From anaphoric pronoun to grammatical agreement marker: why objects don't make it.

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Abstract

The endpoint of the historical evolution of agreement marker from anaphoric person pronoun is the loss of referentiality on the part of the person marker and the obligatory presence of the nominal argument with which it agrees. Contrary to what might be supposed, such agreement, which I, inspired by Bresnan & Mchombo (1986, 1987), have termed grammatical, as opposed to anaphoric or ambiguous (grammatical and anaphoric) agreement, is cross-linguistically very rare. Moreover, among the attested instances of grammatical person agreement none involve object as compared to subject agreement. The present paper considers the distribution and formal realization of anaphoric, ambiguous and grammatical agreement markers in a sample of 272 languages and offers some tentative explanations for the existing asymmetry in regard to grammatical agreement.  It is suggested that grammatical object agreement does not arise since ambiguous agreement, from which grammatical agreement evolves, is less common with objects than with subjects, and two of the potential sources of grammatical agreement, adherence to a verb-second constraint and phonological attrition are more likely to involve subjects rather than objects.

## 1 Introduction

Most scholars working on agreement acknowledge that there is no good basis for distinguishing between agreement and antecedent-anaphora relations, even when cross-clausal (see e.g. Givón 1976; Moravcsik 1978; Lehmann 1982; Corbett 1991; Anderson 1992). Anaphoric pronouns give rise to grammatical agreement markers. These commonly continue to perform an anaphoric function which over time may be lost, resulting in forms that only redundantly express person and number and/or gender. Such forms may undergo phonological erosion and subsequently be lost altogether. This development is typically conceived of in terms of a diachronic and synchronic grammaticalization cline, with the semantically redundant person forms without referential potential reflecting the final stages of grammaticalization.  The term grammatical agreement, as used in the literature, typically encompasses the whole grammaticalization cline. Needless to say, given this standard terminology, grammatical object agreement is found in numerous languages. My use of the term grammatical agreement in the title of this paper departs from accepted practice in that it refers to the final stages of the grammaticalization cline. This usage of the term grammatical agreement relates to my own tentative typology of agreement, inspired by the work of Bresnan & Mchombo (1986,1987). This tentative typology distinguishes three types of person agreement markers: anaphoric, ambiguous and grammatical. Anaphoric agreement markers are markers which are in complementary distribution with free nominal or pronominal arguments. Ambiguous agreement markers are markers which occur obligatorily both in the presence and absence of free nominal or pronominal arguments. And grammatical agreement markers are markers which, like ambiguous markers, are obligatory, but, unlike, ambiguous or anaphoric markers, must necessarily be accompanied by overt nominal or pronominal arguments. These three types of agreement markers are illustrated below on the basis of Macushi (1) a Carib language, Tauya (2) a Trans-New Guinea language, and Dutch (3) respectively.

Macushi (Carib)

(1)    a.    t-      ekîn era'ma-'pî    paaka    esa-'ya
            REFL-    pet:ABS see-PAST cow    owner-ERG
            `The owner of the cow saw his own pet.'

        b.    i-    koneka- 'pî- i-    ya
            3SG-make-   PAST-3SG-ERG
            `He made it.' (Abbott 1991: 24)

Tauya

(2)    a.    fena? -ni    fanu-Ø        nen-yau-a-    ?a
            woman-ERG  man-ABS      3PL-see -3SG-IND

`The woman saw the men.'

    b.   nen-yau-a  -?a
          3PL-see -3SG-IND
          `She/he saw them.' (MacDonald 1990: 118)

Dutch

(3)    a.   Piet zie-t    Kees    elke dag.
          Piet see-2/3SG  Kees    every    day
          `Piet sees Kees every day.'

    b.   *(Hij)   zie-t    Kees    elke dag.
           he      see-2/3SG  Kees    every    day
          `He sees Kees every day.'

My cross-linguistic investigations of person agreement markers suggest that, whereas the markers of both anaphoric and ambiguous agreement may correspond to subjects as in the case of the suffix -*i* in the Macushi (1b) and the suffix -*a* in the Tauya (2a,b) and also objects as in the case of the prefix *i*- in the Macushi (1b) and the prefix *nen*- in the Tauya (2a,b), grammatical agreement markers are confined to subjects. In other words, there appear to be no languages with grammatical object agreement, as defined by the above tripartite agreement typology. Why languages should display grammatical subject but not grammatical object agreement is what this paper seeks to explore.[1]

    The discussion is structured as follows. Section 2 offers a more detailed account of the tripartite typology of agreement markers and relates it to the grammaticalization cline. Section 3 considers the cross-linguistic formal realizations of the three types of agreement markers. In section 4 the attested distribution patterns of bound anaphoric, ambiguous and grammatical agreement markers are presented. And finally in section 5 some tentative explanations are suggested for the occurring and non-occurring distributional patterns noted.

## 2 The tripartite typology of person agreement markers

As mentioned in the introduction, the tripartite typology of agreement markers outlined above is inspired by the typology elaborated by Bresnan & Mchombo (1986, 1987). Their typology is a bipartite one, consisting of anaphoric vs grammatical agreement. There appears to be complete correspondence between the two typologies with respect to what constitutes anaphoric agreement. Anaphoric agreement markers are simply anaphoric pronouns. Their controllers are necessarily extra-clausal constituents, i.e. constituents belonging to the preceding discourse or constituents which do not have the status of verbal arguments. (More about this below.) My typology differs from theirs essentially in that I have subdivided their grammatical agreement markers into ambiguous and grammatical ones. This is, nonetheless, implicit in their typology since they recognize that some agreement markers have an ambiguous status: "One stage in the historical evolution of a grammatical agreement markers from an incorporated pronoun appears to be a partial loss of referentiality, allowing the same morpheme to be used ambiguously for grammatical and anaphoric agreement" (Bresnan & Mchombo 1986:287). This suggests that fully grammaticalized agreement markers are those that have completely lost their referentiality, which is exactly the class of markers encompassed in my typology by grammatical as opposed to ambiguous agreement. Thus, the two typologies differ essentially only in that I have supplied a  separate label for agreement markers in the last stages of grammaticalization.[2] My justification for doing so is empirical; the observation that the last stages of grammaticalization appear to be evidenced by only one of the verbal arguments.

