Indirect Observations about Indirect Objects

Richard C. Brittain

Part 1

This paper is an attempt to enrich the case grammar theory through the addition of rules to generate sentences with indirect objects. Such rules must, of course, interact with the passive rule already formulated to produce the desired set of sentences and none others. I will begin with a discussion of the rules according to the standard Aspects theory in order to bring into focus some of the problems which any grammatical theory must face.[1]

---

[1]The notation given in Syntactic Structures is used here for the standard theory rules.

We must consider rules for passivization and for indirect object generation; both processes are assumed to be optional.[2] The passive

---

[2]In my dialect indirect object movement is practically obligatory. However, those grammaticality judgments given by Fillmore are accepted for purposes of this paper.

---

rule may be given as in (I).

(I)

NP	C (M)	(have en)	(be ing)	V	NP	X	
1		2		3	4	5	⇒
4	2 be+en	3	5 by 1				

The rules for indirect object sentences, along with (I), must account for (1) through (5):

(1) a. John sent the package to Paula.
(2) a. John sent Paula the package.
(3) a. The package was sent to Paula by John.
(4) a. Paula was sent the package by John.
(5) a. *The package was sent Paula by John.

(1) b. George caught a rabbit for Mary.
(2) b. George caught Mary a rabbit.

(3) b. A rabbit was caught for Mary be George.
(4) b. *Mary was caught a rabbit by George.
(5) b. *A rabbit was caught Mary by George.

The fact that (4b) is ungrammatical and (4a) is not indicates that separate rules must be formulated for to- and for-phrases. In this light (II) and (III) are proposed.

(II) NP V NP to [NP +Anim]
1 2 3 4 5 ⇒ 1 2 5 3

Conditions:
a. 2 must be lexically marked [+IOM]. (Indirect Object Movement)
b. 3 may be a pronoun only if it is a demonstrative.
c. 3 may appear as a pronoun in the surface structure only if 5 does also.

(III) NP V NP for [NP +Anim]
1 2 3 4 5 ⇒ 1 2 5 3

Conditions:
a. 3, 4, and 5 must be dominated by an identical NP node.
b. 3 may be a pronoun only if
i. it is a demonstrative
ii. 5 is also a pronoun.

Fillmore has shown that the three rules above must be ordered (II), (I), (III) in order to account for all of the sentences (1) through (5). Directly following is some commentary on (II) and (III), especially the constraints I have imposed.

Part II

Two pronominal constraints are given for (II). Since this rule precedes passivization, the first of them accounts for the sentences (6) through (11):

(6) *John sent Paula it.
(7) *John sent her it.
(8) *Paula was sent it by John.
(9) *She was sent it by John.
(10) Paula was sent that by John.
(11) She was sent that by John.

The surface structure constraint then rules out (12) but permits (13):

(12) *John sent Paula that.
(13) John sent her that.

Furthermore, pronominalization must precede (II) so that the sentences below may still be generated:

(14) John sent it to Paula.
(15) John sent it to her.
(16) It was sent to Paula by John.
(17) It was sent to her by John.
(18) That was sent to Paula by John.

The restriction of the mobile constituent to animate nouns prevents the (a) sentences below from producing the (b) sentences:

(19) a. The emperor extended his domain to the sea.
b. *The emperor extended the sea his domain.
(20) a. The pitcher threw his hat to the ground.
b. *The pitcher threw the ground his hat.

However, this constraint does not rule out nouns that denote collective bodies of individuals. Thus (21) will give (22) but (23) will not yield (24):

(21) Bob gave a check to the hospital.
(22) Bob gave the hospital a check.
(23) Bob took his wife to the hospital.
(24) *Bob took the hospital his wife.

The constraint on verbs deserves some discussion. The need to restrict this rule in this manner should be obvious; in any event (25) does not produce (26):

(25) Jacob suggested the movie to his friends.
(26) *Jacob suggested his friends the movie.

Furthermore, the sentences that undergo this rule generally denote endowment, or creation of possession. This suggests the possibility that we can require the verb to have a certain feature before the rule will apply to it. However, there are exceptions. Notice the sentences below:

(27) The treasurer gave the report to the president.
(28) The treasurer gave the president the report.
(29) Bill presented the report to the president.
(30) Bill presented the president with the report.
(31) *Bill presented the president the report.
(32) Lola transferred her account to another bank.
(33) *Lola transferred another bank her account.

