly negative predicates ('turn off', 'remove', etc., see Joe and C. Lee 2001) and emotive factive predicates ('lucky', etc.)(C. Lee 1999).[1]

Here we propose a unified solution in terms of concession. The majority of languages of the world such as Japanese, Korean, Chinese, Mongolian, Hindi, Zapotec and Basque form NPIs and FCIs by combining *wh*-based (otherwise, [*any*]-like) indefinites and concessives that denote the notion of concession,

mostly equivalent to 'even' in English (see Haspelmath 1993 [57 out of 100 languages are *wh*-based] and others for facts). In all languages, the lowest indefinite natural number 'one' or a minimizer accompanied by a concessive also forms an NPI. This type is quantitative and can be explained by Horn (1972) and Fauconnier's (1975) scales, which, I claim, are triggered by concession. Going down to the lower bound for the easiest (or likeliest) on a contextually relevant scale of graded alternative quantities is making concession. If it is not the case with the relevant proposition even in that concessive minimized situation, which is the least likely, then, a higher or the maximized quantity does not hold either and the consequent emphatic total negation is what the speaker means to convey.

For the former *wh*-based type, which is qualitative, concession is made by arbitrary choice. However arbitrarily, property-wise, you may choose a member, up to maximization, from the *wh*-domain (the most arbitrary way is the easiest), if it is not the case with the relevant proposition, it is an NPI, and if it is the case in uncertain but modally maximally possible contexts, it is an FCI, but if it is the case in uncertain but modally existentially possible contexts, it is a weak NPI. A *wh*-question is a set of alternative answers as (true) propositions (Hamblin 1973 and Karttunen 1974) and an indefinite from it can stand for any (arbitrary) non-specific member of the same set (as in a choice function). I call the set of individuals etc. that correspond to the *wh*-information focus a *wh*-domain. The *wh*-based NPIs, however, are indefinite *wh*-forms with Concessives (CNC, henceforth), not interrogative *wh*-words, contrary to claims made in the literature. This paper will show in Korean and Japanese how the notion of concession is central to understand polarity and how compositionally as well as intensionally polarity-related phenomena can be resolved.

2. Types and Distribution

In general, three types of the whole related phenomena have been identified and discussed: strong NPIs, weak NPIs, and FCIs. Consider Zwarts's (1995) definition of veridicality:

(I) *Op* is veridical iff *Op* (*p*) → *p* is logically valid. Otherwise, *Op* is nonveridical.

(II) A nonveridical *Op* is averidical iff *Op* (*p*) → ¬ *p* is logically valid.

An averidical operator makes its proposition always false, being strongly negative. A nonveridical though not averidical is weakly negative. A veridical context makes its proposition true, typically being episodically assertive. If we classify contexts accordingly in Korean:

(III) i. averidical contexts (antimorphic [overt negation]; anti- additive): negated S, *eps-ta/moru-ta* 'not-exist'/'know' S, *cen-ey* 'before' clause, (strongly negative predicates)

ii. nonveridical contexts: [weak NPIs] conditionals, generic/ universal modifier expressions, questions, *kikkethaeya* 'at most', emotive factive predicates, (negative predicates); [FCIs] modals, imperatives, future tense, preferences/comparatives (strong form ‐*to*), generics,etc.

(IV) In Greek (Giannakidou 1998):

i. averidical (NPIs): negated S, *xoris* 'without' phrase, *prin* 'before' clause

ii. nonveridical (Affective Polarity Items): questions (*pote* 'ever'), conditionals (*kanena* 'any'), *xiriazete* 'need',etc.

iii. non-episodic (Free Choice Items): modals, conditionals, S/NPcomparatives, imperatives, future, generics/habituals, etc.

Zwarts (1990) originally had a strong vs. weak division but later added a one more stronger or *strongest* type that is argued to require the strongest antimorphic (overt negation) function. But this additional type is theoretically possible and may be instantiated in naural language adverbial NPIs, as in Dutch, but mostly counterexamples to the suggested adverbials such as *one bit*, *pakkey*

'except', *shika* 'except' can be found, as in C. Lee (1999).[2] Thus, the hierarchical mathematical function types of monotone-decreasing, anti-additive [e.g. *no*, *before*, *every*] and antimorphic [overt negation] are very suggestive but do not exactly match natural language polarity occurrences. As shown in (III) and (IV), Greek is similar to Korean in licensing contexts. In Korean and Japanese, there is no prenominal negation corresponding to 'no'.

In Korean, very rough classes of different veridicality contexts licensed by different NPI types, the strong *amu/etten* N-*to* 'any/what N-CNC' and the weak *amu/etten* N-*i-ra-to* 'any/what N-be-DEC-CNC,' including the *amu/etten* N-*i-na* 'any/what N-be-or' type, which has universal force and can hardly be included in the classification, can be shown, as follows:

Table 1. The distribution of *amwu* (*etten*) N-*to/-i-rato/-i-na* in veridicality contexts

	amu/etten N-*to*	*amu/etten* N-*i-ra-to*	(*amu/etten* N-*i-na*)
1. averidical　+□	✓	*	*
2. onveridical　-1	*	✓	✓
3. veridical	*	*	(✓)

We can notice the behavior of the strong and weak polarity types as well as the *-i-na* type in different licensing contexts specified in detail, as follows:

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2) *Shika*, ranked as the strongest NPI by Kato (1985), can occur in a rhetorical Q/modal context: *gakko ni nanka, issuu-kan ni ichi-do shika iku**monka*** 'To school, shall I go more than once a week? (I won't)'

Table 2. The distribution of *amwu*-N-*to/-i-rato/-i-na* in various contexts

Types Contexts	*Amwu*(etten) N-*to*	*amwu*(etten)N-*i -ra-to*	*amwu*(etten) N-*i-na*
1. Negative S	✓	*	*(?)
2. *eps-/moru-*'not -exist'/'not-know'	✓	*	*
3. '*before*'-clauses	✓	✓(?)	?
4. Negative Predicates	✓(?)	✓?	?
5. Modals	*	✓	✓
6. Imperatives	*	✓	✓
7. Future tense	*	✓	✓
8. Generics	*	✓	✓
9. *kikkethayya* 'at most'	*	✓	*
10. Rhetorical Q	*	✓	✓
11. Questions	*	✓	?
12. Conditionals	*	✓	?
13. Comparatives/ Prefer	✓/*	*/✓?	*/✓
14. Habituals	*	✓?	*
15. Universal/Generic Quantifier	*	✓	✓
16. Affirmative S	*	*	✓

Those *wh*-based NPIs and FCIs in Korean such as *nwukwu-to* 'whoever' (or *etten* N-*to* 'whatever N') and *nwukwu-ra-to* (or *etten* N-*i-ra-to*) fairly exactly correspond to their counterparts *amwu*-N-*to* and *amwu*-N-*i-ra-to* on Table 1 in licensing contexts, although *nwukwu-to* with oblique cases is better in modal contexts than *amwu-to*. The free choice *nwukwu-ra-to* is perfect in modal contexts. In comparatives, however, the *wh*-based free choice items such as *nwukwu*-pota-*to* (or *etten* N-*pota-to*, *pota*='than') 'than whoever else' (or 'than whatever N' are perfect whereas the *amu-pota-to* (or *amwu* N-*pota-to*) form is not so felicitous. It is noted that only in comparatives but not in other contexts free choice takes the strong form -*to*, not the weak form -*i-ra-to*.

Turning to the types and distribution of polarity-sensitive items in Japanese, it

must be noted first that Japanese does not have the series of items corresponding to the non-*wh*-based *amu* N-*to* or *amu* N-*i-ra-to* in Korean or *any* in English. Japanese only has the *wh*-based polarity items such as *dare-mo* 'who+CNC' and *dare-de-mo* 'who+be+CNC,' which morphologically correspond to the Korean *wh*-based polarity items. Observe their types and distribution in Japanese in Table 3 below and compare them with those in Korean in Table 2:

Table 3. The distribution of *donna* N-*mo/-de-mo* in various contexts

Types Contexts	A daRE-MO doNO N-MO doNNA N-MO naNI-MO	B DAre-mo (ga) DOno-N-mo DOnna-N-mo NAni-mo	C daRE-DEMO doNNA N-DEMO naN-DEMO	D DAre-demo DOno N-demo D o n n a N-demo NAn-demo
1. Negative S	✓	✓	*	*?
2. 'not-exist'/ 'not-know'-Neg	✓	✓	*?	*?
3. '*before*'-clauses	*/✓	*	*?	*?
4. Negative Preds	✓(?)	✓	✓	✓
5. Modals	*	✓	✓	✓
6. Imperatives	*/✓	*/✓	✓	✓
7. Future tense	*	✓	✓	✓
8. Generics	*/✓	*/✓	✓	✓
9. *takadaka* 'at most'	*	*	✓	✓
10. RhetoricalQ	✓	✓	✓(?)	✓(?)
11. Questions	*	*	✓?	✓?
12. Conditionals	*	*	✓?	✓
13. Comparatives	✓	*	✓	✓
14. Habituals	*	*	*	*
15. Universal/Ge-neric Quantifier	*	*	✓	✓
16. Affirmatives	*	✓ ?(o)	✓(o) ?(s)	✓(o) ?(s)

We can clearly see the typological and distributional affinities between the

strong type in Korean (*amu/etten* N-to) and that in Japanese (*donna* N-*mo*, (A)). The strong type items occur in overtly negative Ss, inherently negative and strongly negative predicates, and 'before' clauses, rather felicitously in Korean and defectively in Japanese (OK in oblique case and not OK in structural case positions), and a few other contexts in both languages. They do not occur in modal, imperative, generic and future tense contexts where FCIs occur, and in weak polarity (affective) contexts such as conditionals and 'at least' expressions where weak NPIs (K: *amu/etten* N-*i-ra-to*, J: *donna* N-*mo*) occur in both languages. Therefore, it is clear that the strong and weak types are virtually mutually exclusive in licensing contexts and can be said to be common in their semantic nature, justifying our unified approach. They are variable-like INDefinites from *wh*-domains plus CoNCessives.