    I have assumed that the last stages of grammaticalization can be identified by the inability of the agreement markers to occur without the concomitant presence of their controlling arguments. The obligatory presence of lexical arguments seems to be a reasonable diagnostic of the loss of

referentiality of agreement markers. Nonetheless, it could be argued that the obligatorily presence vs optionality of lexical arguments is a phenomenon independent of the type of agreement, since both languages with obligatory and optional lexical arguments are also attested among languages totally lacking overt agreement.[3] This may indeed be so. However, if the obligatoriness vs optionality of lexical arguments in languages with and without overt agreement is dependent on some yet to be established common property, we would expect this obligatoriness vs optionality of lexical arguments to be more or less equally common in both types of languages, those with and without overt agreement. But this is not the case. In languages without agreement obligatory lexical arguments are the norm while, as we will see, in languages with overt agreement, obligatory lexical arguments are the exception. That this exceptional property may be tied to the nature of the agreement that such languages display is therefore not unfeasible.

The classification of person agreement markers in terms of the tripartite typology is not always straightforward. Grammatical agreement markers are relatively easy to identify. If we look at texts and find that the person markers are always accompanied by overt nominal or pronominal arguments, except perhaps for imperatives and same subject coordinations as in *He comes and goes*, we can safely classify them as grammatical agreement markers. However, as the grammaticalization cline would lead us to expect, there may be syntactic environments in which the presence of overt pronominals is not yet obligatory. For example, in Old High German, medieval French and some Rhaeto-Romance dialects overt subject pronouns are optional when a constituent other than the subject occupies the preverbal position. This optionality may be further restricted only to specific pronouns. According to Haiman & Benincà (1992:179) in Swiss German dialects only  postverbal second person singular forms and in Surselvan (a Romansch dialect) only postverbal second person (singular and plural forms) are optional.

The distinction between anaphoric and ambiguous agreement markers is more problematic. As mentioned in the introduction, the basic criterion distinguishing the two is whether the agreement markers are or are not in complementary distribution with overt nominal or pronominal arguments. The first problem with this criterion is that the complementary distribution may be partial, i.e. it may depend on other factors. For example, in some languages the agreement markers are in complementary distribution with lexical NPs but not with independent pronouns. This is the case in Welsh, as illustrated in (4).

Welsh

(4)  a.   gwel-sant          (hwy)   y    ferch
          see-3PL:PAST they the   girl
          `They saw the girl.'

     b.   *gwel-sant          y    plant           y    ferch
          sing:COND:3PL    the   children the   girl
          `The children saw the girl.'

     c.   gwel-odd            y    bachgen/bechgyn y    ferch
          see-3SG:PAST the   boy/ boys                the   girl
          `The boy/boys saw the girl.'

The opposite situation, complementary distribution with free pronouns but not lexical NPs is also to be found, for instance in the Western Austronesian language Palauan, as shown in (5).

Palauan

(5)  a.   ng-'illebed-ii a    bilis (*ngii)
          3SG-hit-3SG              dog s/he
          `S/he hit the dog.'

     b.   ng-'illebed-ii a    bilis a    buik
          3SG-hit-3SG              dog       boy

`The boy hit the dog.' (Georgopoulos 1991: 26)

The agreement markers may also be in complementary distribution with common nouns but not proper nouns, as in Kusaiean (6).

Kusaiean

(6)　　a.　Sohn　　el　puok-ohlSah
　　　　　　John　　3SG hit-3SG　　Sah
　　　　　　`John is hitting Sah.'

　　　　b.　Mwet　luo　　ah　　　　(*eltahl) tuhkuh
　　　　　　mantwo DET 3PL　　　　come
　　　　　　`The two men came.'

　　　　c.　Kuht　　sa-akihlen-(*eltahl)　　mwet　forfor　ngoh
　　　　　　1PL　　NEG-notice-3PL　　　mandistant　DEM
　　　　　　`We did not recognize those men over there.' (Lee 1975: 100,126,335)

Another factor determining the complementary distribution may be the location of the lexical NPs. Thus, according to Payne (1990:30), in Yagua the prefixal agreement marker occurs with postverbal NPs (7a) but not with preverbal ones (7b).

Yagua

(7)　　a.　Sa- juuy Anita
　　　　　　3SG-fall　　Anita
　　　　　　`Anita falls.'

　　　　b.　Anita　　juuy
　　　　　　`Anita　　falls.' (Payne 1990: 30)

In one of the Romansch dialects, Vallader, all three of the above factors play a role. Haiman & Benincà (1992:191) note that subject clitics are in complementary distribution with preverbal lexical subjects, but occur with postverbal subjects which are proper nouns or stressed person pronouns. Unlike in Yagua, however, the subject clitic is not obligatory.

　　The second problem with the complementary distribution criterion is that it is by no means always clear whether the NPs co-occurring with the agreement markers should be seen as verbal arguments or whether the agreement markers should be thus regarded, and the lexical NPs should be viewed as being in an appositional relationship to the argument agreement forms. If the nominals are indeed arguments the person forms qualify as ambiguous agreement markers, if the nominals are not arguments, but rather the person forms are, they qualify as anaphoric agreement markers.