(34) Mitchell explained the situation to Nixon.
(35) *Mitchell explained Nixon the situation.

Although any devisable semantic feature would include all the verbs for which (II) works, the examples show that it would include some for which it does not, and such a proposal is hence untenable. The fact that present has its own idiosyncrasy seems significant: the only difference between the indirect object transformation and that giving (30) from (29) is that one applies to one verb and the other to many. In any event, such properties as these must in all cases be given in the lexicon.

It is worthwhile to look at a number of verbs that allow (II) to see how they fit into semantic groupings and to see the kinds of individual constraints that must often be imposed. Some, but by no means all, of the IOM items are given below:[3]

[3]Many of these items are mentioned by Fillmore.

(36)	give loan	hand take	extend send	sell	lend
(37)	write	tell	show	promise	
(38)	throw	kick	hit		
(39)	leave	will			

(36) includes simple verbs of transfer. There is probably no verb more susceptible to this rule than give: it allows (II) to operate in many cases where the NP moved is inanimate, as shown below:

(40) The old man gave his son's remains to the earth.
(41) The old man gave the earth his son's remains.
(42) *Alvin gave a sprinkle to the flower bed.
(43) Alvin gave the flower bed a sprinkle.

Exception NP's such as these and cases where the rule is obligatory, such as in the second example above, must of course be given for the appropriate verb in the lexicon.[4]

[4]Perhaps there is no precedent for allowing the feature specification on part of an SD to be ignored if a particular lexical item is found in the same SD. However, this is only slightly stronger than the exceptionality of individual items discussed by Lakoff and Peters, and the concept of exception features in linguistic theory is also defended by Postal. Furthermore, it should be kept in mind that I am proposing this for only one lexical item.

Hand and extend are basically synonymous to give,[5] and sell, lend,

[5]That is, when the indirect object of extend is animate. As shown above, this is a necessary condition for the operation of the rule.

and loan denote mere semantic variations on giving. Take is the only one that indicates motion of bearer as well as object, although in those dialects where carry means essentially the same as take it is included in this group. Someone from Georgia, for instance, would in all likelihood readily accept (44) and (45):

(44) Carry the grits to her.
(45) Carry her the grits.

(38) includes what may be called verbs of propulsion; here, as in (36), there is direct motion. The two items in (39) must be semantically restricted to the sense which makes them synonymous: that is, that of a bequest. Will is of course otherwise intransitive and (46) comes from (47) rather than (48):

(46) Leave Mr. Hatch that decision.
(47) Leave that decision for Mr. Hatch.
(48) Leave that decision to Mr. Hatch.

The situation with (37), however, is somewhat more complex. Tell undergoes the rule--as we would expect since it necessarily denotes communication (endowment with information)--but the lexical entry must include the qualification that (II) is obligatory with this verb when the direct object includes an embedded sentence but not lexical head noun. Note the sentences below:

(49) Bill told the problem to a counselor.
(50) Bill told a counselor the problem.
(51) *Bill told that he was leaving for good to his wife.
(52) Bill told his wife that he was leaving for good.
(53) Tell the story I told you to the lodge members.
(54) Tell the lodge members the story I told you.

This constraint also applies to show when it is semantically related to tell, as the sentences below show:

(55) The gymnast showed his trophy to everybody.
(56) The gymnast showed everybody his trophy.
(57) *The politician showed how angry the allegation made him to everybody.
(58) The politician showed everybody how angry the allegation made him.

Write, however, seems to be the unique verb in the entire set given above. First, sentences containing either promise or write undergo deletion before (II) applies (optionally) to them. Thus (59), (60), and (61) are part of a derivation, as are (62), (63), and (64).[6]

---

[6]There is of course an alternative derivation for (64) in which (63) is replaced by (i).

(i) Lorenzo promised to give his son a gondola.

---

(59) Roe wrote a letter which he sent to the firm.
(60) Roe wrote a letter to the firm.
(61) Roe wrote the firm a letter.
(62) Lorenzo promised to give a gondola to his son.
(63) Lorenzo promised a gondola to his son.
(64) Lorenzo promised his son a gondola.

