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## Agreement

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### ABSTRACT

With a working definition of grammatical agreement proposed and the questions seen as pertinent to the study of agreement phenomena listed, a crosslinguistic survey of three types of agreement features -- gender, number, and person -- is presented followed by some crosslinguistic generalizations about agreeing constituents. The theory according to which agreement markers and anaphoric pronouns are grammatically derived by the same types of rules is informally shown to be predictive of some of the restrictions observed both in respect to agreement features and agreeing constituents.

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## CONTENTS

1. Introduction . . . . .	333
2. Agreement Features and Agreeing Constituents . . . . .	336
2.1 Agreement features . . . . .	336
2.1.1 Gender . . . . .	336
2.1.2 Number . . . . .	343
2.1.3 Person . . . . .	351
2.2 Agreeing constituents . . . . .	362
3. Conclusions . . . . .	366
Bibliography. . . . .	370

1. Introduction

The purpose of this paper is to present some crosslinguistically valid informal generalizations concerning grammatical agreement.

The working definition of the term "agreement" which delimits the class of phenomena to which it will be applied in the paper is the following: a grammatical constituent A will be said to agree with a grammatical constituent B in properties C in language L if C is a set of meaning-related properties of A and there is a covariance relationship between C and some phonological properties of a constituent B<sub>1</sub> across some subset of the sentences of language L, where constituent B<sub>1</sub> is adjacent to constituent B and the only meaning-related non-categorial properties of constituent B<sub>1</sub> are the properties C.<sup>1</sup> Thus, for instance, the verb is said to agree with the subject in number and person in ENGLISH because there is a relationship of covariance between the number and person specifications of the subject noun phrase and between the phonological shape of the verbal suffix across a subset of those sentences of the language that are in the present tense in that if the subject noun phrase is singular third person, the suffix is s and if it is some other number and person, the suffix is zero. Constituents A and B — the subject noun phrase and the verb in the ENGLISH example — will be called agreeing constituents; constituent B<sub>1</sub> — the verbal suffix above — will be called agreement marker; and properties C — number and person above — will be called agreement features.

The above is a working definition in the sense that no theoretical naturalness is being claimed for the class of phenomena that it delimits. It will be adopted simply since the set of phenomena within its scope appear to be intuitively similar; but it is possible that a principled and complete account of the structure of all human languages would leave this class uncharacterized.

The working definition proposed excludes some things from the class of agreement (or concord) phenomena which, however, appear

<sup>1</sup> Although I have no actual example for it, it is possible that in some languages agreement is marked suprasegmentally, rather than segmentally; such as by some particular stress-pattern in the agreeing constituent. The present working definition of agreement would admit of such cases in that the suprasegmentally manifested agreement marker would nonetheless have to be prelexically represented as a constituent adjacent to the agreeing one.

to bear some similarity to agreement. Excluded is, for instance, lexical selection since here there is no agreement marker; the property FLUID, for instance, in which the verb pour and its direct object "agree" is not represented by a separate morpheme in either the verb or the object. Excluded are furthermore phonological assimilation phenomena since their description does not involve reference to meaning-related properties. Stylistic, dialectic, or language uniformity across the constituents of discourses is also not characterized as a phenomenon of grammatical agreement by our working definition in that the terms included in the definition are inapplicable to it.<sup>2</sup>

The definition, however, does include, first of all, various kinds of phenomena that have traditionally also been called "agreement" such as the agreement of quantifiers, modifiers, determiners, verbs, and anaphoric pronouns with nouns in gender, number, person, case, and definiteness; as well as others that have not been traditionally subsumed under this label. To this latter group belong instances of "negativity agreement" between some nouns and verbs in HUNGARIAN (compare Valamit láttam "something-accusative saw-I" 'I saw something,' Semmit nem láttam "nothing-accusative not saw-I" 'I saw nothing'); 'genericity agreement' between some nouns and verbs in ENGLISH (compare An Englishman washes his hands before dinner, \*An Englishman is washing his hands before dinner), "tense-agreement" and "mood-agreement" in the cases of LATIN and ENGLISH,<sup>3</sup> dislocation, and government.

If we assume that the goal of linguistic research is to provide principles of maximal cross-sentential and crosslinguistic generality whereby symbolic equivalence relations between meanings and sounds in all human languages can be accounted for, the following questions appear to me to constitute the total set of questions that would have to be asked and answered in order to provide a complete linguistic account of grammatical agreement:

<sup>2</sup>For some remarks on the similarity between grammatical agreement and phonological assimilation, compare Chomsky 1965:175f. For discussions about the similarities of "style agreement" and grammatical selection, see Gumperz 1966 and McCawley 1968:135-6.

<sup>3</sup>For "mood agreement" in ENGLISH, see Jespersen 1924:27ff.

1. Given the set of those sentences in any language across which agreement is observable,
  - a. what are the meaning-related and form-related properties of those constituents that are in agreement relation with each other as opposed to those that are not?
  - b. what are the meaning-related properties of the agreement markers -- that is to say, what are the agreement features?
  - c. what are the form properties of the agreement markers?
  
2. Given a language whose sentences include sentences with agreement, what, if any, are the meaning-related or form-related properties of those sentences with agreement as opposed to those without it -- to the extent that these properties are distinct from properties of the constituents involved?
  
3. Given the set of all languages, what are the properties -- whether in terms of structure or in terms of temporal or spatial attributes -- of those languages whose sentences do include sentences with agreement as opposed to those whose sentences do not? A complete account, in other words, would require the characterization of those languages that have agreement as opposed to those that do not; the characterization of those sentences in any agreement-language that exhibit agreement as opposed to those that do not; the characterization of those constituents in any set of agreement-sentences that participate in the phenomenon as agreeing terms as opposed to those that do not; and the characterization of those meaning-related and phonological properties that constitute agreement markers as opposed to those that do not.

Of these questions, the present study will be centrally concerned only with those under 1.a and 1.b. Nothing will be said, in other words, about which languages in the world include sentences that exhibit agreement phenomena and which do not;<sup>4</sup> or whether there are any properties of those sentences in a language that have agreement as opposed to those that do not -- properties, that is, that are distinct from properties of the constituents that participate in

<sup>4</sup>If the term "agreement" is taken, as in this paper, to include "dislocation," and if Sanders and Tai are correct in proposing that dislocation is a universally present structure (Sanders and Tai 1972), then agreement itself would also be a universal phenomenon. Nonetheless, languages certainly vary in what subtypes of agreement they have; for an attempt to tackle the question: which languages have agreement between the verb and its major nominal constituent complements, compare Li and Thompson 1975.

agreement; or about what the form properties of agreement markers are. Discussion will center on these two questions only: given the sentences of a language that has agreement, what are the meaning-related and form-related properties of those constituents that are in agreement relation with each other as opposed to those that are not, and what are the properties with respect to which they agree? The focus of discussion will actually be even more limited partly in that only a small sample of languages will be considered, and partly in that of the various kinds of phenomena that were listed above as falling within the scope of our working definition of agreement, only those instances will be discussed where the agreed-with constituent is a nominal or a noun phrase; and of these, only those where the agreement features are features of gender, or of number, or of person, and not those of definiteness or case. Section 2.1 will consider the nature of these three kinds of agreement properties and section 2.2 will discuss the constituents that participate in agreements of these three kinds. Section 3 will summarize the results.

## 2. Agreement features and agreeing constituents

### 2.1 Agreement features

2.1.1 Gender. Gender features will be understood as a set of any non-quantificational, non-referential or deictic, and non-case-related properties of nominals or noun phrases that are ever lexicalized separately in the language from the rest of the lexical properties of the nominal, either as an affix adjacent to the stem itself or as an agreement marker associated with some other constituent; or both. Gender thus includes distinctions related to animacy, humanness, sex, or any other qualitative property of nominal referents, as well as distinctions that are not correlated with any such semantic property — such as the masculine-feminine-neuter distinction in GERMAN or other INDOEUROPEAN languages or the semantically equally non-interpretable distinctions on which noun classification in BANTU languages is based.

Gender agreement par excellence can be illustrated from RUSSIAN by the following sentences:

babuška čitala "grandmother-feminine read-feminine"  
'The grandmother was reading.'

čelovek čital "man-masculine read-masculine"  
'The man was reading.'

okno otkrylos' "window-neuter opened-itself-neuter"  
'The window opened.'

In each sentence, the verb agrees in gender with the noun.

In these sentences, the particular gender property with respect to which agreement takes place is represented by an affix not only on the agreeing constituent — the verb — but also on the noun itself with which agreement takes place, in the form of the endings -o, -a, and -o; and, as a larger class of similar examples would show, there is a simple one-to-one relation between nominal gender suffixes and past-verb gender suffixes. Consideration of wider range of facts both within RUSSIAN and from other languages suggest, however, that all of this is not always the case; that, in particular, a nominal gender affix may be irrelevant for determining agreement. The irrelevance of a nominal gender affix from the point of view of determining agreement is manifested in three ways in various languages. First, it is possible that a constituent agrees in gender with a noun phrase even though the noun has no gender affix associated with it. Second, it is possible that a noun has a gender affix; nonetheless a constituent that in principle could agree with it does not show any kind of gender agreement with it. Third, it is possible that a noun has an overt gender marker but the constituent that agrees with the noun in gender agrees with it not in the overtly marked gender but in one that is not overtly marked on the noun. In what follows, I will illustrate and discuss examples for each of these cases.

That there can be agreement with a noun whose gender properties are not overtly marked on the noun itself can be shown from RUSSIAN itself; compare

ty čital "you read-masculine"  
'You were reading.' (said of a masculine 'you')

ty čitala "you read-feminine"  
'You were reading.' (said of a feminine 'you')

In these sentences the verb agrees with the subject noun in gender just like in the previously cited sentences; even though masculinity and femininity have no overt markers on the second person pronoun whereas they do on the nouns. Similar examples can be cited from ENGLISH; compare

The man is in the room. He is old.  
The mother is in the room. She is old.  
The table is in the room. It is old.

