

RECIPROCAL VERBS AND SYMMETRICAL PREDICATION

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This paper is on a restricted area of conjunction; specifically, on so-called symmetrical predicates.

Some of the problems posed by verbs, nouns and adjectives lexically marked "symmetrical" have been exposed for English in recent years (Lakoff and Peters (1969); Stockwell et al (1968); Smith (1969); Dougherty (1970)) and for Russian (Miller, 1971). My aim here is to highlight one or two other problems which have received very little attention, if any at all, in recent discussions. All the material is taken from the Twi dialect of Akan, spoken in Ghana.

The sub-class of verbs to be considered in this section include

- I. ben (be near to); hyia (meet); se (look like)
fam (embrace); tare (stick together); ware
(marry)
- II. kó (fight); ¹ kasa (talk); trā (stay with);
ye aká (not to be on speaking terms);
twē kóra (be rivals in marriage); sá (dance);

1. Initial low tones are not marked. Unmarked non-initial syllables take the tone of the immediately preceding syllable.

di agóro (play); fra (mix); bə abirá
(be opposed); ká (get on well); futu (get on
with); di ayénsin (gambol); bə adabúm (sleep
together); góro (play); tete mú (separate
from or depart from).

The significance of the division of these verbs into
(I) and (II) will become clear presently.

We should also include certain nouns used
predicatively, for both syntactic and semantic
reasons.

obusuaní (member of the larger family)

adamfo (friend)

ɔdófo (lover)

onuá (brother; sister)

kora (rival in marriage)

mpéna (concubine; man/woman lover)

atá (twin)

ɔtámfo (enemy)

ɔyɔnkó (friend; associate)

Our interest in these verbs and nouns is both
semantic and syntactic. To avoid a possible confusion
in the discussion that follows, it is useful to
distinguish between the two terms, reciprocal and
symmetrical. Throughout I shall use the term reciprocal
to refer to a syntactically and semantically defined
class of verbs, examples of which have been given above.

Symmetrical will be used to refer to sentences which express certain semantic relations and to certain pairs of sentences which have the same truth-value; specifically, to refer to the semantic relation between pairs like (a) and (b) below, such that if (a) is true then (b) must be true :

- a. N_1 V N_2
 b. N_2 V N_1

(where the subscripts 1, 2 are referential indices).

All the above listed predicates are reciprocal in our sense, but not all of them can be used to express symmetrical relations. As an illustration of this last point, consider the predicates ye aká (be at variance with); twē kóra (to rival with some one in marriage, compete for a husband) which occur in sentences like (1) and (2) :

1. Kofí ne Amma ye àká
 (kofi and Amma Stat(ive)-be-at-variance)
 (Kofi and Amma are at variance; i.e. they
 are not on speaking terms)
2. Yaá ne Amma twē korà
 (Yaa and Amma Hab-rival)
 (Yaa and Amma rival in marriage)

It cannot be the case that if (1) and (2) are true, (1a) and (2a) corresponding to (1) and (2) are also true.

- 1a. Amma ne Kòfí ye àká
 (Amma and Kofi are at variance with each
 other)

2a Ámma ne Yàá twě korà
(Amma and Yaa rival in marriage).

Most speakers of the language, including myself, would interpret (1), for example, to mean that the referent of the first of the co-ordinated nouns (Kofi) is the initiator of the ill-feeling, and (1a) to mean that Amma is responsible for the ill-feeling. That the two sentences have different truth-values can be further explained by saying that the affirmative sentence Kofí ne Amma yé àká and its corresponding negative Ámma ne Kòfí òyé aka (Amma and Kofi are not at variance) are not contradictory. The semantic roles of the conjoined noun phrases are obviously different, which seems to me to be good reason for excluding the verbs in these sentences from the class of symmetrical predicates. Pairs of sentences like these illustrate only one of the difficulties encountered in handling the verbs listed above. Predicates like yé aká are reciprocal in the syntactic sense; they are not symmetrical, and they would require a special marking in the lexicon to set them apart from truly symmetrical predicates.

