Subjects, Speakers and Roles*

Charles J. Fillmore

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1. This report is a record of issues in the semantics of natural

languages that have concerned me in the past few years, some of the

things I have had to say about them, and some of the things that others

have had to say about them. There is nothing new in these pages, and

there is much that is borrowed. I use numbered paragraphs mostly to

create favorable associations--but also to make it obvious that I do

not expect the reader to perceive here any structure beyond that of

sheer sequence.

2. The traditional first task of sentence analysis has been

that of understanding and recognizing the highest-level division in a

sentence, that between its subject and its predicate. On the traditional

account, the subject of a sentence is that portion of it which indicates

'the person or thing about whom or which a statement is made or a

question asked,' and its predicate is that portion of the sentence which

contains 'the statement or the question asked.'

3. In formal grammars of the type first discussed by Chomsky, the

subject/predicate distinction is captured in terms of labeled co-

constituents of sentences. The two major co-constituents of a sentence

are a nounphrase (NP) and a verbphrase (VP). A NP that is an immediate

constituent of a sentence is defined as its subject; a VP that is an

immediate constituent of a sentence is its predicate.[1] We may refer

to this as the _configurational_ definition of subjects and predicates.

4. In theories of grammar that derive from the work of Chomsky, a distinction is made between the _deep structure_ of a sentence and its _surface structure_. Since both the deep structure and the surface structure are capable of having major co-constituents of the same types, and since the entities so identified may be different in the deep and surface representations of the same sentence, it is necessary to speak of both deep structure and surface structure subjects and predicates.

5. It is of concern, therefore, whether the traditional account of the subject/predicate distinction applies to the distinction as it is defined for the surface structure or the deep structure level. Something akin to the traditional distinction is apparent in the surface structure of some sentences. On the interpretation that the passive transformation in English is meaning-preserving, it can be said that sentences (5-a) and (5-b) differ only in the identification of one or another NP as subject.

> (5-a) pianists play pianos

> (5-b) pianos are played by pianists

There are arguments for saying, however, that while (5-a) is 'analytic,' (5-b) is 'synthetic.' Such claims might be made for the interpretation that (5-a) is a general statement _about pianists_ and that (5-b) is a general statement _about pianos_.

6. It might be argued that either of the sentences in (5) can in fact be interpreted in either of the two mentioned ways. If that is so, then it follows that the traditional account of the semantic

relevance of the subject/predicate distinction cannot be captured by the configurational definition at all, on either the deep or the surface structure level, unless grammatical description is a good deal more subtle and abstract than grammarians have thought.

7. The transformations which link deep structures with surface structures are taken, in the standard theory, to have in themselves no semantic import. It has therefore been assumed that the semantic relevance of the subject/predicate distinction should be sought only in the deep structure.

8. However, the semantic role of deep-structure subjects appears not to be univocal, at least when we look for the role of this entity in the most straightforward way. The involvement of the entity named by the subject NP in the event or situation described by the sentences given below appears to be quite different in each case.

      (8-a)   the boy slapped the girl

      (8-b)   the boy fell down

     (8-c)   the boy received a blow

      (8-d)   the boy has a toothache

      (8-e)   the boy has blue eyes

      (8-f)   the boy [=his appearance] shocked me

In order for a semantic theory to relate THE BOY to the predicate expression found in each of these sentences, reference must of course be made to the 'subject' NP; but there appears to be no common notional property of 'subjectness' which semantic descriptions of these sentences can exploit.

9. A commitment to the view that 'subjects' defined in the

configurational way must be relevant to semantic descriptions has led to two varieties of re-analysis. The first is mentioned in sections (10)-(14), the second, briefly, in (15).

10. Though it may not be possible to find a single semantic contribution for the subject role with all types of predicate expressions, it may at least be possible to find a unique subject role for each predicate word, or, better, for each type of predicate word. There is a group of verbs in English which have both transitive and intransitive uses and which show the same NP role with respect to the subject in their intransitive uses as they do with respect to the direct object in their transitive uses. Typical examples can be constructed with movement-verbs like ROTATE or change-of-state verbs like BREAK.

        (10-a)   the cylinder rotated

        (10-b)   Fred rotated the cylinder

        (10-c)   the lens broke

        (10-d)   Fred broke the lens

11. According to one attractive and popular proposal for capturing facts of the sort exhibited by the sentences in (10), the transitive sentences contain, in their deep structures, the intransitive sentences embedded to the verb CAUSE.[2] In each case the subject of the underlying verb CAUSE is the subject of the transitive sentence; the analysis interprets the sentence as representing the proposition that the entity identified by the subject NP of CAUSE is causer of an event characterized by the intransitive sentence. The sentences (10-b) and (10-d) can be thought of as having in their deep structure something of the sort suggested by (11-a) and (11-b) below:

(11-a) Fred cause (the cylinder rotate)

(11-b) Fred cause (the lens break)

[I ignore here the problem of tenses.] On this analysis, the relation

between the verb (ROTATE or BREAK) and its underlying subject is the

same in both its (surface) transitive and intransitive uses. The

appearance of these underlyingly intransitive verbs in transitive-

verb positions is a matter of surface detail.

