TRACKING THE GENERIC TOAD[0]
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When I last had the opportunity to address this Society, I had the somewhat embarrassing task of presenting a paper (Lawler (1972)) chock-full of the enigmas that characterize the study of generics, without much in the way of ameliorating explanations or generalizations. This year I would like to present a progress report of sorts, commenting on some of the material I discussed previously, with selected short subjects. Whereas last year I was forced to confess that we knew almost nothing about generics, this year I am pleased to report that we now know almost something about them.

My point of departure in this study is the peculiar relationship of only and always as it relates to generics, statives, and quantifiers. One of the points made in Lawler (1972, 1973) is the existence of quantifiers in generic expressions of all kinds. Note, for example, (1), a generic, paraphrasable either as (2) on the existential reading or as (3) on the universal:

(1)   &My pet toad eats flies.
(2)   My pet toad will eat flies.
(3)a   My pet toad only eats flies.
  b   My pet toad always eats flies.

The point made in the earlier papers in regard to these sentences is that such ambiguities sometimes exist between the quantifiers on generics; this is interesting. However, there is another point to be made, namely, that the seeming synonymy of only and always in (3) is without apparent reason. We will see that this is a much deeper problem than it appears to be.

Let us then try to explicate only and always; we can conveniently begin with only, following Horn's (1969) analysis, with emendations to account for the generic quantifiers.[1] I have tentatively represented them as binding the variable e, representing "events", or, more generally, "occasions"; these will be taken as instantiations of the proposition.[2] On this analysis, then, (3)a presupposes (4) and asserts (5):

(4) $(\exists e)(\exists x)(EAT(T,x,e) \,\&Fx)$
(4')   There are occasions on which my toad eats something which is a fly.[3]
(5) $-(\exists e)(\exists x)(EAT(T,x,e) \,\&-Fx)$
(5')   There are no occasions on which my toad eats anything which is not a fly.

We can show that (4) is presupposed and (5) asserted by negating (3)a:

(-3)a[4] My pet toad doesn't only eat flies.
(-5) $(\exists e)(\exists x)(EAT(T,x,e) \,\&-Fx)$
(-5')   There are occasions on which my toad eats something which is not a fly.

(-3)a asserts (-5), but presupposes (4), just as (3)a does. It can
readily be seen that (-5) is a straightforward negation of (5).
What, then, of always?

      I believe the proper analysis of always involves a similar,
but basically distinct, type of expression. I would analyze (3)b as
presupposing (4), like (3)a, but as asserting (6):

    (6) $(\forall e)(\exists x)(EAT(T,x,e) \rightarrow Fx)$[5]

    (6')   On every occasion on which my toad eats some-
            thing, there is a fly eaten.

On negating (3)b, we find the presupposition unchanged ((4) is still
true), but the assertion is negated:

    (-3)b   My pet toad doesn't always eat flies.
    (-6) $-(\forall e)(\exists x)(EAT(T,x,e) \rightarrow Fx)$[6]

(-6), the assertion of (-3)b, is equivalent logically to (7):

    (7) $(\exists e)(\forall x)(EAT(T,x,e) \& -Fx)$

    (7')   There are occasions on which my toad eats on
            which nothing he eats is a fly.

We note immediately that (-5) and (7) are the same except for the
quantifier binding the object variable; it is existential in (-5),
and universal in (7); yet (-3)a and b, as well as (3)a and b, are
apparently synonymous---seemingly the quantifiers don't make any dif-
ference. What could account for this?

      If we look at the senses of (5) and (6), we begin to get an
inkling. (5) states that my toad eats nothing but flies; (6) states
that every time he eats, he eats a fly; these are the same statement
only if we assume in addition that he eats only one thing at a time.
That is, the occasion variable $\underline{e}$ in (6) must refer to an event con-
sisting of the toad's eating precisely one thing. This is in accord
with our knowledge of how a toad eats, spearing insects one by one
with its tongue. There are, however, cases in which this additional
assumption is unwarranted. Consider (8):

    (8)a   Bill only eats rice.
       b   Bill always eats rice.