There are other difficulties attaching to the definition of symmetrical if applied to the data above, as we hope to show. Before going on to point out some of these problems, it would be best to say something about the syntactic behaviour of the verbs and to explain the notion reciprocal further. Consider the following sentences :

- 3a. Kofi . bèn Ámma
 (Kofi Stat-be-near Amma)
 (Kofi is near Amma)
- 3b. Ámma bèn Kofi
 (Amma Stat-be-near Kofi)
 Amma is near Kofi)
- 3c. Kofi ne Ámma bèn
 (Kofi and Amma Stat-be-near)
 (Kofi and Amma are near each other)
- 4a. Kofi sè Ámma
 (Kofi Stat-resemble Amma)
 (Kofi looks like Amma)
- 4b. Ámma sè Kofi
 (Amma Stat-resemble Kofi)
 (Amma looks like Kofi)
- 4c. Kofi ne Ámma sè
 (Kofi and Amma Stat-resemble)
 (Kofi and Amma look alike)
- 5a. mihyíàà ñkuráfóò no
 (I meet-Past people the)
 (I met those people)
- 5b. ñkuráfóò no hyíàà me
 (people the meet-Past me)
 (those people met me)
- 5c. me né ñkuráfóò no hyíààè
 (I and people the meet-Past)
 (those people and I met)

The verbs occurring in these sentences can be used transitively, as illustrated by the sets (a) and (b). In this regard, they are not different from most other verbs syntactically. Further, the (a) and (b) members in each set can be collapsed to form single sentences in which the grammatical subjects are co-ordinated into a phrasally-conjoined noun phrase (Lakoff and Peters 1969), as illustrated by the (c) set. This, in itself, however, does not make the reciprocal verbs syntactically unique amongst transitive verbs since most verbs, including hú (see), can also occur with co-ordinated noun phrases as their grammatical subjects :

- 6a. Kofí húú Ámma
 (Kofi saw Amma)
- 6b. Ámma húú Kofí
 (Amma saw Kofi)
- 6c. Kofí ne Ámma húú
 (Kofi and Amma saw (it))

There are important differences, however, between verbs like those occurring in (3)-(5) and those like hú. While it would be true to say that (6a) and (6b) parallel (3a) and (3b), respectively, in morpheme arrangement, it would be misleading to subject (6c) and (3c) to an identical interpretation, since the former, but not the latter, is understood as containing a surface grammatical object that is phonologically zero (Boadi 1965). Secondly, the verb in the sentences (6a) and (6b) can reflexivise, a syntactic process which the reciprocal verbs do not

undergo. Thus the sentences Kofí hũũ ne hõ (Kofi saw himself) and Ámma hũũ ne hõ (Amma saw herself), Kofí ne Ámma hũũ wɔn hõ (Kofi and Amma saw themselves) and Kofí ne Ámma hũũ wɔn hõ wɔn hõ (Kofi and Amma saw each other) occur but not *Kofí ben ne ho or *Ámma ben ne hõ; *Kofí ne Ámma ben wɔn hõ or *Kofí ne Ámma ben wɔn hõ wɔn hõ

The semantic difference between the two sets of sentences is more important, however. (3c) is synonymous with and should entail (3a) and (3b) - a relation which does not obtain between (6c) and (6a) or (6c) and (6b). That is, the members (a) and (b) of the sentences of (3-5) are symmetrical, but those of (6) are not.

One further problem with the interpretation of these verbs is illustrated by the sentences (7) and (8). Although (7a) and (8a) are grammatical, (7b), (7c), (8b) and (8c) are not.