12. The cases presented in (11) show a reconstruction that gives

a unique subject/verb relationship for different 'uses' of the same

verb. By allowing the relation between deep and surface structures to

be more abstract still, it is possible to show semantic relations

between two different verbs in a way that will reveal their underlying

semantic commonalities; and, in particular for our purposes, will show

that, for the given verb pairs, the role of the deep-structure subject

is the same in both cases. Thus the deep structures of (12-a) and

(12-c) are something like what is suggested by (12-b) and (12-d)

respectively.

(12-a) Peter killed the cat

(12-b) Peter cause (the cat die)

(12-c) Peter put the beer in the icebox

(12-d) Peter cause (the beer to be in the icebox)

The replacement of CAUSE TO DIE by KILL and CAUSE TO BE by PUT is, again,

a matter of surface detail.

13. One might object to the semantic equivalence of (12-a) and

(12-b) on the grounds that (13-a) and (13-b) are not exact paraphrases.

(13-a) Peter killed the cat in the attic

(13-b) Peter caused the cat to die in the attic

This objection is not critical, because it is quite possible to con-
strain the replacement by KILL of CAUSE TO DIE to only those situations
in which the interior sentence has no adverbial modification. The
locative phrase IN THE ATTIC, in (13-a), can only refer to the place
where the causing took place.

14. Apparent difficulties of the sort mentioned in (13) are
counter-balanced by the advantages that this reanalysis offers in
sentences like (14-a) below:

(14-a) Peter put the beer in the icebox for three hours

The complex sentence analysis makes intelligible the occurrence in this
sentence of an adverbial of time duration (FOR THREE HOURS), an adverb
which cannot be construed as qualifying the action which Peter performed,
but only the situation of the beer's being in the icebox. Efforts
which consider semantically complex verbs as inserted pretransformation-
ally are required to say of verbs like PUT that they are used in refer-
ring to actions which have resulting states and that they tolerate
adverbial modification of either the preceding action or the resulting
state, but not (presumably) both. Observe (14-b)

(14-b) *Peter instantly put the beer in the icebox for
        three hours.

15. Certain researchers continue to seek a univocal interpretation
to the deep structure NP for all cases in which it occurs. These
workers are required to assign the agentive or causing role to the
deep structure subject, and then to interpret all sentences which fail
to contain a NP that has this semantic role as sentences which have no

deep structure subject whatever.[3] I will not say more of this
approach, since I do not consider it distinct--with respect to the
'agent' role--from an approach which assigns 'roles' to NPs explicitly.

16. The second grammatical function of NPs which is defined
configurationally within the standard theory is that of the direct
object. On the traditional account, the role of the direct object in
a sentence is that of 'patient' of the action referred to by the
verb of the sentence, though deviations from this have long been under-
stood and classified. By its configurational definition, the object
NP is identified as that NP which is an immediate constituent of the
main VP of the sentence. That the direct object relation is not
semantically univocal can be seen in the following sentences:

    (16-a) I smashed the pumpkin

    (16-b) I grew the pumpkin

    (16-c) I like the pumpkin

    (16-d) I imagined the pumpkin

    (16-e) I made the pumpkin into a mask

    (16-f) I made a mask out of the pumpkin

17. Defenses of the underlying univocality of the semantic role
of the direct object can be pursued in the same style as those dealing
with sentence subjects.

18. It would seem, however, that linguistic theory ought to
provide some way of distinguishing (i) the semantic roles which NPs
have with respect to their predicate words, from (ii) facts about their
positions in syntactic configurations, on either deep or surface
structure levels. In some of my work I have tried to show how this

could be done.

19.   Certain verbs and adjectives seem to require inherently a given number of NPs in the sentences in which they take part. Another way of saying this is that certain verbs and adjectives seem quite naturally to be reconstructible as n-place predicates in formulations within the predicate calculus. In descriptions of logical n-place predicates, there is no special status by which one or another of the arguments can be isolated from the rest, a status that would correspond to the role of subject or object. The relation between unstructured (but, of course, ordered) n-place predicate expressions and syntactic configurations appears to require the positing of certain mechanical correspondence rules which will make use of the left-to-right position of the arguments in the predicate expression.

20.   For example, the verb REMIND--as seen in that sense of (20-a)

    (20-a)   Harriet reminded Fred of Charlotte

according to which Fred, on encountering Harriet, thought of Charlotte-- can be viewed at the semantic level as a three-place predicate, repre- sentable [ignoring tenses again] as (20-b)

    (20-b)   remind [Harriet, Fred, Charlotte],

a representation which is subject to the following syntactic configura- tion rules: the NP which identifies the first argument assumes the subject position; the NP which identifies the second argument assumes the direct object position; and (a special rule) the NP which identifies the third argument becomes part of a preposition-phrase which begins with OF.

21.   Assuming that the underlying semantic predicates have their

argument slots arranged in a fixed order, one can define <u>converse</u> relations between predicates in terms of their underlying expressions. Thus, the pair LIKE/PLEASE will be defined as 1-2 converses; the pair SELL/BUY will be defined as 1-3 converses; the pair ROB/STEAL will be defined as 2-3 converses.