　　The issue of the argument status of nominals as opposed to that of apparent agreement markers  has recently received a considerable amount of attention, particularly by generative linguists such as Jelinek (1984, 1988), Speas (1990), Bresnan and Mchombo (1986, 1987), Bresnan (1995) and Baker (1991, 1996).[4] The criteria offered by these linguists for the argument status of nominals rather than of the agreement markers include: necessary locality between the nominals and the agreement forms, presence of subject/object asymmetries in relation to anaphoric and variable binding, presence of the agreement markers with nominals taking true quantifiers such as *every* or with expressions such as *nobody* or *nothing* and ability of the nominals to co-occur with the agreement markers when questioned. The least theory-specific of these criteria are arguably the last three. The assumption underlying them is that grammatical agreement, i.e. ambiguous or grammatical agreement in my tripartite typology, should not be dependent on the informational status of arguments. Thus if the forms in question are indeed ambiguous rather than anaphoric agreement markers, they should occur irrespective of the referential or focal status of the arguments. The applicability of the above criteria is,

however, limited. For example, the use of expressions such as *nobody* or *nothing* rather than of simple sentential negation is cross-linguistically very uncommon (Kahrel 1996). Consequently, whether or not agreement markers co-occur with nominals thus quantified constitutes a test for the ambiguous vs anaphoric agreement status of the markers only in a restricted number of languages. The same is likely to hold for the presence of the agreement markers with nominals quantified by *every* as compared to *all*. Currently little is known about the number of languages which exhibit a contrast in the properties of the two quantifiers. Somewhat more promising is whether or not the person markers can co-occur with questioned phrases. However, even this criterion cannot be applied in all cases. Consider, for instance, the examples in (8) from Tauya.

Tauya

(8)    a.    we-ni        na- yau-a-e
            who-ERG     2SG-see-3SG-Q
            `Who saw you?'

    b.    we        Ø- yau-e-ne
            who 3SG-see-2SG-Q
            `Who did you see?' (MacDonald 1990: 165)

The co-occurrence of the questioned subject with the overt agreement marker identifies the subject agreement as ambiguous rather than anaphoric, but the same test cannot be applied to the object form since it is zero. Another problematic case can be illustrated on the basis of Yagua. As shown in (9), when the subject is questioned, there is no agreement marking on the verb.

Yagua

(9)    Chiira    jiya too-va?
        who go       jungle-DAT
        `Who went to the jungle?' (Payne 1990: 71)

This suggests that the agreement in Yagua is anaphoric rather than ambiguous. Recall, however, that in Yagua the agreement markers co-occur with overt NPs only if these are located postverbally as opposed to preverbally. Consequently, the absence of agreement in (9) could just as well be attributed to the location of the questioned phrase rather than to the fact that the agreement is anaphoric.

    I will not pursue the issue of the distinction between anaphoric and ambiguous agreement markers further since though it is fundamental to the typology of agreement, my central concern in this paper is the asymmetry in regard to grammatical agreement. And, as stated above, grammatical agreement, while not completely unproblematic, is considerably easier to identify.

## 3 The formal realization of agreement markers

The development from anaphoric pronoun to grammatical agreement marker reflected in the different co-occurrence possibilities of the forms with overt nominal arguments is also formally manifested by the gradual loss of syntactic and phonological independence of the forms. My analysis of the three types of agreement markers in a cross-linguistic sample of 272 languages, the composition of which is presented in Appendix 1, as well as in additional languages from outside the sample, suggests that whereas anaphoric agreement markers favour the left-hand sections of the grammatical bondedness cline in (10), ambiguous agreement markers the middle and right parts, grammatical agreement markers are exclusively affixal.[5]

(10)    indep Pro > unstressed Pro > clitic > affix

    Independent anaphoric agreement markers, i.e. anaphoric pronouns, are widely attested and are not

in need of exemplification. Anaphoric agreement clitics are also common, especially for objects. An example of an anaphoric subject clitic is provided in (11) from Ampezzan, a Rhaeto-Romance dialect.

Ampezzan

(11)  Duta   ra  me biancheria  r   e   fata de bona   tera
      all    the my linen       she is  made of fine cloth
      `All my linen is made of fine cloth.' (Haiman & Benincà 1992: 190)


That *r* is an anaphoric and not an ambiguous agreement marker is indicated by the fact that it does not occur with a subject quantified by *every*, as shown in (11).


(12)  Dute          proaalgo
      everybody     triessomething
      `Everybody tried something.' (Haiman & Benincà 1992: 190)


Affixal anaphoric markers which are uncontroversially anaphoric, i.e. that do not co-occur with nominals unless these are evidently left- or right-dislocations, are less common. Examples of such markers were given earlier in (1) from Macushi. (See also the example in (25a) further below from Retuarã.)

   By contrast, ambiguous agreement markers are typically affixal, as in the case of the subject and potentially also object suffixes in Tauya, cited earlier in (2), and many other languages. Clitics attached to the first constituent are considerably less common, but are found in various languages for example, the Uto-Aztecan languages Northern Tepehuan and Southeastern Tepehuan (13).[6]

Southeastern Tepehuan

(13)  a.  va-co-cos-'am         gu-'a'ahl
          CMPL-RDP-sleep-3PL   ART-children
          `The children are sleeping.'


      b.  ma'n-'amtu-vacuan      gu-jannuhl
          one-3PL               DUR-wash   ART-cloth
          `They are washing (out) a (piece of) cloth.' (Willet 1986: 67)

And unstressed independent forms as ambiguous markers are the least common. The are to be found, particularly in Austronesian, as in the case of the subject forms (though not object forms) in (14) from Woleaian.

Woleaian

(14)  a.  Sar       kelaa         re  sa  tangileng
          those     children 3PL ASP cry
          `Those children over there cried.'


      b.  Re  shepegi-yei
          3PL kick-1SG
          `They kicked me.' (Sohn 1975: 93-94)


   I have not come across any instances of grammatical agreement markers realized by independent forms. Even in Anejom, a language of Vanuatu, though the subject agreement markers are independent of the lexical verb, they are fused with tense markers as shown in (15).

Anejom

(15)  a.  et          aviñnumu   aen
          3SG:AORwant    fish he
          `He wants a fish.'


      b.  et              awod   kuri albas    aen

3SG:AOR hit        dog big        he
          `He hit/is hitting a big dog.'


     c.   et            atgiipikad    a          di?
          3SG:AOR kill     pig         subj who
          `Who killed the pig?' (Lynch 1982: 119,122,137)


And interestingly enough Lynch (1982:118) notes that this fused agreement and tense combination is well on the way to becoming a verbal prefix, especially in the aorist indicative.

