

## Agreement in Bloomfield

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1987

Read at the 62nd Annual Meeting of the Linguistic Society of America, in San Francisco, California, on the occasion of the hundredth anniversary of Leonard Bloomfield's birth.

### Introduction

In this paper we examine what Bloomfield had to say about grammatical agreement and relate his analysis to current work in syntax. In LANGUAGE (L), Bloomfield describes agreement as a type of selection, which in turn is one of the four types of taxemes: modulation, phonetic modification, selection and order (L 163-5, 194). The taxeme is the minimal unit of syntax, just as the phoneme is the minimal unit of phonology (L 166).

A taxeme of selection is present whenever elements from different form classes can appear in a given environment. For example, both a verb form (e.g. run) and a noun form (e.g. John) can appear with the taxeme of exclamatory final pitch (example of modulation). In the first case, the result is a command and in the second case, the result is a call. In the first case, we say that an infinitive verb form has been selected, and in the second, that a noun form has been selected. A more complicated example is the mutual selection of the constituents duke and -ess in the analysis of the complex form duchess. Bloomfield describes duke as belonging to a special form class made up of those "male personal nouns" which combine with -ess, and -ess as constituting a form class of its own "by virtue of the fact that it (and it alone) combines with precisely the forms in the class just described" (L 167-8). Agreement is a more complex type of mutual selection.

How agreement fits into Bloomfield's overall scheme of syntactic analysis is indicated by the passages on the next two foils.

Taxemes of selection play a large part in the syntax of most languages; syntax consists largely in defining them -- in stating, for instance, under what circumstances (with what accompanying forms or, if the accompanying forms are the same with what difference of meaning) various form-classes (as, say, indicative and subjunctive verbs, or dative and accusative nouns, and so on) appear in syntactic constructions.

In languages which make a wide use of selective taxemes, the large form-classes are subdivided into smaller ones. For instance, the English actor-action construction, in addition to the general selective taxemes, shows some more specialized taxemes of the same sort. With the nominative expressions John or that horse we can join the finite verb expression runs fast; with the nominative expressions John and Bill or horses the reverse selection is made. (L 190)

In LANGUAGE, Bloomfield distinguishes three types of agreement, which he calls concord, government and cross-reference. We take up each of these types in turn. In THE MENOMINI LANGUAGE (ML), he also discusses a type of agreement he calls antecedence, which we do not consider today for lack of time. We conclude with a discussion of the relation between Bloomfield's notions of concord and cross-reference on the one hand, and the contemporary distinction between pro-drop and nonpro-drop languages on the other.

#### Concord

Concord (or congruence) is the simplest type of agreement, whereby two cooccurring expressions must be of the same subclass. An example of concord is the agreement in number between the actor and the action (L 191). Both forms must be of the same sub-class (singular or plural), as shown in examples (1) and (2) on the next foil:

(1) The boy (SG) runs (SG).

(2) The boys (PL) run (PL).

Bloomfield considers the subdivision of nominative expressions into singular and plural as more fundamental than that of finite verb expressions, since the distinction in nominative expressions is also definable by the use of the modifiers this, that and these, those. For this reason, he refers to the verb or the modifier as agreeing with or standing in congruence with the nominative

expression. Another example of concord is the inflection of adjectives in most Indo-European languages in congruence with various sub-classes of the noun, such as number, gender and case.

#### Concord and coordination in THE MENOMINI LANGUAGE

In THE MENOMINI LANGUAGE, as in LANGUAGE, Bloomfield divides the phrases of the language into two broad classes: attributive and coordinative. Attributive phrases consist of a head and attributes (or adjuncts). Coordinative phrases consist of members, and are considered either amplifying or additive. In amplifying coordinative phrases, "the members denote one and the same thing" (ML 437), while in additive coordinate phrases, "the members denote different things" (ML 438).

In the same work, Bloomfield relates concord to coordination. The passage is quoted as the last item on the foil.

Two or more expressions of the same form class ... [that] fill the same syntactic position in a phrase ... are in concord ... Concordant expressions agree as to inflectional subclasses, such as gender, number and obviation.... [U]ninflected forms agree merely as to the general type of expression ... (ML 464)

examples are given on the next foil.

- (1) enoh enc:niw 'that man'
- (2) eneh we:kewam 'that house'
- (3) a:nch pe:ma:tesetuaw 'some people'
- (4) mesas new enes me:c-mo:nahekaneh 'everywhere on that farm'

The order of concordant expressions is sometimes fixed; sometimes one order predominates over another, subject to stylistic variation; and sometimes order is nonsignificant. Bloomfield admits that insofar as order is significant, the phrases could be viewed as attributive, but he decides that since no sharp line can be drawn among the various cases, "we ... shall describe ... all [concordant phrases] as coordinative, either amplifying or additive" (ML 464).

