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'∀'-less in Wonderland?
Revisiting *Any*

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1. Introduction

Is negative-polarity *any* an existential or a universal quantifier? That is, does the meaning of (1a) arise from the logical form (1b), or from the equivalent LF (1c)?

(1) a. She had not been down any rabbit hole before.
b. $\neg(\exists \boldsymbol{h}$ she had been down h before$)$
c. $\forall \boldsymbol{h}\, \neg($she had been down h before$)$

Ladusaw (1979), Carlson (1980), and Linebarger (1987) have all argued that negative-polarity *any* is an existential quantifier that surfaces in certain environments, notably in the scope of negation. Similarly, Kadmon & Landman (1993) interpret it as an indefinite with existential force. On these analyses (1b) is the correct LF.

I will refer to these diverse accounts collectively as the ∃-*account*. They are opposed to the earlier ∀-*account* proposed by Quine (1960) and Lasnik (1972), which takes the underlying semantics of (1a) to be (1c).

An attractive feature of the ∀-account, and one very much on the minds of its early proponents, is that it may allow the negative-polarity item *any* (NPI *any*) to be accommodated to so-called "free-choice *any*" (FC *any*). FC *any* is uncontroversially some sort of universal quantifier, with a distribution as fussy as that of NPI *any*. If the two are really the same lexeme acting in the same way, then (2a) and (2b) are parallel sentences: *any* serves in each as a wide-scope universal. (3) is similar.[1]

(2) a. The King's horses can put anything back together again.
$\forall \boldsymbol{x}$ Possible [reassemble(King's horses, x)]
b. The King's horses can't put anything back together again.
$\neg$Possible [$\exists \boldsymbol{x}$ reassemble(King's horses, x)] (∃-account)
$\forall \boldsymbol{x}\, \neg$Possible [reassemble(King's horses, x)] (∀-account)

(3) a. A wise fish would go anywhere without a porpoise.
b. No wise fish would go anywhere without a porpoise.

In this paper I will argue for a new ∀-account, in which *any* is a single universal quantifier whose idiosyncratic distribution and scope properties follow largely from its unusual semantics.

The analysis actually has a good deal in common with the ∃-account of Ladusaw (1980). Following Fauconnier (1975), Ladusaw argues that an NPI must appear in an environment that makes it the least likely point on some scale: for example, in a negated proposition.

(4) a. When I get to be a Duchess, I won't have the tiniest amount of pepper in my kitchen.
b. When I get to be a Duchess, I won't have any pepper in my kitchen.
c. Implicature: I won't have larger amounts in my kitchen, either.

On Ladusaw's analysis, (4a) and perhaps (4b) implicate (4c). If the proposition "I won't have x in my kitchen" holds for the least likely x on a scale, one concludes that it holds of the entire scale. But this effectively gives *any* universal force in this context. The $\forall$-account merely takes a more direct approach, and says that the universal force is inherent in the semantics of *any*.

The present approach also concurs with Linebarger (1987) and the unified account of Kadmon & Landman (1993), in saying that *any* is not merely licensed, but actually contributes information to a sentence. There is a subtle difference, however. Both those accounts outline the general *sort* of information that *any* is to contribute—a negative implicature or an entailment—and bar *any* from contexts where it is unable to make a *sufficient* contribution. The $\forall$-account developed here will take the opposite tack. It will specify the exact truth-conditional contribution of *any*, and bar *any* from contexts where this contribution provides *too much* information.

2. NPI *any* is not an *in situ* existential

The $\forall$-account of NPI *any* claims that it is not an existential appearing under negation, but rather a universal that takes scope over negation.

We can test this prediction as shown in (5). If *any* is an *in situ* existential, then the syntactic forms (5a) and (5b) should be interpreted similarly, as (5c). But if the $\forall$-account is correct, (5a) and (5b) will have different interpretations. That is, if (5b)'s *any* moves to quantify universally over negation, as shown in (5d), it ends up quantifying over the intervening scopal element S as well. S therefore applies to each possible x.

