ON FREE-CHOICE *ANY*: A UNITARY ANALYSIS OF TWO *ANY*'S

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In this paper, I will present an analysis treating the polarity *any* and the free-choice *any* as one and the same item, a nonspecific indefinite NP. I will show that the universal reading of the free-choice *any* is not an inherent property of *any* itself, but is due to the presence of the abstract universal quantifier that binds *any*. The analysis is not only preferred on theoretical grounds, but also gives an optimal account of the scope properties, the semantic nature, and the distributional property of the free-choice *any*.*

0. INTRODUCTION. The quantificational expression *any* has long been one of the central topics in linguistics. In particular, how many *any*'s there should be has been a controversial issue. While some linguists have regarded *any* as a universal quantifier, some others have convincingly objected to this position and have claimed that there are two distinct instances of *any*, existential and universal. In this paper, I will put forward a hypothesis that *any* is always treated as a nonspecific indefinite NP, and show that the universal reading of the so-called free-choice *any* is due to the presence of an abstract universal quantifier external to *any*.¹ It will be shown that the hypothesis is to be preferred on both theoretical and empirical grounds.

1. TWO *ANY*'S. It is a well-established fact that *any* may appear in such contexts as negative sentences and conditionals:

- (1) a. John didn't invite *anyone*.
b. If *anyone* comes, I will be happy.

These instances of *any* may appear to be a variant of the existential quan-

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¹ See section 2.1. for an informal definition of 'nonspecific indefinite NP'.

tifier *some*, so the logical form of 1a-b may be represented as follows:

- (2) a. NOT ($[\exists x: x=\text{a person}]$ (John invited x))
 b. (IF ($[\exists x: x=\text{a person}]$ (x comes))) (I will be happy)

However, there is another instance of *any*, the so-called free-choice *any*, which is interpreted just like such universal quantifiers as *every* and *all*:

- (3) *Any doctor* will tell you that Stopsneeze helps.

The existence of this kind of *any* has led some linguists (Lasnik 1972, Aoun, Hornstein, and Sportiche 1981, etc.) to assume that *any* is a universal quantifier which must take wide scope with respect to the logical environment in which it is found. Let us call this the A-theory. Thus, just as 3 is represented as 4, 1a and 1b are claimed to be represented as 5a and 5b, respectively:

- (4) $[\forall x: x=\text{a doctor}]$ (x will tell you that Stopsneeze helps)
 (5) a. $[\forall x: x=\text{a person}]$ (NOT (John invited x))
 b. $[\forall x: x=\text{a person}]$ ((IF x comes) (I will be happy))

Although the univocal A-theory appears theoretically elegant, empirical arguments by Carlson 1980, Linebarger (1980, Ch. 5) and Taglicht (1984: 191-205) show that it is extremely difficult, if not impossible, to maintain. As opposed to the A-theory, these linguists have claimed that the 'existential' *any* appears in such negative and conditional environments as in 1a-b, and that the 'universal' *any* appears in such modal contexts as in 3.

As a counterargument to the A-theory, let us consider sentence 6, for example:

- (6) He doesn't believe that she knows *any felons*.

Linebarger (1980: 158-60) observes that *any felons* in 6 has both the transparent and the opaque readings with respect to the matrix verb *believe*. That is, the relevant readings are each represented as follows:

- (7) a. NOT ($[\exists x: x=\text{a felon}]$ (he believes that she knows x))
 b. NOT (he believes that ($[\exists x: x=\text{a felon}]$ (she knows x)))²

The A-theory predicts that *any felons* in 6 should take wide scope with respect to the matrix verb and hence only the transparent reading represented as 8 should be available for 6:

- (8) $[\forall x: x=\text{a felon}]$ (NOT (he believes that she knows x))

But this is obviously not the case. The A-theory fails to account for the

² These readings have different truth conditions. See Linebarger (1980: 159).

narrow scope interpretation represented as 7b, while we can account for it if we are to assume that *any* in 6 is an existential quantifier.³

As for the free-choice *any*, exemplified in 3, this second position regards it not as an existential quantifier, but as a universal quantifier.