Similarly, that the presence of an overt gender marker on the noun does not insure agreement on the part of all constituents that could agree with it is also illustratable from RUSSIAN. In this language the past tense does agree in gender with the subject; but not the present tense verb. Compare

<u>babuška čitaet</u>	"grandmother-feminine read-third person singular" 'The grandmother is reading.'
<u>čelovek čitaet</u>	"man-masculine read-third person singular" 'The man is reading.'
<u>okno otkryvaetsja</u>	"window-neuter open-third person singular" 'The window is opening.'

I have, however, no examples of languages where (some) nominals are marked for gender; and, nonetheless, no constituent in any sentence of the language ever shows agreement with the nominal in that gender.

These examples from RUSSIAN and ENGLISH have shown that overt gender marking of the nominal is not a necessary condition for gender agreement to take place; nor is it a sufficient condition predicting agreement to take place with respect to any constituent that in principle might agree with it. Next I would like to show that not only is overt gender marking not sufficient to guarantee the occurrence of agreement but it is not even sufficient in some cases to predict the gender of the agreement marker once gender agreement does take place in some constituent.

Whereas I have no examples of nouns that are agreed-with in terms of a gender property that is distinct from the one overtly marked on them in all sentences of the language, there are several examples of a noun being agreed with in terms of the overtly marked gender property in some sentences of the language and in terms of a gender property distinct from the one overtly marked in other sentences. A clear example to illustrate this is provided by SWAHILI. In this language, all nouns have overt gender markers called class prefixes. Whereas the nominal gender classes definable in terms of these nominal prefixes are congruent with the nominal classes definable in terms of adjective agreement-- adjectives, that is, do agree with nouns in those genders that are marked on the noun -- this is not always the case for anaphoric pronominal agreement, in that all nouns referring to human beings (and some referring

to animals) regardless of their prefixes require anaphoric pronouns of a uniform shape -- of a shape that otherwise occurs with nouns belonging to the first nominal prefix class (which, by the way, includes mostly human nouns) (Lyons 1968: 284-6).

There are many other languages as well where the gender in which there is agreement is different depending on what the agreeing constituent is. The case of LINGALA is parallel to SWAHILI. Most nouns belong to prefix classes which are also the classes in terms of which relative pronouns agree with them. However, demonstrative pronouns, the word for 'other,' anaphoric pronouns, and the verb show agreement depending on the animacy of the subject noun (Alexandre 1967). MANDJAKU (Doneux 1967) has a large number of concord prefixes for adjectives, numerals, the word for 'other,' and for various pronouns, but the verb shows only a two-way distinction depending on whether the subject noun is plural human or not. In MBEMBE nouns belong to eleven classes according to their prefixes and agreement requirements. Each class governs three sets of concord prefixes, depending on the particular part of the sentence or discourse. Examinations of these concord markers shows four different noun classes which differ with respect to their prefixes only, not to the concord morphemes they govern; the set of these four classes exhausts those which contain nouns referring to human beings (Barnwell 1969).<sup>5</sup> It is also interesting that personified animals take Class I agreement despite their formal membership in Class III. In LUVALE pronouns, adjectives, possessives, and numerals agree with the noun. Nouns, according to their prefixes, belong to 14 classes, nine of which refer to animate beings. All such animate nouns are exceptional in their agreement requirements because they take Class I agreement for all agreeing terms (except in a genitive construction) (Horton 1949:24ff.). In TEMNE if the noun is animate both verbs and attributive adjectives disregard noun class membership and agree as if the noun were of Class I (Hutchinson 1969:9-10, 103-4). In AKKADIAN some nouns are, by form, feminine, although they refer to male beings, such as 'chief.' Such nouns may take either female or male pronominal reference in the verb; although data are scarce, there is some evidence that this may apply also to attributive adjectives (von Soden 1952:186-7).

A generalization about alternative agreements depending on the type of the agreeing constituent with which all the above-cited

<sup>5</sup>Two other pairs of classes also have identical concord morphemes and differ only in their prefixes; no explanation has been found for this, given Barnwell's data.

evidence is the following: if there is any set of agreeing constituent types whose members show agreement in terms of semantically interpretable -- or "natural" -- gender properties, this set will include constituent types that are external to the noun phrase -- that is to say, verbs and anaphoric pronouns. Or, putting it in another way: the occurrence of semantic or natural gender agreement within the noun phrase implies such agreement outside it in the same language.<sup>6</sup>

In our survey of cases where the gender of agreement is different from the overtly marked gender of the noun we have seen a number of languages where constituents agree differently with a noun depending on the constituent class they belong to. In addition to constituent class membership, there is also another property of agreeing constituents which may determine variant agreement and this is their linear order in respect to the agreed-with constituent. This may be illustrated from MODERN ARABIC.<sup>7</sup> In ARABIC

<sup>6</sup> More complicated to generalize about is agreement in GERMAN with nouns such as Mädchen 'girl.' The noun itself has no overt gender marking. Noun phrase internal agreement -- that is, the agreement of articles, demonstrative adjectives, descriptive adjectives and possessive adjectives -- is in the neuter gender; but relative pronouns and anaphoric pronouns may be either in the neuter or in the feminine gender. Compare, for instance, the following sentences: Das schöne Mädchen, das/die du gestern sahest, ist krank. Es/sie ist im Krankenhaus. "the-neuter pretty-neuter girl, which-neuter/whom/feminine you yesterday saw, is sick. it/she is in-the hospital" 'The pretty girl whom you saw yesterday is sick. She is in the hospital.' What is interesting about it is that both feminine and neuter agreement "make sense" here in that the meaning 'girl' includes both the property 'feminine' and also the property 'small;' and in GERMAN naturally feminine nouns take feminine agreement and diminutive nouns take neuter agreement.

<sup>7</sup> From the data I am familiar with, it appears undecidable whether the agreement in gender of the participial complement of the auxiliary avoir in FRENCH with object nominals depends on whether the object nominal is pronoun or noun or on whether the object nominal precedes the verb or follows it; since all object nominals with which the participle shows agreement are both pronominal and preceding and all object nominals with which it shows no agreement are both nominal and following.

the verb has to be masculine if the subject is masculine regardless of the linear order relation of the subject and the verb; but the verb may be either feminine or masculine if the indefinite subject is feminine depending on whether the subject follows or precedes the verb. Compare the following:

wálad ?əžáani	"boy came-he-to-me"	'A boy came to me.'
?əžáani wálad	"came-he-to-me boy"	'A boy came to me.'
bént ?əžétni	"girl came-she-to-me"	'A girl came to me.'
?əžétni bént	"came-she-to-me girl"	'A girl came to me.'

These sentences show that the verb may agree in gender both with masculine and with feminine subjects regardless of order relations. The next four sentences will show that whereas postposed, but not preposed, feminine subjects may take masculine agreement, masculine subjects may not take feminine agreement whether postposed or preposed: ?əžáani bént "came-he-to-me girl" 'A girl came to me.'

*bént ?əžáani	"girl came-he-to-me"
*?əžétni wálad	"came-she-to-me boy"
*wálad ?əžétni	"boy came-she-to-me" (Ferguson & Rice 1951).

The significance of linear order for determining correct gender agreement is further illustrated by examples where a constituent agrees with a noun phrase that includes more than one noun conjoined with each other. Examples come from LATIN, TEMNE, and FRENCH. In LATIN the predicate adjective shows the same gender as the subject nouns conjoined by et if they are alike in gender. It is also possible to conjoin nouns which differ with respect to masculinity-femininity-neuterness: if the conjoined nouns are all animate the predicate adjective is masculine; if all are inanimate, it is neuter. The adjective modifying the entire noun phrase (all those conjoined) agrees in gender with the nearest noun. In TEMNE if inanimate nouns belonging to different gender classes are conjoined, the predicate shows the gender of the first conjoined noun. If the conjoined nouns in the set are all singular, but some are animate and others inanimate, the verb may show the animate gender (and plurality) or it may show the gender of the first conjoined noun (and singularity, in case it is inanimate). If the nouns are animate and inanimate and (some of them) are plural, the verb is in the plural animate gender or in the plural form of the gender of the first noun.<sup>8</sup> Proximity is also criterial in FRENCH in the

<sup>8</sup> This information about TEMNE is inferred from data that formed part of the M. A. examination problems at Indiana University in May

case of agreement with conjoined noun phrase. Compare

Le calme et la fraîcheur du vieux couvent sont si exquises.  
 "the-masculine calmness and the-feminine freshness of-the  
 old cloister are so exquisite-feminine-plural"  
 'The calmness and the freshness of the old cloister are so  
 exquisite.'

where the verb whose subject is a conjoined noun phrase consisting of a masculine and a feminine noun is in the feminine, rather than masculine, plural, thus following the gender of the closer conjunct (Blinkenberg 1950:101). These examples indicate that the factors that determine gender agreement with conjoined noun phrases that are heterogeneous in their overtly marked gender properties include their semantic gender (in particular, animacy) and the order of the conjuncts.

The results of this brief survey of the conditions that determine the occurrence versus non-occurrence of gender agreement and the kind of gender in respect to which there is agreement may be summarized as follows. The presence of an overt gender marking on the noun may be neither necessary nor sufficient to guarantee gender agreement for all constituents that could in principle agree. Once gender agreement does take place with a noun whose gender is overtly marked, the gender that is marked on the noun may again be neither necessary nor sufficient to predict the particular gender marked on the agreeing constituent. Consideration of instances of gender agreement where different constituents agree in terms of either the overtly marked gender of the noun or in terms of a gender not so marked led us to the question: what conditions correlate in general with alternative gender agreements? The conditions we established were two in kind: the membership of the agreement constituent and linear order. With respect to the former, all evidence was compatible with the generalization according to which if some constituents agree in terms of semantically interpretable gender properties, these constituents will include some noun-phrase-external constituents. With respect to linear order, we have seen examples for the agreement-significance of constituents

(ftnt. 8 cont.)