7a. Kofí ne Ámma trããè
 (Kofi and Amma stay-together-Past)
 (Kofi and Amma stayed together)

7b. Kofí trãã Ámma
 (Kofi stay-together-Past Amma)
 (Kofi stayed (with) Amma)

7c. Ámma trãã Kofí
 (Amma stayed with Kofi)

8a. Kwámè né Yàá dìi agóru

(Kwame and Yaa play-Past)

(Kwame and Yaa played together)

*8b. Kwámè dìi Yaá agóru

(Kwame played Yaa)

*8c. Yaá dìi Kwámè agóru

(Yaa played Kwame)

The question is whether verbs like trā are to be grouped syntactically with the true reciprocals. It seems that despite the exceptional syntactic behaviour of the verb trā (and indeed, all the verbs listed under (II) at the beginning of this paper) it is more akin to ben (be near) than it is to hú (see). I also think that (7c) and (8c) are, in every respect, symmetrical if 'symmetry' is taken as a semantic relation. In deriving the surface structure (7a) and similar other sentences containing the quasi-reciprocal verbs in II, two courses are open to us: either (i) generate the ungrammatical strings (b) and (c) of (7) and (8) in the base, and by an obligatory transformation, convert them into the correct surface strings, or (ii) generate (7a) and (8a) (but not (7b), (7c), (8b) or (8c) directly) in the base alongside (6c) and then append a statement to the effect that (7a) and (8a), but not (6c), are symmetrical. We shall return later to this proposal.

It has very often been pointed out in discussions of a number of languages, including English, that not only are all sentences like (3c) synonymous with their underlying simplexes (3a) and (3b) but also they have

the same truth-value as these simplexes. This claim is a little too sweeping, I think, being based on evidence from a relatively limited set of data. It happens that in the examples (3)-(5) the members (a), (b), (c) of each set are synonymous. The position becomes much more complex, however, when the verb is attached to certain aspectual affixes. Consider the following sentences which differ from those of (3)-(4) only aspectually.

- 9a. Kofi abèn Ámma
 (Kofi Perf-be-near Amma)
 (Kofi has come near Amma)
- b. Ámma abèn Kofí
 (Amma Perf-be-near Kofi)
 (Amma has come near Kofi)
- c. Kofí ne Amma abèn
 (Kofi and Amma Perf-be-near)
 (Kofi and Amma have come near each other)
- 10a. Kofí rèsé Ámma
 (Kofi Prog-resemble Amma)
 (Kofi is growing to look like Amma)
- b. Ámma rèsé Kòfí
 (Amma Prog-resemble Kofi)
 (Amma is growing to look like Kofi)
- c. Kofí ne Amma rèsé
 (Kofi and Amma Prog-resemble)
 (Kofi and Amma are growing to look alike)

(9a) and (9b) are not synonymous, and neither of them expresses a symmetrical relation. To assert that Kofi has come near Ámma is not to imply that Ámma has come near Kofi. (9c) can be interpreted to mean either (9a) or (9b) but not both (9a) and (9b). The same can be said of (10a), (b), and (c).

It should be clear from these examples that the relation symmetrical or the condition of truth-value obtaining between pairs of sentences containing reciprocal verbs holds only if certain conditions regarding aspect selection are satisfied. Sentences like (3a) and (3b) are synonymous and express a symmetrical relation because the aspect of the verb refers to a state of being and does not express an implied change of state, process or activity. The relation symmetrical ceases to hold if the aspect of the verb changes to non-stative, which, in Akan, subsumes the progressive, ingressive, perfective, habitual and the aorist. This restriction, imposed by aspect on the interpretation of symmetrical predicates, is probably universal.

To illustrate the point further with similar sentences from English. The pair (a) John resembles Harry and (b) Harry resembles John are synonymous, and both sentences are symmetrical. But (c) John is resembling Harry (more and more every day) is neither symmetrical to, nor synonymous with, (d) Harry is resembling John (more and more every day). All four sentences contain the same symmetrical predicate

resemble. (a) and (b) are synonymous because the semantic aspect is stative; in (c) and (d) the aspect is non-stative.