The third type in Korean (*amwu*(*etten*) N-*i-na*) became a bit different from the other two types in the sense that it is licenced in some episodic assertive Ss, which is not characteristic of negative polarity. However, this type also prefers the modal and other uncertainty contexts like the weak form free choice type. In this respect, the B type of J, the first syllable of which is high-pitched and accented as in *DAre-mo* (*ga*), became different from the negative polarity A type (with its deaccented high-pitched second syllable as in *daRE-MO*), being licensed by assertive Ss rather freely with its universal force. However, I claim that even this type, being rooted in the *wh*-domain, is distinct from the real universal quantifier such as *minna* (it cannot occur in the object position, as in ?*DAre-mo ni ae-ba 'Why not meet anyone'). Typically, free choice develops into something like universal quantifification but because of concessive arbitrary choice in quality, derogatory sense arises, as in the C type (*daRE-DEMO*) in J and in the *amwu* N-*i-na* type or *amwu* N-*i-ra-to* type [settle for less] in K or in *just any* in English. Because of concessive arbitrary choice, leaving the choice

largely with the other party, the sense of 'indifference' (von Fintel 1999) also occurs as in *whatever*. In J, a subject IND*wh- -mo* in the *mae-ni* 'before' clause is unacceptable, whereas an adjunct IND*wh- -mo* such as *-kara - mo* is rather acceptable (e.g., *doNO shuppansha kara-mo tegami-ga kuru mae-ni* --- 'Before a letter arrived from whichever publisher, ---.' See Table 3).

Sentences with strong *negative predicates* such as *refuse* and their corresponding expressions such as *kecel-ha-ta* 'refuse' in K and in other languages entail negation of their complement sentences. These predicates are also anti-additive and tend to license relatively strong NPIs in their complements in K, J and Dutch, although negation in them is not overt and this makes its sentence a little unstable in K but quite tolerable in J, licensing between the strong form and the weak form. These are not included in Zwarts' (1998) licensor type classification. Hoeksema and Klein (1995) indicate their monotone decreasingness for Dutch and English, without pursuing the relative degree or type of their negative force. The *removal* type predicates such as *disappear* and *turn off* and their equivalents in K and J (see Joe and C. Lee 2001) are weaker in negativity because of the process sub-event in the event denoted by the verb and not monotone-decreasing but they are negative and suspend implicatures like other negative contexts, behaving differently from their antonymous positive *generative* type predicates such as *appear* and *turn on*.

We tried to sketch the types and distribution of polarity-sensitive, free choice items and their quasi-universal derivatives licensed even by episodic contexts in K and J. The strong form is licensed by negative contexts on the one hand and the weak form is licensed by affective or modal contexts via mutual exclusiveness. Therefore, although averidical entails nonveridical, it does not

follow that a strong NPI form can also be used in affective or modal contexts because of mutual exclusivemness in J/K, unlike in English and Hindi, where a unique form such as *any* and (*ek*) *bhii* is used. Emphatic FCIs tend to develop into quasi-universal items. We now turn to the central issues of concession and its related notions of scalar alternatives and arbitrariness.

3. How Concession Works

3.1. Quantitative Scale

When the particle –*to* in K or –*mo* in J is attached to a definite NP, it either has an additive meaning predominently or a concessive meaning (C. Lee 1993) though weakly with emphatic stress depending on the context. Even in the latter case of concessive meaning, a definite + –*to/-mo* can occur with either a positive or negative predicate. On the other hand, *-to/-mo* attached to an indefinite such as a numeral/minimizer and INDefinite-*wh*- including *amu*- (and *any* (Lee and Horn 1994)) can only have a concessive meaning and behave as an NPI, occurring only with negative predicates. This prevalent phenomenon is impossible without compositonal as well as intensional principles, and is indeed crosslinguistically witnessed, as in Hindi (*ek* 'one'+*bhii* (CNC)) and various other languages. Consider the following examples:

(1) a. sacang –*to*   w-ass-e/an w-ass-e.
    b. shachoo-mo   kita/ko-nakatta.
        president-also/CNC came/didn't come
        'The president also/Even the president came/didn't come.'
(2) 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.'= 'No one came.'

(3) a. han saram‐i   an w‐ass‐ta.
        one person‐NOM not come‐PAST‐DEC
    b. hitori (‐ga) ko‐nakatta.
        (a, b) 'One person didn't come.'
(4) a. *han saram ‐to w‐ass‐ta.
    b. *hitori ‐mo   kita.
        'One person‐CNC came.'

In (2), *han saram* 'one person' is indefinite, nonspecific and not a partition, if followed by the CONCESSIVE (CNC) marker, as given. On the other hand, if it is followed by a NOMinative marker, as in (3), it must be either specific or a partition, though not definite, taking wide scope over the negation in the sentence. Therefore, it is not the case that 'a higher number of persons didn't come' is entailed by (3).

All the rest may have come except one. Any cardinal predicate in the prominent subject position should be so in any conceivable language (in J/K, even an ACC‐marked object in situ may not have wide scope, unlike in English). An emphatic/focal stress on *han* 'one' does not change the situation and polarity does not follow (but it can simply add a contrastive focus, meaning 'not two/three/‐‐‐'). Therefore, attributing polarity simply to emphasis/focus, as done by Rooth (1985), Krifka (1994) and Lahiri (1998) or to simple (conversational) scalar implicatures as proposed by Chierchia (2000) is not adequate enough.[3] Further, the simple focus‐induced alternatives to *sacang* '(company) president' followed by

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3) Chierchia's 'morphologically driven' approach simply lacks generalization and ultimate motivation behind polarity. Concession triggers an adversity scale and suspends scalar implicatures. Therefore, 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': *Even Kim or Lee will show up* ('Both will show up' is OK). Without *even*, it is suspended.

a NOM marker may be {president, professor, doctor, policeman, congressman, section chief, secretary, ---}. In other words, Rooth's focus alternatives are not scalar and his simple extension of the theory to *even* for likelihood implicatures lacks motivation and explanation. The ultimate motivation of the triggering of scalar alternatives lies in concession. When you make concession you go down the scale of alternative adversative steps, maybe to the ultimate lowest bound for negative polarity. In cardinal predicates, the lowest or the weakest natural number *one* typically constitutes an NPI (with a common noun) followed by the Concessive marker, and, therefore, must be associated with some negative main predicate. In normal situations, one person/thing's (as opposed to a plural number) being associated with a predicate event such as one person's coming is the most likely (or easiest) thing to happen. If concession is to be made one must meet the worst or least likely thing. Therefore, the given weakest or easiest bound must be negatively rendered, and if it is the case, then adversity decreases (i.e., it becomes easier for the event to be negative) along (up) the scale of the relevant *wh*-domain (*how many/much* N), in the reverse order of the original strength of cardinal predicates. In a positive situation, a strong cardinal/measure entails a weaker one (if two men came, one man came), monotone-increasingly. However, in an adversative or negative situation, the entailment is reversed; if one person did not come, two persons did not come, *monotone-decreasingly* in a scalar way. Thus universal/total negation of the maximization of the relevant *wh*-domain is possible with this type of NPIs. The emphatic concessive adversativity reaches maximization reversely. We can roughly say (2) has the original assertion part (5) and the likelihood hierarchy implicature part (6):

(5) $\neg\exists x[\textbf{one}(x) \wedge person(x) \wedge x\ came]$ (assuming that **one** is true of any entity that contains at least one atomic part)

(6) For every cardinality natural numeral predicate U, U' such that $\forall x[\textbf{U}(x) \rightarrow U'(x)]$,

likelihood $(\hat{}\neg\exists x[\mathbf{U}(x) \land \text{person}(x) \land x \text{ came}])$
$\rangle$likelihood $(\hat{}\neg\exists x[\mathbf{U'}(x) \land \text{person}(x) \land x \text{ came})]$

Here we can notice that positive scalarity is reversed to negative scalarity in (6). Lahiri's (1998) formalization along with Rooth's (1985) about simple alternatives as opposed to *one* fails to show scalarity based on concession, unlike the above formalization. The maximality of U above is naturally that of the relevant *wh*-domain, which cannot be either infinite or definite, and the minimality of U' is simply *one*, although maximality here can be $+\infty$ theoretically.