(5) a. $\cdots\neg(\cdots S(\cdots \text{an } x \cdots)\cdots)\cdots$
b. $\cdots\neg(\cdots S(\cdots \text{any } x \cdots)\cdots)\cdots$
c. $\cdots\neg(\cdots S(\cdots \exists\boldsymbol{x} \cdots x \cdots)\cdots)\cdots$ ($\exists$-account)
d. $\cdots\forall\boldsymbol{x}\,\neg(\cdots S(\cdots x \cdots)\cdots)\cdots)\cdots$ ($\forall$-account)

Let us now consider examples with various choices for the scopal element S. In (6), S is *Lewis's favorite*, a function that picks out a single element from a set. Contrary to the prediction of the $\exists$-account, (6a) and (6b) do not mean the same thing. (6a) mentions a single drawing-of-a-child—Lewis's favorite from the set of all such drawings—that we haven't seen. This reading is given in (6c). But (6b) says we have missed multiple drawings: his favorite from the set of drawings-of-Mary, his favorite from the set of drawings-of-Alice, and so forth. This reading corresponds exactly to the $\forall$-account's (6d).[2]

(6) a. We haven't seen Lewis's favorite drawing of a child.
b. We haven't seen Lewis's favorite drawing of any child.

c. $\neg\text{see}(\text{favorite}(\{d : \exists \boldsymbol{c}\, \text{drawing-of}(d, c)\}))$
d. $\forall \boldsymbol{c}\, \neg\text{see}(\text{favorite}(\{d : \text{drawing-of}(d, c)\}))$

(7) takes S to be the universal quantifier *every*. (7a) can have either of the readings in (7c), since the relative scope of *every* and *a* is ambiguous. Both of these readings leave *a* within the scope of negation. Even so, the second one vanishes in (7b) when *a* is replaced by *any*. The $\forall$-account correctly predicts that the only reading is (7d), which is equivalent to the first reading in (7c).

(7) a. I doubt that a snail danced with every whiting.
b. I doubt that any snail danced with every whiting.
c. $\text{doubt}(\exists \boldsymbol{s}\, \forall w\, \text{dance-with}(s, w))$
$\text{doubt}(\forall w\, \exists \boldsymbol{s}\, \text{dance-with}(s, w))$
d. $\forall \boldsymbol{s}\, \text{doubt}(\forall w\, \text{dance-with}(s, w))$

Finally, (8) makes use of the intensional verb *prove*. Again, (8a) is ambiguous between the two readings in (8c). If the court has proved that the thief was a knave, without establishing which knave, then (8a) is true on the first reading and false on the second. By contrast, in this situation (8b) can only be read as true. As the $\forall$-account predicts, only the first reading—equivalent to (8d)—is available.

(8) a. The court failed to prove that one of the knaves was guilty.
b. The court failed to prove that any one of the knaves was guilty.
c. $\neg\exists \boldsymbol{k}\, \text{prove}(\text{guilty}(k))$
$\neg\text{prove}(\exists \boldsymbol{k}\, \text{guilty}(k))$
d. $\forall \boldsymbol{k}\, \neg\text{prove}(\text{guilty}(k))$

In short, the $\forall$-account correctly predicts the meanings of the sentences above, while the $\exists$-account does not.

3. FC *any* also scopes over its licensor

At first blush, the proposal that NPI *any* is a universal may seem to require an awkward stipulation. It means that NPI *any* must always acquire scope over negation, even in environments like (9–10), which resist such movement for other quantifiers and for indefinites (Ladusaw 1979).

(9) a. Alice had never [drunk from any bottle and gotten sick].
$\forall \boldsymbol{b}\, \text{Never}\ [\text{drunk-from}(\text{Alice}, b) \wedge \text{got-sick}(\text{Alice})]$
b. Alice had never [drunk from every bottle and gotten sick].
$\text{Never}\ [(\forall \boldsymbol{b}\, \text{drunk-from}(\text{Alice}, b)) \wedge \text{got-sick}(\text{Alice})]$
(10) a. By now there wasn't any cat on the branch: only a grin.
$\forall \boldsymbol{c}\, \neg\text{on}(c, \text{branch})$
b. By now there wasn't a cat on the branch: only a grin.
$\neg\exists \boldsymbol{c}\, \text{on}(c, \text{branch})$
$^*\exists \boldsymbol{c}\, \neg\text{on}(c, \text{branch})$

However, this unusual property is expected if NPI *any* is the same as FC *any*, because FC *any* is independently forced to take wide scope. (11–13) illustrate that FC *any* is interpreted semantically as scoping over a modal or generic operator, even in an existential sentence. (14–16) show that it can escape from NPs, adjuncts, and wh-questions even when *every* cannot.