   Whether there are any grammatical agreement markers realized as clitics is not quite clear. The only potential candidates that I am aware of are the subject clitics in some Rhaeto-Romance dialects of northern Italy. However, according to Haiman & Benincà (1992:190) all of these dialects have at least some contexts where the subject clitic may or must be omitted. Thus, for example, though in Friulian the subject clitic co-occurs with tonic pronouns (16a), lexical subjects (16b) and even quantified subjects (16c), it does not occur following the interrogative pronoun and complementizer *ke* (16d).
Friulian
(16)   a.   Jo   o    feveli
            I    1SG speak
            `I speak.'


       b.   La   strade   e    va        ju        a plomp
            the  roads he  goes     down      steeply
            `The road goes down steeply.'


       c.   Nisun   l    a    timp    di   ciala
            nobody  he   has  time to   look
            `Nobody has time to look.'


       d.   Kuj ku      ven      kun te
            who COMP    comes    with you
            `Who's coming with you?' (Haiman & Benincà 1992: 187,188,191)


The clitic thus appears to have a status in between that of an ambiguous and a grammatical agreement marker. Worthy of mention is also the fact that there may be a feature clash between the subject clitic and its controller, which is something that one would expect of the late stages of grammaticalization. This appears to be marginal in Friulian but fully acceptable in Fassan (17) and Badiot (18).
Fassan
(17)   l    e    venu        la   vivano
       he   is   come:M:SG    the  witch:F:SG
       `There came the witch.' (Haiman & Benincà 1992: 193)


Badiot
(18)   da   doman        vegn   l    oshore    les  vatges
       of   morning becomes he   fed:M:SG the  cows:F:PL
       `The cows are fed in the morning.' (Haiman & Benincà 1992: 193)


   In sum, though there is no one to one correspondence between the tripartite typology of agreement markers and their formal realization, the gradual loss of semantic independence is accompanied by the loss of syntactic and phonological independence culminating in the virtually exclusive affixal nature of the most grammaticalized forms, the grammatical agreement markers.

**4 Subjects and objects and the tripartite typology**

As is well known, languages may exhibit person agreement with one, two or even three arguments. This being so, the question arises, what sort of combinations of the three types of markers are found cross-linguistically? In answering this question I will concentrate only on bound, i.e. clitic and affixal markers, since independent anaphoric pronouns are too common and would complicate the issue considerably. I will confine my attention to the co-occurrence possibilities of the three types of bound agreement markers in transitive as opposed to ditransitive clauses and in line with standard typological practice will refer to the agentive transitive argument as the A and the patient transitive argument as the O.

Logically, there are 15 possible combinations of the three types of bound agreement markers in transitive clauses, namely those listed in a) through o) in Table 1.

insert Table 1

Let us go through them briefly. A language may have bound person agreement markers only for the A. Such markers may be anaphoric as is the case in Older Egyptian (19b), ambiguous as in Polish (20) or grammatical as in Dutch illustrated earlier in (3) or Icelandic (21).

Older Egyptian

(19)  a.   j.rx          Pjpj pn  mwtf
           understand   Pepithis mother
           `This (king) Pepi learns about his mother.

      b.   jw       hz-  n-  f        w(j) hr-f r     `?t  wrt
           come    praise-PERF-he    me      for-it  to   big  great
           `He has praised me for it very much.' (Reintges 1997: 36,67)

Polish

(20)  a.   Basia         kupi-_a              nowy    samochód.
           Basia:NOM    buy:3SG:F:PAST     new car:ACC
           `Basia bought a new car.'

      b.   kupi-_a               nowy    samochód.
           buy:3SG:F:PAST     new car:ACC
           `She bought a new car.'

Icelandic

(21)  a.   Pétur    elsk-ar         Maríu
           Peter    loves-2/3SG   Mary
           `Peter loves Mary.'

      b.   *(Hann) elsk-ar         Maríu
            he       loves-2/3SG   Mary
           `He loves Mary.' (Thráinsson 1994: 169)

Bound person agreement markers only for the O are also attested. These, however, appear to be nearly always anaphoric. A case in point is that of the O prefix in the Kolokuma dialect of Ijo, exemplifed in (22b).
Ijo

(22)　a.　Ari  tin-bi　　　toumo-mi  (all the "i" should be high mid vowels, an elongated i)
　　　　　I　stick-DEF　　bent-PAST
　　　　　`I bent the stick.'

　　　b.　Ari  **u**- di- mi　　　　(the "i" in the first word should be as above)
　　　　　I　3SG-see-PAST
　　　　　`I saw him.'  (Williamson 1965: 51, 59)


　　A potential instance of a language which has bound person ambiguous agreement markers for just
the O is the Western Oceanic langauge Roviana. According to Simon Cornston (Linguist List,
16.02.1995), whereas the A and Si (single argument of an intransitive clause) exhibit only anaphoric
agreement rendered by independent anaphoric pronouns, the O person suffix occurs both in the
presence (23a) and absence (23b) of overt objects.
Roviana
(23)　a.　meke　doxor-i-a　　ri　　si　keke　　ixana
　　　　　and　　see- TR-3SG　they ABS one　　fish
　　　　　`And they saw a fish.'

　　　b.　avos-i-a　　　xoi?
　　　　　hear-TR-3SG  you
　　　　　`Do you hear him?'
The occurrence of the O suffix is, however, dependent on specificity as illustrated in (24).

(24)　a.　raro talo si　gami
　　　　　cook　　taro ABS we:EXCL
　　　　　`We cooked taro. We did some taro cooking.'

　　　b.　raro-a　　　gami　　　sa　　　talo
　　　　　cook-3SG　　we:EXCLDEF taro
　　　　　`We cooked the taro.'