1968. For additional data and discussion of gender agreement with conjoined noun phrases of non-identical gender, see Givón 1970 (concerning BANTU languages) and Mould 1971 (about BANTU and HEBREW).

that precede the agreeing constituent rather than follow it (ARABIC and possibly FRENCH); examples for the agreement-significance of constituents that are adjacent, rather than non-adjacent, to the agreeing constituent; and examples for the agreement significance of nouns within a set of conjoined ones that are first, rather than non-first.

2.1.2 Number The most straightforward type of number agreement is manifested in sentences involving nominals with overtly marked singularity or plurality and agreeing constituents such as nominal modifiers, verbs, or pronouns that are in the singular or plural, respectively; such as the following sentences of ENGLISH:

Call the girl and tell her to hurry.  
 Call the girls and tell them to hurry.

where the distinction between her and them corresponds to the overtly marked singular-plural distinction between girl and girls. A consideration of a wider set of data, both within ENGLISH itself and in other languages, indicates that the correspondence relation between agreeing and agreed-with constituents is not always this simple; it is not generally true that an agreeing constituent is in the singular with all and only singularly-marked nominals and that it is in the plural with all and only plurally-marked nominals. Rather, generic plural marking of nominals may be just as unpredictable of the number manifested in the agreeing constituent as we have seen overt nominal gender marking to be. In what follows, I wish to illustrate this by showing that there exist both instances where a plurally-marked nominal is agreed-with by a singularly-marked constituent and where singularly-marked nominals are agreed-with by a plurally-marked constituent.

Nominals that are marked singular and that nonetheless take plural agreement with some constituents in some languages are of the following five types:

- a. numerated nominals
- b. conjoined nominals
- c. nominals with a comitative complement
- d. collective nominals
- e. simple (non-numerated, non-conjoined, non-comitatively-complemented, and non-collective) nominals.

Anaphoric pronominal reference to numerated and conjoined nouns, just like to overtly pluralized nouns, appears to be

universally plural if the meaning of these noun phrases involves a set of non-correferential nominal meanings. As for verb agreement, the picture is less clear. After conjoined singular nouns, there are examples of both singular and plural verbs in COPTIC (Till 1961:199) and in HUNGARIAN. After numerated nouns, either singular or plural verb forms may be used in AMHARIC (Obolensky et al. 1964:311) and in OLD ASSYRIAN (von Soden 1952:186), and only singular verb forms in (present-day) HUNGARIAN. Apart from these instances, however, verb agreement, too, is plural with these types of noun phrases. The nouns themselves, however, after a numeral, are not overtly pluralized in all languages; nor are the noun-phrase-internal modifiers cooccurring with numerated nouns. BAKI (Fraser 1891:76) and FIJIAN (Churchward 1941:14-5) have an optional nominal plural marker which is in complementary distribution with numerals. In AMHARIC (Obolensky et al. 1964:31), ASSYRIAN (von Soden 1952:194), and HAUSA (Robinson 1930:60), the singular or the plural noun form (and presumably also the adjective and the demonstrative and possessive pronouns) may each cooccur with a numeral. In RUSSIAN and in ARABIC (Cowell 1964:367) some numerals cooccur with singular, others with plural nouns. In COPTIC (Mallon 1956:76ff.), in TURKISH, in (present-day) HUNGARIAN, and in BALTI (Forchheimer 1953:114), (as in BAKI and FIJIAN mentioned above), the plural noun form must not cooccur with numerals. In FINNISH, however, it is apparently possible for the demonstrative pronoun and the adjective to show plurality if they cooccur with a numerated (singular) noun, e.g. in *nuo hauskat kymmenen minuttia* "these beautiful-plural ten minute" (Mey 1960:107). All this shows that, while it is not easy to generalize about plurality as represented within a noun phrase, the agreement properties of conjoined, numerated, and (superficially) pluralized noun phrases *tend* to be the same with respect to noun phrase external constituents such as anaphoric pronouns and verbs more than with respect to noun phrase internal constituents.

The stipulation concerning multiple reference associated with the generalization presented above is necessary since there are a number of languages where conjoined or numerated nouns do not take plural agreement in some cases whereas they do in others; and where the condition correlated with the lack of plural agreement is that the phrase does not refer to more than one distinct thing. FRENCH is a case in point. Blinkenberg (1950:29) points out that the conjoined FRENCH noun phrase *mon ami et collègue* 'my friend and colleague' takes singular verb agreement. Examples of this sort can easily be found in other languages (for FINNISH see Mey 1960:104). Blinkenberg also points out that a sentence which starts

with *Ma famille et la tienne* 'my family and yours' can be continued as ... *est très connue dans la région* 'is well known in the area;' or as ... *sont très connues dans la région* 'are well-known in the area' with corresponding difference in meaning. That the two superficially conjoined phrases here are not referentially nonidentical is evidenced by the way they are understood, and also by the fact that they would not undergo numeration (i.e. they would not take *deux hommes* and *deux familles* as appositions). If, for plural agreement, referential nonidentity of the nominals within the noun phrase is required, then it follows that not only will noun phrases that include only referentially identical nouns not show plural agreement, but neither will noun phrases which lack referential marking entirely. With this in mind, let us consider some facts of SYRIAN ARABIC (Cowell 1964:424):

<i>l-kəṭəb mā biḥəmmū</i>	'The books don't interest him.'
<i>l-kəṭəb mā bəṯəmmə</i>	'Books don't interest him.'

The subject noun phrase, in both cases, has the definite article and is plural. The difference is that the predicate of the first sentence is plural, i.e. it agrees, while in the second it is (feminine) singular. The first sentence refers to specific and identified books, the second to books in general. Compare this with the ENGLISH sentence: *An Englishman never does that; he/they has/have different habits* which is synonymous with *Englishmen never do that; they have different habits*. This shows that noun phrases which refer to kinds of things rather than to specific objects are deviant or unstable in their number and in their number agreement requirements.

Certain noun phrases, however, cannot be said to be devoid of reference and in fact appear to refer to more than one object; and they may still take singular verbs and pronouns. Such phrases are: titles of books -- *Les Illusions Perdue a été publié or ont été publiées en 1835 et 1843*; names of places -- *Les Cabannes est or sont un village placé le long de la route*; references to words -- *'les os' ne se prononce pas comme cela*; and references to quantities -- *Mille francs est une grosse somme, Deux livres lui suffira* (Blinkenberg 1950:37, 74, 52, 69); or ENGLISH *Ten thousand dollars isn't much. Here is ten and ten more. Where is your two bushels? This is only five apples. Five more two cents's and I'll have enough.* (F.W. Householder's examples).

Of the five types of noun phrases that may at least in some languages not be overtly marked for plurality and may nonetheless

require plural agreement with some constituents, so far we have discussed conjoined and numerated nouns. Let us now turn to nouns with comitative complements and to collective nouns. Comitative constructions requiring plural verb agreement occur in FRENCH, such as Le pape avec le cardinal sont retournés (Blinkenberg 1950: 86). Such sentences are synonymous, at least with respect to one of their meanings, with the corresponding coordinations (Le pape et le cardinal ...). Words such as LATIN populus, ENGLISH crowd or police, FRENCH la plupart, la reste are inflectionally singular and may take singular or plural agreement in the verb and in the anaphoric pronoun (but usually singular in the adjective and in other noun phrase internal terms). This is true for FINNISH, for ARABIC (Cowell 1964:426) and also for AKKADIAN, except that there the singular-plural option is available for the attributive adjective as well (von Soden 1952:186). In COPTIC, given a sentence where various orders of a subject noun, modifying adjective, and one or more verbs are possible, the following rule appears to operate: whatever comes before the collective-- i. e. all or one of the verbs or the adjective -- is singular; of those following the collective subject, the verb(s) must -- and the adjective may -- be plural (compare Mallon 1956:179). In certain languages, singular agreement can be used with conjoined noun phrases if they are understood as constituting a unit. This is the case in FINNISH; compare isa ja äiti on kylässä "father and mother is village-in" 'The father and mother are in the village' (Mey 1960: 104); see also OLD BABYLONIAN (von Soden 1952:186). In ENGLISH, nominals such as a pair of, a couple of, are inflectionally singular; nonetheless, if they are subjects of a present-tense verb, the verb is in the plural.

The fifth type of case where a singularly marked noun takes plural agreement is provided by languages where nouns are never marked for generic plurality; pronominal reference nonetheless to plurally understood nouns is plural; such as CHINESE.

All the above examples illustrated the fact that it is possible for nominals that are not overtly marked for generic plurality to take plural agreement. The irrelevance of overt number marking on the noun for number agreement can also be shown by instances of the opposite type: by instances, that is, where a noun that is marked for generic plurality requires singular agreement. In ANCIENT GREEK, for instance, plural neutral nouns take singular verb-agreement. Similarly, in MODERN ARABIC, plural inanimate subjects and even conjoined plural inanimate nouns if functioning as subjects may take either singular or plural verb agreement,

although conjoined singular inanimate nouns take singular verb-agreement (Charles Ferguson, personal communication).