(8)a and b (on the reading on which the direct object is the argument
of the adverb)[7] are not synonymous. (8)a asserts (9) and (8)b asserts
(10):

    (9) $-(\exists e)(\exists x)(EAT(B,x,e) \& -Rx)$

    (10) $(\forall e)(\exists x)(EAT(B,x,e) \rightarrow Rx)$

That is, if (9) is true, Bill never eats anything but rice, while if
(10) is true, whenever Bill eats anything, he eats rice on that occ-
asion. We now see why the quantifier binding $\underline{x}$ in (6) and (10) is an
existential; human eating habits being what they are, it is improb-
able that on every occasion when Bill eats, there will be only one
thing he eats; it is much more likely that there will be several---
and the occasion is interpreted here as the entire meal. Thus we can
ascribe the synonymy of (3)a and b to the existence of a meaning pos-

tulate like (11), governing toads; and the lack of a similar one governing humans shows why (8)a and b are not synonymous:

(11) $(\forall e)(\forall x)(\forall y)(EAT(T,x,e)\&EAT(T,y,e) \rightarrow x=y)$

(11')   There is only one thing eaten by my toad on any given occasion.

There are numerous cases where this analysis provides an explanation:

(12)a   Bill only drinks beer.
    b   Bill always drinks beer.
(13)a   Edsel only buys Cadillacs.
    b   Edsel always buys Cadillacs.
(14)a   Frank only sings ballads.
    b   Frank always sings ballads.
(15)a   Herb only smokes Panama Red.
    b   Herb always smokes Panama Red.

In (12)-(15), the a sentences are synonymous with the b sentences, since one can drink (in the alcoholic sense of the verb, note) only one thing at a time, normally buys only one car at a time, etc. This is a satisfying result, in that it gives an analysis for always parallel to that of only, and at the same time shows how pragmatic notions influence semantics.

However, this is not the whole story. There are many more types of sentence in which always and only are radically different in meaning, and for which the analysis proposed above does not work. These are not, by the way, restricted to generics, but include uses with stative predicates as well. Some examples:

(16)a   Crazy Eddie only says hello to toads.
    b   Crazy Eddie always says hello to toads.
(17)a   I only distrust politicians.
    b   I always distrust politicians.
(18)a   You only hurt the one you love.
    b   You always hurt the one you love.

as well as some even more puzzling types where ambiguity enters the picture with always:

(19)a   I only vote for radicals.
    b   &I always vote for radicals.
(20)a   Bill only falls for tall blondes.
    b   &Bill always falls for tall blondes.
(21)a   Butch only picks on little kids.
    b   &Butch always picks on little kids.
(22)a   Norbert the narc only reports potheads.
    b   &Norbert the narc always reports potheads.

In (16)-(18), the a sentences are not at all the same as the b sentences, and in (19)-(22) the a sentences are synonymous with one reading of the ambiguous b sentences, but the other reading of the b sentences is similar to that of (16)b-(18)b. Something very strange is going on. How does it affect the analysis of always and only that

we have proposed?

A number of observations are in order before we embark
on a new analysis. First, note that the basic difference between
the two readings of (say) (21)b is statable in terms of a condition-
al. One (the one, in fact, that is identical to (21)a) means that
if Butch picks on anyone, it's a little kid. The other means that
if there is a little kid around, Butch is sure to pick on him. This
suggests methods of modifying the assertion of always.

Second, the negatives of these sentences are extremely
interesting. Note, first, that (-21)b is ambiguous in the same ways
as (21)b, as whown by the possible continuations:

> (-21)b &Butch doesn't always pick on little kids
>
> (, $\left\{\begin{array}{l}\text{sometimes he picks on somebody his own size.}\\\text{he never picks on little Irving, for instance}\end{array}\right\}$)

Second, taking an unambiguous sentence, for a change, note the vast
difference between (-17)a and b:

> (-17)a I don't only distrust politicians.
>   b I don't always distrust politicians.

This, I think, is evidence for not only a difference in assertion
between these uses of only and always, but in presupposition, as
well.