If these facts are accepted as correct, then sentences expressing symmetrical relations are far fewer than has been assumed. It also follows that the semantic interpretation of sentences containing the verbs under consideration requires statements about constraints on verbal aspect.

Mention should be made at this point of the importance of semantic case relations like agent and causative (Halliday 1967; Fillmore 1968). Sentences which are otherwise symmetrical cease to express this relation if they are introduced by clauses expressing causation or agency. This is to be expected from what we have observed about aspect. Relations like causative, agency and instrumental always imply action or non-stativity and sentences expressing these never select the stative aspect. Thus, although most speakers interpret (11a) and (11b) as synonymous sentences, nobody would use (12a) and (12b), or (13a) and (13b) in identical situations.

- 11a. nsúso no frá anwá no
(water the Stat-mix oil the)
(the water and the oil are mixed)
- b. anwá no frá nsúso no
(oil the Stat-mix water the)
(the oil and the water are mixed)

12a. ɔmaa ' nsúo no fráà anwá no
(he-cause-Past-water the mix-Past oil the)
(he let the water mix with the oil)

b. ɔmaa anwá no fráà nsúo no
(he-cause-Past oil the mix-Past water the)
(he let the oil mix with the water)

13a. nsúo no fráà anwá no
(water the mix-Past oil the)
(the water mixed with the oil)

b. anwá no fráà nsúo no
(oil the mix-Past water the)
(the oil mixed with the water)

Neither are the following synonymous :

14a. ɔde nsúo no fráà anwá no
(he-use-Past water the mix-Past oil the)
(he mixed the oil with the water)

b. ɔde anwá no fráà nsúo no
(he-use-Past oil the mix-Past water the)
(he mixed the water with the oil)

For the sentences of (11) to be meaningful the hearer does not have to assume that the process was initiated by an external instigator. In (12) and (14), sentences containing reciprocal verbs are introduced by clauses in which an initiator of a process is mentioned. Neither (12a) nor (12b) is symmetrical since (12a) does not mean (12b). This observation is equally true of the pair (14a) and (14b). In (13a) and (13b)

no agent or initiator is mentioned, but the sentences are understood to contain an unexpressed agent or instrumental.

There are four main problems to consider, then, in analysing and interpreting sentences in which reciprocal verbs occur.

- (a) the position of verbs like trā, which cannot be used transitively;
- (b) the role of verbal aspect in the interpretation of these sentences;
- (c) the importance of semantic case relations like agent, causative and instrumental; and
- (d) the position of verbs like ve aká and twē kóra.

I have already proposed a partial solution to (d). (a) is not a semantic problem; it has to do with limitations on the distribution of items and their transform potential. (b) and (c) are problems of semantic interpretation, having to do with the nature of the relation between underlying representation and surface structure. For (a), two possible courses have been proposed; whichever is adopted will necessarily have to be determined in part by what solution is proposed for (b) and (c).

In tackling (b), it could be proposed that the relation of synonymy obtaining between pairs like (3a) and (3b) and between these and (3c) be expressed transformationally if the aspect of the verb is

stative. Thus, transformational relations like (15), but not (16), would be allowed in the grammar.

15. Kofí bèn Ámma → Ámma bèn Kofí →
 Kofí ne Ámma bèn
 (Kofi is near Amma) → (Amma is near Kofi) →
 (Kofi and Amma are near each other)
16. Kofí abèn Ámma ↯ Ámma abèn Kofí
 (Kofi has come near Amma) ↯
 (Amma has come near Kofi)

Problem (c) could be handled by adopting a similar strategy if one took the position that transformations should be meaning-preserving: (11a) would be derived from (11b) or vice-versa and (11c) from either (11a) or (11b) or both, provided that the clauses containing the reciprocal verb are not preceded by a causative or instrumental clause. Thus the transformational relation (17) but not (18) or (19) would be allowed in the grammar.