Thus far, agreement with respect to only two number categories has been considered. Descriptions of various languages, however, make reference to additional distinctions such as those between dual, trial, plural of paucity and plural of abundance. All of these distinctions appear to be subdistinctions within the category "plural," rather than distinctions comparable with the one between "singular" and "plural." One argument in favor of this contention is provided by the fact that thus we can maintain a universal concept of what plurality means; if we chose some other alternative, plurality would have to be defined as "more than one" or "more than two," depending on the alternative categories of a particular language. That the dual, for instance, is semantically part of the plural system can be shown in several other ways. Crosslinguistically, synonymy exists between dual and plural (but not between dual and singular) forms. Also, given a language with a dual marker in the noun, a plural but not a singular noun phrase may be used to replace it. If a particular agreeing term lacks the category of dual, it will be plural with respect to the verb, as in ANCIENT GREEK or MODERN ARABIC (Cowell 1964:420) and in AKKADIAN, where the category of dual was abandoned in the adjective earlier than in the noun and thus plural adjectives cooccur with dual nouns (von Soden 1952:187). HOPI is an exception where the dual nominal subject takes singular, not plural, agreement in the predicate; for pronouns, which have no overt dual marker, duality is expressed by a plural pronoun plus singular predicate, and plurality requires plural pronoun plus plural predicate (Whorf 1946: 175). Moreover, if the meaning of the dual is extended in any direction it is toward "more than two" rather than "one." For instance, dual nominal forms are used in AKKADIAN not only for paired parts of the body but also for other parts, such as "teeth" or "fingers." That the dual in AKKADIAN may mean "more than two" is also shown by the numerals for 20, 30, 40, 50, etc. which are dual forms of 10, 3, 4, 5, etc., respectively (von Soden 1952:74ff., 91). In OLD ASSYRIAN the dual verb form may be used after two or more conjoined subjects (von Soden 1952:186). The same extended meaning of the dual is evidenced in GERMAN and in HUNGARIAN where equivalents of "a pair" usually refer to two or more than two objects.

Another argument for the dual as part of plural comes from the morphological structure of dual forms: they often consist of the plural marker plus something else, e. g. in OLD ENGLISH (for

more evidence and discussion of markedness distinctions in number. see Greenberg 1963: Universals #34 and #35; 1966).

A third argument for the dual and trial as subcategories rather than alternatives to the plural is provided by a distributional fact: whereas the presence of plural in the nouns of a particular language always implies its presence in some pronoun, this implication does not apply to the dual and the trial. As mentioned above, dual is a nominal but not a pronominal category in HOPI and in spoken ARABIC; it is a category of the verb but not of the pronoun in YUROK.

The potential extension of the meaning of the dual into "more than two" can be generalized as extending the meaning of the highest unit class in a particular language into "a few." For instance, in FIJIAN it is the trial that is reported to stand for three or more (Churchward 1941:25ff.). While for FIJIAN there is still some justification for calling this form a trial, because of its morphological structure, some languages have a category of "few" and one of "many," both formally unrelated to any unit category. Two such non-unit plurals which are morphologically and semantically distinct are reported for AKKADIAN, ARABIC, BAINUK, and SENUFO. In AKKADIAN (von Soden 1952: 76-7) šarrānu is glossed as '(eine Anzahl einzelner) Könige' and šarrū is 'die Könige (schlechthin),' ilanu is 'die (persönlichen grossen) Götter' and ilū is 'Götter = Pantheon.' The meaning of the "paucal" plural ending -ānu is explained as follows: "es bezeichnet eine Mehrheit, die sich aus einer zählbaren Anzahl in sich selbständiger Einzelteile zusammengesetzt." In ARABIC (Cowell 1964:369) the paucal is said to imply paucity and individuality of objects referred to; it may or may not be used with numerals. (When a plural of paucity is used without a numeral between 2 and 10, it usually implies that the things referred to are few in number and individually discriminated.) This plural is formed from the unit singular form of nouns, e.g. samake 'a fish' forms samakāt 'fish (plural).' The other plural implies abundance, must not be used with numerals, and is formed from the collective singular form of the noun, e.g. samak 'fish (collective)' forms ʔasmak '(many or various) fish.' In BAINUK (Sauvageot 1967:225ff.), busumol means 'a snake,' i-sumol means 'snakes (a counted quantity),' and ba-sumol means 'snakes (not counted because counting is impossible or considered superfluous).' If the noun phrase contains a numeral, the "counted" plural must be used. In SENUFO (Sauvageot 1967:236), sir means 'tree,' sire means 'trees (countable),' and sir means 'trees (uncountable).' Whorf (1946:170) reports that HOPI nouns also have

two plurals, a paucal and a multiple, but from his data I am unable to see what is involved there.

Let us now decide how to account for the facts that have prompted grammarians to set up these two plural categories for the languages mentioned. First of all, which is the "real" plural? Plurals (and, normally, duals and trials) in various languages may occur with or without numerals. This suggests that the plural without, rather than with, a numeral should be considered peculiar to AKKADIAN, ARABIC, BAINUK, and SENUFO. The non-numeratable plural in all these languages shows, in contrast with the other plural, additional common characteristics. First, its meaning is said to imply a large number of objects. Second, it implies that this number is unspecified or unspecifiable and that the group is undiscriminated. But these are the two semantic properties which distinguish collectives from regular plurals, as pointed out above for ENGLISH. Considering also that both "plural of abundance" and collective forms (may) take "ordinary" plural agreement in pronouns and verbs, the only distinction left between these two categories is that the forms for "plural of abundance" are always, but for collective are not necessarily, derivable by productive inflection from singular nouns. Leaving open the question about the significance of this difference, we tentatively conclude here that in a grammar it is redundant to adopt the two categories as separate ones and that their derivation should be the same for collective and for "plural of abundance" forms. Thus it now seems that all number distinctions come down to distinctions between numerated and non-numerated plurals, duals, trials, and collectives - all opposed to singular.

The preceding was simply a discussion of the number categories relevant to number agreement and an illustration of the fact that overt plurality marking on nouns is neither necessary nor sufficient to predict agreement in plurality. This latter observation is the same as the one made about gender agreement before. In closing, I would like to point out three additional ways in which gender agreement and number agreement are similar. First, both number and gender agreement may be different depending on the agreeing constituent in that one constituent may agree with a noun and another not;<sup>9</sup> or one constituent may agree with a noun one way and another in

<sup>9</sup>It is interesting that the form of nouns as they appear in compounds is generally without both gender and number (and also without case) marking even though in other contexts nouns do have such markings in the language. Compare GERMAN Rotköpfchen 'Little

another way. It holds both for gender and number that if any constituent in a language show agreement in these property types, some anaphoric pronoun always does. The distinction between noun-phrase internal and noun-phrase external agreement is significant in that noun phrase external agreement can nearly always be predicted in terms of "semantic gender" and "referential number," whereas agreement with respect to various modifier-type elements shows the same markers as the noun inflection itself, which may, but need not, reflect underlying meaning elements. Second, number agreement, too, may vary also with the linear order of agreeing and agreed-with constituents; just as we have seen gender agreement to vary with it in some instances. Third, a general process of "reification" (for some examples and discussion of this notion see McCawley 1968:131-2) appears a reasonable way to account for certain cases of "suspension of agreement" in both gender and number. The apparent non-agreement with book titles, place names, and the like was pointed out in the section on number, but it also holds for gender. What it boils down to is that any noun phrase can be thought of as a name for an object, such as "book," or for "(a) thing, in general;" then gender and number agreement may take place with that more general name of the object or with the semantic properties of "(a) thing." Thus, suspension of gender agreement in the ANCIENT GREEK sentence Hōs charien est anthrōpos hotan anthrōpos ē (Menander) 'What a nice thing is Man when he is indeed a Man.' ('How nice(-neuter) is man(-masculine) when man(-masculine) he-is.') and suspension of number agreement in the ENGLISH sentence, Distinctive features is a good thing is simply explained by the fact that all noun phrases are "singular" and "neuter" in the sense that they refer to things taken together as a unit; this property can be predicated, made into an apposition, or simply "assumed," thus making it relevant for agreement.

Apart from these conditions that participate in determining both alternatives of gender and alternatives of number agreement, the

(fnt. 9 cont.)

Red Ridinghood' with rotes Köpchen, ENGLISH five-dollar bill with five dollars, or GERMAN Haustor with das Tor des Hauses, etc.; or see MO:RE (Canu 1967:178-9) where the first term of a compound loses its number marking; or MAASAI where parts of compounds lose their gender prefix (Tucker and Tompo 1955:46-7). F. Householder pointed out to me that while AMERICAN ENGLISH holds to the rule that plurals must drop the suffix before entering a compound as first member e.g. brain trust, billiard table (but dry-goods store), in BRITISH ENGLISH there is a recent development such that the plural suffix is retained, e.g. brains trust, darts match.

relatedness of gender and number agreement is also manifested in phonological shape in that gender and number markings are generally either adjacent to each other or they may even constitute an unsegmentable "portmanteau" morph; such as, for instance, in LATIN.

2.1.3 Person Person is a non-nominal category in most languages: pronouns but not nouns have person distinctions. I have only a few examples of instances where there is verb agreement in person with nouns that do not overtly show person distinctions but whose referents are understood as first, or second, or third person depending on the agreement. Examples come from SPANISH and WALBIRI.

SPANISH:

nadie lo vimos

'nobody him saw-we'  
'None of us saw him.'

cualquiera podríamos hacerlo

'anyone could-we do-it'  
'Any of us could do it.'

toda la familia fuimos

'whole the family went-we'  
'My whole family, including me, went.'

la gente de aquí no comemos eso

'the people of here not eat-we that'  
'People from here (we) don't eat that.'<sup>10</sup>

WALBIRI:

ɲarka ka-ɲa puɻa-mi

'man present-I shout-nonpast'  
'I man am shouting.'

ɲarka ka-npa puɻa-mi

'man present-you shout-nonpast'  
'You man are shouting.'