(21-a)   John likes roses

(21-b)   roses please John

(21-c)   like $[a,b] =_{df}$ please $[b,a]$

(21-d)   John sells roses to schoolgirls

(21-e)   schoolgirls buy roses from John

(21-f)   sell $[a,b,c] =_{df}$ buy $[c,b,a]$

(21-g)   Harvey robs John of roses

(21-h)   Harvey steals roses from John

(21-i)   rob $[a,b,c] =_{df}$ steal $[a,c,b]$

22.   Unfortunately, the method just proposed requires that each converse pair be separately identified, for each language, by some defining expression like (21-c), (21-f), or (21-i).   It is assuredly reasonable to demand of a semantic theory that observed converse relations among predicate words in natural languages be <u>explainable</u> from their meanings and their syntactic properties, not that they need to be stated by a set of <u>definitions</u>.   For two expressions to be converses of each other is a surface syntactic fact; the description of this situation should not depend on prior definitions made on underlying semantic representations.

23.   One type of theory that would allow such explanations would require that all surface converse pairs have the same ordering of

arguments in their underlying representation, and that special rules

for subjectivalization and objectivalization be defined for one member

of each such pair. The 'explanation' of the relation is that one

member of the pair represents an irregularity in the grammar with

respect to the subjectivalization and objectivalization rules.

24. A second approach is one which presents, with each under-

lying predicate expression, an unordered set of argument slots, each

of which is labeled according to its semantic role (or 'case' relation-

ship) with the predicate word. It is this last position that I have

taken.[4]

25. One finds that a decision to speak of predicates, arguments

and role types, rather than predicates, arguments and positions, make

it possible to provide a sharp separation between what I take to be

purely syntactic phenomena--the left-to-right positioning of elements

in the flow of speech--and facts about semantic interpretation. Two

phonologically distinct predicate words may be interpreted as being

semantically identical, having the same number of arguments in the same

roles, but differing solely in the processes which arrange their

elements into syntactic configurations. Each member of such pairs as

BUY/SELL, TEACH/LEARN, SEND/RECEIVE, etc. 'take' essentially the same

argument types, in the same roles, but they differ as to the role

identification of the argument whose name or description becomes its

subject.

26. Such an explanation is not in itself fully satisfactory,

however. It is quite frequently the case that differences in subject

selection properties (independently of the formation of passive

sentences) are correlated with other kinds of facts about predicate
words. Two semantically similar predicate words may differ, for
example, in the optionality of the surface manifestations of certain
of their arguments. In expressions containing SELL, for example,
it is not necessary to include a NP that mentions the 'customer';
thus (26-a) is a syntactically complete sentence.

     (26-a) Harvey sells shoes

In expressions containing BUY, it is not necessary to include a NP
that mentions the 'merchant'; thus (26-b) is a syntactically complete
sentence.

     (26-b) the girl bought some shoes

Similarly, expressions containing ROB may lack overt mention of the
'loot,' just as expressions containing STEAL may lack overt mention
of the 'victim,' as is seen in the syntactically complete sentences
(26-c) and (36-d)

     (26-c) the boy robbed a bank

     (26-d) the girl stole some shoes.

27. The view which recognizes labeled roles for the arguments
of a predicate expression makes it possible, furthermore, to speak of
the relatedness of predicates having different numbers of terms. Two
verbs can differ in that one manifests an n-place predicate and the
other manifests an m-place predicate, the roles of the arguments that
are present in the one and absent in the other accounting for the
differences in the semantic interpretation of the sentences which
contain them. This way of speaking provides a fairly natural way of
speaking of the relationship between KILL and DIE, or that between

PERSUADE and BELIEVE. The role by which KILL differs from DIE, and
that by which PERSUADE differs from BELIEVE is that of the individual
that is 'agentively' involved in the events named by these verbs.
Apart from this difference, we are dealing here with pairs of synonyms.

28. (It has been maintained that the relation between words like
these is more revealingly captured by the paraphrases with CAUSE like
those mentioned in (10)-(14) above. The question is whether this
reformulation is indeed significantly closer to the underlying conceptual
reality to justify claims that have been made about the non-distinctness
of semantic representations and deep structures of sentences. The
word CAUSE itself seems to have a substructure: to say that John
caused the cat to die is to say that John engaged in some activity and
that activity directly resulted in the death of the cat.)

29. Anyway, the view which separates semantic roles from grammatical
functions as sharply as this proposed role-structure analysis does,
makes it possible to explore, as a separate type of inquiry, the function
of the subject/predicate division. There might be some difference
between reasons for choosing the verb BUY as opposed to the verb SELL,
independently of the optional omissions mentioned in (26).

30. The verbs BUY and SELL refer to institutionalized inter-
personal activities involving two participating parties, a sum of
money, and goods or services that are to be provided for one of the
participants by the other. There are no situations that can in them-
selves be distinguished as buying situations or selling situations;
but the choice of one or another of these verbs seems to make it
possible to speak of a buying/selling transaction from one of the

participants' point of view. One of the reasons for providing this distinction is to make it possible to determine the scope of modification of certain kinds of adverbs added to the sentence. I refer to the difference we sense, with regard to the scope of SKILLFULLY, in (30-a) and (30-b).

> (30-a) he sells apples skillfully

> (30-b) she buys apples skillfully

31. It even appears that there is a difference between the processes for determining the scope of adverbial modification and the processes which determine the deep-structure subject as distinct from the surface-structure subject. This can be seen by comparing sentences (31-a) and (31-b), where VICIOUSLY in both cases related to Harvey's participation in the act, with sentences (31-c) and (31-d), where WILLINGLY in both cases relates to the participation in the act of the individual indicated by the surface subject NP.