In THE MENOMINI LANGUAGE, Bloomfield distinguishes further between two kinds of concord: full and weak. Full concord is illustrated by the examples in the preceding discussion; weak concord is like full concord "but does not embody rigid inflectional agreement" (ML 469). Weak concord is essentially category identity or near identity, much as in current treatments of additive coordination. (Amplifying coordination is rarely discussed as such nowadays.) Bloomfield's definitions of amplifying and additive coordinative phrases, given on the next foil, suggest that the concord exhibited by additive phrases should be thought of as weak concord, since their members do not have to be concordant in gender, number and obviation:

Nouns fully concordant as to gender, number, and obviation follow each other without pause; these combinations are amplifying. (ML 464)

Nouns follow each other, usually but not always with intervening comma intonation; the meaning is additive. (ML 465)

However, Bloomfield is not explicit on this point.

Concord is the defining characteristic of coordinative phrases in Menomini according to Bloomfield, not order, and not the occurrence of coordinative particles, as in the first passage quoted on the next foil:

The immediate constituents of coordinative phrases are connected by two constructions: full concord ...; weak concord .... (ML 440)

(In this passage, we may construe 'constructions' as the same notion as 'taxemes' in LANGUAGE.) In fact, there is no mention in THE MENOMINI LANGUAGE of any expression that translates as conjunction; the expression men new translates as disjunction, as in example (1) on the same foil.

(1) pahki:sekan ke:maw men new pahki:seke:hsak 'bread or crackers'

Other taxemes, including some that are types of agreement, are considered to be distinguishing characteristics of attributive phrases, as in the last passage quoted on the foil.

The immediate constituents of attributive phrases are connected by the following constructions: cross-reference ...; antecedence ...; complementation ...; substantive attribution ...; adverbial attribution; ...; negation .... (ML 440)

These passages are important to our understanding of Bloomfield's theory of syntax and of its relevance to contemporary work, because they reveal first how much more than immediate constituent analysis was involved in his work in syntax and second how he used combinations of cooccurring properties such as hierarchical arrangement and pronoun-antecedent relations to characterize grammatical constructs. One consequence of his theory is that the various parts of an expression, whether attributive or coordinative, can be separated by material not belonging to that expression. A relevant passage is quoted in the next foil.

In most instances [stylistic] variations ... represent merely waves of speech response. The great freedom of word order and pause intonation, especially in constructions of concord, allows the speaker to develop his sentence with lesser impulses or waves before, during, and after the main part. (ML 441)

For example, the elements enoq 'he' and maski:hki:wenEni:hsEh, 'Little-Doctor', being in full concord, are members of a coordinative expression in the example on this foil, even though they are not contiguous.

enoq kaya:həkkeno:hamowa:cen, maski:hki:weneni:hseh

'He is the one who teaches him, Little-Doctor.'

Concord and coordination in EASTERN OJIBWA

Bloomfield's treatment of comparable syntactic phenomena in EASTERN OJIBWA (EO) is considerably less sophisticated than it is in THE MENOMINI LANGUAGE, and will not be discussed here for lack of time.

<<SEE APPENDIX 1 FOR MATERIAL OMITTED HERE>>

Government

The second type of agreement Bloomfield discusses in LANGUAGE is government, in which selection depends on the syntactic position of the expression

(L 192). An example of government is the choice of case for nouns. In English, pronouns are in one form if they occur in the position of actor, and in another form in the position of goal in the action-goal construction or in the position of axis in the relation-axis construction, as shown in the first three examples on the next foil:

(1) actor: I watched John.

(2) action-goal: John watched me.

(3) relation-axis: John stood beside me.

In this type of agreement, the accompanying form is said to govern (or demand or take) the selected form. In both (1) and (2), the verb governs the case-form of the pronoun, and in the relation-axis construction in (3), it is the preposition. Another example of government given by Bloomfield is the selection of the form of a subordinate verb by the main clause. In French, for example, the mood of the subordinate verb depends on the main clause, as shown in the last two examples on the same foil.

(4) Je pense qu'il vient.

'I think that he is coming (INDIC).'

(5) Je ne pense pas qu'il vienne.

'I don't think that he is coming (SUBJ).'

Bloomfield considers the distinction between reflexive and non-reflexive and between obviative and non-obviative forms to be related to government. He states that "identity and non-identity of objects are in many languages distinguished by selective features akin to government" (L 193). The form that would be comparable to a governor in these cases seems to be the antecedent, since it is the identity or non-identity of the object with the antecedent that determines the form of the object. Bloomfield is not explicit on this point, however.

## Cross-reference

The third type of agreement that Bloomfield discusses in LANGUAGE is cross-reference (L 193). In this type of agreement, one form contains an actual mention of the other. The mention resembles a substitute form, like a pronoun. Bloomfield gives the examples in (1) and (2) on the next foil from colloquial English and standard French.

(1) John he ran away.

(2) Jean où est-il? 'Where is John?'

John where is-he?

In these examples, the forms he and il mention the same person as the actor.