Furthermore, if the direct object of write is letter or a synonym, this object may optionally be deleted. Thus (61) may be reduced to (65):

(65) Roe wrote the firm.

But (66) does not yield (67):

(66) One day Petrarch wrote a sonnet to Laura.
(67) One day Petrarch wrote Laura.

By a slight extension of this principle (68) gives (69) which in turn yields (70).

(68) Leo wrote a note saying he was leaving home to his father.
(69) *Leo wrote that he was leaving home to his father.
(70) Leo wrote his father that he was leaving home.

This property shows further that write has the same obligation as tell with regard to embedded sentences in the direct object.

Finally, the behavior of certain "idioms" should be pointed out. Notice that (71) gives (72) and (73) produces (74):

(71) Fred made a gift to the hospital.
(72) Fred made the hospital a gift.
(73) Lorenzo made a promise to his son.
(74) Lorenzo made his son a promise.

It seems clear that (71) and (73) are derived transformationally from (75) and (76) respectively.

(75) Fred gave something to the hospital.
(76) Lorenzo promised something to his son.

Therefore, we need only say in the lexicon that sentences with make undergo (II) if the direct object NP is derived from a verb marked [+IOM].

Part III

Since (III) follows passivization and (4b) is hence ungrammatical, the pronominal constraint attached to it is slightly simpler than that given for (II). It is reflected in (77) through (80) in my dialect.

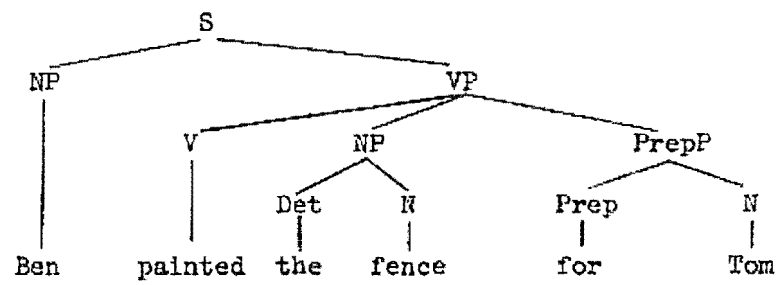
(77) *George caught Mary it.
(78) *George caught her it.
(79) *George caught Mary that.
(80) George caught her that.

More interesting, however, is the second constraint. Notice that the rule must account for (1b), (2b), (81), and (82):

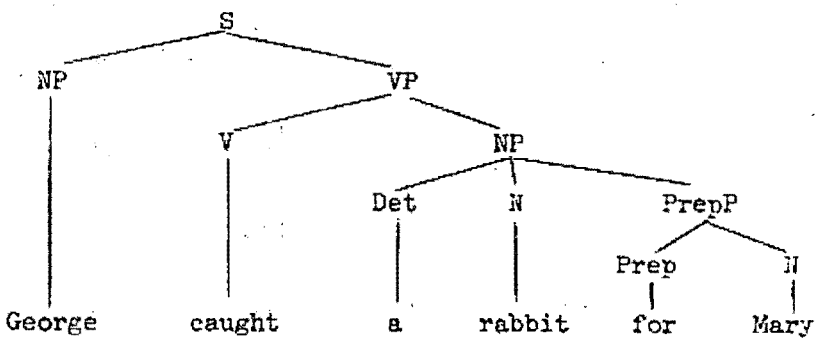
(81) Ben painted the fence for Tom.
(82) *Ben painted Tom the fence.

These examples lead us to suspect a difference between the underlying structures of (1b) and (81). It seems most reasonable to say that the for-phrase is adjectival in (1b) and adverbial in (81). The detailed structure of these sentences is shown in (83) and (84) respectively.

(83)



(84)



It is not denied here that in (1b) George is catching the rabbit for Mary's benefit in the same sense that Ben is painting the fence for Tom. But this denotation logically follows from the information given in (84), and if we instead chose to represent (1b) according to a diagram like (83) we would be less semantically accurate. Having thus established that (1b) and (81) are structurally different, we may now say that (III) operates on trees like (84) but not (83), and the second constraint on the rule insures this. It is for this reason that lexical restrictions on the verbs, while needed for (II), are unnecessary for (III). The sentences below are derived from base forms that may be represented by a diagram like (84):

(85) Noah and his family built themselves an ark.
(86) The woman left her son some supper.
(87) Gillingham ordered his daughter a bouquet.
(88) Spare me some of my trees.
(89) The king chose his daughter a husband.