(11) a. Anyone could have stolen the tarts.
*Possible $[\forall \boldsymbol{x}\, \text{stole}(x, \text{tarts})]$
$\forall \boldsymbol{x}$ Possible $[\text{stole}(x, \text{tarts})]$
b. Everyone could have stolen the tarts.
Possible $[\forall \boldsymbol{x}\, \text{stole}(x, \text{tarts})]$
$\forall \boldsymbol{x}$ Possible $[\text{stole}(x, \text{tarts})]$
(12) There could be anything at the bottom of this rabbit hole.
*Possible $[\forall \boldsymbol{x}\, \text{at-bottom}(x, \text{hole})]$
$\forall \boldsymbol{x}$ Possible $[\text{at-bottom}(x, \text{hole})]$
(13) a. Any Jabberwock occasionally burbles when it comes whiffling.
$\forall \boldsymbol{j}\, \text{Occ}_t\, [\text{whiffle}(t, j)][\text{burble}(t, j)]$
b. A Jabberwock occasionally burbles when it comes whiffling.
$\text{Occ}_{t,j}\, [\text{whiffle}(t, j)][\text{burble}(t, j)]$
$\text{Gen}_j\, [\text{Occ}_t\, [\text{whiffle}(t, j)][\text{burble}(t, j)]]$
(14) a. They'd've quaked at a report that the Queen had beheaded anyone.
b. They'd've quaked at a report that the Queen had beheaded everyone.
(15) a. Fury ordered a hanging whenever any mouse was guilty.
b. Fury ordered a hanging whenever every mouse was guilty.
(16) a. The Caterpillar can summarize in an hour what any mushroom does.
b. The Caterpillar can summarize in an hour what every mushroom does.

The scope properties of *any* are actually a bit more complex than this. As is well known, either type of *any* must appear syntactically in the scope of an appropriate scopal element. The licensor for NPI *any* must be negation or another affective element, while FC *any* can be licensed by various operators, notably modals of possibility and generics.

I want to claim that either form of *any* is interpreted as having raised *immediately* over its licensor. So although it takes wide scope with respect to the licensor, it does not always get matrix (widest possible) scope. Such a claim is quite natural and necessary, since all of the FC and NPI sentences above can be introduced by *Harry told me that ...* without incurring a universal quantification over the matrix verb *told*. The claim also allows the ∀-account to withstand a variety of examples offered by Carlson (1980) and similar to (17):

(17) The Mock Turtle begged Alice not to eat any soup.
$\text{beg}(\forall \boldsymbol{s}\, \neg\text{eat}(\text{Alice}, s))$
$^*\forall \boldsymbol{s}\, \text{beg}(\neg\text{eat}(\text{Alice}, s))$

An *any*-sentence with no licensor has no landing site for the quantifier, and is ungrammatical. An *any*-sentence with multiple licensors—regardless of whether they are NPI or FC licensors—is ambiguous:

(18) The White King was willing to say that his Lion could beat any Unicorn.

*Possible [say(King,Possible [$\forall \boldsymbol{u}$ beat(Lion,u)])]

Possible [say(King,$\forall \boldsymbol{u}$ Possible [beat(Lion,u)])]

*Possible [$\forall \boldsymbol{u}$ say(King,Possible [beat(Lion,u)])]

$\forall \boldsymbol{u}$ Possible [say(King,Possible [beat(Lion,u)])]

(19) I doubt that Alice can tell her cat to attack any mouse.

doubt(Possible [tell(Alice, Dinah, $\forall \boldsymbol{m}$ attack(Dinah,m))])

*doubt(Possible [$\forall \boldsymbol{m}$ tell(Alice, Dinah, attack(Dinah,m))])

doubt($\forall \boldsymbol{m}$ Possible [tell(Alice, Dinah, attack(Dinah,m))])

$\forall \boldsymbol{m}$ doubt(Possible [tell(Alice, Dinah, attack(Dinah,m))])