> (31-a) Harvey viciously took advantage of Melissa

> (31-b) Melissa was viciously taken advantage of by Harvey

> (31-c) Harvey willingly took advantage of Melissa

> (31-d) Melissa was willingly taken advantage of by Harvey

32. The proposal hinted at in (31) suggests that there is some validity to the notion deep-structure subject; but the facts are not really that decisive. It may appear instead that certain adverbs may be introduced into a sentence as ways of qualifying one participant's role in the activity, the identity of that individual being recognized by the associated role type (Experiencer, Agent, etc.). Thus, Manner adverbs of the type VICIOUSLY may appear only in sentences having

underlying Agents, the scope of the adverb being unaffected by the
ultimate choice of surface subject. Postal has noticed that the adverb
PERSONALLY occurs only in sentences with subjective experience verbs
and in connection with the NP identified as the Experiencer--again
independently of whether this NP is or is not the sentence subject.[5]
Examples like his are given below:

    (32-a) personally, I don't like roses

    (32-b) your proposal doesn't interest me, personally

    (32-c) *personally, you hit me

    (32-d) *personally, ontogeny recapitulates phylogeny

33. A theory which separates information about grammatical
configurations from information about the nature of the underlying
semantic relations must find some way of dealing with the so-called
symmetric predicates. It should be possible, at some level, one might
think, to say of verbs like MEET, COINCIDE, AGREE, etc., that they
require expressions referring to two or more entities, but such
expressions may appear in any of the several ways provided by English
grammar: as plural subjects, as in (33-a); as conjoined subjects, as
in (33-b); or as paired NPs arranged in different (depending on the
verb) syntactic configurations, as in (33-c), and (33-d).

    (33-a) the boys met/agreed

    (33-b) John and Fred met/agreed

    (33-c) John met Fred

    (33-d) John agreed with Fred

It must be agreed that no theory of grammar should be constrained in
such a way that it has to recognize two different verbs MEET, two

different verbs AGREE, etc., in order to distinguish the intransitive from the non-intransitive use of these forms.

34. This means recognizing, for some n-place predicates, that they 'take' two or more NPs in _identical_ roles; but the main insights that have come from 'case grammar' or the theory of semantic role structure have depended on the assumption that no simple sentence requires the occurrence of more than one NP in a given role.

35. There do seem to be some differences in the conjoined subject as opposed to the distributed NP versions of symmetric predicate sentences, but for many of these the difference does not need to be seen as basic. We may consider again the effect of adverbial modification, once again taking the adverb WILLINGLY.

    (35-a) John and Fred willingly agree

    (35-b) John willingly agress with Fred [not a paraphrase
           of (35-a)]

    (35-c) John and Fred fought with heated mud

    (35-d) John fought Fred with heated mud [not a paraphrase
           of (35-c)]

36. For the examples in (35), the answer seems to bear on the procedure by which adverbs of various kinds are to be introduced into sentences. It may be the case that in the symmetric-predicate sentence itself, there is no necessary semantic difference that accompanies one subject choice or the other. Once a choice has been made, however, the sentence is limited as to the embedding context which will welcome it. Thus, sentence (36-a) requires the 'transitive' form of MEET in its embedded sentence, but only because the verb ENJOY requires an

identity between its subject and the subject of its object sentence; and the subject of ENJOY is JOHN and not JOHN and MARY.

(36-a) John enjoyed meeting Mary

(36-b) John enjoyed (John meet Mary)

The point is that analogous interpretations are possible for sentences with the adverb WILLINGLY, and with Instrumental WITH-phrases. It is required merely that the adverb WILLINGLY be analyzed as a disguised embedding verb, as suggested by (36-d).

(36-c) John willingly met Mary

(36-d) John was willing (John met Mary),

and that WITH-phrases be associated with paraphrases containing the verb USE, as suggested already by Lakoff.[6,7]

37. It is frequently the case, however, that apparent symmetric predicates are not properly symmetric after all. Sentences of the form (37-a)

(37-a) NP resembles NP

are extensionally symmetric if both NPs are definite referring expressions, but otherwise (as in (37-b)) not.

(37-b) your brother resembles a horse.

My interpretation of the Similarity Predicates is that one of the terms has the role Stimulus (or what I would call Instrument, but with the notion of 'implement' abstracted away), the other has the role Theme (or what I have called Object in my earlier writings), and the sentence is an expression of a 3-place predicate in which the third and phonetically absent argument is the Experiencer, which is under-stood, when unexpressed, to be identified with the speaker of the

sentence. The Stimulus must be expressed as a referring expression, but the Theme need not. The sentence means roughly that your brother as stimulus evokes in me memories of horses. [Incidentally, the verb REMIND, mentioned earlier, has a very similar structure, except that with it an NP representing the Experiencer must be present in the surface sentence.]

38. For many other so-called symmetric predicates there are arguments that the associated NPs do not serve in absolutely identical roles. It is difficult to capture such information in the face of the wide range of facts accounted for in the conjoined-subject source analysis of Lakoff and Peters,[8] but such a reanalysis may prove to be necessary after all. And this is to say nothing of the problem of dealing with the Asymmetric Joint Action Predicates of the type discussed by a prominent generative semanticist (writing under an alias).