ɲarka-tjara ka-ɭitjara puɻa-mi

'man-dual present-we shout-nonpast'  
'We men (dual exclusive) are shouting.' (Hale 1973:317)

As Greenberg noted, "All languages have pronominal categories involving at least three persons and two numbers." (Greenberg 1963:113, Universal #42.) Although part of what is being claimed

<sup>10</sup>

For these data I am grateful to Edward L. Blansitt, Jr.

in this statement is that in all languages there will be some contexts where number distinctions in all three persons will be significant, this does not mean that the personal pronominal paradigm consisting of free (i. e. unbound) forms will have number distinctions manifested in all three persons. The generalization concerning the number distinctions in free personal pronominal forms seems to be this: it is universally present in the first person but not in the second and third.<sup>11</sup> The fact that overt plurality marking in the first person pronoun is a universal can be, if not explained, at least placed in a wider factual context. The following correlation holds for all languages examined: overt marking of plurality in nonhuman (or inanimate) noun phrases implies that plurality is overtly marked in human (or animate) noun phrases of that language. Only animate nouns have plural marking in TELUGU and TETON (Forchheimer 1953:101 and 85) and in TEWA (Yegerlehner 1959). In YUROK (Robins 1958:23) only a few nouns have plural markings and these appear to refer mainly to humans. In WUNAMBUL all human nouns -- and only those -- have plurals (Forchheimer 1953:35), and in MAIDU (Forchheimer 1953:44) and CHITIMACHA (Swadesh 1946b:319) only (but not all) human nouns. This distinction is borne out in agreement as well. In UP-COUNTRY SWAHILI the animate but not the "general" demonstrative has number distinction (Alexandre 1967). In ARABIC, as referred to earlier, if the subject is plural inanimate, the predicate adjective may be plural or singular (feminine), whereas plural agreement is required for animate subjects (Ferguson and Rice 1951). In ANCIENT GREEK, as also mentioned before, plural neuter subjects take singular third

<sup>11</sup>Forchheimer (1953:12) points out that CHINESE PIDGIN ENGLISH may be an exception to this. He also contends that "the first person distinguishes number more readily than the second and the second more readily than the third" (p. 6). In some languages, overt expression of (non-numerated) plurality is obligatory only for the three personal pronouns (CHINESE) or for the first and second person pronouns (BURMESE) or for the first person pronoun only (KOREAN). (See Forchheimer 1953:41-2, 42-3, and 65-6, respectively.) Subdistinctions within number may be the same as for nouns, i. e. dual, trial, etc. It may be pointed out that although there are languages with an exclusive-inclusive distinction in the first person plural and a dual distinction only in the inclusive but not in the exclusive form (such as SOUTHERN PAIUTE, see Forchheimer 1953:88), and also languages with a dual form in both the exclusive and the inclusive forms, no language has been encountered which distinguishes a dual and a plural in the exclusive but not in the inclusive form.

person agreement in the verb. In AMHARIC conjoined animate singular subjects require a plural verb, while conjoined inanimate singular subjects may take a masculine singular verb (observation supplied by C. A. Ferguson). In HUNGARIAN plural and singular verb forms are in more or less free variation after a subject phrase which conjoins singular nouns; but plural verb forms are more often used after conjoined singular human nouns. Most TURKIC languages have obligatory pluralization only for human noun phrases. In TEMNE if the subject phrase is a conjunction, the plural predicate form must be used if the first member of the conjunction is plural; if it is not, the singular or the plural predicate form may be used if the subjects are animate (or human?), but if they are inanimate (or nonhuman), only a singular predicate form may be used.

Given the fact that first person pronouns are always human and animate, the above-demonstrated correlation between human-animate gender and number marking would predict overt plural marking for all first and second person pronouns in languages which have plural marking for non-human (nonanimate) nouns. This claim, however, is different from the statement we are trying to explain: it is, in one sense, a more general claim in that it concerns not only the first person pronoun but both first and second person pronouns; on the other hand, it is more restricted in not predicting universality of overt plural marking for the first person pronoun. In other words, the connection between overt number marking and animacy, mysterious as it is itself, at best only partially explains the universality of overt number marking in the first person.

There is some indication that, of the three persons, the first and the second constitute a natural class as opposed to the third; of the two classes, the one including first and second is more marked than the one including the third; and that of the first and second person, the second is more marked than the first. The former point is supported by data from ATHAPASCAN languages, from NGWE, from KANURI as well as from many other languages. In ATHAPASCAN languages (for CHIPEWYAN, see Li 1946:411) and for APACHEAN, see Hoijer 1945:195f.) and in KANURI the linear order relations of pronominal affixes differ depending on whether the affix is first or second person or whether it is third person. In NGWE (Dunstan 1966:88), pronouns whose meanings include reference to third person have low-high tones; all others have either high or a complex pattern which includes high but is distinct from low-high. Further evidence is provided by the shape of plural pronouns: in many languages the plural form of the third

person pronoun is morphological segmentable and thus similar to nominal plurals whereas the plural of first and second person pronouns is non-segmentable and/or irregular. Compare, for instance, HUNGARIAN: *én* 'I,' *mi* 'we,' *te* 'you (sing.)' *ti* 'you (plur.),' *ő* 'he/she,' *ők* 'they,' *felhő* 'cloud,' *felhők* 'clouds.'<sup>12</sup>

<sup>12</sup> Aspects of inflectional irregularity form the foundations of Forchheimer's typology; he presents, discusses, and classifies many pronominal paradigms. In general, if the second person pronoun forms its plural by inflection rather than by suppletion, the third person pronoun does too; and if the first person plural is inflectional, so are the second and third person plurals. Similarly, if the (inflectional) plural of a second person pronoun is like a nominal plural, so is the plural of the third person pronoun; and if the plural of the first person pronoun is pluralized as a noun, so are the second and third person plurals. In other words, it apparently does not happen that the first (and/or the second) person pronoun has nominal-type plural, or inflectional plural in general, without the third person pronoun having the same kind. To refer to some languages not discussed in Forchheimer, TEWA (Yegerlehner 1959) and ORIYA (Tripathi 1957) provide examples of pronominal paradigms where all persons have the same inflectional pluralizer; CHITIMACHA (Swadesh 1946b:327) is an example of the other extreme, where all plural pronominal forms differ from each other and also from nominal plurals. HUNGARIAN and RUSSIAN belong to the well-represented type where the first and second person pronouns have suppletive plurals and the third person pronoun has nominal-inflectional plural. The regularity of third person personal pronoun plurals and the irregularity of first and second person personal pronominal plurals can of course be seen as paralleled by the difference between the concept of plurality as it applies to third person versus how it applies to first and second person plurals. This difference in respect to the meaning of plurality is simply that whereas "third person plural" refers to a set of individuals that are homogeneous in person -- all of them are third person -- first and second person plurals refer to sets of individuals that are heterogeneous in person. First person plural, for instance, does not refer to a set of 'I'-s, since there is only one speaker for each discourse paragraph; but it refers to a set that includes 'I' and in addition either second person(s) or third persons or both. Similarly, the second person plural, although it may perhaps involve reference to a set of hearers may also be person-wise heterogeneous if it involves reference to the hearer and at least one third person. The semantic analyzability of plural first and second person pronouns into person-wise heterogeneous sets is paralleled by some syntactic

The generalization that first and second person is more marked than third person may be supported by the observation that is true for all languages that I know of: that verbs agreeing with subjects which either semantically or overtly include reference to both a third person and a non-third person referent, will agree in the non-third-person; 'I and he,' for instance, would take plural first, rather than plural third, agreement; and 'you and he' will take second person plural, rather than third person plural, agreement. It is interesting to note that if the subject is a first and second person, then the agreement will be first, rather than second, person plural -- a fact that could be taken to be evidence for the markedness of first person over second. There is, however, much evidence that would indicate the inverse markedness relation between first and second person: that second person exceeds first person in markedness. Such evidence is the following. In ALGONQUIAN, Bloomfield's data allow the following generalization: if the second person is involved as either subject or object (or "actor" and "goal," in Bloomfield's terms), the verbal prefix will be a second person prefix. If neither is second person but one is first person, the prefix is first person. Or, as far as QUECHUA is concerned, Wonderly's data do not contradict the following rule: for transitive verb forms where the verb indicates reference to the person of both subject and object, the order of these personal suffixes is such that if the second person is involved as either subject or object, its reference will be word final; if it is not involved, the third person

(fnt. 12 cont.)

and morphological facts; such as that in GERMAN and many other languages as mentioned above, plural first and second person pronouns are agreed-with by the verb in the same person as the corresponding conjunctions of singular pronouns (both 'we' and 'I and you,' when subjects, take first person plural agreement on the verb; and both 'you (plur.)' and 'you (sing.) and he' take second person plural agreement); and that in some languages even the phonological form of plural personal pronouns is segmentable into the forms of the corresponding singular personal pronouns; such as in EWE, KELE, and NKOSI (Forchheimer 1953:132f.); and in BAMILEKE (Voorhoeve 1967:427):

<u>bāg-jé</u>	"we-he"	'we (I and he)'
<u>bāg-u</u>	"we-you (sing.)"	'we (I and you (sing.))'
<u>bīh-jé</u>	"you (plur.)-he"	'you (plur.) (you (sing.) and he)'
<u>bō-jé</u>	"they-he"	'they (two)'

Notice that the order of elements in such pronouns is always first person followed by second/third and second person followed by third, and that the plural set always precedes.

reference will be word final. It might also be of interest that in the CUZCO dialect of QUECHUA, the future forms are regular except in the second person plural (Yokoyama 1951:56ff.). In addition, the ordering of personal pronoun clitics or affixes is across a number of many unrelated and areally distinct languages second person preceding first person preceding third person. This is for instance the case in SPANISH and CHIPPEWA, compare Sanders 1974.