In languages like Latin, where the verb has a full conjugation, Bloomfield considers the agreement between the verb and the actor also to be cross-reference. In example (3) on the same foil, for example, the verb form includes -t, which is a pronominal mention of puella.

(3) Puella canta-t. 'The girl sings.'

girl sing-she

Similarly, in THE MENOMINI LANGUAGE, Bloomfield describes certain expressions (possessed nouns, active verbs and transitive verbs) as containing a "personal-anaphoric element"; when one of these words is accompanied by an appropriate attribute (or adjunct), the attribute is in cross-reference with the anaphoric element (ML 441). Furthermore, the "attribute agrees with the personal-anaphoric element in gender, number, person, and obviation." (ML 441-2)

<<MATERIAL IN APPENDIX 2 BELONGS HERE>>

Concord, cross-reference and pro-drop

It is not clear how Bloomfield would distinguish in general between concord and cross-reference in the case of subject-verb agreement. Bloomfield gives English subject-verb agreement as an example of concord, whereas he

gives Latin subject-verb agreement as an example of cross-reference. It seems most likely that the determining factor is not how differentiated the conjugation patterns, but whether the language allows omission of the subject, or, in modern terms, whether the language is "pro-drop". In pro-drop languages, the verb form can straightforwardly be analyzed as containing a pronominal form, since the verb form on its own has that meaning. Bloomfield analyzes Latin the way he does probably because the form *cantat* on its own means "she/he sings." In English, on the other hand, the form *sings* cannot stand on its own, so that the *-s* suffix could not be considered to be a mention of a subject. For a language like German, which has extensive conjugation, but is not pro-drop, Bloomfield would probably not allow such an analysis, but would consider the agreement to be concord, as in English.

Bloomfield also discusses cross-reference between the verb and the object. Again, the mention of the object in the verb allows the verb form to stand on its own. He gives the examples on the next foil from Cree (L 194).

(1) 'wa:pame:w 'He saw him/her.'

he-saw-him/her

(2) 'wa:pame:w 'atimwa a'wa na:pe:w 'The man saw a dog.'

he-saw-him (obv) that man a-dog

In contemporary terms, such languages would be called 'object pro-drop'.

Bloomfield's system, then, appears to distinguish between pro-drop and non-pro-drop languages by distinguishing between two types of agreement. There are two ways in which Bloomfield might have analyzed languages like Chinese, which allow null subjects and objects, but have no agreement inflection at all. One possibility is that he would have considered such languages to have neither concord nor cross-reference. The fact that the verb forms can stand alone, on the other hand, might have led Bloomfield to posit zero

mentions of the subjects and objects in the the verb forms. In this case, these languages would be analyzed as having cross-reference, or, in modern terms, be classified as pro-drop.

#### APPENDIX 1

At the beginning of the chapter on syntax, Bloomfield simply lists the taxemes (he calls them here 'syntactic signs') of Ojibwa without regard to the types of expressions they represent, as in the following passage:

The syntactic signs are cross reference, concord, obviation, relative reference, verbal order and mode, and word order. (EO 130)

Concerning concord, he says simply:

Concord as to gender, number, and person links expressions... (EO 130)

The illustrative examples he uses are given in (1) and (2):

(1) ma:pa ekkwe: 'this woman'

(2) ma:nta wi:kuwa:m 'this house'

Unlike the corresponding examples in Menomini, Bloomfield does not analyze the Ojibwa examples in (1)-(2) as coordinative expressions. His treatment of coordination at the end of the syntax chapter in EASTERN OJIBWA is sketchy and nothing at all like the treatment of coordination in THE MENOMINI LANGUAGE. He writes:

Coordinate expressions are connected by keye: 'and' ... (EO 141)

His illustrative examples are given in (1) and (2):

(1) pe:shik keye: ni:sh 'one and two'

(2) ki:n keye: ni:n 'you and I'

## APPENDIX 2

### Antecedence

Antecedence is an agreement relation which is similar to cross-reference. Certain words in Menomini contain what Bloomfield calls a 'relative root'. He lists thirteen relative roots altogether, plus two verb forms which "behave as though they contained relative roots" (ML 443). The roots in these words are anaphors which are linked to antecedent expressions, which typically precede the words containing the relative root. The occurrence of the antecedent is generally obligatory, unlike the expression in cross-reference to a personal-anaphoric element. Bloomfield lists many examples of relative root-antecedent relations, several for each relative root; the verb form in the following example is based on the relative root ahkw- 'so long'.

ni:s tepa:hekan ahku:pi:kesew se:nepa:n

'the bolt of silk is two yards long'

### References

- Bloomfield, Leonard. 1933. LANGUAGE. New York: Henry Holt and Company.
- Bloomfield, Leonard. 1958. EASTERN OJIBWA: GRAMMATICAL SKETCH, TEXTS, AND WORD LIST. Ann Arbor: University of Michigan Press.
- Bloomfield, Leonard. 1962. THE MENOMINI LANGUAGE. New Haven: Yale University Press.