    (38-a)   Fred and Sheila were blanking

    (38-b)   Fred was blanking Sheila

    (38-c)   *Sheila was blanking Fred[9]

39. The occurrence of quantifying expressions of various types seems to be constrained in fairly mysterious ways according to the surface arrangements of the NPs in a sentence. Lakoff's 'derivational constraints'[10] fail, as far as I can tell, to account for the particular set of mysteries I have in mind. In general, DEVELOP INTO and DEVELOP OUT OF are 1-2 converses (although they also have a use as 2-3 converses of 3-place predicates); but there is a skewness in the pattern of quantification compatible with these expressions, as

can be seen by comparing the paraphrasability facts shown below:

(39-a) every acorn developed into an oak

(39-b) an oak developed out of every acorn [a paraphrase

of (39-a)]

(39-c) every oak developed out of an acorn

(39-d) *an acorn developed into every oak [not a paraphrase

of (39-c)]

[Jeffrey Gruber first drew my attention to sentences (39-a, b, c, d).]
Similarly, MAKE INTO and MAKE OUT OF are 2-3 converses of 3-term
predicates, and the patterns seen above are repeated, only this time
between the direct object and the object of a preposition.

(39-e) I made every log into a canoe

(39-f) I made a canoe out of every log [a paraphrase of

(39-e)]

(39-g) I made every canoe out of a log

(39-h) *I made a log into every canoe [not a paraphrase

of (39-g)]

40. Lest the data of (39) be thought of as involving exceptional
properties of 'verbs of physical transformation', we can show here
that verbs which are themselves converses of each other (FOLLOW and
PRECEDE) exhibit similar patterns with their own passive counterparts.

(40-a) a Sunday follows every Saturday

(40-b) every Saturday is followed by a Sunday [a para-

phrase of (40-a)]

(40-c) every Sunday follows a Saturday

(40-d) *a Saturday is followed by every Sunday [not a

paraphrase of (40-c)]

(40-e)   a Saturday precedes every Sunday

(40-f)   every Sunday is preceded by a Saturday [a

       paraphrase of (40-e)]

(40-g)   every Saturday precedes a Sunday

(40-h)   *a Sunday is preceded by every Saturday [not a

       paraphrase of (40-g)] ·

I suspect that the data offered in sections (39) and (40) are ultimately

explainable in terms of 'derivational constraints' of the kind discussed

by Lakoff. A reason for bringing them up in this report is that

they show restrictions of a fairly interesting sort that relate both

to the formation of deep-structure subjects (put differently, to the

choice of particular members of a converse pair) and to the formation

of surface-structure subjects.

41. In my proposals on 'case grammar' I have assumed that the

role types which one can refer to in describing the semantic structure

of predicates make up a universally valid and reasonably well-specified

set of concepts. I have assumed, too, that the role types are them-

selves unanalyzables, corresponding to elementary perceptions on the

part of human beings concerning such matters as who did it, who

experienced it, where it happened, what the result was, where a thing

that moved ended up, where it started out, what moved, and a few

others. I have convinced myself that certain role notions recur

across widely variant languages, namely those for which one finds

useful the terms Agent, Instrument, Location, Object, Patient, etc.

I have found that many valid assertions about languages can be made

by describing the structure of their sentences in these terms. The

most serious difficulties have had to do with specifying exactly
what this small set of role types consisted of, and determining
whether or not it would turn out to be necessary, at least for some
verbs, to interpret certain arguments as serving two role functions
simultaneously.

42. This last difficulty is that of seeing the relationship
between the case functions that seem to be involved in almost every
sentence--such as, for example, those I named in the last section--
and the sort of role structure that is involved in the description
of particular kinds of institutionalized transactions for which a
'field' of vocabulary may exist in a language. I have in mind the
roles of customer, merchant, goods, and instrument of exchange in the
vocabulary field that includes BUY, SELL, PAY, DICKER, etc.; and
those of defendant, judger, deed, victim, etc., in the field that
includes verbs like ACCUSE, CRITICIZE, FORGIVE, APOLOGIZE, CONFESS,
CONCEDE, JUSTIFY, EXCUSE, etc. I am at the moment ready to assume
that it may be necessary to treat the semantic roles of arguments on
two 'levels'. I mean that I may want to be able to say that in
expressions with BUY there is one argument which has Customer function
on one 'level', Agent function on another, whereas in expressions
with SELL, the argument which has Agent function is the Merchant,
not the Customer. In what follows I leave open the possibility that
the roles associated with a predicate word may not bear a one-to-one
correspondence with the arguments associated with it.

43. A great deal of attention has been given in the last year
or two, in linguistic circles, to the fact that the semantic description

of expressions containing particular predicate words needs to distinguish what the speaker of the sentence might be saying (or 'doing in saying') explicitly from what he is said to presuppose about the situations concerning which he is speaking. The apparatus for formulating the presuppositions will need to refer to the entities which serve particular role functions with respect to the event or situation identified by the predicate.