17. nsúo no fà anwá no → anwá no fà nsúo no
 (same as (11a) and (11b))
18. { ode } nsúo no afra ànwá no
 { oamá }
19. { ode } anwá no afra òsúo no (cf. (12)-(14)).
 { oamá }

We would still have to provide an interpretation for phrasally-conjoined sentences like :

20. Kofí, ne Amma abèn
(Kofi and Amma have come near (each other))

and 21. ɔ́amá nsúo no ne ànwá no afra
(he has caused the water and the oil to get mixed)

which contain a non-stative aspect and a causative clause, respectively. (20) can mean either

22. Kofí abèn Ámma
(Kofi has come near Amma)

or 23. Ámma abèn Kofí
(Amma has come near Kofi)

but not both (22) and (23). Similarly, (21) can be interpreted to mean either (24) or (25) but not both (24) and (25):

24. ɔ́amá òsúo no afra ànwá no
(he has caused the water to mix with the oil)

25. ɔ́amá ànwá no afra òsuo no
(he has caused the oil to mix with the water)

Our interpretation of the facts implies that (20) and (21) are ambiguous. One difficult problem attaching to the view that transformations do not change meaning is that although the sentence (3c) can be derived by the Conjunction-Reduction rule from the underlying:

26. Kofi bèn Ámma nà Ámma ben Kòfi
 (Kofi Stat-be-near Amma and Amma
 Stat-be-near Kofi)
 (Kofi is near Amma and Amma is near Kofi)

the sentence (20) cannot be derived from the parallel underlying structure

27. Kofi abèn Ámma nà Ámma aben Kòfi
 (Kofi Perf-be-near Amma and Amma
 Perf-be-near Kofi)
 (Kofi has come near Amma and Amma has
 come near Kofi)

There is also the problem with causative and instrumental de-clauses. If one adopted the Conjunction-Reduction approach, one would have to state conditions under which underlying conjoined sentences containing reciprocal verbs could be collapsed, and this would increase the complexity of the grammar.

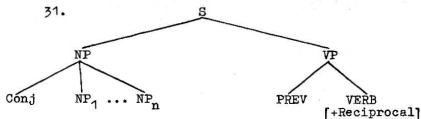
It has already been noted that with a large number of predicates which might be considered reciprocal, it would be necessary to posit an obligatory transformation which operates on underlying conjoined sentences to turn them into phrasally-conjoined ones. Here again, the Conjunction-Reduction rule would require statements of conditions under which the operation is obligatory or optional, thus reducing the generality of the rule. Using the Conjunction-Reduction approach, it is relatively easy to handle sentences like those discussed so far in which the

relation of symmetry requires only two conjoined noun phrases. However, the often-noted difficulty posed by sentences containing four or more conjoined noun phrases, and noun phrases containing certain quantifiers, as in (28)-(30), is not easily disposed of :

28. Kofi ne Amma ne Akosua bèn
 (Kofi and Amma and Akosua Stat-be-near)
 (Kofi and Amma and Akosua are near one another)
29. nsúo no ne àbòp no ne ànwéá no ne
 seménte nó nyináa afra
 (water the and stone the and cement
 the all Perf-mix)
 (the water and the stone and the cement are
 all mixed)
30. nnípa du no nyináa sè
 (people ten the all Stat-resemble)
 (all the ten people look alike)

The advantages in deriving (28)-(30) from underlying conjoined sentences are difficult to see. Indeed, it is a disadvantage in as much as it adds to the complexity of the grammar.

It is proposed, therefore, that the base rules will generate configurations like (31):



A relation of synonymy between non-transitive verb phrase-markers like (31) containing intransitive stative verbs and their corresponding transitive counterparts can be established by a condition like (32):

Condition I.