4. Towards a unified account of *any*-licensors

If NPI *any* and FC *any* are really the same *any*, then how are we to characterize the diverse environments in which it appears? Ladusaw's (1980) generalization, that *any* appears in the downward-entailing environments, is no longer applicable once the FC contexts are taken into account. Linebarger's (1987) generalization, that it appears in the scope of overt or implicated negation, does not cover FC sentences either.

negation: Tweedledee *(never) noticed any crows in time.
antecedents of conditionals: If she feeds him any more pepper ...
restrictive scope of certain determiners: All/*Some children with any curiosity ...
yes-no questions: The Red Queen knew whether/*why she was about to suffer any pinpricks.
modals of possibility: Anyone could/*must have stolen the tarts.
generics: A cautious boy shuns/*shunned any frumious Bandersnatch.
untensed verbs that do not inherit event variables (e.g., *attack* in (19))*:* told/*tried/*helped to attack any mouse; habit/*instance of attacking any mouse

The shared property of all these environments, as we will see, is that they do not assert any definite events of the *any*-NP. This property has often been noted for FC *any* environments: Ladusaw (1979) takes the crucial factor to be "whether the sentence receives a kind of non-event or generic reading." It is striking that the negative-polarity environments also fall under this characterization.

The unifying fact about FC and NPI *any*, then, is that the quantifier must always raise at LF to create a proposition of the form $\forall \boldsymbol{x}\, \Phi(x)$, where Φ is a non-eventive predicate. There may be more than one way for this to happen, as in the ambiguous sentences (18–19). But in the absence of such a predicate, as with (20b), the sentence is ungrammatical.

(20) a. I've never seen any baby turn into a pig before.
b. *I've seen any baby turn into a pig before.
c. I've seen every single baby in the universe turn into a pig before.

What gives rise to this pattern? One has an intuition that the meaning of (20b) would have to be something like (20c), so that (20b) makes an absurdly strong statement about having seen even the most faraway and unlikely babies. It is tempting to say that this sort of absurdity lies behind the unacceptability of eventive *any*-sentences like (20b). But since the strong statement of (20c) is not by itself unacceptable, (20b) must be somehow worse.

I propose a sort of formal trick: to suppose that *any* actually has a wider domain of quantification than *every*, so that (20b) makes a stronger statement than (20c). Recall that in possible-worlds semantics, a given entity may satisfy a different set of predicates in each world. For example, (21) picks out an entity h and states that in every epistemically accessible world, h passed Nobody on the road. There are also worlds which h was never born, does not exist, and has never walked down a road at all (although perhaps he still has the individual-level properties of being clumsy, liking hay, etc.).

(21) The King's messenger, Haigha, must have passed Nobody on the road.

The formal proposal is that *any* quantifies over the universe of *all* entities in the model, without prejudice to their existence or non-existence. So "any messenger" refers to both the "real" messengers that exist in the current world and the "irreal" messengers that exist only in various other worlds. The irreal messengers do not, of course, participate in the current world's events: we will have to suppose further that their participation is not only false, but cannot even be asserted grammatically.[3]

The facts now fall out nicely. (22a) is unacceptable, because it claims that irreal persons have committed crimes in the current world. (22b) is even worse: here the crimes are being committed not only in our world, but in every accessible world. But (22c–22d) are perfectly acceptable. (22c) states only that each person stole the tarts in *some* world—one where he or she presumably existed. And (22d) does not make any eventive assertions at all.

(22) a. *The tarts were stolen by anyone.
b. *The tarts must have been stolen by anyone.
c. The tarts could have been stolen by anyone.
d. The tarts weren't stolen by anyone.

Now consider "every" and "some" in (23). The *every* sentence says that given any (real or irreal) bottle b, it is true that every (real) child who drank from b shrank to three inches. The statement is vacuous if the set of all children who drank from b is empty—as it certainly is when b does not exist. Thus the sentence does not improperly predicate any event of an irreal bottle.

(23) a. $\left\{ \begin{array}{l} \text{ Every child} \\ \text{ No child} \\ \text{*Some child} \\ \text{ Most children} \\ \text{ At most five children} \\ \text{*Lots of children} \\ \text{*Five children} \end{array} \right\}$ who drank from any bottle shrank to a height of three inches.

b. $\forall \boldsymbol{b}\, \underline{\mathrm{Q}}c\ [\mathrm{drank}(c, b)][\mathrm{shrank}(c, 3)]$

By contrast, the *some* sentence says any bottle b has the property that a child who drank from it shrank. This entails that b was actually consumed—an impermissible assertion when b is irreal.