The second position, however empirically adequate it may be, is still undesirable for a theoretical reason. This position has to pay the price of clumsily positing two distinct *any*'s. To construct as simple a grammar as possible, it would be better for there to be only one *any*, rather than two. But we do not want to adopt the univocal A-theory as such, which would raise a number of recalcitrant problems. We will seek an alternative possibility in the following sections.

2. DERIVING THE UNIVERSAL INTERPRETATION OF THE FREE-CHOICE ANY. The analysis to be developed in what follows is similar to the two-*any* theory seen above, but is radically simplified in that it posits only one *any*.⁴

2.1. ANY AS A NONSPECIFIC INDEFINITE NP. The way in which we proceed is to treat *any* invariably as an existential-quantifier-like expression, specifically a kind of indefinite NP which always has a nonspecific interpretation, that is, the NP that cannot refer to any individuals realized in the actual world, but can refer to individuals in possible worlds.⁵ On the other hand, such a typical indefinite NP as *a man* can have either a specific (referring to some individual realized in the actual world) or a nonspecific interpretation, depending on contexts.

Since indefinites are not quantificational, but referential in the sense mentioned above, we also assume that they are not subject to QUANTIFIER RAISING (QR). This is confirmed by the fact that indefinite NPs do not show the so-called weak crossover effect that quantified NPs (QPs) do. An *any*-phrase, as an indefinite NP, also does not move at LF by QR, so it

³ Linebarger (1980, Ch. 5) develops more arguments based upon VP-Deletion contexts, tag questions, quantifier scope facts, etc.

⁴ Davison 1980 also tries a unitary analysis of *any*, treating *any* solely as an existential quantifier. She considers the universal reading of the free-choice *any* as a result of conversational implicature. Although her analysis seems intriguing, I will not compare it with mine.

⁵ This is not to say that *any* may take place in any nonspecificity contexts. For conditions on the occurrence of *any*, see Linebarger 1980 and Ladusaw 1979.

does not show the effect, either, as is clear from 9c:

- (9) a. *Lucy never kisses *each* *guest*₁ when *he*₁ talks about Hegel.
 b. Lucy never kisses *a* *guest*₁ when *he*₁ talks about Hegel.
 c. Lucy never kisses *any* *guest*₁ when *he*₁ talks about Hegel.
 (Reinhart 1987: 159, cf. Hornstein 1984)

2.2. THE INVISIBLE NECESSITY OPERATOR. In this section, I propose that the universal reading of the free-choice *any* is derived by the presence of what Heim (1982, Ch. 2) calls the INVISIBLE NECESSITY OPERATOR (henceforth, the INO).

It has been observed that indefinite NPs have a universal reading if there is an appropriate expression having a universal quantificational force:

- (10) a. *Always*, if *a man* owns *a donkey*, he feeds it.
 b. [$\forall x, y: x = \text{a man} \ \& \ y = \text{a donkey}$] (if *x* owns *y*, *x* feeds *y*)

In 10a, the two indefinite NPs *a man* and *a donkey* are each construed as having a universal reading, as indicated in 10b. Heim assumes that the universal reading of the two indefinites is provided by the quantificational adverb *always* via the mechanism that she calls UNSELECTIVE BINDING.

She has introduced the INO to account for such bare conditionals as the following:

- (11) a. If *a man* owns *a donkey*, he feeds it.
 b. [$\forall x, y: x = \text{a man} \ \& \ y = \text{a donkey}$] (if *x* owns *y*, *x* feeds *y*)

In 11, the two indefinite NPs *a man* and *a donkey* are each understood to have a universal reading, as indicated in 11b, although the sentence has no such overt universal quantificational expression as *always*. The universal reading of the indefinites in 11a is assured by introducing the INO to derive the following logical form:

- (12) $\Box$ [if *a man* owns *a donkey*, he feeds it] ($\Box$ = INO)

The INO is assumed to be an operator of universal quantification over accessible and maximally ideal possible worlds (Heim 1982: 193). The operator unselectively binds the two indefinites and their related pronouns, providing its quantificational force for them.