44. In my description of verbs of judging,[11] for example, I have pointed out that for sentence (44-a)

(44-a) Harvey accused Fred of writing the letter.

the utterer of the sentence presupposes (that Harvey presupposes?) that someone's having written the letter in question was bad, and what he is declaring, in uttering (44-a), is that Harvey claimed that Fred is the one who did it. On the other hand, for sentence (44-b)

(44-b) Harvey criticized Fred for writing the letter

the speaker of the sentence presupposes (that Harvey presupposes?) that Fred was the one who wrote the letter, and is declaring, in uttering (44-b), that Harvey claimed that for Fred to have written the letter was bad. The force of Harvey's utterance in (44-a) is what is presupposed in (44-b), and vice versa.

45. Paralleling the pair of words offered in (44) is the pair CREDIT and COMMEND. These differ in that where ACCUSE and CRITICIZE carry the idea of blameworthiness, CREDIT and COMMEND carry the idea of goodness. That is, in (45-a) someone's having written the letter is judged in advance as being good, and what is communicated is that Harvey claimed Fred did it; in (45-b) Fred's responsibility is pre-

supposed, and what is communicated is that Harvey claimed that what
Fred did was good.

    (45-a) Harvey credited Fred with writing the letter

    (45-b) Harvey commended Fred for writing the letter

46. The distinctions seen here are analogous to those which J. L.
Austin recognized in an ambiguity of BLAME and in the pair of words
EXCUSE and JUSTIFY.

47. Some of the verbs of judging are illocutionary verbs, as
are, for those I have mentioned, ACCUSE and COMMEND. What this means
is that, for those verbs of judging which are capable of serving as
'explicit performatives' or 'illocutionary force indicating devices,'
a presuppositional analysis of them comes to show certain resemblances
to, say, Searle's analysis of promising and other illocutionary verbs.
The analysis of illocutionary acts along the line developed by Searle[12]
is a special case of the analysis of the type I have in mind (especially
as it concerns presuppositions), being special only in that what is
presupposed of the subject of the verb must be true of the speaker
of the utterance, and that a performance of the utterance under the
first-person-present-tense conditions appropriate to performatives
'counts as' the performance of an act which has extralinguistic
validity.

48. Searle's type of analysis can easily be extended, working
in the other direction, to the description of non-linguistic-act verbs.
Thus the 'preparatory condition' for a valid utterance of (48-a)

    (48-a) Sheila borrowed five dollars from Fred

is that Fred had five dollars; the 'sincerity condition' is that

Sheila intends to give Fred five dollars at some time in the future;
the 'essential condition'--which here, however, cannot be matched
with a rule which governs the use of an operative linguistic expression--
is that Sheila has undertaken an obligation to return Fred his five
dollars some day.

49. (This is not to say that one can accept all of what Searle
has to say about promising. His account fails, as far as I can tell,
in one or two respects. For example, he claims that in performing a
valid promising act one has taken on an obligation to perform in a
particular way in the future. If this is so, then the utterances,
on a mother's part, of the reassuring words (49-a) or (49-b) must be
defective as acts of promising.

(49-a) I promise you that your father will come back
(49-b) I promise you that the sun will come up again
tomorrow.

If it were seen, however, that in making a promise one provides a
personal guarantee of the (future) truth of a statement, such
promising acts would not need to be described as defective. Promising
of the type Searle has in mind must be understood in terms of
guarantees of the (future) truth of statements whose propositional
content contains descriptions of acts to be performed by the maker
of the promise. (That is, in which an expression referring to the
maker of the promise is in the Agent role.))

50. (A second quibble might be raised in connection with Searle's
hint that THREATEN is the unfavorable consequence counterpart of
PROMISE. This is wrong because (i) threatening acts do not need to

be (accompanied by) linguistic acts', and because (ii) in threatening
somebody, one does not take on an obligation to do anything. You
can succeed thoroughly in threatening me by merely saying that you
might consider beating my brains out. It may be, however, that I
am confused by an ambiguity in THREATEN between an illocutionary
and a perlocutionary sense. I know, for example, that one can
declare that threatening words are ineffective either by saying (50-a)
or (50-b).

> (50-a) you can't threaten me [perlocutionary]
>
> (50-b) your threats don't bother me [illocutionary].)

51. We have thus seen that the semantic analysis of ordinary
language sentences, in order to incorporate observations and rules
about illocutionary force, must include in its scope ways of dealing
with the participants in the speech act itself. The traditional term
for dealing with matters of this sort is deixis. One speaks of
person deixis (references to the speaker and the addressee), place
deixis (references to the locations of the speaker and the addressee),
time deixis (references to the time of the speech act), as well as
references to portions of the utterance itself (discourse deixis), and
references to the relative social statuses of the speech act partici-
pants (honorific systems, etc.).

52. In the description of certain predicate words, there is a
necessary reference to deictic features, especially in the description
of the presuppositions or 'preparatory conditions'. The prime example
of this for English is the verb COME.[13] In sentences of the form
given in (52-a)

(52-a) O (object) comes to P (place) at T (time)

it is presupposed of P that it is either

> (i) where the speaker of the sentence is at the time
>   of utterance; or

> (ii) where the addressee of the sentence is at the time
>   of utterance; or

> (iii) where the speaker of the sentence is/was/will be at T; or

> (iv) .where the addressee of the sentence is/was/will be at T.