The absence of the transitive suffix as well as of the O agreement suffix in (24a) coupled with the
immediately postverbal position of *talo* and the absolutive marking of *gani* suggests that *talo* in (24a)
may be incorporated.  Nonetheless, Simon Cornston notes that since there are no other independent
elements associated with the verb which ever come after it, this is difficult to determine conclusively.
Moreover, the presence of *si* before *gani* in (24a) is not a transparent indication of intransitivity, i.e.
that *gani* is an  Si rather than A, in view of the fact that Roviana exhibits a highly unusual case
marking system. In languages exhibiting ergative or split ergative case marking, either just the A bears
overt marking while the S/O are unmarked, or all three are overtly marked, by one set of markers for
the A and another set for the S/O. In Roviana, by contrast, the A is unmarked while the S/O are
preceded by the particle *si*. Furthermore the *si* particle occurs only with pronouns, proper nouns and
enumerated NPs, while all other NPs remain unmarked. And even this marking in the case of
undergoers does not occur when they are pragmatically backgrounded. Thus though *talo* in (24a) as
opposed to (24b) may not be an O, such an analysis is not entirely unproblematic. If it is not an O, then
all Os in Roviana may be seen as exhibiting agreement. This agreement will then be a paradigm case of
ambiguous agreement. If, on the other hand, immediately postverbal NPs, whether nonspecific or
pragmatically backgrounded, are indeed Os, the failure of such NPs to control agreement would
suggest that the agreement is anaphoric rather than ambiguous.
　　Grammatical, as opposed to anaphoric or ambiguous agreement, with just the O is unattested.

Turning to bound agreement with the A and O, anaphoric and ambiguous agreement with both have already been illustrated in (1) from Macushi and (2) from Tauya respectively. Two further examples of each are provided in (25) from the Tucanoan language of Colombia Retuarã and in (26) from Anêm, an East Papuan language.

Retuarã

(25) a. Toma-re    hose-re    -a-koʔo
        Thomas-TERM    Jose-TERM    see-PAST
        `Thomas saw Jose.'

    b. sa-ki-baʔakoʔo
        it-he-ate-PAST
        `He ate it.' (Strom 1992: 218,219)

Anêm

(26) a. tita- nai u- b- î aba
        father-my    3SG-hit-3SG  pig
        `My father hit the pig.'

    b. u- b- î
        3SG-hit-3SG
        `He hit it.' (Thurston 1982: 16)

Of the remaining A and O combinations presented in Table 1, only two are attested. The first of these (l), anaphoric agreement with the O and ambiguous agreement with the A, is not uncommon. It is found, for example in various Bantu languages and in Kilivila (27), an Austronesian language of New Guinea.

Kilivila

(27) a. Dakuna i-wai    kaike-la
        stone    it-hit    foot-his
        `The stone hit his foot.'

    b. i-bwade-gu-si
        it-meet-me-PL
        `They meet me.' (Senft 1986: 35, 38)

The second is (m), anaphoric agreement with the O and grammatical agreement with the A. The only instance of this that I have come across is that of the previously mentioned Anejom. We see in (28) that the object suffix does not occur with lexical objects, while the portmanteau subject agreement/tense marker, which recall is in the process of becoming a verbal prefix, appears to require the presence of an accompanying pronominal.

Anejom

(28) a. Ek        namatgiihal    pikad    anak
        1SG:AOR PERF    kill       some    pigs I
        `I have killed some pigs.'

    b. Ek        namatgi-ra    anak
        1SG:AOR PERF    kill-them    I
        `I have killed them.' (Lynch 1982: 111, 113)

The fact that all of the A and O combinations involving grammatical agreement with the O, i.e. (i) grammatical agreement with both A and O, (j) anaphoric agreement with the A and grammatical with the O, and (k) ambiguous agreement with the A and grammatical with the O, are unattested follows from the lack of grammatical O agreement expressed in the title of this paper. Less expected is the absence of (n) anaphoric A agreement and ambiguous O agreement combinations as well as (o) ambiguous O agreement and grammatical A agreement ones.

The attested and unattested combinations displayed by the A and O agreement markers are summarized in the universals in (29) and (30).

(29)    If a language has grammatical agreement, it is with just the A.

(30)    If a language has ambiguous O agreement, it has ambiguous A agreement.

Universal (29) is an absolute universal, universal (30) a statistical one due to, potentially, Roviana. What underlies these universals is the issue to which I will now turn.

## 5 Explaining the findings

The apparent lack of grammatical O agreement is undoubtedly at least in part attributable to the fact that grammatical, as opposed to anaphoric and ambiguous, agreement is very rare. Among the 272 languages in my sample, the overwhelming majority 85% (230) exhibit agreement marking of the A, O or both.[7] Of these 230 languages, 26 (11%) have exclusively anaphoric markers, 15 (7%) both anaphoric and ambiguous markers, 191 (84%) only ambiguous markers and only two display grammatical agreement markers. The above figures for anaphoric and ambiguous agreement are tentative since they are based on whether or not the agreement markers are in complementary distribution with their controllers, not on whether the controllers are or are not actually verbal arguments as opposed to nominals in apposition to arguments realized by the agreement markers. As discussed in section 2, the argument status of nominals accompanying agreement markers is a theory-specific issue which cannot be resolved on independent grounds.[8]

The two languages exhibiting grammatical agreement in the sample are Dutch and Vanimo, a New Guinea language of the Sko family in which subject agreement is realized via alternation of the first consonant of the stem. The only other languages that I am aware of from outside the sample that have grammatical agreement are: Standard German, Swiss German, Icelandic, Faroese, English, Standard French, Romansh (partially), Anejom and perhaps Labu, an Austronesian language of New Guinea.[9] Siegel (1984) in his short sketch of Labu does not actually state that the subject agreement markers are always accompanied by overt arguments. However, the only examples lacking overt arguments in his grammatical sketch are some imperatives as in (31b) as compared to (31c) and same subject coordinations as in (31d), which are the environments that may lack overt subjects also in English, a language with vestiges of grammatical agreement.

Labu

(31)    a.    ai    yu-tutu          iya      ko      hu
               I     1SG:PAST-fire    dog  with stone
               `I hit the dog with the stone.'

         b.    ye        mba nu- kusu naki
               you  pot        2SG:IRR-spit  IR:NEG
               `Don't spit.'

         c.    no- pesa        sema
               2SG:IRR-make      fast

`Make (it) quickly.'

d. esoha se- kelele a te so-no po
they 3PL:PAST-win and then 3PL:PAST-drink water
`They won and then got drunk. (lit. drunk water)' (Siegel 1984: 101,106,111,119)


The rarity of grammatical agreement is somewhat surprising. Given the ubiquity of person agreement in the world's languages, and the general acceptance of the diachronic origins of the agreement markers from anaphoric pronouns, one would expect evidence of the last stages of grammaticalization to be more prevalent. Perhaps the reason why it is not is that languages tend to evolve new agreement markers once the old ones lose or start losing their referential potential due to, for instance, syncretism of some of the forms as is the case in, for example, Colloquial French, some of the Rhaeto-Romance dialects and Kisar (see below).