It may be thought that the sentences below contradict my analysis:

(90) Do the job for me.
(91) *Do me the job.
(92) *Do a favor for me.
(93) Do me a favor.
(94) Sing a song for me.
(95) Sing me a song.

Such a refutation would assume that (90) and (92) are completely parallel, but this is not the case: the underlying structure of (90) is like (83), but (92)'s is like (84). This difference is confirmed by the fact that (97), unlike (96), is ungrammatical because it lacks the necessary adjective complement:

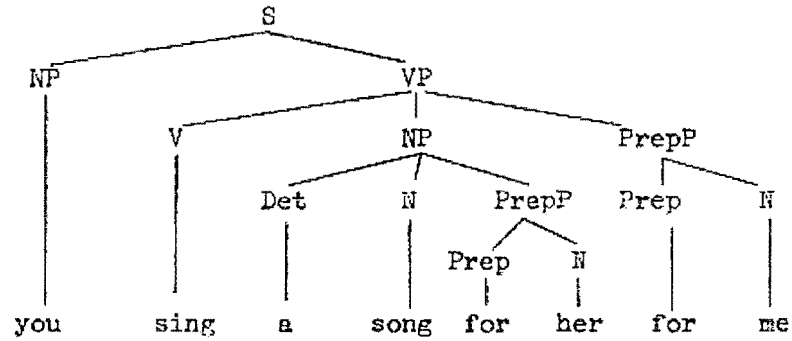
(96) Do the job.
(97) *Do a favor.

Furthermore, (94) and (95) actually suggest additional support for my

argument. (98) has the representation given in (99):

(98) Sing a song for her for me.

(99)



It is because (98) has such a structure that (III) will give (100) from it but not (101) or (102):

(100) Sing her a song for me.
(101) *Sing me a song for her.
(102) *Sing me her a song.

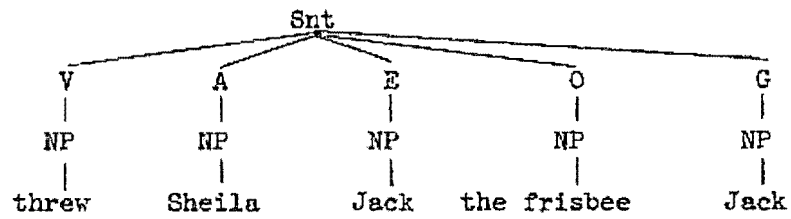
Part IV

Now begins the climactic section of the paper which presents rules for the generation of indirect object sentences within the framework of the case grammar theory. To this end it has been suggested that the prepositional object be considered an experiencer in (103) but not in (104):

(103) Sheila threw the frisbee to Jack.
(104) Sheila threw the frisbee at Jack.

However, such a proposal is unfortunately inconsistent with the rest of the theory on empirical grounds. Accepting it would necessitate (105) as a base structure for (103):

(105)



After Required Co-Referential Deletion removed the G node from the tree, Jack would then be incorrectly marked accusative. The problem thus posed for adding indirect object rules is, however, not as great as it might seem: neither can it be maintained that at-phrases denote goal. (104) does not say the frisbee hit Jack any more than (106) says he was shot:

(106) Sheila shot at Jack.

In (80), therefore, at carries a notion of path only.

Partly for reasons given above, any indirect object rules in the case grammar must necessarily incorporate some features of the comparable rules in the standard theory. Specifically, the rules below also have the feature specification for the NP to be moved (not binding in either theory on the lexically marked exceptions for give) and essentially the other restrictions accompanying (II) and (III); the corresponding constraints prohibit the same sentences in both theories.

I first propose a rule which optionally applies if Passivization has already applied. This may be called Object Switching.