The three person distinctions in two numbers posited by Greenberg as universally present are not the only person-number distinctions made in languages. Additional distinctions include the distinction between first person plural "exclusive" and first person plural "inclusive;" and that between obviative and non-obviative in the third person. The exclusive-inclusive distinction is one made on the basis of the membership of the plural set that includes the first person. In ENGLISH, a language which does not make this distinction, the pronoun we may refer both to a set consisting of 'I,' 'you,' and, possibly, others, and also to a set consisting of 'I' and others but not 'you.' Languages having this distinction simply have two different forms depending on whether 'you' is or is not included in the set. In QUECHUA, for instance, ñuxa means 'I,' ñuxayku means 'we not including you' -- it is therefore the "exclusive" form -- and ñuxañcik means 'we including you' -- it is therefore the "inclusive" form (Wonderly 1952:369-370). A list of languages having this distinction is given in Forchheimer 1953, with no claim for exhaustiveness. His list includes the following: ALGONQUIAN, BALTIC, BERBER, CHINOOK, COOS, DYIRRINGAN, PIDGIN ENGLISH, EWE, FULANI, GARO, HAWAIIAN, IROQUOIAN, KAMILAROI, KANAURI, KIOWA, KWAKIUTL, LAKOTA, MALAY, MAYA, MELANESIAN, MIKIR, ORDOS MONGOL, MUNDARI, NOGOGA, NKOSI, NUBIAN, OLD NUBIAN, OTOMI, SOUTHERN PAIUTE, PAPUA (BONGU, KATE, NYUL-NYUL, SAIBALGAL) PURIK, ROTUMAN, SHOSHONE, SIERRA POPOLUCA, SIUSLAWAN, SOMALI, TAGALOG, TAMIL, TELUGU, TUNGUS, WINNEBAGO, WORORA, YOKUTS. I can add the following: BAKI, BAMENDJOU, BAMILEKE, BANGANGTE, BIERIAN, FIJIAN, FUTUNA, GILYAK, ILOCANO, MALEKULA, MALOESE, MARANAO, NGWE, QUECHUA, TANGOAN, TANNA. In many instances the first person inclusive pronoun resembles in form the second person singular and the first person exclusive resembles the first person singular; and if either one of them is segmentable, it is the exclusive, rather than the inclusive form. Lyons suggests (1968:277) that a similar exclusive-inclusive distinction could be made in the second person plural, distinguishing sets only consisting of 'you'-s and sets consisting of 'you' and others. No language, however, has been found making such a distinction.

Besides exclusive and inclusive forms, another "exotic" person category is a subdivision of the singular third person in terms of "obviative" and "non-obviative." Languages with this distinction belong to the ALGONQUIAN and to the ATHAPASCAN groups of AMERICAN INDIAN languages. For ALGONQUIAN see Bloomfield 1946:94; for POTAWATOMI, in particular, see Hockett 1948:7-9. For NAVAHO see Hoijer 1945:195ff., for CHIPE-WYAN see Li 1946:402, for CHIRICAHUA see Hoijer 1946a:76.

Almost all descriptions agree that this is a distinction made with respect to animate nouns, and that it is to distinguish one (third person) noun from another (third person) noun. However, Hockett remarks (1948:8) that obviation is also possible with respect to inanimate subjects and intransitive verbs and Bloomfield (1946:94) hints at CREE and OJIBWA using the obviative even if the other person referred to in the sentence is first or second person. Nowhere is it said to be a pronominal category; only nouns and verbs have this distinction. Number distinctions do not exist in ALGONQUIAN. Although descriptions leave room for choice of the particular third person animate noun in the sentence that is to be in the obviative, if the sentence contains more than one of them, generally it seems that the obviative is a category of the direct or indirect object, rather than of the subject, a category of the possessed item, rather than of the possessor, and a category of the comment, rather than of the topic. A "farther obviative" is described for POTAWATOMI and for CREE; it is used if three nouns are involved. In POTAWATOMI, the "farther obviative" is simply marked by the reduplication of the obviative affix. Similar to obviative is the category of "recurrent" in ESKIMO. Some of the conditions under which the "recurrent" in ESKIMO is used are the following: given a third person subject, the recurrent is used for a third person possessor in the same or in a subordinated clause, for the subject of a subordinated clause, or for the object of a subordinated clause, if the subject of that clause and the object of the main clause are also identical in reference. Swadesh points out that, given these conditions, the recurrent is also used if the subject of the main clause is not that particular singular third person but a plural such that it includes that third person; e. g. in the sentence "When they arrived, he himself (i. e. one of those referred to by "they") died." (Swadesh 1946a:40ff. ).

Both obviative and recurrent markings are simply ways of differentiating between referentially identical and referentially different things and thus they are akin to the distinction made in ENGLISH and in many other languages by former and latter, by the definite versus indefinite marker, and by reflexive or reciprocal versus

non-reflexive and non-reciprocal pronouns.<sup>13</sup> Whereas recurrent marking, just like definiteness marking, applies to referents that are the same as the one(s) previous mentioned, the system of obviation marks those referents that are non-identical with one(s) previously mentioned.<sup>14</sup>

So far we have surveyed the kinds of pronominal distinctions that languages make depending on whether the set of referents includes one individual or more than one; whether it includes the Speaker or the Hearer or not; and whether the non-speaker non-hearer referents are the same as ones mentioned before or not the same. Besides these number and referential identity distinctions that are associated with personal pronominal forms, in a number of languages there are also gender distinctions associated with them. Greenberg noted about sex gender: "If a language has gender distinctions in the first person, it always has gender distinctions in the second or third person or in both." (Greenberg 1968:Universal #44). This statement allows for languages with the following patterns:

- a. sex gender in second person only (e.g. BASQUE)
- b. sex gender in third person only (e.g. ENGLISH)
- c. sex gender in second and third person only (e.g. HEBREW)
- d. sex gender in first and second person only
- e. sex gender in first and third person only (e.g. GUMULGAL)
- f. sex gender in first, second, and third person (e.g. KAKADU)

and excludes g.: sex gender in first person only. For some

<sup>13</sup> The assumption of a similar distinction between 'same' and 'different' referents seems to be needed in order to understand the complex pronominal paradigm of BAMENDJOU (Tayoumo 1969). A peculiar feature of this system is that besides "regular plurals," there are special forms glossed as referring to a plural set plus an additional 'he' or additional 'others.' These pronouns all contain i ('he,' by itself) and apo (compare op 'they').

<sup>14</sup> Regarding possessors, in CHIPEWYAN (Li 1946:402, 415) the otherness of a third person possessor (or object) is overtly expressed, given a third person subject in the sentence. In other languages such as RUSSIAN, HUNGARIAN, LATIN or HOPI (Whorf 1946:170) and ESKIMO (Swadesh 1946a:40ff.), it is the sameness of the possessor with the subject that is marked.

discussion of gender and person, see Forchheimer 1953:33-7. In searching for an explanation of why gender distinctions in the third person are present if gender distinctions are made in any other person, it seems that one might reasonably expect overt gender distinctions to be more common in constituents which have many different gender possibilities. Now, if gender includes features such as humanness and animacy, then it is clear that some aspects of gender are redundant for first and second person pronouns, but not for third person. In particular, a proper account of verb selection, for instance, requires that first and second person pronouns be marked as human and animate. Third person pronouns, on the other hand, are viewed here as reduced noun phrases which may therefore refer to anything. In other words, the fact that some gender distinctions in the third person are never made in the first and second person is a simple corollary of the fact that speech can occur between humans only but about anything human or nonhuman.

This reasoning accounts for the absence of animacy and humanness distinctions but not for the infrequency of overt sex specifications in first and second person pronouns. Although no explanation can be offered, it should be pointed out that even if inflection does not generally signal sex in these pronouns, they are required to be specified in some way for sex gender for proper agreement in languages where the predicate agrees in gender (e.g. FRENCH tu es venu and tu es venue); and for proper selection in all languages (e.g. you (fem.) are pregnant but \*you (masc.) are pregnant).

Having surveyed person distinctions in various languages and various distinctions within persons related to referential sameness-otherness, number, and gender, let us now turn to agreement in person. First of all, since person is generally a pronominal and not a nominal category, the agreed-with constituent in person agreement will always be a pronoun, rather than a noun (but see the SPANISH and WALBIRI examples above). Second, the agreeing constituents are always noun phrase external, rather than noun phrase internal. Part but not all of this observation simply follows from the fact that those noun phrase internal constituents that could agree with the head of the noun phrase -- quantifiers, modifiers, and determiners -- simply do not cooccur with a personal pronominal head in a noun phrase: personal pronouns cannot be modified or determined and they cannot be adjectivally quantified;<sup>15</sup> witness

<sup>15</sup> For quantifying personal pronouns, a possessive construction is used in ENGLISH, GERMAN, HUNGARIAN, and KEBU (Wolf 1907: 796).

the ungrammaticality in ENGLISH of \*the pretty she, \*the two he-s/they, \*the I. What is not accounted for is the fact that relative pronouns apparently do not agree in person, either, even though they do cooccur with personal pronouns within the same noun phrases; e.g. I who came from the country... Non-modifiability (except by a relative clause) and non-determinability makes personal pronouns appear to be related to proper names and to definitely marked noun phrases in general. Indeed, a lot of additional facts indicate that personal pronouns are treated as definite noun phrases in various languages (for ENGLISH, see Postal 1966). Personal pronouns have an object marker in TURKISH (Lyons 1968:276) just as demonstratives, possessed nouns etc. do. In FIJIAN the verb has a special suffix if the object is a proper name, the pronoun 'whom?' or a personal pronoun (Churchward 1941:17ff.). In NORTHERN PEKINGESE the word order rules that apply to definite noun phrases also apply to personal pronouns (Mullie 1932:58).<sup>16</sup>