As has often been pointed out, the semantics of natural language bare conditionals like 11a differs from material implication of formal logic in that the former is analyzed in such a way that if the antecedent clause is true, then the consequent clause must always be true. Heim claims that this intuition is correctly captured by the INO analysis of bare condition-

ated at some sentence-initial position. If a sentence contains the INO, the referential value of the sentence varies according to the value picked by the INO. Furthermore, I assume that the INO, as well as operators like *not* and *if*, licenses the occurrence of *any* by binding it, and that when the INO binds an *any*-phrase, the referential value of the *any*-phrase depends upon the value of the INO.⁹ It is in this case that *any* is interpreted as a free-choice *any*.¹⁰

Although it is not very clear exactly where we should locate the INO, the most plausible candidate seems to be the head C^0 , for this position is assumed to be for such operators as Q (interrogative) and IF (conditional), which determine what sentence type the immediate clause is. It seems that the INO belongs to this class of operators, since it characterizes the immediate clause as a universal, or generic, statement.

There is a constraint on the generation of the INO. We assumed above that the INO is a universal quantifier ranging over possible worlds; that is, it quantifies a sentence that refers to an event in some possible world. Thus the INO can safely be generated only if the tense has a non-specific reference. On the other hand, those sentences whose tense refers to a specific point of time in the actual world are incompatible with the presence of the INO. Since the referential value of such a tense is already fixed, it cannot be dependent upon the value picked up by the INO.¹¹

the following LF is derived from (i) (here I assume that INFL-Movement enables the modal auxiliary to have the whole sentence in its scope):

(v) WILL (if I have *a quarter* in my pocket) (I put it in the parking meter)
With the quantificational force 'possible' of *will*, the speaker is proclaiming that there is at least one possible world where the event of putting a quarter in the meter will be realized. Moreover, the indefinite will be non-universally quantified, so that the sentence will not necessarily be about all the quarters in the pocket. We can say, therefore, that the most natural interpretation of (i) is derived from the LF representation (v). Another apparently problematic example given by Schubert and Pelletier ("*If I find a quarter, I'll give it to you.*") can be accounted for along the same lines.

⁹ I take the notion of 'binding' mentioned here to be essentially the same type of relation as Heim's unselective binding. See Homma 1990 for details.

¹⁰ When *any* is licensed by such operators as *not*, *if*, and Q(uestion), it is interpreted in the same way as is an indefinite NP in the same environment, that is, an existential interpretation.

(i) a. I didn't see *a/any unicorn*.

b. NOT $[\exists x: x=a \text{ unicorn}]$ (I saw *x*)

¹¹ We may consider the referential value of NPs in an analogous way. While those NPs having a nonspecific reference may be referentially dependent upon the value

With the above assumption in mind, consider again example 3 repeated here as 13, in which occurs a so-called free-choice *any*:

- (13) *Any doctor* will tell you that Stopsneeze helps.

We assume that this sentence is represented as follows:

- (14) $\square$ [*any doctor* will tell you that Stopsneeze helps]]

Here the INO c-commands and binds *any doctor* in the subject position, providing *any* with its universal quantificational force and making it a 'disguised' universal quantifier, namely a free-choice *any*.

3. SOME CONSEQUENCES. In this section, I will discuss some consequences of the analysis presented above.

3.1. SCOPE OF FREE-CHOICE *ANY*. It has been observed in the literature that a universal quantifier in the subject position may be interpreted as taking narrower scope than the negative cliticized onto INFL:

- (15) a. *Every cat* doesn't like catnip.
 b. *Each dog* doesn't have a collar.
 c. *All the boys* didn't leave.

(All ambiguous between NOT > $\forall$ and $\forall$ > NOT readings)

(Davison 1980: 12)

However, a free-choice *any* in the subject position cannot take narrower scope than the negative. Consider:

- (16) *Any dog* doesn't have one tail.