(IV) Object Switching

V	Acc	S	[G +Anim]	Y						
1	2	3	4	5	⇒	1	4	2	3	5

Conditions:

a. 1 must be lexically marked [+IOM]. (Indirect Object Marking)[7]

b. 2 may be a pronoun only if it is a demonstrative.

---

[7]The same lexical constraint is necessary for (IV) and (V-A).

Object Switching is the first necessary step for generating (4a); it puts the NP dominated by G directly after the verb so it will then be marked nominative by the appropriate rule. Thus, if this rule has applied, the NP previously marked accusative undergoes no change in case as the result of Nominative Marking; if it has not, (3a) will result. The pronominal constraint rules out the inadmissible (8) and (9).

In order to provide for (1b), we need the Indirect Object Marking Rule. This transformation, which may apply only if the input has not been passivized, designates the NP that will eventually be placed in indirect object position; thus the NP dominated by G or B is so marked optionally if the conditions are met.

(B) Nom V $\overset{\text{Acc}}{\left[\begin{matrix}0\end{matrix}\right.}$ $\left[\begin{matrix}\text{B} \\ \text{+Anim}\end{matrix}\right]$ X

1 2 3 4 5 $\Rightarrow$ 1 2 3 $^{\text{IO}}$[4] 5

Condition: 3 may be a pronoun only if
a. it is a demonstrative
b. 4 is also a pronoun.

Placing 3 and 4 in a single accusative constituent in (V-B) assures that this rule will operate on (1b) but not on (81). The pronominal constraints on both of these rules block (6), (7), (8), (12), (77), (78), and (79). Indirect Object Marking immediately precedes Object Formation.

The modified Object Formation Rule appears below. This continues to put the accusative to the immediate right of the verb unless there is an indirect object to intervene.

(VI) Object Formation

(A) Nom V X Acc Y (IO) Z $\Rightarrow$
1 2 3 4 5 6 7
1 2 6 4 3 5 7

(B) Nom V Acc Y
1 2 3 4 $\Rightarrow$ 1 $^{\text{V}}$[2 3] 4

The second rule above, making a single constituent of the verb and direct object if they are adjacent, insures that none of the force of the previous unmodified Object Marking Rule is lost. If there is an indirect object it attracts no prepositions by subsequent rules because it is no longer marked B or G, and (2) is thus generated.

We must finally provide for changing (107) to (108):

(107) Mix up some chili for me.
(108) Mix me up some chili.

By the time the rules already discussed have applied to (107), the output will be (109):

(109) *Mix up me some chili.

Therefore, and obligatory rule is necessary to change (109) to (107), and (VII-B) does so.

(VII) Particle Movement

(B) $^{\text{V}}$[V Part] IO Acc
1 2 3 4 $\Rightarrow$ 1 3 2 4

In conclusion, it is my feeling that indirect object movement is ultimately associated with endowment: to-phrase sentences indicate the process itself and for-phrase sentences presuppose it will or

already has come about. Although lexical restrictions are necessary to show that this movement does not work with certain verbs, a theory with true descriptive adequacy in this area should not need the other constraints imposed on (II) and (III). Case grammar has proven malleable enough to incorporate the new rules without serious difficulty: no reordering of existing transformations has been necessary and it should be agreed that changes made in them to allow for the additions have been minimal. However, it seems unfortunate that there is no case in this theory to capture the feature common to all structures underlying indirect object sentences. My guess is that the theory would prove as receptive to such a new case as its rules have to the additions proposed in this paper.

Bibliography

Chomsky, Noam. 1965. Aspects of the Theory of Syntax. Cambridge: M.I.T. Press.

Chomsky, Noam. 1957. Syntactic Structures. The Hague: Mouton.

Fillmore, Charles J. 1968. The Case for Case, in Universals in Linguistic Theory, ed. by Emmon Bach and Robert Harms. New York: Holt, Rinehart & Winston.

Fillmore, Charles J. 1965. Indirect Object Constructions in English and the Ordering of Transformations. London.

Lakoff, George and Stanley Peters. 1969. Phrasal Conjunction and Symmetric Predicates, in Modern Studies in English: Readings in Transformational Grammar, ed. by David Reibel and Sanford Schane. Englewood Cliffs, N.J.: Prentice-Hall.

Postal, Paul M. 1968. Aspects of Phonological Theory. New York.