If, as I have been assuming, grammatical agreement evolves from ambiguous agreement, the second factor which may underlie the apparent absence of grammatical O agreement is that ambiguous O agreement is less common than ambiguous A agreement. Of the 15 languages in the sample which have both ambiguous and anaphoric markers, in all the A markers are ambiguous and the O markers are anaphoric. This is captured in universal (30). The greater frequency of A as opposed to O ambiguous agreement is generally attributed to the origins of ambiguous agreement. While anaphoric agreement markers may have several different sources, they may arise from pronoun cliticization or incorporation, or the reinterpretation of distributive or number markers or transitivizing markers, for example, the only diachronic scenario for the rise of ambiguous agreement markers that I am aware of is the reanalysis of anaphoric pronouns in marked topic constructions as illustrated in (32) and (33).[10]

(32)  a.  He hit the dog.
      b.  The man, he hit the dog
      c.  The man he-hit the dog.

(33)  a.  He hit it.
      b.  The dog, he hit it.
      c.  The dog he hit-it.

According to this scenario, topics, loosely associated with the clause such as those in (32b) and (33b) become integrated into the clause as a result of the overuse of the marked topic constructions and thus the originally anaphoric pronouns, whether unbound as in (32) and (33) or bound, become agreement markers. This process is taken to favour As as in (32) over Os as in (33) because As are more likely candidates for topics than Os, being agentive, and associated with the left-ward end of the personal hierarchy in (34).

(34)  1stp > 2ndp > 3rdp > higher animate > lower animate > inanimate > abstract

Moreover, third person anaphoric pronouns for Os, particularly singular Os, are more likely to be lacking than for As, as noted by Du Bois (1987) and Mithun (1988), among others. This is attributed to the fact that since As are more common topics than Os, and topics tend to be maintained over stretches of discourse, there is more functional motivation for having overt anaphoric pronouns for As than for Os, which are so often rendered by full NPs. And needless to say, if there is no anaphoric pronoun, it cannot development into an agreement marker. That the above development is more likely to give rise to ambiguous A agreement than ambiguous O agreement is supported by the existence of many languages with ambiguous A agreement and no O agreement (e.g. Polish) or anaphoric O agreement

(e.g. Kilivila), but, with the exception of Roviana no languages where the reverse is the case.

Though ambiguous O agreement is less common than ambiguous A agreement, it does nonetheless arise. This being so, what precludes ambiguous O markers from further grammaticalization? Before answering this question let us consider the potential sources of grammatical agreement.

The most obvious reason why ambiguous agreement markers evolve into grammatical agreement markers is phonological erosion. Phonological erosion may result in syncretism of some of the forms. This in turn may induce the use of free pronouns for purposes of disambiguation or to mark distinctions not present in the verbal forms. The use of the free pronouns may spread and subsequently cause further phonological erosion of the agreement markers due to their lack of functionality.

Evidence of the use of free pronouns to disambiguate homophonous forms is not difficult to come by. Most of the European languages currently exhibiting grammatical agreement display considerable homophony of the person forms. As indicated in the examples from Dutch (3) and Icelandic (21), the second and third person singular forms of the indicative of weak verbs are homophonous. And in Standard French only the first and second person plural are now phonetically distinct. The use of free pronouns for purposes of diambiguation can also be observed in various languages outside Europe, for instance, in the Yuman languages. Gordon (1987:17,61) states that in Maricopa, the first person prefix '- is often omitted from verbs beginning with a consonant. As a result first person verbs are homophonous with third person ones, which lack any prefix. Overt pronouns are therefore used to disambiguate both in the case of intransitive clauses (35) and transitive ones with third person objects (36).

Maricopa

(35)  a.  nyaa      hmii-k
          I         tall-REAL
          `I am tall.'


      b.  hmii-k
          tall-REAL
          `He is tall.'


(36)  a.  nyaa      wik-k
          I         help-REAL
          `I helped him'


      b.  wik-k
          helped-REAL
          `He helped him.' (Gordon 1987: 17, 19)


A particularly interesting instance of the use of independent pronouns due to the homophony of verbal person forms is that observed in the Austronesian language Kitar. According to Blood (1992:3), the language has three sets of subject person forms: subject prefixes, short pronoun subjects and complex pronoun subjects. These are listed in (37).

Kisar

(37) |        | subject prefixes | short subject pronouns | complex subject pronouns |
|--------|------------------|------------------------|--------------------------|
| 1sg    | '-/'u-           | ya-                    | ya'u                     |
| 1plex  | m-               | ai                     | aim                      |
| 1plin  | k-               | i-                     | ik                       |
| 2sg    | m-               | o                      | om                       |
| 2pl    | m-               | mi                     | mim                      |
| 3sg    | n-               | ai                     | ain                      |
| 3pl    | r-               | hi                     | hir                      |

A look at the subject prefixes reveals that the second person singular and plural as well as the first person exclusive forms are homophonous. There is also some homophony in the short subject pronouns, namely of the first person exclusive and the third person singular. However, when both the subject prefixes and the short subject pronouns co-occur, all the forms are disambiguated. Not suprisingly therefore Blood states that clauses with first and second person subjects nearly always feature overt pronouns. The form of these pronouns, however, depends on whether the verb is vowel or consonant initial. Vowel initial verbs co-occur with short pronouns as in (38a) and consonant initial ones with complex pronouns as in (38b).

Kisar

(38)   a.   Ya-'amaka        riuk wolima   noho-ro-ropo
                I-1SG-awaken      strike     five island-DUP-before dawn
                `I wake up at five o'clock in the morning.'

       b.   Ya'u      hamlinu
                I         forget
                `I forget.'