Finally, we find here, as before, many pragmatic facts
which influence the meanings of sentences. I will not discuss this
fact at this point, but it is obvious that, on the reading of al-
ways which is not equivalent to only, there is an additional assump-
tion made, to the effect that (e.g, in the case of (21)b), the lit-
tle kid in question must be present in circumstances which allow a-
gressiveness towards him on Butch's part. That is, the little kid
must be physically in Butch's presence, and Butch must be able to
pick on him. This is essentially equivalent to saying that, for
every little kid, Butch will pick on him, if he can. A similar as-
sumption holds in all the other cases where only is not equivalent
to always. It is obviously impossible for Crazy Eddie to greet a
toad he does not see, or for Norbert to report a pothead he doesn't
know about, etc. We will have more to say below about this assump-
tion.

We can now make an attempt at elaborating our analysis
of only and always. It appears, from the ambiguity of (19)b-(22)b,
that always has, at least in these cases, two possible assertions.
I will call one of them "verb-conditioned" and the other "noun-con-
ditioned" In the case of (21)b, these are:

> (23) $(\forall e)(\exists x)(PICKON(B,x,e) \rightarrow LKx)$ [verb-conditioned]
> (24) $(\forall e)(\exists x)(LKx \rightarrow PICKON(B,x,e))$ [noun-conditioned]

The names I have chosen reflect the asymmetry of the assertions,
both of which are conditional. (23) means that, if Butch picks on
anyone, he picks on (at least) one little kid---the instantiation
of the proposition containing the verb is the hypothesis, the iden-
tification of the argument (here the object) is the conclusion;

hence "verb-conditioned". (24) means the converse; if there is a little kid present (in the appropriate pragmatic circumstances), then Butch picks on him. Here the existence of an argument describable in a particular fashion allows us to conclude that the instantiation of the proposition occurs. We have yet, of course, to account for the fact that, in some case, only one of these assertions appears.

always also has presuppositions, and they remain the same, regardless of the nature of the assertion. We earlier noted that (3)b presupposed (4), which was also supposed to be the presupposition of (3)a. However, we can decompose (4) into two separate presuppositions by modus ponens, and we will see that it is interesting to do so. (4) is equivalent to (25) and (26):

(25) $(\exists e)(\exists x)(EAT(T,x,e))$

(25') My pet toad sometimes eats something.

(26) $(\exists e)(\exists x)(EAT(T,x,e) \rightarrow Fx)$

(26') There are times when, if my toad eats anything, he eats a fly.

Similarly, the presuppositions of (21)b are (27) and (28):

(27) $(\exists e)(\exists x)(PICKON(B,x,e))$

(28) $(\exists e)(\exists x)(PICKON(B,x,e) \rightarrow LKx)$

Note that (26) and (28) are both verb-conditioned hypotheticals.

only, on this analysis, has only one possible assertion, and it is verb-conditioned, showing how the two can have similar readings; (21)a asserts (29):

(29) $-(\exists e)(\exists x)(PICKON(B,x,e)\&-LKx)$

which is logically equivalent to the verb-conditioned (30):

(30) $(\forall e)(\forall x)(PICKON(B,x,e) \rightarrow LKx)$

(30') Whenever Butch picks on anyone, that person is a little kid.

However, we will need to expand somewhat the presuppositions of only to account for the meanings of some of the sentences above. It seems that we have been cheating a bit in describing the presuppositions of only; the analysis proposed by Horn and applied here gives the presupposition of only(x=a,Fx) as simply Fx; that is, the presupposition of (3)a is simply (1). But this leaves us back where we started, since (1) is ambiguous. Something needs to be done. It is clear, at least, that any reading of (1) presupposes (25) and (26), so that they will remain as presuppositions of (3)a. There is, however, another possible presupposition of (1) which must be included as a presupposition of (3)a in some cases, in addition to (25) and (26). This is a noun-conditioned hypothetical, given by (31):

(31) $(\forall e)(\exists x)(Fx \rightarrow EAT(T,x,e))$

(31') If there is a fly around, my toad will eat it.