($\forall$ > NOT, but *NOT > $\forall$)

(ibid.)

The ambiguity of the sentences in 15 may be explained in terms of the structural relation of the QP and the negative at LF. Consider, for example, the following LF of 15a, derived via QR and INFL-Movement:

picked up by a quantifier external to them, those referring to a specific individual may not. Consider:

- (i) a. Everyone who loves *a cat* is happy.
 b. Everyone who loves *Mary's cat* is happy.

In (ia), the NP *a cat* has a nonspecific interpretation, and in that case, its referential value depends on the value picked up by the quantifier *every*. In (ib), however, the NP *Mary's cat* is understood to have only a specific reference, referring to a particular cat that Mary owns. The referential value of this NP cannot vary according to the quantifier *every*.

- (17) [_{C'} [_I doesn't]_I] [_{IP} every cat₂ [_{IP} t₂ [_{I'} t₁ [_{VP} like catnip]]]]]

We may derive the relevant two readings by adopting the Scope Principle of Aoun and Li (1989: 151):

- (18) Scope Principle: A quantifier A has scope over a quantifier B in case A c-commands a member of the chain containing B.

In 17, the raised INFL containing the negative operator c-commands the whole chain formed by the movement of the QP *every cat*. Thus the scope of the negative may be wider than the universal quantifier. At the same time, the QP c-commands a member of the chain headed by the raised INFL, namely the trace *t_I*. Thus the wide scope reading of the universal quantifier is also derived.¹²

Such an account in terms of QR and INFL-Movement does not work for the scope relation between the free-choice *any* and the negative. If we were to assume that the free-choice *any* is simply a universal quantifier that is subject to QR, we would not be able to rule out the partial negation reading absent from 16.

Instead, we appeal to the INO in C⁰ that binds the *any*-phrase to account for this scope fact. Consider the LF structure of 16, represented as follows:

- (19) [_{C'} □ [_I doesn't]_I] [_{IP} any dog [_{I'} t₁ [_{VP} have one tail]]]]]

Earlier we assumed that the INO is located in C⁰ just as other operators like Q and IF. Let us then consider the scope relation between the operator in C⁰ and the one in I⁰. Even if INFL-Movement takes place to carry the negative operator up to C⁰, there is independent evidence that the operator in I⁰ generally cannot take wide scope over the one in C⁰, probably due to an inherent restriction on the scope order of those operators. Thus, consider following examples:

- (20) a. *Would* John come to the party?
 b. *If* John doesn't come to the party, I must bring someone else.

¹² When INFL containing *not* is already raised at S-Structure, the subject QP can take either narrower or wider scope than the negative. Consider:

(i) Hadn't every linguistics student registered for my class, I would have been dismissed.

This sentence has the following two readings:

(ii) a. If not every linguistics student had registered for my class, I would have been dismissed. (NOT > V)
 b. If no linguistics student had registered for my class, I would have been dismissed. (V > NOT)

The LF of each sentence is represented as follows:

- (21) a. [_C Q [would]_I [_{IP} John [_{I'} t_I [_{VP} come to the party]]]]
 b. [_C IF [doesn't]_I [_{IP} John [_{I'} t_I [_{VP} come to the party]]]]

Each of these contains an operator in C⁰ (Q and IF) and I⁰ (*would* and *doesn't*). As indicated in the following, the operator in C⁰ must obligatorily take wide scope over the one in I⁰:

- (22) a. Q (WOULD (John come to the party))
 "I ask you whether it would be the case that John comes to the party."
 b. *WOULD (Q (John come to the party))
 "I would ask you whether John come to the party."
 (23) a. IF (NOT (John comes to the party))
 "If it is not the case that John come to the party,"
 b. *NOT (IF (John comes to the party))
 "?....."

Sentence 20a can only be interpreted like 22a; it doesn't have interpretation 22b. Likewise, the only interpretation available for 20b is 23a; it does not seem to be the case that 20b has any such interpretation as 23b.