With respect to noun-phrase-external — in particular, predicate — agreement with personal pronouns, I can make two remarks. First, as was pointed out above, there appears to be a universally valid principle whereby predicate agreement with conjoined subjects of different persons is determined. The principle simply says that if one of the conjuncts is first person, the predicate will also be first person; and if one of the conjuncts is second person and none are first person, then the predicate, too, will be in the second person. Second, agreement properties of personal pronouns are mostly but not always the same regardless of whether they are used in their proper sense or in some extended sense such as used as polite pronouns or as generic pronouns. Examples of the "polite" use of personal pronouns where agreement is different from when they are used in their deictic sense come from FINNISH, where the plural second person can be used to refer to a singular second person, and the predicate then may be in the singular (Mey 1960:105ff.); from FRENCH where vous when referring to singular takes singular predicate adjective although the verb is plural (C. A. Ferguson's observation), and from ANCIENT GREEK where if a woman in a tragedy uses the plural first person when speaking about herself, an agreeing adjective or participle may be in the singular (Smyth 1956:271). Polite or less intimate forms of referring to the Addressee can all be characterized by increased paradigmatic remoteness

<sup>16</sup> A curious case is presented by HUNGARIAN, however, where the transitive verb shows the "indefinite inflectional paradigm" if its object is a first person or second person pronoun, instead of showing the paradigm that goes with definite objects.

from the first person. That is to say, these forms, if identifiable at all, are either third person or some plural forms. The following chart provides some examples:

Persons used to refer to Addressee less intimately:				
	Singular 3rd	Plural 2nd	Plural 3rd	Special Pronoun
LANGUAGES	HUNGARIAN (reflexive)	FIJIAN (Churchward 1941:25ff.)	GERMAN	AMHARIC (Obolensky, Zelelie, Andualem 1964:23-4)
	GILYAK (Austerlitz 1959)	FRENCH	ITALIAN	TIGRINYA (Forchheimer 1953:30)
		ITALIAN		ORIYA (similar to reflexive) (Tripathi 1957:81)
		GILYAK (Austerlitz 1959)		

In polite or reverential reference to the third person, the plural third person is used in FIJIAN (Churchward 1941:25ff.); the obviative in CHIRICAHUA (Hoijer 1946a:76) and a special form in NAVAHO (Hoijer 1945:197). Polite style pervades the entire pronominal system in CAMBODIAN: all three persons have alternatives according to this style (Gorgoniyev 1966:72). All types of predicate constituents do not agree alike with polite plural pronoun subjects; if the referent of the polite, formally plural pronoun is singular and any predicate type shows plural agreement with it in the language, it will be the verb; and if any predicate type shows singular agreement with, it will be the predicate noun as Comrie pointed out (Comrie 1975).

Similarly, agreement properties of personal pronouns are generally the same when they are used in an indefinite or "generic" sense. In ENGLISH for instance, many personal pronouns (I, you<sub>s</sub>, we, you<sub>p</sub>, they) may be used, under certain conditions, with no deictic connotation, just to represent 'one' or 'people.' This extension of meaning stems of course from the representation of all personal pronouns as including the meaning element 'any human being.' Notice, however, that in YUROK, where the second person plural is used for 'general subject,' the prefix of such verbs may

be in the third person singular, while the suffix would signal second plural (Robins 1958:35-6, 50).

In sum: this was a survey of the person distinctions of various languages and of agreement in person. We have seen that the tripartite distinction between Speaker, Hearer and Third person is universal in languages. Additional categories arise by marking same and different third persons (cp. "obviative," "recurrent") and by marking various semantically plural sets depending on the persons of the individuals they include (cp. first person plural exclusive and inclusive, second person plural, third person plural). About the expression of number, we noted that the singular-plural distinction is universal in free personal pronouns in the first person; about gender distinctions we noted that if they appear in any person, it will be the third person. Some crosslinguistically valid observations were offered about the agreement of predicates with conjoined personal pronouns and politely or generically used personal pronouns.

## 2.2 Agreeing constituents

So far we have been concerned with the question: what are the properties in terms of which constituents agree with nominals? Next, we will turn to the question of just which are those constituents that may agree with nominals. There are actually three domains within which the set of agreeing constituents could be defined: within the total set of all sentences of all languages; within the sentences of any one language; and within one sentence of a language. In other words, the question are the following:

- a. What is the total set of constituent types whose members may ever agree with a nominal, whether within the same language or not, and whether within the same sentence or not?
- b. What is the total set of constituents whose members may ever agree with a nominal in the sentences of any one language?
- c. What is the total set of constituents whose members may ever agree within the same sentence of a language?

In what follows, I would like to propose some generalizations in respect to each of these three questions.

First of all, there is one generalization that holds for all constituents that agree with nominals whether in the same language or

not and whether in the same sentence or not: that all such constituents are understood as including reference to the nominal. The particular content of this claim is that in no sentence of any language is there a constituent that agrees with a nominal such that that constituent includes reference to a nominal other than the one it agrees with or that does not include reference to any nominal at all. The claim would therefore be refuted if, for instance, there were a sentence in some language meaning 'The black cat and the white dog were fighting.' where the adjective corresponding to 'black' agreed with the nominal corresponding to 'dog;' since in this case non-coreferential constituents would be involved in agreement; or if there were a sentence in some language where the conjunction agreed with the locative adverbial, since in this case a constituent would agree that has no reference at all. There are of course many logically possible principles according to which the choice of agreeing constituents could in principle be defined in languages and which are distinct from the one proposed: such as that all sentence-initial and sentence-final words would be in some agreement relation with each other; or all constituents within a sentence, or within a phrase, would be; nonetheless, none of these conceivable patterns have been found to exist and all evidence I know of is compatible with the validity of the proposed principle.<sup>17</sup> The actual list of agreeing constituents includes the following: definite article, indefinite article, demonstrative adjective, possessive adjective, quantifiers, numerals, descriptive adjectives, appositive adjectives, relative pronoun (all of these with their head noun); verb (with its subject and

<sup>17</sup>Evidence that is consistent with this claim includes data from so-called "agreement by attraction." Such instances of agreement are provided by ANCIENT GREEK, for instance, such as when, given a head noun and a relative pronoun, and given the fact that the intrasentential case-function of the head noun in the main clause is different from the intrasentential case-function of the relative pronoun in the subordinated clause, the head and the relative pronoun have nonetheless the same case inflection, by either the head noun taking on the case inflection that corresponds to the case function of the relative pronoun but not to that of the head noun phrase, or vice versa; or when the verb agrees in number with the predicate complement rather than with the subject (e. g. "The world are many nations."). Although these kinds of agreement differ from the usual pattern, they do not violate the "coreferentiality principle" since the head and the relative pronoun that agree in the first type of example in case are coreferential; and so is the verb and the predicate nominal.

complements); anaphoric pronoun, reflexive pronoun, reciprocal pronoun (with their antecedents); possessed noun (with its possessor).

The second question raised above was which of the total set of possibly agreeing constituents occur as agreeing within the sentences of the same language. Although it does not appear to follow from any basic assumption about what kind of a system a human language is that there should be any general restrictions in this respect, it appears that there are some generalizations that can be made; in particular, of two different types. First, there are some regularities across languages with respect to the agreement of constituents in one particular feature class; and second, there are regularities in respect to the agreement of a constituent as opposed to the lack of its agreement. In the first class belongs, for instance, Greenberg's observation (Greenberg 1963:112, Universal #31) that if the verb agrees with the subject or the object in gender, then the adjective also agrees with its head noun in gender; or the observation I proposed above that if any noun-phrase-internal constituent agrees with the head of the noun phrase in terms of a semantically interpretable gender or number property, then, (if there is noun phrase external agreement in the language at all), all noun phrase external constituents, too, would agree in terms of that semantically interpretable gender or number property. The other type of generalization distinguishing between constituents of a language that agree in any property and those that do not agree at all I can exemplify from the realm of verb agreement. The following is a set of such generalizations. Since some of the criteria that are used in them to define crucial constituent classes are semantic and others are form-related and also because the terms used will remain undefined, it is possible that the constituent classes to which individual statements make reference overlap with each other and thus the agreement or non-agreement with some specific constituent of a given sentence will be multiply predicted.

1. There is no language which includes sentences where the verb agrees with a constituent distinct from the intransitive subject and which would not also include sentences where the verb agrees with the intransitive subject.
2. There is no language which includes sentences where the verb agrees with the dative complement but which includes no sentences where the verbs agrees with the direct object complement.
3. There is no language which includes sentences where the verb agrees with an adverbial constituent and which would not

also include sentences where the verb agrees with a non-adverbial constituent.

4. There is no language where, given a constituent class including both definite and indefinite members, the verb would agree with some or all of the indefinite members but with none of the definite members.
5. There is no language where, given a constituent class including both animate and inanimate members, the verb would agree with some or all of the inanimate members but with none of the animate ones.
6. There is no language where, given a constituent class including both topical and non-topical members, the verb would agree with some or all of the non-topical members but with none of the topical ones.
7. There is no language where, given a constituent class including both members that precede the verb and also members that follow the verb, the verb would agree with some or all of those members following it but with none of those preceding.
8. There is no language where, given the class of direct objects so that it includes both members that are case-marked and also members that are not case-marked, the verb agrees with some or all of those not case-marked but with none of those case-marked.
9. There is no language where, given a constituent class some members of which are immediate constituents of the sentence at the point in a grammatical derivation where verb-agreement rules apply and some others members are non-immediate constituents of the sentence at that point, the verb agrees with some or all non-immediate constituents but with no immediate constituents.

This precedential ranking of constituent subclasses that is being claimed above to determine some of the constituents that agree with the verb in some sentences of a language, does not, however, necessarily apply to defining those constituents that may agree with the verb in the same sentence. This brings us to the consideration of the third question asked above: which are the intra-sententially cooccurring agreeing constituents? Thus, for instance, whereas the first generalization about the precedential agreement properties of datives over direct objects holds true for all languages that I

know of, it does not hold, as pointed out in Givón 1975, for all sentences of languages: whereas to my knowledge there are no languages where if the verb agrees in some sentences with the dative it would not agree in some sentences with the direct object, there are sentences of languages with both dative and object agreement where the verb agrees with the dative but not with the object. Languages with both dative and object agreement, in fact, may belong to almost any of the logically conceivable types from the point of view of the cooccurrence of dative and object agreement within sentences in that there are some, such as SWAHILI, where if the sentence does include a dative, the verb must agree with it rather than with the direct object; there are also others, such as LEBANESE, where the verb in such sentences may agree, depending on some conditions, with either the object or with the dative but not with both at the same time; and also again others such as MODERN GREEK where the verb in such sentences may agree with both. The only type not represented is that of a language where dative agreement is restricted to those sentences that do not include a direct object and thus, in sentences that include both a direct object and a dative, the verb would invariably agree with the direct object and not with the dative.