Looking again at (21)a, we find that a similar presupposition may be present, as seen by the meaning of (-21)a:

> (-21)a   Butch doesn't only pick on little kids.

(-21)a may presuppose either that Butch picks on some little kids, as given by (27) and (28), or that he picks on all little kids, as given by the proposition corresponding to (31).

It turns out, in fact, that the same circumstances (whatever they may be) govern the possibility of ambiguity in assertion of always and the possibility of the noun-conditioned presupposition of only. That is, whenever a sentence with only presupposes the additional noun-conditioned hypothetical, the same sentence with always asserts a noun-conditioned hypothetical. To illustrate: (17)b asserts that I distrust all politicians. This can be seen from the negation; (-17)b negates the assertion, thereby asserting that there are some occasions on which I can trust some politicians. This is an example of a noun-conditioned assertion; but (17)a has the additional noun-conditioned presupposition, as seen from its negation. (-17)a still presupposes that I distrust all politicians, but negates the assertion, stating that I also distrust others. It is interesting to note that (17)c, the sentence without only or always, is not ambiguous like (1):

> (17)c   I distrust politicians.

We will have more to say below about this fact.

In fact, if my hypothesis is correct, we should be able to find a noun-conditioned assertion acceptable for (3)b, since (3)a can presuppose the noun-conditioned hypothetical, and (1) is ambiguous; and of course we can, as the following sentence shows:

> (32)   My pet toad always eats flies; all I have to do is let one in his cage, and zap!

To summarize, then, we can propose the following analysis of only and always:

> (33) $\text{always}(x, Fx, P(x,e))$:
>   a. P: (1) $(\exists e)(\exists x)(P(x,e))$
>   and (2) $(\exists e)(\exists x)(P(x,e) \rightarrow Fx)$
>   b. A: (1) $(\forall e)(\exists x)(P(x,e) \rightarrow Fx)$
>   or (2) $(\forall e)(\exists x)(Fx \rightarrow P(x,e))$

> (34) $\text{only}(x, Fx, P(x,e))$:
>   a. P: (1)   [same as (33)a(1)]
>   and (2)   [same as (33)a(2)]
>   (and optionally (3) $(\forall e)(\exists x)(Fx \rightarrow P(x,e)))$
>   b. A: (1) $-(\exists e)(\exists x)(P(x,e) \& -Fx)$

where they are defined as taking arguments consisting of a variable (x), a predicate identifying x (Fx), and a proposition containing x and a variable representing occasions (P(x,e)). We will also need principle (35) to link the alternate assertion of (33)b with the optional presupposition of (34)a:

(35)   only$(x,Fx,P(x,e))$ presupposes (34)a(3) iff
         always$(x,Fx,P(x,e))$ asserts (33)b(2).

This shows that only and always are, at least in these
usages, related in interesting ways (not unlike the relation demon-
strated by Horn (1969) between only and even), and have relevance
to the question of the proper analysis of generics and statives.
All of this brings us back to the original question of generics and
their meaning; in particular, the problem of the universal vs the
existential habitual generic. I am now in a position to present
an extremely tentative proposal for the some of the semantics of
generics. There are a number of things it does not explain; for
instance, I remain at a loss to explain why, if (1) is ambiguous,
(-1) is not:

     (-1)   My pet toad doesn't eat flies.

(-1) is the negation of (2), not of (3)a or b. This is not predic-
ted by my theory (or anyone else's) at this point. However, there
are many suggestive points which this analysis makes that will bear
further study.

     In essence, I propose that the logical structure of a
generic universal sentence, with the generic quantifier binding
occasions $\underline{e}$, and which contains a predicate $\underline{F}$ over a variable $\underline{x}$
be approximately (36):

(36)a   P: $(\exists e)(\exists x)(\Diamond F(x,e))$
     b   A: $(\forall e)(\exists x)(\mathcal{O} F(x,e) \rightarrow F(x,e))$

and that of an existential generic in the same circumstances be (37):

(37)a   P: [same as (36)a]
         A: $(\exists e)(\exists x)(\Diamond F(x,e) \rightarrow F(x,e))$[10]