53. Sentences containing no other deictic references permit all
four presuppositional possibilities, as in (53-a)

> (53-a) ·Fred will come to the office tomorrow

But others are limited because of presuppositions associated with
other deictic parts of the sentence. Thus, (53-b) presupposes either
that you are there now or that you will be there tomorrow, but not
that I am there now nor that I will be there tomorrow at the time I
arrive; and (53-c) presupposes that I will be there tomorrow at the
time of your arrival, or that you are there now while I am speaking.

> (53-b) I will come there tomorrow

> (53-c) you will come there tomorrow

54. (A full semantic theory of a language must additionally take
into account the fact that there is an extended or displaced use of
deictic features corresponding to the ways in which the speaker of a
third-person narrative 'identifies' with one or another of the
characters in his narrative. If one of the basic functions of deictic
categories is to express directly the speaker's role or viewpoint with
respect to his subject matter, in the 'displaced' use the speaker

performs some kind of psychological 'identification' with one of the

parties in his narrative. It seems that instances of 'displaced ego'

can be seen in sentences like (54-a), where the author is interpreted

as viewing the situation from Harry's point of view, rather than

from Fred's or Bill's.

(54-a) Fred came to where Harry was, and then Harry went

to where Fred was

In (54-b) the author is aloof; sentence (54-c) is unacceptable.

(54-b) Fred went to where Harry was, and then Harry went

to where Bill was

(54-c) *Fred came to where Harry was, and then Harry came

to where Bill was

The phenomenon is quite analogous to the distinction provided by some

(e.g., Algonquian) languages between 'proximative' and 'obviative'

third persons. It has been noted that the proximative forms are only

associated with one individual in a third person narrative at a time,

and that the switch in the application of the form from one individual

to another corresponds to a shift of point of view in the development

of the narrative.)

55. As stated earlier, it is the inclusion of reference to speech

act participants in semantic descriptions which makes possible the

incorporation of matters of 'illocutionary act potential' in the

description of sentences. An attractive view is that the illocutionary

force of a sentence is represented in the deep structure of that

sentence, or at least that what one might call the 'straightforward

illocutionary act potential' of a sentence should be so represen... ..

Evidence that maybe all conversational sentences should be provided
with this sort of superstructure at their 'deepest' representation
has been offered by Ross. For sentences whose utterances have the
illocutionary force of asserting or informing ('declaring'), there
are reasons for believing that there is, in the deep structure, a
silent illocutionary verb of declaring having a first-person Agent
NP, a second-person Dative PP, and having the non-silent part of the
sentence as its direct object.[14]

56. The occurrence of adverbs like PERSONALLY is now permitted
a consistent accounting. The adverb occurs in sentences with 'psycho-
logical' verbs and in which the Experiencer NP is coreferential with
the Agent NP of the immediately commanding linguistic-act verb. Where
the upper linguistic-act verb is apparent in the surface structure,
this observation accounts for the acceptability of (56-a) as opposed
to (56-b).

(56-a) Fred said that he personally dislikes roses

(56-b) *Fred said that Martha personally dislikes roses

By assuming a first person declarative supersentence above all declarative
sentences, one can account, in Ross's fashion, for the acceptability of
(56-c) as opposed to (56-d).

(56-c) personally, I dislike roses

(56-d) *personally, Fred dislikes roses

57. Analogously, the pleading-word PLEASE occurs only in
sentences immediately commanded by verbs of ordering or requesting.
The requirement is that the Agent NP of the interior sentence be
coreferential to the Dative NP of the ordering or requesting verb.
Where the ordering or requesting verb is present in the surface

sentence, this accounts for the acceptability of (57-a) as opposed
to (57-b).

    (57-a) I told Fred to please leave the room

    (57-b) *I predict that you will please leave the room

Assuming that imperative sentences are contained in silent performative

structures of ordering allows one to explain, by the same principle,

the acceptability of (57-c) as opposed to (57-d).

    (57-c) please leave the room

    (57-d) *Fred please left the room

58. One question about the presuppositional structure of sentences
that I have not discussed is that of who does the presupposing. Pre-
supposing may be thought of as an act performed by the speaker in his
production of the utterance, or as an act imputed by the speaker to
one or more of the individuals whose properties or actions are
described by the utterance in question. I assume that there will be
much more to say about such matters after one has seen the results
of Lakoff's explorations into the logic of 'world-creating verbs'.

59. The view of semantic interpretation that I have been assuming
is roughly this: I believe that, given a full grammatical description
of a sentence, with complete semantic descriptions of the lexical items
it contains, it should be possible to 'compute' the full semantic
description of the sentence, including, of course, information about
what its utterers must presuppose to be true, including its utterers'
imputations of presuppositions to individuals described or referred to
in the sentence. This 'computation' will involve many types of
grammatical facts and a great many subtle properties of lexical items.

The view is representative of what is called <u>interpretive semantics</u>, but it is one which involves operations which are quite distinct from those proposed in the earliest presentations of interpretive semantics. Operations involving selection restrictions are here replaced by an understanding of presuppositions; this has the effect of dissolving the problem of discovering the boundary between the semantic properties of words (e.g., nouns) and the physical properties of the things to which the words could be correctly applied. Interpretive semantics is one which welcomes lexical items that contain in their definitions variables not found in the expressions that contain them. These variables are relevant to the semantic interpretation of sentences, because there are situations in which predications involving these variables are more essential parts of the communication than anything else. To use a familiar example: to say of Fred, literally, that he is a bastard, is to say of his mother that she was not married on the day he was born. And that is to 'refer' to someone not mentioned in the original assertion.