### 3. Conclusions

Facing the various kinds of crosslinguistically valid generalizations that have been proposed above, one wonders if there is some single general hypothesis about the nature of agreement from which all of our observations could be derived. In closing, therefore, I would like to informally consider one such frequently proposed general hypothesis, according to which in a phonetically directed grammatical derivation the derivational source of agreement markers is the same as the derivational source of anaphoric pronouns.<sup>18</sup> This hypothesis, in its most restrictive form, would say that all agreement markers are derived by the same rules as some anaphoric pronouns in the language. If this were true, then one of the facts that would follow from it is that all agreement markers would have to have the same phonological form as some anaphoric pronouns in

<sup>18</sup>The hypothesis has been proposed by Cowell, Koutsoudas, and Anshen and Schreiber in relation to ARABIC (Cowell 1964:401, Koutsoudas 1967:48, Anshen and Schreiber 1968), Hutchinson in relation to TEMNE (Hutchinson 1969:15, 118 and passim), by Hale for WALBIRI (Hale 1973) and by Sanders and Givón as a universal hypothesis (Sanders 1967, Givón 1969).

the language. Verb agreement in ENGLISH, for instance, would be compatible with this hypothesis only if the present tense singular third person forms of a verb such as play were play-he, play-she play-it. I have not seen any language for which this test implication of this most restrictive version of the theory would be true in respect to all of its agreement markers. Although historically some agreement markers do arise from anaphoric pronouns as pointed out, for instance, for verb-agreement markers in Givón 1975, and they often bear synchronically, too, some phonological resemblance to anaphoric pronouns even beyond their shortness and stresslessness, total formal identity of all agreement markers with some anaphoric pronouns is a characteristic of no language in my sample. The hypothesis thus in this most restrictive form has to be considered false.

A somewhat more relaxed but still empirically very significant hypothesis would be that even though the lexically assigned phonological shape of agreement markers is not the same as the lexically assigned phonological shape of any anaphoric pronoun in the language, the non-phonological lexical representation of agreement markers would be the same as the non-phonological lexical representations of some anaphoric pronouns.<sup>19</sup> Agreement markers and some anaphoric pronouns of the language, that is, would be identical except for their phonological shape. Since what characterizes non-phonological lexical representations of anaphoric pronouns is at least two kinds of properties: a property indicating referential sameness with the antecedent noun phrase and a property set including some generic features of that noun phrase such as number or gender, in order for this hypothesis to be true it would have to be the case that all agreement markers can also be shown to have these two types of properties: a referential sameness marker with the noun phrase that they express agreement with and a set of generic properties identical with those of that noun phrase. Furthermore, it would also have to be true that all agreement markers include exactly the same gender and number features of the agreed-with noun phrase that an anaphoric pronoun of the language would. But, as the data surveyed in the course of this paper have amply illustrated, this version of the pronominal hypothesis, too, is false. It is false, first of all, because, as we have seen, different constituents and differently ordered constituents in a language may agree

<sup>19</sup>Except, possibly, for one property included either in the non-phonological lexical representations of agreement markers or in that of the pronouns, in order to condition differential phonological shape assignment.

in different features with a noun phrase and thus they could not all have the same gender-number properties as some one anaphoric pronoun in the language. Second, it is false even if we allow that each agreement marker should have the same gender and number properties as some anaphoric pronoun in the language; since there are some examples of languages where the categories distinguished in agreement markers are apparently never distinguished for any anaphoric pronoun in the language. In AKKADIAN, for instance, the dual is a nominal but not a pronominal category; SIERRA POLUCA has no exclusive-inclusive distinction in the first person independent pronoun although it has this distinction in the verbal affix (Forchheimer 1953:92-93); and, as was pointed out, the obviative-non-obviative distinction is in no language a pronominal category. A further reason why the hypothesis according to which all agreement markers are derived, except for their lexicalization, by the same rule(s) as some anaphoric pronouns in the language is that the syntactic constituency and ordering restrictions that hold between antecedents and their anaphors will I believe be different from similar restrictions that hold between agreed-with and agreeing constituents.

But if agreement markers are not identical with any anaphoric pronoun in a given language either in their phonological shape, or in their gender, number, and person properties, or in their syntactic and linear relations that they bear to their presumed antecedents, then agreement markers cannot be said to be derivable by the same syntactic and lexical rules as anaphoric pronouns. The only possible version of the pronominal theory of agreement whose universal validity still remains to be assessed is its very weakest version: the claim that agreement markers and anaphoric pronouns are derived by the same type of rules. What this would mean is that if anaphoric pronouns are derived by a rule of reduction, or partial deletion, whereby some but not all semantic and syntactic properties of a noun phrase are deleted by identity with the same features in the antecedent noun phrase, agreement markers, too, would be derived by such a rule, where the identity condition would be satisfied by the presence of the agreed-with noun phrase.

There is no evidence that I know of that would contradict this hypothesis at least in its informally stated form. The test implications of this theory are these two:

1. Agreement markers must include some semantic and/or syntactic properties of the agreed-with constituent.

2. Agreement markers must involve reference to the agreed-with noun phrase.

The first text implication is true for all cases surveyed above-- it must be true, in fact, since it was included in our initial working definition of agreement and thus all cases surveyed in the paper under the term "agreement" had to conform to this condition. The second test implication is similarly true even though it does not follow from the working definition of agreement. As was pointed out in the section on agreeing constituents, all constituents that agree with a noun phrase "say something about it," so to speak; i. e. they include reference to it. In a number of languages, in fact, agreement markers themselves may have a pronominal function in that they themselves can substitute for a full mention of a noun phrase; such as in HUNGARIAN, AKKADIAN, AMHARIC, COPTIC, MAASAI, or BAKI.

Even though the pronominal theory of agreement is thus seen to be consistent with all the data that we have in this weakest form and it turns out to be explanatory in that two distinct observations -- that agreeing constituents involve reference to the agreed-with noun phrase and that the semantic and syntactic properties of agreement markers are some of those of the agreed-with noun phrase -- it is nonetheless still not a really satisfactory theory of agreement. This is not because there are some additional facts that would not be consistent with it but because there are more facts consistent with it than what we have encountered; in other words, it is not restrictive enough. If we simply hypothesize that agreement markers are derived by the same type of syntactic rule as anaphoric pronoun, this just means that agreement markers will have to include reference to the agreed-with noun phrase and that they should include some of its features; but this hypothesis imposes no restrictions on how different the features can be that anaphoric pronouns, on the one hand, and agreement markers, on the other, include. It would in fact be possible that the agreement markers of a language and its anaphoric pronouns have no properties in common; thus, for instance, that in a language with gender agreement no anaphoric pronoun would have gender distinctions. There are, however, some restrictions on how different anaphoric pronominal features and agreement features can be in a language in that if agreement markers make a particular type of distinction -- where "type" means gender, number, person -- then that type of distinction will also be present in the pronominal system.<sup>20</sup> If, for

<sup>20</sup> This statement is true even for languages such as AKKADIAN,

instance, a language has agreement in any kind of gender, there will be some kind of gender distinction in the pronominal paradigm.<sup>21</sup> This suggests that there is some relationship between agreement and anaphoric pronominalization that goes beyond the simple fact that both involve the process of identity deletion.

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(ftnt. 20 cont.)

SIERRA POPOLUCA, and languages with obviative such as POTAWATOMI. In these languages, as pointed out above, there is a specific distinction that is made in agreement markers but not in anaphoric pronouns. It is true for each of them, however, that the corresponding type of distinction is made in pronouns: in AKKADIAN, for instance, even though the dual is an agreement category which anaphoric pronouns do not have, anaphoric pronouns do have some number distinctions. Similarly, in SIERRA POPOLUCA, anaphoric pronouns have some person distinctions, even if they do not make the exclusive-inclusive distinction; and in obviative languages there are some definiteness distinctions in the pronoun.

<sup>21</sup> That this should be so would naturally follow with respect to person and number from Greenberg's observation according to which "All languages have pronominal categories involving at least three persons and two numbers" (Greenberg 1963: Universal #42). What is most interesting, however, is that it also holds for gender (compare Greenberg: "If a language has gender categories in the noun, it has gender categories in the pronoun." (Greenberg 1963: Universal #43)).

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## Some Universals of Relative Clause Structure

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### ABSTRACT

All languages use clauses to modify nouns, but the syntactic form and positioning of these restrictive relative clauses (RC's) fall into a wide range of types. Postnominal RC's are most common in SVO and verb-initial languages. In SVO languages relativization commonly involves one or more of three processes: deletion of the relative NP (Rel NP), insertion of a clause-initial relative pronoun, or insertion of an initial particle. In verb-initial languages deletion of Rel NP and distinctive verb marking are most common. Verb-final languages usually make use of prenominal relative clauses, with Rel NP deletion, and sometimes verb-marking, but never any relative pronouns or movement of Rel NP. Some permit deletion of the head NP rather than Rel NP. A number of verb-final languages use correlative relative constructions in which the RC precedes the entire clause containing the modified noun. In other verb-final languages, preceding or following clauses modify a main-clause NP but may or may not be linked to it by specific relativization processes. A number of implicational universals may be stated on the basis of these observations. These are not explanatory in themselves, but may be considered hypotheses to be tested against additional data of relative clause structure, and ultimately, if they stand, to be explained by universal linguistic principles.

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