     (36) and (37) are stated in sufficiently general terms
to give insight into a host of generic types. To begin with, the
timeless nature of generics so often remarked on is given in this
analysis by the lack of tense predicates on either the presuppos-
ition or the assertion, and by the nature of the generic quanti-
fier and the event variable. It can easily be shown that some such
presupposition is necessary for any analysis of generics (see Lawler
(1973) for discussion). Second, the conditional in the assertions
of (36) and (37) is equivalent to saying "if possible", which, as
noted above, is also necessary in any generic. Third, the fudge in
the ointment is the nature of the $\Diamond$, which is surely no ordinary
modal operator, but which does share some interesting properties
with other modals; in particular, it can be read either as a root
or as an epistemic. I believe that the natural ambiguity of this
modal is what produces the two alternative readings of universal
generics---the verb-conditioned and the noun-conditioned one.[11]
     Suppose we return to our original sentence (1) and exam-
ine the circumstances under which it can have the verb-conditioned
and the noun-conditioned readings. If we mean it to be read as a
noun-conditioned hypothetical paraphrasable as one reading of (3)b,

then a root reading of (36) will give the proper analysis: consider
just what the noun-conditioned hypothetical means---if there is a
fly present under circumstances which amount to the toad's being
able to eat it, then he will do so. The root interpretation of the
assertion of (36) is the obvious answer. But the verb-conditioned
reading is equally dependent on an epistemic reading reading of the
modal; if what we mean is that every occasion of the toad's eating
is one of his eating a fly, then we interpret the modal epistemic-
ally to mean that for every occasion on which it is possible that
the toad would eat a fly, he does so. What are these occasions?
Precisely those on which the toad eats anything at all; once again
the proper reading falls out from the interpretation of the modal.
One of the nicer things about this analysis, which is, of course,
not exactly well-established in all cases, is that the alternative
readings of the generic are derived from something we know is in-
volved in the analysis of generics---modals and variant readings
of them (see Lawler (1972,1973) for altogether too much discussion
of the mysteries involved). It may be the case that this analysis
gives us a handle to investigate the relationship between habitual
generics and potential and functional generics, which I reported
on last year, but which have succeeded in eluding what little light
I have sought to shed on them so far.
        In conclusion, I take up again two topics I have mentioned
before, showing how they are related and how they support this ana-
lysis of generics. They are the relation between generics and
statives, hinted at above and elsewhere, and the curious facts re-
ported cursorially last year regarding innate quantifiers.
        Consider, first, the relation between (38) and (39):

        (38)a   Harry catches toads.
            b   Harry hates toads.
        (39)a   Harry catches amphibians.
            b   Harry hates amphibians.

From (38)a, we are entitled to conclude (39)a, but (38)b does not
entail (39)b. However, the converse is the opposite: (39)b entails
(38)b, but (39)a does not entail (38)a. What is going on here is
that the b sentences refer to all toads and amphibians, while the
a sentences refer only to some in each case. Obviously, if Harry
hates all toads, it does not follow (although it may be the case)
that he hates all amphibians; while if he catches some toads, it
is true that he catches some amphibians. It is the superficial
resemblance of the sentences which leads us to expect them to work
alike. But where do the quantifiers come from?
        Kanouse (1972) has done some extremely interesting work
regarding the innate quantifiers present with various verbs. While
the space at my disposal does not permit me to discuss this valuable
study at the length it deserves, I can briefly summarize Kanouse's
findings. He showed that the presence of perceived quantifiers is
experimentally verifiable, and that it is a function of verb type,
some classes of verbs choosing existentials, others universals on
their objects, in sentences touchingly described as "...simple sen-