Still we must explain why the strings of (4) above are *ill-formed*. Some linguists may claim that such strings are syntactically intact. But we believe such strings are ill-formed if they are realized on the surface without being complemented by semantic compositionality and pragmatic felicity, particularly when they are syntactically frozen to a certain degree. Particularly, because English *any* lacks any CNC marker, those linguists fail to reach a compositional analysis of the simple NPI construction. Roughly speaking, the combination of a lower bound of natural numbers *one* and CNC expects a strongly negative context for an emphatic universal negation through the interpretations of (5) and (6). If this grammatical expectation is not met as in (4), the relevant string collapses. Up to the point of *han saram -to*, *hitori -mo* 'one person + CNC,' because of concession marked by CNC and its foreseen negativity/adversity, the likelihood implicature is such that a proposition involving a stronger cardinality predicate is likelier than one involving a weaker or the weakest cardinality predicate. However, if it turns out to be combined with a positive rather than licensing predicate like *w-ass-ta/kita* 'came,' because of $\forall x[\mathbf{U}(x) \rightarrow U'(x)]$, likelihood is reversed to the following, contradicting (6):

(7) likelihood ($^\wedge\neg\exists$x[**U**(x) $\wedge$ person(x) $\wedge$x came])
    $\langle$ likelihood ($^\wedge\neg\exists$x[**U'**(x) $\wedge$person(x) $\wedge$x came]]

This process of conflict itself except scalarity was well captured in Lahiri (1998). Lack of scalarity in Rooth and Lahiri, however, leads to the failure of distinguishing between contrastive focus and concession. Contrastive focus induces simple alternatives whereas concession induces scalar alternatives. The simple alternatives solution may have difficulty treating the following example:

(8) sey saram -to   an   w   -ass   -ta.
    three person-CNC not   come-PAST-DEC
(9) SAN NIn   -MO   KO -nakat -ta.
    three person-CNC come-NEG-PAST
    (a, b) 'Not even three persons came.'
    = 'Less than three came.'

Simple alternatives to *three* include not only numbers higher than *three* but also numbers lower than *three*, whereas concession requires *three* with CNC as a lower bound on a scale from the least as expected in the discourse and makes it an NPI, denying propositions involving higher numbers in a scalar manner. In the latter case, propositions involving numbers lower than *three* are not committed to their negativity and leave the possibility of their positivity as an implicature, letting it mean 'Less than three persons came'.

If CNC is attached to a universal quantifier, it becomes ill-formed; CNC requires a lower bound and a universal quantifier as a maximality operator and cannot function as a lower bound. Thus:

(10) a. *motu -to   (an) w   -ass   -ta.
         all   -CNC not come-PAST-DEC

   b. *minna -mo   ko -nakat-ta/kita. (with Neg slightly better)
      (a, b) 'Even all didn't come/came.'

   Then, what happens with a definite NP such as *sacang* 'the President' plus
CNC in (1)? If it occurs in a negative context, it functions as an NPI. Together
with a negative predicate, it becomes the least likely thing to happen. On the
other hand, if it occurs with a positive predicate, it itself can be the least likely
being (to happen); a definite NP can be either the weakest or the strongest on
the scale unlike an indefinite, which must be on the weaker end inherently with
CNC. The affirmative version of (1) in the concession interpretation, though not
so easy to get, therefore, is still the least likely thing to happen (so the section
chief and the secretary also came) and we can safely argue that there is only one
concession denoting marker *-to/-mo* or particle *even* in favor of Wilkinson's
(1996) one *even* thesis and against Rooth's two *even* thesis.

   The stressed *hana* 'one' or minimizer followed by a classifier and CNC has
become rather frozen, though still compositional, as a strong NPI. Thus it can
appear in all strongly negative contexts such as *eps-* 'not exist'/*moru-* 'not
know,' the *before* clause, and some negative predicates. In some cases and
languages, CNC is (optionally) incorporated into the NP, as in English *a wink*.
The combination of *hana* and *-to* without a classifier, on the other hand, became
more frozen and came to be used as an adverbial NPI not only for countables but
also for mass and abstract things at least in Korean. It naturally came to mean
cokum-to 'a little + CNC' and then *cenhye* 'at all.' Observe:

(11) a. ku-nun yangsim -i   hana-to/cokum-to/cenhye eps-ta.
        he-TOP conscience-NOM one-CNC/a little-CNC/at all not exist
     b. kare(-ni)wa ryooshin-ga ?hitotsu-mo/sukoshi-mo/zenzen/ kakera-mo nai
        (*kakera* 'piece')

(a, b) 'He has no conscience at all.'

In (11), unlike *hana-to* 'even one' and *cokum-to* 'even a little,' which originate in lower ends, *cenhye* 'at all'(K) and *zenzen* 'at all'(J), originate from universal quantifier expressions and that is why they cannot be followed by *-to/-mo* (CNC) but because they occur only with negation for universal negation with negation narrow scope (∀¬) they tend to mean the same as the minimizing NPIs (¬∃). For instance, *ever* may also originate from a universal expression (as in *forever* and *ever-lasting*) and may still be used with emphasis on it like *not Ever* but more often it is used in its INDef plus CNC sense of *even one time* in affective contexts (Heim 1984, Lee 1999). In other words, although those universal-based NPI expressions started out from universals without CNC, they acquired concessive meaning indirectly as soon as they become polarity-sensitive and become equivalent to weak quantitative expressions in wide negative scope. However, because they come from the universal, they cannot occur with Contrastive Topic, as in **cenhye* 'ever'-*nun*(TOP), **kyelkho* 'decisively'-*nun*(K), **zenzen* 'ever'-*wa* (TOP)(J), unlike minimal expressions, as in *han pen-un* and *cokum-un* (Lee 2000). It is because there is no higher degree or partition left to deny for a conveyed meaning. What is interesting in K and J is that even those lowest cardinal numeral and quantitative minimizer NPIs have the strong form that are licensed in strongly negative contexts and the weak form (*-i-ra-to*(K), *-de-mo*(J)) that are licensed in affective contexts such as a conditional (e.g., *han saram-i-ra-to o-myen malhay* 'Tell me if even one person shows up.'). They are mutually exclusive in contexts and if both can occur in rare unstable contexts, they show a subtle difference in meaning: strong form leans toward total negation and the weak form toward a 'begging' or 'settle for less' meaning. In English and many other languages, the same *ever* and *any* are licensed in both contexts. In J/K, the weaker form can hardly denote universal negation but if it is used with

a permission modal predicate such as 'all right' any higher number/amount is also permissible degree-wise. In the anti-additive context of a modifier of a generic/ universal head nominal, the weak form is licensed in J/K, as follows:

(12) a. cungkuk-ey han pen-i-ra-to ka po-n saram-un son tul-e-ra.
　　　China-to one time-COP-DEC-CNC go PreN man-TOP hand raise
　　　'Those who have ever been to China, raise your hands!'
　　b. chuugoku-e ichi-do-de-mo it-ta hito-wa te-o age-nasai.
　　　China-to one-time-COP-CNC go-PAST person-TOP hand raise

Those quantitative scale NPIs are based on the *wh*-domain in such a way: they can serve as answers to questions such as '*How many* students came?' or '*How much* water did you drink?' Then, the answer set of propositions is based on the contextually determined set of 'students' or amount of 'water'--- *wh*-domains. The concessive lowest bound denial is easily verified but if a universal expression such as 'every student' or 'all water' appears, that part is not easy to determine; it is context-dependent and not transparent to everyone including the hearer and speaker. Therefore, it cannot be 'definite,' although it is approximated to definite. If a cardinal numeral with a positive matrix predicate is given as an answer, e.g., 'Seven students came,' then it is a maximal number that 'came' to be informative enough but if it appears with a monotone-decreasing matrix predicate such as *sufficient* for a question with the same predicate, it is minimal and any higher number is also sufficient (cf. Beck and Rullmann 1999). It has a hidden sense of permission deontic modality, which has an inherent concessive meaning.

It turned out that quantitative scalar NPIs are also basically *wh*-based, although they are restricted to quantity. Let us now turn to the notion of qualitative scale.