With these observations in mind, let us now go back to 19, repeated here as 24:

- (24) [_C □ [_I doesn't]_I [_{IP} any dog [_{I'} t_I [_{VP} have one tail]]]]

The INO binding *any dog* lies in C⁰, hence must obligatorily take wide scope over the operator in I⁰, namely *doesn't*. Thus we can account for the obligatory wide scope interpretation of the free-choice *any* with respect to the negative in 16.¹³

¹³ Horn (1972: 118) and Linebarger (1980: 71) observe that sentence (i) is ambiguous between the readings given in (ii):

- (i) He can't do (just) anything.
 (ii) a. NOT [∃x: x=a thing] (he can do x)
 b. NOT [∀x: x=a thing] (he can do x)

((i) lacks the reading "[∀x: x=a thing] NOT (he can do x)". See Linebarger (1980: 71) for an account of this.) The availability of the partial negation reading (iib), especially when *just* is attached, may be taken as a counterexample to my claim that a free-choice *any* must take scope over an operator in I⁰. That is, the negation in I⁰ should be able to take wider scope than the INO in C⁰ in the case of (i). However, as the above-mentioned authors point out, (iia) is the only reading available for (i) under the normal intonation contour. In order to derive the partial negation reading (iib), the sentence needs to be read with a focus (a rising tone) on *anything* and a fall-rise contour toward the end of the sentence.

It seems reasonable to characterize the partial negation interpretation of (i) as a

The same is true of the scope relation between a free-choice *any* and a modal operator. Consider the following pair of examples:

- (25) a. She *would* have married *every one of those boys*.
(ambiguous between 26a and 26b)

- b. She *would* have married *any of those boys*.
(26a but *26b)
(Linebarger 1980: 69)

- (26) a. [$\forall x: x = \text{a boy}$] (WOULD (she marry))
"Every one of those boys she would have married at one point or another, though she wouldn't necessarily have been willing to engage in polyandry."
b. WOULD ($[\forall x: x = \text{a boy}]$ (she marry))
"She would have engaged in polyandry." (ibid.)

26b involves the INO in C^0 and a modal operator *would* in I^0 . As we have seen, it is impossible for a modal to take wide scope over an operator in C^0 , so it is also impossible for *would* to take scope over the INO.

3.2. NO EXISTENTIAL COMMITMENT. The assumption made above concerning the free-choice *any* can also account for one of its interesting semantic properties. McCawley (1981: 112), Vendler (1967: 87), and others have pointed out that by the use of *any*, the speaker does not need to commit him/herself to the existence of a set of individuals that it quantifies, while other universal quantifiers like *every*, *all*, and *each* presuppose the existence of such a set. Thus the statement 27a is not necessarily dis-

result of ASSOCIATION OF NEGATION WITH FOCUS (cf. Jackendoff 1972), a means to negate a referential NP:

- (iii) John didn't kiss MARY.

By placing a focus on the referential NP *Mary* and assigning a fall-rise contour toward the end of the sentence, (iii) can be given the following construal, where the negation and the focused NP are associated:

- (iv) It is not Mary that John kissed. (He kissed someone else.)

With this option, the free-choice *anything*, a kind of referential NP referring to individuals in possible worlds, can be associated with the negative and hence understood as apparently taking narrow scope with respect to the negation. Indeed, a free-choice *any* in the subject position is also negated by attaching *just* and making it the focus of negation. Thus the following example conveys that only some people are allowed to come in:

- (v) *Just anybody* can't walk in and sit down in my office.

(Davison 1980: 19)

credited even if there are actually no unicorns, while 27b is:

- (27) a. *Any unicorn* will eat this food.
 b. *Every unicorn* will eat this food.

In fact, sentence 27a, but not 27b, may be followed by the statement below:

- (28) But of course there is no such animal.