60. The alternative view, within what has come to be called 'generative semantics', [15] has it, if I understand correctly what is going on, that all of the information relevant to the semantic interpretation of a sentence must be present in a representation of the deep structure of that sentence, and that, in fact, there is no level of 'deep structure' that is distinct from the level of semantic representation. If in the end the 'generative semantics' view turns out to be more valid--and I don't know what I am revealing about myself to admit that I find the arguments favoring generative semantics over-

whelming but somehow not coercive--then descriptions of the type I
am capable of coming up with through my work will fall in place,
within the correct theory, on the level of lexicology. I believe,
that is, that the observations about the meanings of lexical items,
the relations which must be described in characterizing the semantic
structure of expressions containing specific lexical items, and the
format for expressing these facts, can be exactly the same under
either view.

61. It is the apparatus for dealing with presuppositions that
makes me retain faith in the interpretive-semantics position. It is
frequently possible to state the presuppositions of a sentence in
the form of a schema which operates on the grammatical description
(in fact, often enough, the surface grammatical description). If we
take, for example, the presuppositional effect of 'contrastive stress,'
it generally seems to be the case that a sentence of the form suggested
by (61-a)

(61-a) X Y̲ Z   [where underlining represents emphasis]
is associated with the presupposition suggested by (61-b)

(61-b) it has been suggested that X Y' Z [where Y' ≠ Y]
Given this formula, we can figure out in what contexts one might say
(61-c)

(61-c) It's an essay in <u>descriptive</u> metaphysics.
by imagining what different type of metaphysics somebody might have
alluded to in the utterances that preceded (61-c). If it is impossible
for us to do this--because, say, we know nothing whatever about how
the word METAPHYSICS is used--we cannot understand the presuppositional

content of (61-c), but we know something about how to acquire this understanding.

62. Perhaps the main reason I cling to views of interpretive semantics is that I am unconsciously guilty of the much-discussed sin of confusing the linguistic technical term 'generate' with the psychologically more immediately understandable notion 'produce' (as in 'produce utterances'). I so frequently find myself speaking without any understanding of what I am saying that I quite naturally think of the ability to produce a sentence as involving essentially different principles from those that are employed in figuring out what if anything its utterer intended.

Footnotes

[1] See Noam Chomsky. 1965. Aspects of the Theory of Syntax, M.I.T. Press, chapter 2.

[2] See, e.g., James D. McCawley. 1969. Lexical insertion in a transformational grammar without deep structure, in Bailey, C-J., B. J. Darden and A. Davison, Papers from the fourth regional meeting of the Chicago Linguistics Society, University of Chicago, pp. 71-80.

[3] For examples of this approach see Barbara Hall. 1965. Subject and object in English, M.I.T. Ph. D. dissertation, and P. Gregory Lee. 1969. Subjects and agents, OSU Working papers in linguistics No. 3, Columbus, pp. 36-113.

[4] See, e.g., my The case for case. 1968. in E. Bach and R. Harms, eds., Universals in linguistic theory, Holt, Rinehart & Winston, pp. 1-88, and Lexical entries for verbs. 1968. Foundations of Language 4.4.373-393.

[5] Paul M. Postal, Cross-over phenomena, in Specification and utilization of a transformational grammar (Scientific report No. 3), Yorktown Heights, New York: IBM Research Center.

[6] See George Lakoff. 1968. Instrumental adverbs and the concept of deep structure, Foundations of Language 4.1.4-29.

[7] For further discussion of the matters taken up in sections 19-36, see my Types of lexical information. 1968. OSU Working papers in linguistics No. 2, pp. 65-103 (to appear in Semantics: An interdisciplinary reader in philosophy, linguistics, anthropology and psychology, Jacobovits and Steinberg, eds., Cambridge University Press.)

[8] George Lakoff and Stanley Peters. 1969. Phrasal conjunction and symmetric predicates, in Modern studies in English, David Reibel and Sanford Schane, eds., Prentice-Hall, pp. 113-142.

[9] Quang Phuc Dong. 1968. A note on conjoined noun phrases, PEGS (unpublished).

[10] George Lakoff. 1969. On derivational constraints, in Papers from the fifth regional meeting of the Chicago Linguistics Society, Chicago, pp. 117-139.

[11] For a somewhat more detailed discussion, see my Verbs of judging: An exercise in semantic description. 1969). Papers in Linguistics 1.1, Florida State University, pp. 91-117.

[12] John R. Searle. 1969. Speech Acts: An essay in the philosophy of language, Cambridge University Press.

[13] See my Deictic categories in the semantics of 'come'. 1966. Foundations of Language 2.219-226.

[14] For a persuasive statement of this analysis, see John R. Ross. 1968. On declarative sentences, to appear in Jacobs and Rosenbaum, Readings in English Transformational Grammar, Blaisdell.

[15] See, for a survey of the literature on and the arguments for generative semantics, George Lakoff's Generative semantics. To appear in Danny Steinberg and Leon Jakobovits, eds., Semantics: An interdisciplinary reader in philosophy, linguistics, anthropology and psychology, Cambridge University Press.