3.2. Qualitative Scale

C. Lee (1996) discussed how concession calls for arbitrariness in treating qualitative NPIs including *amu-* - (*-ra*) *-to* and *any*, which, I claim, are underlyingly based on INDefinite-*wh* pronominals/determiners/predicates. Theoretically, any number of modifiers can modify a head noun either as attributive adjectives or as their equivalent restrictive relative clauses. If something is *n* times modified, an *n* number of subsets arises (a subset of a subset of a subset --- of the N). The more modified, the stronger it becomes in information. If modification decreases, the head nominal gets more general and weaker in information and the weakest possible is a headless *what*.[4] It may stand for a totality in ontology but can be restricted in contexts. Therefore, concession is made by going down the scale of different layers of characterization of the head N or even no head denotation in negative or affective contexts. The headless interrogative pronoun *what* and its equivalents in all other languages can refer to anything in the world/context for an answer (*wh*-domain) and its indefinite form can be just the same form *what* in many languages, as in J/K (*muet*-K, *nani*-J) or its reduplication, as in *mezemeze* (Moksha Mordva). Reduplicated IND-*wh*-forms easily function as free choice items in many languages such as Latin (*quid-quid* 'whatever7what-what')(Haspelmath 1993). In still many other languages, the IND-*what* is a combination of *what/ quelque* and *thing/chose*, equivalent to an abstract nonspecific non-partition SOMETHING. This is the weakest predicate we can think of on the scale of quality/property. Then, by concession with its expression *-to/-mo/even*, we go down step by step, level by level of properties from the most specific, say restricted by *n*

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4) In Swahili, *what* with no head N is *nini* and *what* with a head N is *gani* for stronger or specific information, according to M. Matondo.

modifications, to the *n* -1 modifications, to the lowest possible or weakest predicate, by increasing the degree of concession and thus the degree of arbitrariness proportionally. So, the expression [*n* modifications + *etten/amu/ donna*(J)-N-(*i-ra-*)*to/-*(*de*) *-mo*(J)] denotes an *arbitrary* N-denotation with *n* properties (from *n* modifications). If there are no modifications, then the levels of arbitrariness increase because the *wh*-domain widens accordingly. This arbitrary choice is done by 'blind' choice (with your eyes closed) in its strict sense and is conceptually different from the pure quantitative scale. However, it is tested by going down the scale of arbitrariness degree (for the most likely/easy thing) to turn it to the most adverse/unlikely thing because of concession. If the context is strongly negative, universal negation is meant; if affective, 'begging' or 'settle for less' for an existential satisfaction is meant; and if modal, free choice of approximation to universal is meant by means of 'betting' in the choice with permission functor plus disjunctive arguments along the scale (C. Lee 1997). Speakers intensify this degree of arbitrariness with the prosodic feature of stress. Fine (1985) independently discussed a related notion of 'arbitrariness', interpreted as possessing all and only properties characteristic of a class. Tovena and Jayez (1997) nicely applied it to free choice and polarity-sensitive *any* in a unified way, independently of my earlier work.[5] This notion has also something to do with Dayal's (1999) subtrigging in the sense that modification by a relative clause or postnominal restrictive PP/adjective, which licenses *any* in English, is a way of partitioning the class of objects denoted by the head N.[6] Topicalization is involved in the process of relativization (C. Lee 1973). Topic again involves

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5) They attribute credit to Kempson (1985), who introduced Fine's theory of arbitrary objects to the linguistic analysis of *any*.

6) In English, 'You may/*must dance with any man' but 'You must dance with any man with a silk hat' is OK. Consider: 'You must dance with Joe or Sam' -/-〉 'You must dance with Joe and Sam,' unlike the corresponding Ss with 'may.'

conditional (Haiman 1978, von Fintel 1994), which involves alternative worlds/contexts and thus uncertainty. A topic statement is a generic or characterizing one (C. Lee 1996). In that sense, polarity is basically a discourse phenomenon, though semantically-rooted. That modification/topic/conditional part is assumed or presuppositional belonging to the restrictor in tripartite structure and the indefinite *any/amu/etten/donna* part corresponds to *wh*-words informationally. A conditional meaning affects the head NP that has an indefinite and a relative clause modifying such an NP is forced to be interpreted in the conditional meaning in Korean. If an IND-*amu/etten/muet*(K)*/donna/nani*(J) (N)*-to/-mo* or *any* occurs in a strongly negative context, it denotes sweeping total negation and does not need any subtrigging with either characterizing or accidental features for licensing, whereas subtrigging with characterizing features is needed for English *any* to be licensed in episodic or *must* contexts as FCI. In J/K, a weak polarity form is licensed in episodic contexts as FCI, if preceded or followed by a conditional with (anaphoric) dependency (e.g., *ku-nun nuku-i-ra-to chaca-o-myen panki-ess-ta* Lit. 'He greeted anyone$_i$ whatsoever if he$_i$ visits him' in its conditional-internal stressed reading with a pause before the conditional ---a stressed external wide scope reading without a pause is possible and even an unstressed internal 'begging' reading is also possible with a conditional pros.)

3.3. Where Does It Come From and Where Does It Go?

In argumentation, concession is typically made by the speaker's admitting the other party's or a hypothesized given assertion adversely and his/her projecting his/her own assertive position. A typical concessive construction has the following form:

(13) a. pi -ka   w-a-to   pikunic   ka-l kkeya. (K)

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                rain-NOM    come-CNC   picnic           go-FUT-DEC
        b. ame-ga    hutte-mo      pikunikku-ni   iku. (J)
           rain-NOM come-CNC    picnic-to     go-PRES
           'Even if it rains, (we) (will) go on a picnic.'
```

Because concession inherently triggers a scale, we will go on a picnic even if it is cloudy, which is less adverse than raining on the triggered scale. We can notice in (13) that the concessive clause ends with the same concessive ending/marker –*to/-mo*, just as in *even* in English *even if*. A concessive clause typically presupposes a conditional clause with a consequent clause negating the main clause of the concessive clause, as in (14) below[7]:

```
(14) a. pi -ka    o-myen        pikunic    an    ka-a. (K)
        rain-NOM come-COND picnic      not   go-PRES-DEC
        'If it rains, (people) don't go on a picnic.'
     b. ame-ga    hur-eba      pikuniku-ni  ika-nai.
        rain-NOM fall-COND  picnic-on     go-PRES-NEG
```

In (14) the conditional and the consequent go together, whereas in (13) the concessive proposition and the consequent proposition are not compatible. When a concessive clause with a concessive connective/ending as in (13) has a conditional/ hypothetical meaning behind (called 'concessive conditional') rather than a factual adversative meaning, its main clause tends to be modal/generic/future in meaning.   If the concessive clause takes a stressed *INDwh*-form NP, together with a CNC clausal ending –*to/-mo*, then it gets a free choice reading with universal force and requires a modal/generic/habitual/future main clause. All these intensional predicates anchor an extended modal base (cf. Kratzer 1977, 1980) of P = set of propositions in

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7) Koenig (1988) discusses this conditional presupposition but does not pay much attention to characterizing the scalar nature of the construction

W(P), a set of worlds to which the propositions in their scope are anchored and become true. Consider:

(15) nalssi-ka ettehay/etteh-te-ra-to   pikunic ka-l   kkeya. (K)
     weather-NOM how   CNC   picnic go-FUT-DEC
     'Whatever the weather looks like, (we)(will) go on a picnic.'

The concessive situation in (15) is more general than that in (13a) but if we regard the (13a) situation as the worst or the lowest bound in weather conditions, they become equivalent.[8] If we extend the level of concession to the most adverse situation possible, the following expression steps in:

(16) a. Whatever happens, we will go on a picnic.
      b. etten il-i irena-to/irena-te-ra-to pikunic ka-l kkeya. (K)
         INDwhat event-NOM happen-CNC picnic go-FUT-DEC
      c. nani-/donna koto-ga atte-mo   pikunikku-ni iku.
         INDwhat-/what thing-NOM happen-CNC go on a picnic
         'Whatever happens, (we) (will) go on a picnic.'

The most arbtrary event/thing is expressed with the free relative form *whatever* in English and a stressed IND*wh* + N --- -*to* (CNC) in Korean, showing an *irrealis* concessive situation (a subjunctive is used in many languages and 'may' can follow it in English). The most adverse thing can be a catastrophe or death and we equivalently use these as the lowest bounds in our expression ('Even if the world ends, ---'). If the IND*wh*- is unstressed, which is secondary in occurrence, it is a real indefinite determiner/adjective like 'something' (still a variable in the same *wh*-domain) making the adjunct clause 'Even if something

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8) The form *etteha*- is a predicative adjectival IN*wh*-form, which English lacks (Hgrarian and other languages also have the form). The concessive form–*te-ra-to* is even more hypothetical than -(e)*to*, though not necessarily counterfactual.

happens.' The level of arbitrariness for the 'whatever' type is extreme, based on the assumption that something will happen (non-emptiness), whereas in the latter case, 'something' may happen to be the most adverse situation (by chance) but its less adverse alternative can be 'nothing happening.' So, something happening itself (though mild) can be a lower bound on the scale triggered by the clausal ending of concession. In Korean and Japanese, as *wh*-in-situ languages, an interrogative *wh*-word is possible in the concessive clause, if the main clause ends with a question morpheme, without violation of *wh*- island constraints. Therefore, some abstract postulate such as 'EVEN IF + stressed IND*wh*-' corresponds to 'whatever,' with the stressed IND*wh*- applying to a *wh*-domain of events, with IF or 'in case' applying to the set of worlds where the relevant propositions are anchored or become true.   If the (main clause) context is modal/modal-related, which is most compatible with the most arbitrary interpretation, the IND*wh*- + CNC expression becomes an FCI, as a 'betting,' as opposed to 'begging,' type of concession. A concessive clause started as an adjunct subordinate clause and then came to be used as an argument NP clause both in J/K and English and then a non-clausal NP (e.g., *I can do **whatever***). The weaker form IND*wh*-/*amu* N -*i-ra-to*(K) or IND*wh*- N -*de-mo*(J) comes from a concessive clause [[a null subject COP(-DEC)]-CNC] and now functions as a non-clausal NP, though with some clausal, hypothetical flavor. If stressed in a modal context, it is interpreted as an FCI (5, 6, 7, 8, 14 in Table 1) and if unstressed in a weakly negative context (9, 10, 11, 12, 13, 15), it is interpreted as a polarity-sensitive 'begging' or 'settle for less' item. With the same form of concession, the FCI and weak NPI readings are mutually exclusive in contexts and the former are stressed. The strong form lacks COP and lost the trace of a clause, becoming shorter, which implies that it is closer to our mind. The strongly negative element is new information to be conveyed and the NPI does

not have to be stressed in J/K. In French, the same IND*wh-* concessive relative clause (e.g., *qui que ce soit*) is used as either an FCI or a strong NPI (in Quebeck French in particular, in Modern French leaning toward an NPI, e.g., *je n'avait pas vu qui que ce soit*). Therefore, the same IND*wh-* (in J/K, a strong form simply lacking COP(DEC)) becomes an NPI if it happens to be in a negative context, with negation taking wide scope. In J/K, IND*wh-* forms are based on *wh*-words corresponding to *what/which*, *who*, *how*, and *what* (predicative adjective in K) but not *why*. In all conceivable languages, there is no IND*wh-* form corresponding to *why*, which has external adjuncthood.

   Then, what is the difference between [*amu* --- CNC] series and [IND*wh-* --- CNC] series in K, when the former are not present in J? The two are almost interchangeable in contexts and somewhat in meaning as well. But the former give a sweeping generalization in arbitrariness like English *any*, whereas the latter give more attention to individuals or events one by one more specifically in checking. The former, because of its sweepingness, become more dominant than the latter in most situations of polarity and free choice, the latter becoming slightly unstable in various contexts.

   Now, where do they go? In K, the [*amu*/IND*wh-* N-*i*(COP)-*na*(DISJ)] series became near-universal quantifiers because of its predominent indiscriminacy (more in *amu* --- than in IND*wh-*), occurring in even episodic contexts, although they come from FCIs and still favor modal contexts.9) Disjuncts (clausal or nominal) with DISJ attached to the final disjunct have the associated meaning of 'totally,' 'no matter' or 'don't care' about the choice (Chung 1996), showing initial

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9) DISJ = Disjunctive. Other disjunctive connectives such as -*tunci* functions in the same way with IN*wh-*. Note that *whethersoever* occurs in English history (Ed Keenan p.c.) and this is based on a free choice between the two alternatives: *whether* P *or* not P].

concession. With *amu/*IND*wh-*, disjunction is between the members of the given *wh-*domain. In J, the series IND*wh-* --- -*mo*(-*ga*), with its first syllable stressed, became near-universals, via FCIs (I claim) and their indiscriminacy, eventually occurring in episodic contexts. In general, a concessive construction develops into an FCI (and further it can become a universal quantifier) and an FCI develops into an NPI in negatively narrowed-down contexts. Via indiscriminacy from arbitrariness and 'begging'/'settle for lower quality,' some derogatory sense and its version emerges. In English, *any* is generally licensed in strongly/weakly negative contexts as well as in FC contexts, whereas the *wh-* series starting as a concessive conditional construction survived only in FC contexts of *what*(-*so-*)*ever* and, in negative contexts of NPI *any*, as post-modifiers reinforcing arbitrariness (e.g, I didn't see *anyone whatsoever*).

4. Amu-ra-to vs Amu-i-na and Se saram-i-na in J/K

The derogatory *amu-i-na*, which can occur in superficially episodic but underlyingly quality-wise permission/selection-oriented contexts, and the weaker PS form *amu-ra-to* cannot occur in overtly negative contexts just like *dare-de-mo* in J (see Table 2 & 3 Row 1) and *just any*, as follows:

(17) a.?*amu-i-na   an w-ass-e.
        just anyone not came
        Lit: 'Just anyone didn't come.'
    b. *amui-ra-to an w-ass-e.
    c. *daRE-DE-MO KO-nakatta
        Lit: 'Just anyone didn't come.'
(18) a.**Just anyone* can't/didn't do it.
    b.*Not *anyone* came/can do it.
    c. Not *just anyone* can do it/came.

In a very limited denial context with a slight rising tone on -*na* and a compensatory pause after it, (17a) can be barely acceptable. With the same prosodic features, a long-form negation version is acceptable in K, both in Contrastive Topic (or negation wide scope) reading (Lee 2000), just like (18c). They are quality- but not quantity-based derogatoriness-denial understatements. Such degree adverbs as *póthong* (originally from 'commonly') and *yégan* (originally from 'relatively'), with stress on their first syllables, function as wide scope negation/modality NPIs as norm-denying upward understatements (not using a stronger positive expression such as *maewu* 'very'), occurring well with wide scope negation and S-internal modality. This is somewhat contrary to Cho and Lee (in this volume).[10] Similarly, *cóm* with stress (from *com* 'a little') is a weak NPI that typically occurs in a rhetorical question and certainty-incredility modality. These have up-ward assertive force and that is why they do not occur