As we have assumed, the LF of 27a is given as follows:

- (29) $\boxed{\square}$ [*any unicorn* will eat this food]

 Binding

Let us then assume Heim's promising suggestion that generic indefinites, as well as *if*-clauses, serve as a restrictive term of the INO (Heim 1982: 191). Consider the following sentences in 30, whose LF representations are given in 31a-b:

- (30) a. *If a cat is exposed to 2,4-D*, it goes blind.
 b. *A cat that is exposed to 2,4-D* goes blind.
 (31) a. $\boxed{\square}$ [*if a cat is exposed to 2,4-D*], [it goes blind]
 b. $\boxed{\square}$ [*a cat that is exposed to 2,4-D*] goes blind]

In 31a, the *if*-clause is taken as the restrictive term of the INO. The sentence is then interpreted in this way: 'In every possible world where a cat is exposed to 2,4-D, it is the case that it goes blind'. Likewise, the NP *a cat that is exposed to 2,4-D* in 31b also functions as the restrictive term of the INO and the sentence is interpreted as 'In every possible world where we find a cat that is exposed to 2,4-D, it is the case that it goes blind'. Here the *if*-clause and the generic NP restrict the domain that the INO ranges over.

With this in mind, let us assume that *any unicorn* in 29 also serves as the restrictive term of the INO, so that 29 yields an interpretation like 'In every possible world where we find a unicorn, it is the case that it eats this food'. The interpretation we thus obtained only mentions those possible worlds where a unicorn is found, and says nothing about whether unicorns live in the actual world. The statement is therefore still valid even if there happen to be no unicorns in the actual world, in other words, even if unicorns are not presupposed to exist.

3.3. DISTRIBUTION OF FREE-CHOICE ANY. We may also try an account of the distribution of the free-choice *any* along the same lines. It has been pointed out in the literature that the free-choice *any* can occur only in some particular contexts, such as those in the following:

- (32) Modal contexts:
 - a. *Anyone* can/may leave at any time.
 - b. *Anyone* will help you.
- (33) Generic present:
 - a. *Anyone* has the price of a hamburger.
 - b. *Any cat* has one tail.
- (34) Imperative:
 - Take *any apple*.

However, the free-choice *any* cannot take place in a sentence having a specific temporal reference:

- (35) Progressive:
 - ??*Anyone* is building a house.
 - (36) Past:
 - ??I talked with *anyone* yesterday.
 - (37) Perfect:
 - ??*Anyone* has arrived on time.
 - (38) With a temporal expression referring to a specific point of time:
 - a. ??Tomorrow *anyone* will help you.
 - b. ??Today *anyone* has the price of a hamburger.
- (32–38 from Davison 1980: 12. See also Bolinger 1977: 30, Carlson 1981, and Vendler 1967.)

Earlier we assumed that the INO can be generated only in those sentences which do not have a specific temporal reference. The tense referring to some specific point of time in the actual world is incompatible with the function of the INO: the INO can only quantify an event taking place in a possible world. The contexts given in 32–34 contain modal verbs *can*, *may*, and *will*, the simple present tense, or the imperative operator, by which the sentences refer to events in possible worlds. Thus these sentences can have the INO to bind the *any*-phrases.¹⁴ On the other hand, the sentences given in 35–37 are incompatible with the INO,

¹⁴ It should be noted that the sentences in 32 are distinguished from sentence (i) of Footnote 8, in that they do not have anything to exclude the occurrence of the INO, while (i) does, namely the speaker's implicit reference to a specific point of time in future. While the modal auxiliary is a potential sentential operator in both cases, it is the only option available for (i). (Note also that, if the modal auxiliaries were the sentential operators in 32a–b, instead of the INO, the *any*-phrases would be left unlicensed.)

since they have a specific temporal reference and refer to an event in the actual world. Thus, if we insert the INO in these sentences, there occurs a contradiction between the INO and the tense. The low acceptability of the sentences in 35–37 indicates the crash between them.