tences of the form 'Subject(s) Verb Objects'...". That is, present tense active and stative transitive verbs, including, of necessity, generics of all kinds in the cast of active verbs. Further, he showed that two category oppositions account for over half of the variance between quantifiers that he observed. These are the "negative/positive" distinction, as in hate/like, where the negatives tend to have quantifiers on the objects which are closer to the universal than do positives, and the "manifest/subjective" distinction. This last category opposition needs clarification; what Kanouse means by subjective is essentially emotive stative, without considering such categories as factive, since (with one interesting and accidental exception) none of the verbs used in his study were considered in senses in which they embed complements. Examples of Kanouse's "subjective" verbs are: like, dislike, hate, disapprove of, and want. "Manifest" verbs are more interesting, in that they obviously form a clearly-defined class, which Kanouse shows to be linguistically significant,that does not, as far as I know, have a traditional grammatical tag; he defines these verbs as those which denote an observable action or manifest relationship between the subject and the object. Examples are: seek, make, buy, use, steal, ruin, have, damage, produce, catch, etc. Note that not all of these are actives; in particular, have fits in this class. Kanouse shows that manifest verbs select existentials, while subjectives take universals; and that the distinction between these types is considerably more important than that between positives and negatives. His data seem quite unequivocal.[12]

Obviously, this result, which is intuitively correct, explains the strange facts regarding (38)-(39); catch is manifest, so its object will have an existential, but hate is subjective (and negative to boot), so its object will have a universal. What is not so obvious is why these relationships obtain in the first place; why, for example, should subjective verbs take universals, while manifest verbs don't? I believe that this is another instance of the operation of a postulate like (36), applying equally to generics and (at least certain types of) statives.

The important thing to note here is that, with subjective verbs, it is possible to predicate the relationship to all the members of a class; with manifest verbs, it is not. Thus, we find that the maximum reading is taken in both cases, but it is constrained in the cases of manifest verbs by pragmatic considerations. Harry catches as many toads as he can, which necessarily means some, not all; but he hates as many as he can, which means all toads. It is not difficult to see how Kanouse's results (at least as regards the manifest/subjective distinction) follow from some such principle as (36), provided pragmatic considerations are made available in the grammar. What is even more interesting is that a formula like (36) apparently works also for some statives, giving us something to relate generics and statives formally; as I have pointed out in several places (1972,1973), this relationship is undeniable and ubiquitous, and needs accounting for.

NOTES

0. Some of the material presented here is from the appendix to Law-
    ler (1973), where it appears in considerably less coherent form
    (if such is possible). The analyses presented here are novel in
    the sense that they are not contained in Lawler (1973), and are
    intended to supersede the analyses in that work. I would like
    to thank Phil Tedeschi for discussions of the matters contained
    here, George and Robin Lakoff for general assistance and encour-
    agement, and Larry Horn and David Kanouse for attempting and com-
    pleting the research which has been so helpful to me in this
    work. Needless to say, none of these people are responsible for
    my wild theorizing, although the last two cannot escape respon-
    sibility for discovering the many fascinating facts that moti-
    vated it in the first place.

1. The "generic quantifier" as I call it here, is a strange animal,
    similar to, but quite distinct from, the familiar quantifiers of
    predicate calculus (which have heretofore been almost the only
    ones discussed in linguistic contexts). The universal generic
    quantifier is a hedged, or "fuzzy" quantifier, equivalent (loose-
    ly) to "practically all"; it is not falsified by the existence
    of a single counterexample. The existential generic quantifier
    is similar to the logical existential, but means something like
    "some few", with a presupposition not only of existence, but of
    repetition and plurality. I use these in this paper primarily
    to bind the "occasion" variable e, and the fuzzy nature of the
    quantifiers should be borne in mind when reading the formulas.
    See G. Lakoff (1972,1973) and R. Lakoff (1972) for discussions
    of fuzziness in grammar.

2. This variable, which I will represent as an additional **argument**
    of active (and later, some stative) verbs, is an unhappy exped-
    ient to which I have been forced in order to represent the concept
    of "occasion", something which is clearly necessary and (as I
    hope to show here) of immense explanatory value in dealing with
    generics, as well as with the adverbs that occasion its use here.
    I do not seriously mean to propose that there is or ought to be
    any such argument as a part of the description of every (or even
    any) verb; however, I will use it that way here for reasons of
    simplicity---those preferring other notations are welcome to in-
    vent them.

3. The translations provided here are strictly illustrative, and
    no claims are made for their accuracy (or even for their gram-
    maticality, in some cases).