As the forms in (37) illustrate, the complex pronouns are a combination of the short pronouns and the subject prefixes. Blood argues that due to a syllable structure constraint which prohibits complex syllable onsets, in the case of consonant initial verbs the subject prefixes attach to the immediately preceding pronoun rather than to the verb. Thus while the homophony of the person prefixes has induced the use of overt pronouns, the syllable structure constraint has produced a separate set of such pronouns. Note also that the first person singular and plural exclusive short subject pronouns are phonologically bound to the verb. This suggests that Kisar may be developing new bound prefixes from the short pronouns.

The development of ambiguous to grammatical agreement markers may also be due to syntactic reasons, namely the emergence of a verb-second constraint. This is seen to be the source of grammatical agreement in Old High German, medieval French and some of the Romansh dialects. The claim is that overt pronouns came to be used obligatorily to avoid declarative clauses with initial verbs. Subsequently, the use of overt pronouns spread from initial position to other positions resulting in grammatical as opposed to ambiguous agreement. Support for the rise of grammatical agreement as a response to a V2 constraint comes from the fact that in medieval French and Old High German whenever the V2 constraint was satisfied by another sentential constituent, i.e by a topic in TVX declaratives or was inoperative as in interrogatives, the subject pronouns were generally omitted. The use of dummy subject pronouns such as the English *there*, German *es* and French *il* in impersonal clauses, though not synchronically associated with the V2 constraint, is also seen as a reflection of its diachronic relevance (see especially Haiman 1974).

Another possible source of grammatical agreement is diffusion. Overt pronouns may begin to occur in non-focal contexts under the influence of language contact and the agreement affixes may over time simply fall into disuse. Diffussion, however, appears to more commonly lead to the dropping of bound forms altogether rather than to the development of grammatical agreement. This, according to Visser & Voorhoeve (1987:30), is what is beginning to happen with the object prefixes and third person subject prefixes in Sahu, a West Papuan language of North Moluccas, under the influence of Malay and Indonesian. Younger speakers simply leave the prefixes out and use just the free pronouns.

The known instances of the second of the above scenarios for the development of grammatical from ambiguous agreement, i.e. adherence to a verb-second constraint, involve subjects, As and Ss, not Os since the languages in question had no ambiguous O agreement. However, if ambiguous O agreement had been present presumably there would be less motivation for the development of a verb-second constraint; languages with ambiguous A and O agreement tend to have highly flexible order, even in the absence of case marking. This syntactic source of grammatical agreement is thus rather unlikely to result in grammatical object agreement.

Phonological erosion should in principle be a source of grammatical agreement of both As and Os. We would expect phonological erosion to be facilitated by high frequency of occurrence, diachronic age, outer as opposed to inner location relative to the stem and, given that the ends of phonological units exhibit a tendency to be articulated weaker than their beginnings (Hall 1988; Bybee et. al 1990), suffixal as opposed to prefixal position. The first two of these factors may be expected to favour the erosion of As over Os. In languages exhibiting accusative as opposed to ergative agreement, which are overwhelmingly dominant, the forms used for As are the same as those found in intransitive clauses, and thus occur more frequently than the O forms. The A forms are also more likely to be older than the O forms due to the fact that ambiguous A agreement tends to evolve before ambiguous O agreement, As being more topical than Os. The third factor, location relative to the stem, on the other hand, may favour the erosion of O forms. If both the A and O forms are placed on the same side of the verb, and the O forms are the younger ones, they would be located further away from the verb stem than the A forms. Consequently, the outer O affixes, particularly if also of considerable antiquity and if suffixal, could be expected to undergo some erosion and change to grammatical agreement markers. Yet there appear to be no traces of this happening irrespective of the location of the A and O forms relative to each other or relative to the verbal stem. In fact, as suggested by the data in Table 1, grammatical agreement not only of the O but also of the A does not appear to arise in languages which display ambiguous O agreement.

The absence of grammatical, as opposed to ambiguous, A agreement in languages with ambiguous O agreement in which the O forms are the outer affixes could be attributed to the fact that the latter protect the former from erosion. Also if both are on the same side of the verb and contiguous to each other, partial erosion of the markers is likely to result in a portmanteau, A/O interpretation of the remaining forms. Such fused A/O markers are by no means rare. However, they are never grammatical agreement markers but rather anaphoric or ambiguous ones or, as in Hungarian, represent a combination of ambiguous A agreement and what Nichols (1992:49) calls O registration. Though the Hungarian agreement system may at first sight appear to constitute an example of a late stage of grammatical object agreement, this is not actually the case.

Hungarian has two sets of agreement markers, known as the subject and object conjugation illustrated in (39).

Hungarian

(39)    subject conjugation    object conjugation

|      |         |      |         |
|------|---------|------|---------|
| 1sg  | ok      |      | om      |
| 2sg  | ol/sz   |      | od      |
| 3sg  | 0       |      | (j)a    |
| 1pl  | unk     | juk  |         |
| 2pl  | tok     |      | jatok   |
| 3pl  | nak     |      | ják     |

The subject conjugation is used in intransitive clauses, and in transitive clauses with first and second person objects and indefinite third person objects. The agreement markers indicate only the person and number of the subject while the object is expressed by a free form, optionally if pronominal and in the singular and obligatorily otherwise, as shown in (40).

Hungarian

(40)    a.    (Te) lát-sz    minket
              you see-2SG  us
              `You see us.'

        b.    (Mi)      szeret-unk      (téged)
              we        like-1PL        you
              `We like you.'

The object conjugation is used with definite third person objects. The agreement markers indicate the person and number of the subject and the presence of a third person definite object. As in the case of the subjective conjugation, pronominal objects in the singular need not be expressed, but those in the plural must be overt. This is illustrated in (41).

Hungarian

(41)  a.  (én) lát-om       oket
          I         see-1SG:3     them
          `I see them.'

      b.  (Te) lát-od
          you see-2SG:3
          `You see him/her/it.' (Kenesei et. al 1998: 70)

In view of the fact that the markers of the object conjugation do not index the person or number features of the object, but rather merely register its presence, the object conjugation does not currently represent an instance of agreement with the object. The Hungarian object conjugation is, however, a remnant of a former subject and object agreement system, though one involving number agreement with a third person definite object not person agreement. This former system is still operative in other Ugric languages such as such as Vogul (42).