It is easy to prove that on this theory, non-trivial determiners will permit *any* where they are downward entailing (Ladusaw 1979), and exclude *any* where they are upward entailing (Progovac 1993). The result applies to both restrictive and nuclear scope.

The theory also explains why *any* is permitted in the restrictive scope of *most*, which is neither upward nor downward entailing. The *most* sentence says that for any bottle b, a large proportion of the children who drank from b shrank. This does not entail that any child actually did drink from b, so the sentence is acceptable.[4]

Many more examples could be given, such as *before* vs. *after*. (24a) does not claim that oysters have been or ever will be eaten, but (24b) improperly asserts that all oysters, real and irreal, were eaten before the sweeping began.

(24) a. They swept the beach before they ate any oysters.
b. *They swept the beach after they ate any oysters.

5. Additional consequences of irreal quantification

The previous section presented irreal quantification as a formal device—a device stipulated in order to prevent *any* from asserting $\Phi(x)$, when Φ was eventive or upward-entailing on x.

However, the account has additional motivation. It helps to explain two pervasive but rarely discussed facts about *any*: its causal flavor and its preference for modified NPs.

As Kadmon & Landman (1993) point out, *any* has the important feature that it strengthens the statement it appears in. While they take this to be a lexical condition on the occurrence of *any*, the irreal quantification theory predicts it as an effect. For example, (25a) is predicted to be stronger than (25b). Both are universal sentences, identical except for their restrictive scopes; and since (25a)'s restrictive scope is a superset of (25b)'s, (25a) should downward-entail (25b).

(25) a. Any knave could have stolen the tarts.
b. Each knave could have stolen the tarts.

In fact (25a) is not only stronger: it is stronger in exactly the right way. (25b) is true if the four Knaves of Clubs, Hearts, Spades and Diamonds each had a chance to steal the tarts—even if only by a monstrous coincidence. But (25a) has tighter truth conditions. It says that each Knave had access to the tarts merely by virtue of being a knave. This meaning is predicted by the irreal quantification theory, under which even non-existent knaves in (25a) could have stolen the tarts. In other words, *any* conveys causality by way of a counterfactual entailment: "If k were an arbitrary knave, with whatever other properties, k could have stolen the tarts."

It is worth noting briefly that there are independent tests for causality. Consider the contrast between *notice*, which suggests knowledge without a theory, and *suspect*, which suggests a theory without knowledge. Because *notice* has no theory, it coexists comfortably with *happens to* but not with *any*.

(26) I $\left\{\begin{array}{c}\text{notice}\\ {}^{*}\text{suspect}\end{array}\right\}$ that everyone here happens to be dead.

(27) I $\left\{\begin{array}{c}{}^{*}\text{notice}\\ \text{suspect}\end{array}\right\}$ that anyone here is dead.

The other curious feature of *any* that I would like to point out is that unlicensed *any*-NPs often improve substantially when modifiers are adjoined.

(28) a. *Yesterday Bill slew any Jabberwock.
b. Yesterday Bill slew any Jabberwock he found.

(29) a. *Any creature is still here playing croquet.
b. Any creature that curtsied to the Queen is still here playing croquet.

(30) a. *Anyone must have stolen at least one tart.
b. Anyone who is in this room must have stolen at least one tart.

Any syntactic account of this fact would have to be extremely ingenious: why should an adjunct improve the acceptability of an NP (particularly if the NP must raise at LF)? But irreal quantification provides an explanation. The (a) sentences above are unacceptable because they quantify indiscriminately over all Jabberwocks, creatures, or humans, whether real or irreal. The (b) sentences have tighter restrictive clauses that only real entities can satisfy: only real entities can have a location, make a curtsy, or be found. So the (b) sentences make assertions only about real entities, and are acceptable.

6. Arguments against the ∀-account

The previous sections have argued that NPI *any* should be analyzed as a universal and accomodated to FC *any*. First, scope tests suggest that at least some instances of NPI *any* have wide scope and universal force, contrary to the ∃-account. Second, a univeral treatment of NPI *any* gives it exactly the same scope properties as FC *any*. Third, the FC and NPI environments form a natural class. And fourth, there is a semantic account of that class that explains not only facts about *any*'s distribution, but also its scope properties, its sense of causality, and its willingness to enter hostile environments with a modifier at its side.