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10) These are frozen with stress, being distinct from unstressed counterparts that are not NPIs. They can occur with incredility modality in local domain with no long negation (but with an inherently negative predicate *eps-* or even a short negation) in such sentences as:

ku   chinku   póthong/yégan   kananhae-ya-ji!/kemanhae-ya-ii/ton-i eps-e-ya-ji/ani-ya that   friend   commonly/relatively poor   -not
'That friend is unusually poor/vain/poor/not common, unbelievably.'
A rhetorical Q with *yekan* cannot be answered with *ani* 'no,' contrary to Cho and Lee. They treat *yégan* with interesting observations but their lexically-bound way misses semantically principle-based generalizations applicable to all the related items. Ulmately, understatements are rooted in concession, avoiding a threatened face as a by-product strategy. Horn's (1984) QR is relevant here. Expectation-echoing NPIs such as *kutaji/kuri* 'so' (in E) up-denying NPIs such as *pyello* 'particularly' (in E) are down- grading and negation-wide scope. Emphatic universal-based ones like *muji/tojehi/ cenhye/yen* 'at all' are negation-narrow scope (Emphatic PPIs: *koejanghi* 'wonderfully,' *cenccekuro* 'totall,' *kkumccigi* 'dearl,' *hwelssin* 'far'; understing PPIs: *kkae* 'pretty,' *com* 'a little'; norm-based PPIs: *sángdanghi* 'relatively,' cf. Israel 1996 p. 628). The PPI *com* is licensed in an (ironical) question.

in a sincere question, which has an interrogative force seeking information on the degree.

In K and J, their respective weaker (clausal) forms *-i-ra-to* and *-de-mo* have much in common; they are licensed in weak affective contexts such as 'at most,' conditionals, relative clause modifiers of generic/universal head, and questions, in the 'begging' or 'settle for less' sense, not occurring in negation, unlike the strong forms. They are also licensed in free choice contexts such as modals, imperatives, future, and generics. In J, however, *-de-mo* is realized in two different pitch-tones (see columns 3 and 4 in Table 3) and the two have subtly different meanings. Consider:

(19) DAre(-ni)-de-mo   ae   -ba/au-bekida.
     IND*wh*-COP-CNC   meet-HYP meet-should
     'Meet whoever it might happen to be.'
(20) daRE(-NI)-DE-MO ae-ba/au-bekida.
     'Meet whoever it might happen to be
     (even with low quality).'

Although *-de-mo* shows going down to a low point on the scale of concession and remaining there satisfied, the one with high pitch on the first syllable of IND*wh*- as in (19) gives the impression of checking one by one, and the one with high pitch on the second syllable on gives that of accepting even low quality. As a consequence, (19) has a stronger imposing force than (20), which has a more suggestive force. *DAre-de-mo* is closer to *nwukwu-i-ra-to*, and *daRE-DE-MO* to *amu-i-ra-to* (or sometimes even to *amu-i-na*, although *daRE-DE-MO* cannot occur in episodic contexts).

(21) a. *DOnna* oobosha-*de-mo* saiyo-shi-ta   kaisha-wa   toosan-shi-ta

IND*wh*-applicant-COP-CNC employ-PAST company   collapsed
b. ??*DAre-de-mo*   saiyo-shi-ta kaisha-wa toosan-shi-ta.
c. (?)*daRE-DE-MO*   saiyo-shi-ta kaisha-wa toosan-shi-ta.
　　'Companies that hired (a)whatever applicants/ (b)whoever/(c)whosoever
　　collapsed.'

In the relative clause modifying a generic head (with -*wa*-J or -*nun*-K marking) as in (21), *DOnna* N-*de-mo* (weak form) is most natural and it is not easy to detect any difference in meaning between (a) and (c). In Korean, *amu-i-ra-to* and *nwukwu-i-ra-to* (both weak forms) in the same anti-additive context are quite all right in the interpretation of 'begging'/'settle for less' existential and so whether the company had an employment is more at issue (so the verb *chaeyong-ha-n* 'employed' gets stress) than what quality people or who it employed, whereas *amu-i-na* shows indiscriminacy and gets stress on it. Korean *nwukwu-i-na* in the same context is universal. In K, *etten* saram-*i-ra-to* 'IND*wh*- person-*i-ra-to*' and *nwukwu-i-ra-to* 'IND*who* ---' do not show substantial difference in meaning, although the latter appears to refer to individuals more directly in the process of computation. In Japanese, what quality people or who the company employed is more at issue.[11]

In K and J, [INDnum(eral) CL(assifier) CNC] constitutes an NPI, as shown in (8) and (9). But interestingly enough, when the numeral gets stress on itself like [SAN-nin-mo] with the same marker -*mo*, the expression with it is no longer an NPI, and gets the meaning of 'as many as' in Japanese, whereas the same expression is realized as [SEY saram-*i-na*] with the COP-DISJ marker -*i-na* in

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11) Likewise, more quality or derogatory sense emerges from the following relative clause, unlike in Korean, where more existential sense is shown: *daRE-TO-DEMO/DOnna otoko-to-demo deeto-shi-ta onna-wa shitsuren-no itami-o shir-a-na* 'Women who have dated any men don't know the pain of parting.'

Korean. These constructions in K and J can occur either in positive or negative contexts, out of the scope of negation, and thus can be regarded as positive polarity items. Consider:

(22) a. *SEY* saram –*i-na* (an) w-ass-ta. (K)
　　　b. *SAN*-nin-*mo* ki-ta/ko-nakat-ta (J)
　　　　 'As many as three persons came/didn't come.'
(23) a. *SAN*-NIn-*mo* ki-ta ato (-de) watashi-wa dekake-ta. (J)
　　　　　　　　　　　 came after　　　I – TOP departed
　　　　 'After as many as three persons came, I left. '
　　　b.*SAN-NIn-*mo* kuru mae-ni watashi-wa dekake-ta. (J)
　　　　　　　　　 come before　　I – TOP departed
　　　c.*SEY* saram –*i-na* o-ki cen-ey na-nun ttena-ss-ta. (K)
　　　　　　　　　 come-NMZ before-at I-TOP departed
　　　(b, c) Lit. 'Before as many as three persons came, I left.'(bad)

　　The positive sentences in (22) are appropriate for a question 'How many came?' and the sentences with negative predicates in (22) are appropriate for 'How many didn't come?' (or 'How many are those who didn't come?') both with focus on the information part corresponding to the *wh*-questions. The negative sentences of (22) entail the sentences of the relative scope [three --- [NOT]], whereas (8) and (9) entail the sentences of [NOT[three---]] (Chung et al 2000). The sentences in (22) have A accent with H*LL%, whereas the sentences in (8) and (9) have some intonation pattern of [LL+H]$_{AP}$ L* L% in K. The sentences in (22) show a surprise (counter-expectation) at the higher turnout than expected (concessively 'not even two were expected,' for instance), with assertive force. So, the direction of attention is upward (disregarding the concessive expectation behind), although the denotation of the numeral is discrete. However, we can view the proposition as somewhat unlikely on the scale of likelihood, being

assertively associated with focus on the numeral. So, we can think of a scale of higher numerals downward to represent the situation. Then, going down to a higher unlikely numeral may be concessive. It is notable that the same morpheme -*mo* in J is used, though with a different intonation pattern, for this direction-reversed situation on the scale. If the unstressed version of Numeral+CL+*i-na* in K is used with speculation/incredulity modality, its meaning becomes '(barely) about' or '(barely) NUM or other' Consider:

(24) sey   saram -i‐na   w-ass-ul-kka?
     three person ‐BE-DISJ come-PAST-PRESUMP-Q
     'Barely three or thereabout might have come?'

Its variable interpretation is dependent on context, although we can often figure out its core disjunction meaning hidden behind.[12] In J, the only interpretation of *SAN-NIn-mo ki-ta-ka-na?* 'As many as three came?' is incredulity of the other party's (positive) assertion and thus it cannot co-occur with *yatto* 'barely' *ooku-te-mo* 'at most'.

5. The Origin: Concessive Clause with INDwh-

In J, a *wh*-form phrase associated with ‐*mo* is invariably called a *wh*- phrase and a universal quantifier if interpreted universally from Kuroda (1965) to Shimoyama (1999), as in (25). However, (25) does not have a question marker to license a real *wh*‐ word. Consider:

(25) [[**DOno**   gakusei-ga   syootaisita] sensei]-mo   kita. (J)

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12) In a question such as *myet saram-i-na w-ass-ni?* 'About how many came?' *i-na* means 'about.' It may come from '*x or what not*' and makes the question less imposing with the mitigator.

       IND*wh*- student-Nom   invite   teacher-MO came
      (Lit.) 'The teacher(s) that whichever student invited came.'

The counterpart in K is not quite acceptable because of the non-negative episodic predicate. In a modal context in K, it would be a free choice expression with the weaker form –*i-ra-to* after the head noun. It starts out as IND*wh*- in any case but it cannot be a *wh*-word, contra treatments by several Japanese linguists. Either a case-marked nominal form with stressed preceding IND*wh*- rather than *amu* or a case-marked stressed pronominal IND*wh*- in a deeply embedded relative clause can function as an NPI together with concessive –*to* attached to its highest head noun in Korean.

If a stressed IND*wh*--involved NP is replaced by a definite NP, -*mo* and –*to* become not concessive but additive predominently in J/K. Stronger concessives such as –*sae(mo), made(mo)* in J and –*cocha, -kkaci(to), mace* in K are needed for a scalar concessive reading. If stressed IND*wh*- is replaced by unstressed existential IND*wh*-, -*mo* and -*to* become additive.

If a stressed IND*wh*- occurs in a concessive clause with the same –*to*, it must be followed by a modal or modally-interpreted context for universal force. Observe:

(26) a. Yumi-nun [**nuku**-rul   manna-*to*] son-ul   huntu-n-ta.
            -TOP IND*who*-ACC   meet-CNC   hand-ACC waves
     'Yumi waves at whoever she meets.'
   b. [[**nu**-ka   w-a-*to*]   coh-ta.] (K)
     IND*who*-NOM   come-CNC   all right-DEC
     '[Whoever may come] is OK.'
   c. [[**nuku**-i-ra-*to*]   coh-ta.]
     IND*who*-be-DEC-CNC   good-DEC

'[Whoever it may be] is OK.'

Then, the concessive clauses of (26) come to have free choice reading, based on the arbitrariness and maximality of stressed IND*wh-* and －*to*. The main clause of (26a) is dependent on the subordinate concessive clause with its null pronominal (∅-*eke* 'to/at him/her') bound by the IND*who* in the concessive clause. In (26b, c), the concessive clauses are closely connected to the following deontic modal predicates of permission. The predicative nominal in (26c) has a null subject if the expression is interpreted as a clause. Otherwise, it functions as an NP subject and can occur in any modal context. Even if a stressed definite NP such as [*Sumi*]$_F$ replaces the stressed IND*who* **nuku** in (26a), the embedded clause remains concessive, Sumi being the least likely person to wave at. This also holds for Japanese, contrary to Shimoyama's (1999) claim that only additive interpretation is available in Japanese. The focus-stressed IND*wh-* and －*to* in (26) must co-occur with a non-episodic, generic (habitual) predicate, as in (26a), or with a modal predicate, as already indicated. Even if it occurs with a past-marked predicate (*huntul-ess-ta* 'used to wave'), it is a habitual past. The concessive stressed IND*wh-* and －*to* cannot be factually past-marked, as shown in the following anomaly:

(27) a. *---[**nuku**-rul manna-ss-nun-tey-*to*]---
          cf. [nuku-rul---] ('someone,' unstressed)
      b. *---[**nu**-ka w-ass-nun-tey-*to*]---
          cf. [nu-ka---] (unstressed)

The sentences of (26) can be changed into interrogatives by replacing the CNC －*to* by the conditional marker －*myen* 'if' and the DEC marker －*ta* by the question ending marker －*ni*. Then the question marker licenses a *wh*-word in the new conditional clause, e.g., as follows:

(28) a. Yumi-nun [**nuku**-rul manna-*myen*] son-ul   huntu-ni?
            -TOP *who*-ACC meet-COND   hand-ACC wave-Q
    Lit. 'Who does Yumi wave at [if she meets __]?'
    b. Yumi-wa   [dare-ni a-eba]   te-o hur-u no?
          - TOP IND-DAT meet-COND hand-ACC wave-Q

In other words, the *wh*-word *nuku* 'who' is licensed in an island unlike in *wh*-movement languages such as English. The translation in which 'who' has been extracted out of an island is ungrammatical. The same mechanism holds for IND*wh*- in the concessive clause. A concessive clause with IND*wh* is an FC clause. In English and other languages, a *wh—ever* clause is analogously an FC clause. The clause form '**nuku**-*i-ra-to*' functioning as a nominal in negative contexts changed to the shorter stronger non-clausal **nuku**-*to*. The typical NPIs *amu-i-ra-to* and *amu-to* basically occur in similar contexts and I argue that these are underlyingly analogous to IND*wh*- in concessive clauses. Japanese happens to lack this series of items.

6. The So-called N-Words and Intervention Effect

6.1. N-Words

The so-called n-words in n-concord languages such as Slavic, Modern Greek, Hungarian and Romance are, I argue, NPIs with the same mechanism of concession. Because I also argue that NPIs are underlyingly IND*wh*-based, it is not surprising to find similarities between *wh*-dependencies and n-concord (Higginbotham and May 1981). Multi-n-concord reflects multi-*wh*-questions and particularly *wh*-in-situ. Multi-NPIs in Korean and Japanese are also n-concord. Consider:

(29) a. amu/nuku-to   amu/etten chaek-to   ilk-ci anh-ass-ta.

　　　　any/IND*wh*-CNC any/IND*wh*- book-CNC read-CNC
　　　　not-did
　　b.??amu/etten chaek-to amu/nuku-to ilk-ci anh-ass-ta.
　　　　 any/IND*wh*-CNC any/IND*wh*- book-CNC read-CNC
　　　　not-did
　　　　'No one read any books.'
(30) a. dare-mo　　　nani-mo　tabe-nakat-ta.
　　　　IND*who*-CNC IND*what*-CNC eat-not-PAST
　　b.??nani-mo dare-mo tabe-nakat-ta
　　　　IND*what*-CNC IND*who*-CNC eat-not-PAST
　　　　'No one ate anything.'

　　One sentential negation per clause (Klima 1964) applies to any number of NPIs and so does one modal expression to any number of weak form FCIs in K and J. There is no inherently negative feature in NPIs in J/K and this holds for most n-concord n-word languages. A negative marker contributes negative force and n-words as NPIs are inherently indefinite concessive expressions triggering scales of arbitrariness. In both languages the underlying word order of SOV is preferred to OSV by multi-NPIs, as shown in (29) and (30). However, both *wh*-words and IND*wh*- associated with its complex NP-external concessive are acceptable with no violation of complex NP constraint in both languages, as in (31), but NPIs in a complex NP are not, as in (32):

(31) a. amu/nuku-to　[[amu/nu-ka　　ssu-n　　　chaek]-to]
　　　　ilk-ci anh-ass-ta.
　　　　IND*who*-CNC IND*who*-NOM wrote-REL book-CNC read-not
　　　　'No one read books whoever wrote.'
　　b. Yumi-ka　[[nu-ka　ssu-n　chaek]-ul] ilk-ci anh-ass-ni?
　　　　 -NOM who-NOM wrote-REL book-ACC read-not-Q
　　　　'Yumi didn't read a book who wrote?'
(32) ?* amu/nuku-to [[amu/nuku-to　ssu-n　chaek]-ul] ilk-ci anh-ass-ta.
　　　　IND*who*-CNC IND*who*-NOM wrote-REL book-CNC read-not
　　　　'No one read books *amu/nuku-to* wrote.'

In (31b) the question operator licenses a *wh*-word in the relative clause of complex NP and in (31a) the concessive operator licenses the focused case-marked IND*who*-NOM *amu/nu-ka*. The whole concessive complex NP is in turn licensed by the negation (or modal) operator in K but the corresponding concessive complex NP in J apparently does not require such a licensor. On the other hand, in (32) the NPI, being subject to locality, has no local licensor and is not acceptable.

6.2. Intervention Effect

Let us turn now to the phenomenon of intervention or blocking effects in the interaction between *wh*-words and NPIs. Consider:

(33)?*amu/nuku-to   mues-ul   mek-ci anh-ass-ni?   (K)
     amu-IND*wh*-CNC what-ACC eat-CI not-PAST-Q
     'What did no one eat?'
(33')?*dare-mo nani-o   tabe-nakatta-no? (J)
(34) mues-ul   amu/nuku-to   mek-ci anh-ass-ni?   (K)
     what-ACC   amu-IND*wh*-CNC eat-CI   not-PAST-Q
     'What did no one eat?'
(34') nani-o   dare-mo   tabe-nakatta-no? (J)

The NPI⟩*wh*-phrase order as in (33) and (33') is hardly acceptable whereas the scrambled order *wh*-phrase⟩NPI as in (34) and (34') is quite all right. My initial claim in C. Lee (1999) was that there is a hierarchy of focality strength among different *wh*-based expressions: *wh*-word/phrase⟩IND*wh*- - -*to/amu*- - -*to* (NPI)⟩*wh*-INDEFINITE in that linear order. Sh. Kim (2001) also made it clear that the above effect is due to a competition in focality, modifying Beck and Kim's (1996) claim that it is blocking an intervening quantifier. K. Lee and S. Tomoika (2001), on the other hand, extended the discussion to facts in embedded

sentences and attributed the constraint to topicality. Observe the improved acceptability of the same order in an embedded S:

(35) (?)ne-nun [amu/nuku-to   mues-ul ilk-ci   anhassta]-ko saengkakhani?
     you-TOP   amu-/IND*wh*-CNC what-ACCread-CI not-did-Qt   think-Q?
     'What do you think that no one read?'

(35') (?)kimi-wa [dare-mo nani-o yom-ana-katta]-to omotteiru-no?

(36) ?ne-nun [amu/etten kes-to nu-ka ilk-ci anhassta]-ko saengkakhani?
     you-TOP   /IND*wh*- N-CNC who-NOM read-CI not-did-Qt think-Q?
     'Who do you think didn't read anything?'

It is true that TOP is not marked for subjects in embedded Ss in general, but TOP is not marked in interrogative Ss in Korean except for the 2nd and 1st pronouns, either. I view this as an embedding effect of interrogative Ss in Korean unlike in Japanese. Unlike in Japanese, a non-contrastive Topic marker *-nun* often gets neutralized (never focused) nominative *-ka* marking when it competes with a following CT *-nun* even in a matrix S (*Yumi-ka khong-un mek-ess-ta* 'Yumai ate the beans-CT'). There seems to be a tendency of neutralization of both topicality and focality in embedded Ss. Furthermore, even in a matrix S, when NPIs of the same degree of focaltity (or case-less nominals) occur, the reading in the default canonical order S-O-V wins over the marked order O-S-V, as is the case in multi-*wh*-Qs in *wh*-movement languages, as follows:

(37) amu-to   amu-to   sarang-ha-ci an-h-nun-ta.
        -CNC   -CNC   love-do-CI   not-do-PRES-DEC
     'No one loves anyone.'

Ae. Kim (2001) also discusses the intervention phenomenon, paying special attention to the distinction involved between short-from negation and long-form

negation. Here I present further data. Consider:

(38) a. *amu-to computer-man an sa-ss-ta.
                          -only not bought

    b. computer-man amu-to an   sa-ss-ta.   [only〉not]
              -only   not bought
      (a-b) 'It is only the computer that nobody bought.'
(39) amu-to computer-man sa-ci-nun anh-ass-ta.
                      -only buy -CT not-did
                          [CT=Contrastive Topic]
    'It was not the case that anyone bought only the computer.'
    [only(comp)〈not, only(comp(buy))〈not]
(40) a. amu-to computer-man-un sa-ci anh-ass-ta/an sa-ss-ta
                      -only-CT buy not-did/not buy-PAST-DEC
    b. computer-man-un amu-to sa-ci anh-ass-ta/an sa-ss-ta.
              -only -CT   buy not-did/not buy-PAST-DEC
      (a,b) 'It was only the computer among alternatives that no one bought.' [among
      alternatives-only(comp)〉not]