Sentences 38a–b do not contain the tense referring to a specific point of time. In fact, the modal operator *will* in 38a and the simple present tense in 38b are each compatible with the function of the INO. However, each of the sentences contains a temporal adverb that refers to some specific point of time (*tomorrow* in 38a, *today* in 38b). Thus a crash occurs between the function of the INO and that of the adverbs *tomorrow* and *today*.

3.4. WIDE SCOPE PROPERTY OF ANY. Let us leave the free-choice *any* for a while and consider the wide scope property of *any* frequently pointed out in the literature (Chomsky 1976: 337, Lasnik 1972: 95, etc.). Compare the following pair of sentences:

- (39) a. If *everyone* comes, I will be happy.
 b. If *anyone* comes, I will be happy.

Each sentence in 39 is interpreted as:

- (40) a. (if ($\forall x$: x =a person) (x comes))), (I will be happy)
 b. ($\forall x$: x =a person) ((if (x comes)), (I will be happy)))

As indicated in 40a, the scope of *everyone* is clause-bound and hence must be within the antecedent clause of the conditional. While this is the case with typical QPs, *anyone* in 39b is understood as taking wide scope beyond the *if*-clause, as indicated in 40b. We could not capture this wide scope property of *any* if we were to demarcate its scope via QR: QR must be clause-bound. However, appealing to the INO will enable us to give a proper account of this property. As we have assumed, the INO is generated outside the *if*-clause as shown in 41:

- (41) ($\square$ ((if *anyone* comes) (I will be happy)))

The INO binds *anyone* in this configuration. The apparent universal reading of *anyone* comes from this universal quantifier, the INO. Thus *anyone* can be interpreted as a wide scope universal quantifier without QR.

Note that the INO may be inserted within the *if*-clause as well, as indicated in the following:

- (42) ($\square$ ((if $\square$ (*anyone* comes)) (I will be happy)))

When *anyone* is bound by the internal INO, it is understood to have narrow scope inside the *if*-clause, as represented as 43:

- (43) (if ($[\forall x: x = \text{a person}] (x \text{ comes})$)), (I will be happy)

We may thus account for the well-known interpretive ambiguity of the following sentence:

- (44) If *anyone* can swim, I can.

On one reading, 44 is true if at least one person's having the ability to swim necessarily leads to my being able to swim. On the other, it is true if no one's being found to lack the ability to swim necessarily leads to my being able to swim. These two readings are represented as follows, respectively:

- (45) a. ($[\forall x: x = \text{a person}] ((\text{if } (x \text{ can swim})), (\text{I can}))$)
 b. ($(\text{if } ([\forall x: x = \text{a person}] (x \text{ can swim}))), (\text{I can})$)

Each of these readings is attributed to the different positions of the INO that binds *anyone*. In 45a, the INO, outside the *if*-clause, binds *anyone* to derive its wide scope reading. In 45b, on the other hand, what is playing a role in deriving the universal reading of *anyone* is the INO inserted within the *if*-clause. The readings 45a–b are derived from the following LFs, respectively:

- (46) a. $(\boxed{} ((\text{if } (\text{anyone can swim})) (\text{I can})))$
 └──────────┘
 Binding
 b. $(\boxed{} ((\text{if } \boxed{} (\text{anyone can swim})) (\text{I can})))$
 └──────────┘
 Binding

4. ANAPHORA OF FREE-CHOICE *ANY*. In this section, let us turn to the anaphora of the free-choice *any*.

4.1. INTRASSENTENTIAL ANAPHORA. Unlike typical QPs, an *any*-phrase may be coindexed with a pronoun even if the former does not c-command the latter. Consider:

- (47) a. *Mary is not teasing *everyone*₁ because she hates *him*₁.
 b. Mary is not teasing *anyone*₁ because she hates *him*₁.

In 47a, the bound variable reading of the pronoun *him*₁ is ruled out since the QP *everyone*₁ does not c-command the pronoun. However, as in 47b, *anyone* in the same position may be understood as anaphoric to the pronoun, just as the proper name *John* may in 48:

- (48) Mary is not teasing *John*₁ because she hates *him*₁.