Carlson (1980) and Ladusaw (1979) give several interesting arguments against treating NPI *any* as a universal. In earlier sections, this paper briefly addressed two such arguments: that existential sentences like (10) would prohibit NPI *any* from taking wide scope, and that the meanings of sentences like (17) are not captured if NPI *any* takes matrix scope. This final section will discuss two other important counterarguments.

Ladusaw (1979) notes that the ∀-account fails on sentences such as (31), which does not have the predicted meaning (32a). Unless we treat *any* as an existential, as in (32b), we must lexically decompose *rarely* into *usually+not*. The result is shown in (32c).

(31) Bill the lizard rarely said anything.

(32) a. $^*\forall \boldsymbol{x}$ Rarely [say(Bill,x)]

b. Rarely [$\exists \boldsymbol{x}$ say(Bill,x)]

c. Usually [$\forall \boldsymbol{x}\, \neg$say(Bill,$x$)]

(33) a. Usually Bill didn't say anything.

b. Usually [$\forall \boldsymbol{x}\, \neg$say(Bill,$x$)]

c. $^*\forall \boldsymbol{x}$ Usually [$\neg$say(Bill,x)]

(34) a. Bill mustn't say anything.

b. Necess [$\forall \boldsymbol{x}\, \neg$say(Bill,$x$)]

c. $^*\forall \boldsymbol{x}$ Necess [$\neg$say(Bill,x)]

(35) a. Bill needn't say anything.

b. $^*\neg\forall \boldsymbol{x}$ Necess [say(Bill,x)]

c. $\forall \boldsymbol{x}\, \neg$Necess [say(Bill,$x$)]

Lexical decomposition is an unpleasant escape hatch. We justify it here by saying that as usual, *any* moves immediately over its licensor (negation), and no further—just as in (33–35), where the decomposition is overt. *Any* is not permitted to land directly over *usually* or *rarely*, so it must split *rarely*.

A more interesting class of examples is provided by *any*-sentences with implicatures. Ladusaw (1979) argues that the ∀-account would compute the wrong implicatures in these cases, as illustrated.

(36) Only flowers in soft flowerbeds get any sleep.

Assertion: All flowers except the ones in soft beds don't get any sleep.

Presupposition: Flowers in soft beds get some sleep.

Ladusaw's ∀-prediction: Flowers in soft beds get every amount of sleep.

(37) Tweedledum doesn't have any rattles anymore.

Assertion: Tweedledum doesn't have any rattles.

Implicature: Tweedledum had some rattles previously.

Ladusaw's ∀-prediction: Tweedledum had all rattles previously.

(38) Alice regretted that she had offended anyone.

Assertion: Offending anyone would have struck Alice as regrettable.

Presupposition: She had offended someone.

Ladusaw's $\forall$-prediction: She had offended everyone.

(36) would presumably compute its presupposition as in (39): by realizing *any* as a wide-scope universal, and then computing the presupposition for each x by deleting *only*. (The alternative strategy in (40) deletes *only* first and then realizes *any*: this gets the same answer after passing through an ungrammatical intermediate form.)

(39) Only flowers in soft flowerbeds get any sleep.
$\Leftrightarrow \forall(\boldsymbol{x} > 0)$ Only flowers in soft beds get at least x sleep.
Presupposition: $\forall(\boldsymbol{x} > 0)$ Flowers in soft beds get at least x sleep.

(40) Only flowers in soft flowerbeds get any sleep.
Presupposition: Flowers in soft beds get any sleep.
$\Leftrightarrow \forall(\boldsymbol{x} > 0)$ Flowers in soft beds get at least x sleep.

While Ladusaw's demonstration does compute the wrong implicatures for (36–38), the trouble appears not to lie in the $\forall$-account. It stems instead from the notion that implicatures are computed by syntactic transformation (deletion of *only*, *anymore*, and *Alice regretted that*). A more Gricean computation would proceed as in (41–43), independent of whether *any* is an existential or a universal.

