Plural pronouns create the possibility of overlapping reference, which does not fit naturally into the classical GB theory of anaphora, where each NP has a single integer as its referential index. Thus, one must either complicate the indexing system used in syntax or complicate the semantic interpretation of indices. This paper argues for the former approach based on the properties of a particular comitative-like construction found in Mohawk and certain other languages. This construction is analyzed as a type of Left Dislocation where the dislocated NP forms a syntactic chain with a pronoun that it overlaps in reference with. Several unusual characteristics of such chains can be accounted for if plural pronouns have sets of integers as their indices — characteristics involving bound anaphora, ellipsis interpretation, and connectivity effects. Certain implications for the theory of chains are also discussed.

1. The Issue of Overlapping Reference

It is well known that plural pronouns introduce serious complications to a theory of anaphora that do not arise when only singular pronouns are considered. Some relevant problems are discussed from various angles in Lasnik (1981), Chomsky (1981), Higginbotham (1983), Sportiche (1985), and Lasnik (1989), among others. If a singular pronoun is compared to a singular non-group-denoting NP, then only two scenarios are possible: the pronoun has the same referent as the NP, or the pronoun has a different referent than the NP. When plurals are considered, however, the range of possibilities grows to three: (i) the NP and the pronoun refer to the same individuals; (ii) the NP and the pronoun refer to disjoint sets of individuals; (iii) the NP and the pronoun refer to some of the same individuals but not all. It is not obvious how to fit this third possibility — called "overlapping reference" — into an otherwise adequate theory of indexing, binding, and semantic interpretation.

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The basic problem can be posed as follows, following Lasnik (1981, 1989). Suppose that all noun phrases are associated with a single integer as their ("referential") index, as in Chomsky (1981) and related work. Consider then a simple case of referential overlap such as (1):

(1) Mary, thinks that they, will win the dancing contest.

This sentence allows an interpretation in which they refers to Mary and someone else (e.g. her regular dancing partner). The question is how to index the pronoun they in this case. Under the given assumption, there are really only two choices: either they has the same index as Mary, or it has a distinct index.

Suppose that they has the same index as Mary. Then the syntactic relationship of coindexing cannot correspond to a semantic relationship of identity of reference; rather, coindexing must mean that the two NPs overlap in reference (perhaps completely). However, there are other circumstances where this interpretation of coindexing is clearly too weak. Thus, the sentences in (2) are impossible, where themselves is intended to refer to Mary and her dancing partner:

(2) a. *Mary, likes themselves
b. *Mary, expects themselves, to win the dance contest.

Here, the reflexive pronoun is fine with respect to the syntactic conditions of the binding theory: it is c-commanded by an NP with the same index within the relevant local domain. Moreover, the hypothesized constraint on the semantic interpretation of coindexing is obeyed: themselves does include Mary in the intended interpretation. Nevertheless, the sentence is impossible. Hence, one of our assumptions must be changed. Presumably identity of index in the syntax must correspond to identity of reference in the semantics after all. If so, Mary and they cannot have the same index in (1).

Nor is the problem with (2) only the morphological fact that the reflexive does not agree with its antecedent in number. Lasnik (1981) and Sportiche (1985) point out that themselves in (i) cannot refer to the members of John and Mary’s string quartet (say, John, Mary, Sue, and Bill), even though the reflexive and its antecedent are both third person plural:

(i) a. John and Mary like themselves.
b. John and Mary expect themselves to win the chamber music contest.

Certain refinements are known to be needed here. Rather than to true coreference, syntactic coindexing corresponds to intended, presupposed, and/or purported coreference. See, for example, Evans (1980) and Heim (1982). These issues will be put aside in this work. On the necessity of some correspondence between syntactic indexing and semantic interpretation, see Lasnik (1981, 1989).