This might tell us that *any*-phrases can be freely coindexed with a pronoun. However, Homma 1990 proposes the following condition on the anaphora of *any*-phrases:

- (49) An *any*-phrase and a pronoun can be coindexed iff both of them are c-commanded by an operator licensing the occurrence of *any*.¹⁵

Thus, in 47b, the pronoun *him*₁ can be anaphoric to *anyone* only if it is c-commanded by the negative operator *not*: that is, *anyone* and *him* may be coindexed only if the *because*-clause is within the scope of *not*. Coindexing is impossible between the two if the *because*-clause is outside the scope of negation. There is no such restriction on the anaphoric relation in 48.

With this in mind, consider:

- (50) a. *That *he*₁ might get shot would bother *everyone*₁.
b. That *he*₁ might get shot would bother *anyone*₁.

(Hornstein 1984: 35)

Coindexing is impossible in the case of the QP *everyone* in 50a, since the QP does not c-command the pronoun. On the other hand, *anyone* in place of the QP can be the antecedent of the pronoun. Consider the LF of 50b:

- (51) [_{CP} [_{CP} [that *he*₁ might get shot would bother *anyone*₁]]

Although *anyone*₁ itself does not c-command the pronoun *he*₁, the INO simultaneously c-commands and hence binds the *any*-phrase and the pronoun. Thus by condition 49, we may take the pronoun as anaphoric to *anyone* in 50b.

4.2. INTERSENTENTIAL ANAPHORA. Aside from the intrasentential anaphora, we find some cases where anaphora takes place across sentences. For example, consider:

- (52) a. *Take *every apple*₁ from the table. Divide *it*₁ with this knife.
b. Take *any apple*₁ from the table. Divide *it*₁ with this knife.
c. Take *that apple*₁ from the table. Divide *it*₁ with this knife.

(cf. Hornstein 1984)

It is impossible to associate the QP and the pronoun in 52a, because the QP can never c-command the pronoun in a different sentence. On the other hand, as seen in 52b, *any apple* may be the antecedent of the pro-

¹⁵ The anaphora of *any*-phrases patterns in the same way as the donkey-type anaphora discussed in Haik 1984. See Homma 1990 for details.

noun on a par with the referential NP *that apple* in 52c.

Let us assume that both sentences in 52b contain the INO binding *any apple* and *it*, so that the LF of 52b is given as:

(53) [$\square$ [take *any apple* from the table]]

└──────────┘
Binding

[$\square$ [divide *it* with this knife]]

└──────────┘
Binding

As we can see, the *any*-phrase and the pronoun are each bound by different instances of the INO. Hence we may associate the two phrases in the construal. If the second clause is the one where the INO cannot take place for the reason we discussed earlier, it will be impossible for a pronoun in the clause to be anaphoric to the *any*-phrase in the preceding clause. The prediction is borne out:

- (54) a. *Take *any apple*₁ from the table. My mother bought *it*₁ yesterday.
b. Take *that apple*₁ from the table. My mother bought *it*₁ yesterday.

The second clause contains the past tense, thereby referring to some specific point of time in the past; so it cannot contain the INO, as is evident from the ungrammaticality of 55:

(55) *My mother bought *any apple* yesterday.

The INO in the preceding clause cannot c-command anything in the following clause in 54a. Thus the pronoun is not c-commanded by any appropriate operator so that coindexing is impossible.

5. CONCLUSION. In this paper, we have focused on how the so-called free-choice *any* obtains a universal reading. Rather than stipulating that the free-choice *any* is a universal quantifier whose scope property and semantic nature significantly differ from ordinary universal quantifiers, we have derived its universal reading from the presence of the INO that binds it. Thus we have no need to posit two distinct *any*'s. Unifying the two *any*'s into one in this way, we have obtained a considerable theoretical gain over the somewhat clumsy two-*any* analysis. In addition to this esthetic gain, I have also shown empirical consequences of the analysis by giving an optimal account of the set of facts in Section 3; the scope property, no existential commitment, and the distributional restriction.

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