The focus-marked S-initial phrase *computer-man* has wide scope in (38b), whereas negation has wide scope in (39)(same interpretation without –*nun*) and positing a higher structural position for the long-form NEG such as IP (or even CP – Szabolcsi p.c.) or vP seems plausible, with –*ci* as a complementizer/shell. Then, there occurs an embedding effect and the order NPI〉Focus in (39) is explained away. However, with CT –*nun* a short-form NEG is also possible in (40a), unlike in (38a). In (40), scrambling of NPI and Focus phrase is free with no meaning change. (38a) is not improved in an embedded situation and its uninterpretability is more serious than other cases. Another point Sh. Kim (2001) and K. S. Lee et al (2001) miss is that a focused NP associated with a CT (as partly observed by Sohn 1996) behaves differently from the *wh*-Focus-Phrase〉NPI constraint. The order of CT-associated focused

Phrase〉NPI is OK but the other way around is blocked. Observe:

(41)   a. amu-to [computer-rul^F] sa －ci－**nun** anh-ass-ta.
                        -ACC buy-CI-CT   not-do-PAST-DEC
      'Nobody bought a computer but someone may have bought some thing other
      than a computer.'
      b. *[computer-rul^F] amu-to sa －ci － **nun** anh-ass-ta.
                            buy-CI-CT   not-do-PAST-DEC
      'Nobody bought a computer but someone may have bought something other
      than a computer.' (Intended)
      c. amu-kes-to [Yumi-ka^F] sa －ci － **nun** anh-ass-ta.
                        buy-COMP-CT not-do-PAST-DEC
      'Yumi bought nothing but someone other than Yumi may have bought
      something.'
      d. *[Yumi-ka^F] amu-kes-to sa －ci － **nun** anh-ass-ta.
                        buy-CI-CT   not-do-PAST-DEC
      'Yumi bought nothing but someone other than Yumi may have bought
      something.'
      e. [Yumi-nun] amu-kes-to sa －ci anh-ass-ta.
          -CT   buy-CI not-do-PAST-DEC
      'Yumi bought nothing but someone other than Yumi may have bought
      something.'

   Multi-NPIs in a row, in (41a) *amu-to eti-ese-to ---*'anyone, anywhere -,' is
OK, multiply licensed by a negation, but CT-associated Phrases cannot be
multiple, as in *amu-kes-to [Yumi-ka^F][Sears-ese^F] sa－ci－nun anh-ass-ta* (cf.
(41c)) 'Someone other than Yumi didn't buy anything at some place other than
Sears.' As in (41e), a CT-marked NP can scramble before an NPI with its topical
feature. We already discussed its focal feature as well. This kind of partial *Link*,
which is also focal in a sense, is not easy to treat in terms of Vallduvi's (1998)
Link and Tail. The notion of Tail is not clear at all and NPIs in J/K cannot take
the TOP marker because of their morphological constraint (*-mo/-to* coming from
an adverbializer-like morpheme) and because of their emphatic (or somewhat

focal) nature associated with the negative focus. In Chinese, different degrees of Focus are shown by the additive *ye*, concessive *lian* N *ye*, *zhiyou* 'only', NPI *shei ye* 'IND*who* +CNC, anyone', with unacceptability getting more serious in that order when followed by a *wh*-phrase (Sh. Kim 2001), which holds true for Korean.

When an S-initial *wh*-phrase or a high-pitched focus occurs, there is a down-stepping or de-accenting effect afterwards cross-linguistically (Jun 1993) and there is indeed a close interplay between Topic/Focus and prosody including intonation. But a wide scope Topic phrase (forming an AP in Korean) or a similar expression may precede it. A high-pitched CT is not felicitous, as follows:

(42) a.?*nu-ka   khong-un H mek-ess-ni?
        who-NOM beans-CT   eat-PAST-DEC
     b. khong-un   nu-ka   mek-ess-ni?
        beans-TOP who-NOM eat-PAST-DEC
        'The beans, who ate them?' (Lit.)

The mid-sentential –*un* must become low in pitch and it may be interpreted as an instance of mid-sentential non-contrastive Topic (or low-pitched CT) in (42a). If it is a yes/no question, the under-specified INDEFINITE *nu-* is interpreted as 'someone' and a high-pitched CT is quite possible, with a rising intonation. If embedded, it becomes a low-pitched CT, with the whole embedded S getting neutralized. The S-initial Topic phrase with a non-high-pitched –*un* is quite optimal and a high-pitched CT in (42b) is barely possible. In a nutshell, there is a root phenomenon of Topic-Focus information structure as well as an embedding phenomenon of *in-situ* structure.

If we follow the claim that surface reflects (hierarchical) structure a la Kayne

(1994), we can attribute the above-mentioned constraints to structure-dependent interpretive dependencies as well as interfaces.

7. Concluding Remarks

We have examined the distribution of the strong type NPIs of *amwu*(*etten*) N-*to* vs. the weak type of *amwu*(*etten*) N-*i-ra-to* in K and *daRE-MO (doNNA N-MO)* vs. *daRE-DEMO (doNNA N- DEMO)* in J, respectively, in a unified account of NPIs and FCIs, as well as their related forms *amwu*(*etten*) N-*i-na* (K) and *DAre-demo* and *DAre-mo (DOnna*-N-*mo)*(J). We have found core similarities and interesting subtle differences.

We have proposed the governing principles in terms of concession and arbitrariness. Concession is made by means of going down to the lowest end on a scale, particularly for the quantity NPIs, and arbitrariness is brought about by means of scalar layers of characterization/modification. The headless interrogative pronoun *what* and its equivalents can stand for anything in the world for an answer (*wh*-domain) and its indefinite can be just the same form *what*, as in J/K, forming the most general/the weakest property predicate, from which choosing a member is most arbitrary. The form *amu* 'any' has the same basis. If this predicate combines with the concessive as an operator, it requires a negative or modal/generic=non-episodic contexts.

We also tried to show how negative polarity developed from a concessive clause, via free choice, and how a divergent form tends to change to a (quasi-)universal quantifier. Adverbial NPIs such as stressed *pothong* and *yekan* are understatements.

The so-called n-words in n-concord languages are NPIs with the same

mechanism of concession. NPIs are underlyingly IND*wh*-based and it is easy to find similarities between *wh*-dependencies and n-concord. Multi-n-concord or multi-NPIs as in J/K reflects multi-*wh*-questions and particularly *wh*-in-situ. N-words as NPIs are inherently indefinite concessive expressions triggering scales of arbitrariness.

We reviewed the intervention effect of ?*NPI〉*wh*-/other Focus and related issues that seem to call for interpretive dependencies as well as interfaces between structure, Topic-Focus information structure and prosody.

Appendix: The possibility of Japanese NPIs --- *From Table 3*

1. Affirmative Sentences
    a. *daRE-MO kita.
    b. ?DAre-mo kita.   DAre-mo-ga kita.
    c. daRE-DEMO kita.
    d. DAre-demo kita.

2. Relative Clauses headed by a universal quantifier
    a. *daRE-MO saiyoo-shi-ta kaisha-wa zenbu tsubure-ta.
    b. *DAre-mo saiyoo-shi-ta kaisha-wa zenbu tsubure-ta.
    c. daRE-DEMO saiyoo-shi-ta kaisha-wa zenbu tsubure-ta.
    d. DAre-demo saiyoo-shi-ta kaisha-wa zenbu tsubure-ta.

3. Habituals
    a. *kare-wa neru-mae-ni naN-NO/doNNA HOn-mo yomu shuukan-ga aru.
    b. *kare-wa neru-mae-ni NAn-no/DOnna hon-mo yomu shuukan-ga aru.

c. *kare-wa neru-mae-ni naN-NO/doNNA HOn-demo yomu shuukan-ga aru.

d. *kare-wa neru-mae-ni NAn-no/DOnna hon-demo yomu shuukan-ga aru.

4. Comparatives

a. *daRE-NI-MO au-yori-wa uchi-ni iru-hoo-ga mashida.

b. *DAre-ni-mo au-yori-wa uchi-ni iru-hoo-ga mashida.

c. daRE-NI-DEMO au-yori-wa uchi-ni iru-hoo-ga mashida.

d. DAre-ni-demo au-yori-wa uchi-ni iru-hoo-ga mashida.

5. Modals

a. *daRE-MO sono shigoto-wa dekiru.

b. *DAre-mo sono shigoto-wa dekiru.

c. daRE-DEMO sono shigoto-wa dekiru.

d. DAre-demo sono shigoto-wa dekiru.

6. Imperatives

a. *naN-NO HOn-mo yome.   doNNA HOn-mo yome.

b. *NAn-no hon-mo yome.   DOnna hon-mo yome.

c. naN-NO HOn-demo yome.   doNNA HOn-demo yome.

d. NAn-no hon-demo yome.   DOnna hon-demo yome.

7. Future tense

a. *daRE-MO kuru-daroo.

b. *DAre-mo kuru-daroo.

c. daRE-DEMO kuru-daroo.

d. DAre-demo kuru-daroo.

8. Generics

   a. *naN-NO TORI-MO tobu.   doNNA TORI-MO tobu.

   b. *NAn-no tori-mo tobu.   DOnna tori-mo tobu.

   c. ?naN-NO TORI-DEMO tobu.   doNNA TORI-DEMO tobu.

   d. ?NAn-no tori-demo tobu.   DOnna tori-demo tobu.

9. takadaka

   a. *daRE-TO-MO deeto-shi-ta koto-no aru hito-wa takadaka sannin-datta.

   b. DAre-to-mo deeto-shi-ta koto-no aru hito-wa takadaka sannin-datta.

   c. daRE-TO-DEMO deeto-shi-ta koto-no aru hito-wa takadaka sannin-datta.

   d. DAre-to-demo deeto-shi-ta koto-no aru hito-wa takadaka sannin-datta.

10. Rhetorical Questions

   a. *daRE-MO kuru-ka?

   b. *DAre-mo kuru-ka?   DAre-mo-ga kuru-ka?

   c. daRE-DEMO kuru-ka?

   d. DAre-demo kuru-ka?

11. Questions

   a. *Taroo-kara naN-NO TAyori-mo atta?

   b. *Taroo-kara NAn-no tayori-mo atta?

   c. Taroo-kara naN-NO TAyori-demo atta?

   d. Taroo-kara NAn-no taryori-demo atta?

12. Conditionals

   a. *daRE-MO ki-tara watashi-ni oshie-te-ne.

   b. *DAre-mo ki-tara watashi-ni oshie-te-ne.

    c. daRE-DEMO ki-tara watashi-ni oshie-te-ne.

    d. DAre-demo ki-tara watashi-ni oshie-te-ne.

13. Negative Predicates

    a. *daRE-NI-MO au-no-wa muzukashii.

    b. *DAre-ni-mo au-no-wa muzukashii.

    c. daRE-NI-DEMO au-no-wa muzukashii.

    d. DAre-ni-demo au-no-wa muzukashii.

14. before-clauses

    a. Taroo-wa daRE-MO tazune-te kuru mae-ni ie-o de-ta.

    b. *Taroo-wa DAre-mo tazune-te kuru mae-ni ie-o de-ta.

    c. *Taroo-wa daRE-DEMO tazune-te kuru mae-ni ie-o de-ta.

    d. *Taroo-wa DAre-demo tazune-te kuru mae-ni ie-o de-ta.

15. nai- 'not exist'

    a. daRE-MO i-nai.

    b. *DAre-mo i-nai.   DAre-mo-ga i-nai.

    c. *daRE-DEMO i-nai.

    d. *DAre-demo i-nai.

16. Negative Sentences

    a. daRE-MO ko-na-katta.

    b. *DAre-mo ko-na-katta.   DAre-mo-ga ko-na-katta.

    c. *daRE-DEMO ko-na-katta.

    d *DAre-demo ko-na-katta.

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