32. (a) $\left[\begin{array}{c} [\text{NP}_1 \dots \text{NP}_n] \\ \text{S} \quad \text{NP} \quad \text{NP} \end{array} \dots \alpha \dots \right]_{\text{S}}$ is synonymous

with (b) $\left[\begin{array}{c} \text{NP}_1 \dots \alpha \dots \text{NP}_n \\ \text{S} \quad \quad \quad \text{S} \end{array} \right]$

where α stands for [+Stative], [+Reciprocal] and refers to the same lexical item. That is, the strings (a) and (b) should be interpreted as being synonymous.

Another condition relates pairs of sentences like (33) and (34) which are generated by the base

33. Kofí sè Ámma (Kofi looks like Amma)
 Ámma sè Kofí (Amma looks like Kofi)

34. Kofí bèn Ámma (Kofi is near Amma)
 Ámma bèn Kofí (Amma is near Kofi)

Condition II

35. (a) $\left[\begin{array}{c} \text{NP}_1 \quad \text{NP}_2 \\ \text{S} \quad \quad \text{S} \end{array} \right]$ is symmetrical

with (b) $\left[\begin{array}{c} \text{NP}_2 \quad \text{NP}_1 \\ \text{S} \quad \quad \text{S} \end{array} \right]$

The nouns are no exception to the comments and generalisations made in the foregoing paragraphs and are, I would suggest, subject to the same treatment as the verbs with, possibly, slight modifications here and there. Although sentences like

36. ɔye me búsuáni
(he-be I-Pos kinsman)
(he is my blood relation)

are truly symmetrical and are relatable to synonymous sentences like

37. meye ne búsuáni
(I-be he-Pos blood-relation)
(I am his maternal blood relation)

38. me né no ye abusufó
(I and he be maternal blood relations),

the sentence

39. meye ne támfo
(I-be he-Pos enemy)
(I am his enemy)

need not mean

40. ɔye me támfo
(he-be I-Pos enemy)
(he is my enemy);

and, unless transformational rules are not to be in any way constrained, (39) and (40) cannot be related syntactically.

It could be insisted that items like obusūāni, nua, etc. be assigned some semantic feature, say [+blood relation] (which, of course, they have), and that this semantic feature be used to trigger the operation of the transformation which links (36), (37) and (38) above. This does not solve the problem, however. Not all blood-relation nouns are truly symmetrical. For example:

41. Amponsá yè mé wàfa
 (Amponsa be I-Pos uncle)
 (Amponsa is my uncle)

does not mean

42. meye Amponsá (ne) wàfa
 (I am Amponsa's uncle)

Of course, there is nothing to prevent anybody from introducing rules like

43. wàfa (uncle) \leftrightarrow wàfaasé (nephew, niece)
 yere (wife) \leftrightarrow kunu (husband)

into the grammar for purposes of converting

44. meye né kùnu
 (I am her husband)

- to 45. oye me yére
 (she is my wife)

The usefulness of such lexical rules, it seems to me, would largely derive from their universality. But everybody, by now, should know how language-

specific such rules are bound to be. In English, one's father's or mother's brother is one's uncle. In Twi-Akan, one's mother's brother is wofa (uncle) but, one's father's brother is not wofa (uncle) but se (father). Similarly one's mother's sister is one's mother, not one's aunt as in English and other European languages. One's mother, then, is not only the female adult who was responsible for one's birth, but any female who can claim sisterhood to one's mother. This is how the Twi speaker views his world.

Not enough is known at the present time about the "trading relation" between the various parts of a grammar to enable anyone to say categorically that one set of sentences should be derived by the application of base rules only and another by transformation (Chomsky 1970). A few years ago, one would have found an easy answer to the question as to which of the several sentences discussed in the foregoing were derived directly by the application of obligatory phrase-structure rules and which by optional transformational rules (Chomsky 1957). But, if for the reasons given above, each member of the pair of indisputably synonymous sentences like (3a) and (3b) is to be derived independently by the application of base rules, then I would expect that the relation "synonymy" will sometimes have to be defined by some such condition as (32). I would assume, of course, that the notion symmetrical would be defined universally.

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