4. The sentences negatively numbered are, of course, the negatives
    of the corresponding affirmative sentences. This notational in-
    novation opens the way for a linguistic "truth in packaging" in
    regard to numbered examples; with all of algebra and number the-
    ory available to the linguist, one can easily conceive of proper
    numbers for complex, rational (and irrational), transcendental

(such as <u>John is easy to please</u>), imaginary, or just downright odd sentences, to say nothing of proper, improper, and continued sentence fractions.

5. (6) is incorrect as it stands, in that it can be satisfied vacuously by virtue of the existential binding <u>x</u>, which is outside the conditional expression. While this can be fixed up by a more complex expression, I will not attempt such an elaboration here for two reasons: first, the presupposition of (4) and all the other sentences for which I posit such a structure guarantees that not all occasions are cases of vacuous application, and we can, without loss of generality, concentrate on these cases and ignore the vacuous ones; second, <u>any</u> use of a universal quantifier in linguistic discussions must face the fact that the usual applications of it in predicate calculus are inappropriate for linguistic use, in that it must be constrained in as yet unknown ways to make sense in linguistic terms. I find it significant that almost all of the important work done on quantifiers so far in linguistics has concentrated on indefinites, where the problem of constraints does not arise; while it is relatively easy to represent logically a sentence like <u>Everybody loves somebody</u>, it is quite another matter to represent even something as similar as <u>Every man loves some woman</u>. One of the fudgy ways open to those who try such foolish things is the conditional expression, and that is what I have opted for.

6. I have left undefined the precise nature of the arrow in the conditionals; it probably should mean entailment of some kind, but the only conditions I place on it here is that it preserve modus ponens and that it at least entail the standard disjunctive normal form of material implication.

7. This is as good a place as any to mention another caveat. As Horn (1969) showed, <u>only</u> is multiply ambiguous, in that it can take as argument any constituent following it, and even some which precede it. It is probably the case that <u>always</u> works · like <u>only</u> in at least some of these ways. Therefore, I have tried to avoid ambiguities of this kind in this paper by concentrating in all cases on readings in which the argument of <u>only</u> and <u>always</u> is the direct object of the verb. All the sentences in the paper should be read with this in mind.

8. Note that <u>buy</u> must be interpreted here as <u>buy some type of car</u>.

9. cf. note 7. Obviously, one could just as easily construct sentences with generic noun phrases as subjects, and these would be equally amenable to analysis by this formula; however, those sentences which contain two generics, like (40), do present a problem:

> (40)   Toads always eat flies.

While the proper analysis of such generic NP's is still a long way beyond me (cf, once again, Lawler (1973) for some of the

hair involved), I think it likely that yet another quantifier is necessary in such cases to handle the additional generic NP. I leave the precise formulation of this monstrosity as an exercise for the reader.

10. If I am even approximately correct about these analyses, the notion of existential vs. universal generic, as proposed in Lawler (1972,1973), will require revisions in unexpected ways, since many of the sentences which I considered existential in these studies turn out to be universal according to these formulas. On the other hand, these do not come any closer to predicting when, and why, any given surface generic sentence should be read as universal, or existential, or ambiguous. This seems to be a matter for pragmatics, in several senses, some of which are discussed in Lawler (1973).

11. Naturally, if it is the case that the difference between the root able sense and the epistemic possible sense of the ◊ is the determining factor for the noun-conditioned vs. the verb-conditioned readings, then the formulas (36) and (37) must be read so as to allow for the additional argument of the modal in the root cases; but this is relatively trivial.

12. The single exception mentioned above is the behavior of want, which is clearly a member of the semantically-defined subjective class, but whose behavior in Kanouse's tests places it squarely in the manifest group with regard to perceived quantifiers. This provides confirmation from an unexpected source for the hypothesis that want means want to have, with the verb actually embedded under want in all cases, unless another verb is present on the surface. Apparently, the quantifier phenomenon is dependent on the immediately commanding verb, which in this case is have, not want, thus placing the sentences with surface want in a position close to the value of have on Kanouse's scale. Kanouse notes this explanation in discussing his results.

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