(41) Only flowers in soft flowerbeds get any sleep.
Assertion: All flowers *except* the ones in soft beds don't get any sleep.
Presupposition (from Quantity maxim): The flowers in soft beds are different. ($\Rightarrow$ they get some sleep)

(42) Tweedledum doesn't have any rattles anymore.
Assertion: Tweedledum doesn't have any rattles.
Implicature (conventional): The assertion has not always been true.
($\Rightarrow$ Tweedledum used to have some rattles)

(43) Alice regretted that she had offended anyone.
Assertion: Offending anyone strikes Alice as regrettable.
Presupposition (from Relevance maxim): Alice regretted something.
(presumably because she offended someone)

This Gricean analysis is not merely an attempt to salvage the $\forall$-account of NPI *any* from the problems of implicature. FC *any* already requires a similar story, as shown in (44–45).

(44) Alice enjoyed falling down the rabbit hole.
Assertion: Falling down the rabbit hole is something Alice would enjoy.
Presupposition: Alice fell down the rabbit hole.

(45) Alice enjoys falling down any hole.
Assertion: $\forall\boldsymbol{h}$ Falling down h is something Alice would enjoy.
Incorrect presupposition: $\forall\boldsymbol{h}$ Alice fell down h.
Presupposition (from Relevance): Alice enjoys something.
(presumably because she falls down rabbit holes from time to time)

Indeed, factive constructions provide support for the $\forall$-account. Consider the famous contrast in (46), which cannot readily be explained in Ladusaw's (1980) system of upward and downward entailments (Linebarger 1987, Kadmon & Landman 1993):

(46) a. I'm sorry I said anything.
Assertion: The idea of my saying anything strikes me as bad.
($\Rightarrow$ the best course would have been to say nothing)
b. # I'm glad I said anything.
Assertion: The idea of my saying anything strikes me as good.
($\Rightarrow$ any utterance whatsoever would have been a good idea)

The $\forall$-account makes no semantic distinction between *sorry* and *glad* either. However, with very little fuss, it can ascribe the unacceptability of (46b) to a pragmatic failure. As shown, it paraphrases (46b) by something much less likely than the $\exists$-account's *I'm glad I said something.* This yields a pragmatic rather than a semantic problem; in a a more suitable discourse context, such as (47), *any* is perfectly acceptable in the scope of *glad.*

(47) It did not seem an especially polite remark, but given the great fall he had just had, she was glad he had said ANYTHING.

No one doubts that FC *any* and NPI *any* have something in common, if only historically. And the old hypothesis that they are really a single universal quantifier, with some special properties, should not be ruled out just yet. So far as I can see, an appropriately formulated univocal $\forall$-account is currently the simplest way to explain certain syntactic and semantic phenomena—from the ability of NPI *any* to exert universal force in (6), to the contrast in (46), to the broad facts about *any*'s syntactic distribution.

In the long run there may be no single, complete, elegant account of *any*; but however the phenomena are to be teased apart, the traditional NPI-FC distinction obscures some useful generalizations.

Footnotes

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1. Here and throughout, LFs have been simplified. Quantifiers corresponding to *any* appear in boldface.

2. Since (6b) would be ungrammatical without negation, *any* here is genuinely the negative-polarity item. The universal quantification cannot be explained by appeal to FC *any*.

3. A reviewer asks the reasonable question: If this is so, why aren't statements about Haigha or Santa Claus always ungrammatical? One answer is

that these entities are real in the discourse world that is current at the time of utterance—which is not the so-called "real world," but one of the fictional worlds in which Santa exists. The statement predicates something of Santa in that world. Other answers are also possible.
4. One might easily question, however, whether the theory correctly predicts the truth conditions in this case. Does the *most* sentence really make a separate assertion for each bottle, about the set of children who drank from that bottle? It seems doubtful. But in other examples, the predicted semantics for *most* are more plausible:

(i) Most linguists who have studied any sentence$_i$ think it$_i$'s grammatical.
(ii) Most kids who take any trips to Wonderland forget what it's like.
$\forall(\boldsymbol{n} > 0)\,\text{Most}_k\ [k \text{ takes } n \text{ or more trips}][k \text{ forgets}]$

While *any* can be omitted from (ii), including it strengthens the sentence to the point of oddity: it makes the surprising claim that return visits don't make a kid more likely to remember the place. (Note that the semantics of plural *any*-NP, not discussed here due to space limitations, differ slightly from those of singular *any*-NP.)

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