Vogul

(42)  a.  toti-l-um
          bring-SG-1SG
          `I bring her/him/it.'

      b.  toti-jagy-n
          bring-DL-2SG
          `You bring them two.'

      b.  toti-jan-n
          bring-PL-2SG
          `You bring them.' (Collinder 1969: 335)

The Ugric object conjugation does not appear to have ever been a full fledged O as well as A agreement system in number let alone person. If this is so, the Hungarian object conjugation does not constitute a counterexample to universal (28).

   A third reason why grammatical agreement does not arise in languages which have overt agreement marking of both the A and O may be that phonological attrition of one of the markers may lead to a reinterpretation of a grammatical relation based agreement system into a partially referentially based one, i.e. into a so-called hierarchical agreement system. A hierarchical agreement system is a system where the treatment of the A and O is dependent on their relative ranking on the referential and/or ontological hierarchies. Whichever is the higher ranking receives special treatment, the details of which vary from language to language. The higher ranking argument may be the only one to be overtly marked, or its markers may belong to a special set or occupy a special location. The type of hierarchical agreement which is relevant to the current discussion is that in which one and the same form marks either the A or the O depending on which is higher on a hierarchy of 1st > 2nd > 3rd, as in the Tibetic language Nocte (43), or on a hierarchy of 2nd > 1st > 3rd, as in the Algonquian language Plains Cree (44).[11]

Nocte

(43) a. nga-ma    ate        hetho-ang
           I-ERG    he:ACC  teach-1SG
           `I will teach him.'

       b. ate-ma   nga-nang     hetho-h-ang
           he-ERG  I-ACC         teach-INV-1SG
           `He will teach me.' (Das Gupta 1971: 21).

Plains Cree
(44) a. ki-tasam-in
           2-feed-DIR
           `You feed me.'

       b. ki-tasam-itin
           2-feed-INV
           `I feed you.' (Wolfart 1973: 24)

I have no evidence that such agreement systems have evolved from ones in which both the A and the O were overtly marked. But it is not unfeasible that they may have. In Plains Cree, for instance, marking of both the A and O occurs when a third person plural A acts on first or second person O. Morover, the direct and inverse markers are partially sensitive to person: for clauses involving only 1st and 2nd person participants, i.e. speech act participants (SAP), the markers are
-*in* and -*itin*, while for all other clauses the markers are -*aw/ew* and -*ik*.


**6 Conclusion**

My aim in this paper was to draw attention to an apparent asymmetry in regard to O as opposed to A person agreement markers, namely that while A agreement markers evince all stages of grammaticalization, i.e. they may be anaphoric, ambiguous or grammatical, the last stages of grammaticalization do not appear to be exhibited by O agreement markers. I have suggested several reasons for the existence of this asymmetry. First of all, grammatical as opposed to anaphoric and ambiguous agreement is crosslinglistically very rare. Secondly, ambiguous agreement from which grammatical agreement evolves is much more common with As than with Os. Moreover, it tends to arise only in languages which have ambiguous A agreement. Thirdly, ambiguous O agreement is unlikely to develop into grammatical agreement via the V2 scenario due to the improbability of such a word order constraint appearing in a language that allows both of the transitive arguments to be null. Fourthly, phonological attrition of ambiguous O markers is less likely than of ambiguous A markers owing to the fact that the former tend to be both younger and used less frequently than the latter. And significantly, as my cross-linguistic investigation of the distribution of the three types of markers has revealed, not only grammatical O agreement but also grammatical A agreement is unattested in languages which have both types of bound agreement markers. Finally, if phonological attrition of either the ambiguous A or O markers does occur, it may lead to portmanteau A/O forms or hierarchical agreement rather than grammatical agreement of either the A or the O.

   None of the above mentioned reasons for the lack of grammatical O agreement and for the absence of grammatical A agreement in languages displaying also bound O agreement markers is truely compelling. I offer them in the hope that my speculations will ignite some interest in why the last stages of such a widely assumed grammaticalization process as the developement of agreement markers from anaphoric pronouns are so rarely attested synchronically and why the attested instances involve As but not Os.

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**Appendix**

Languages in the sample (N=272) according to macro-area and genetic classification based on Ruhlen (1987). I am aware of the fact that some of the phyla recogized by Ruhlen (1987) are highly controversial. I have indicated these with a question mark.

Africa: **Afro-Asiatic**: Beja; Berber (Tamazight); Biu-Mandara (Gude); Egyptian (Coptic);  Chadic (Hausa, Kera); Cushitic (Bilin, Mupun, Oromo); Omotic (Dizi, Hamar) Semitic (Akkadian, Amharic, Chacha, Geez, Hebrew,); **Khoisan** (Nama, Sandawe) **Niger-Kordofanian** Adamawa-Ubangi (Doyayo, Koh, Mumuye, Sango, Zande); Bantoid (Babungo, Ndonga, Swahili); Benue- Congo (Mambila); Defoid (Yoruba); Dogon; Gur (Dagare, Koma, Koromfe); Igboid (Igbo); Ijoid (Kolokuma Ijo); Kordofanian (Katla, Krongo); Kru (Grebo); Kwa (Ewe, Nupe); Mande (Bambara, Mende); Northern-Atlantic (Diola-Fogny, Fula, Kisi);  **Nilo-Saharan** Berta; Fur; Kunama; Maban (Mesalit); Nilotic (Nandi, Pari, Turkana); Saharan (Bagirmi, Kanuri, Ngiti); Surma (Murle); Songhai; **Pidgins & Creoles** (Kreol)

Southeast Asia & Oceania: **Sino-Tibetan** Sinitic (Mandarin); Karen (Eastern Kayah Li); Burmic (Burmese, Rawang, Sema); Tibetic (Byangsi, Chepang, Limbu, Lushai, Newari) ?**Austric** Miao Yao (Miao); Mon-Khmer (Chrau, Khasi, Khmer, Temiar, Vietnamese); Daic (Thai); Atayalic (Atayal); Paiwanic (Paiwan); Tsouic (Tsous); Philippine Austronesian (Chamorro, Malagasy, Muna, Palauan, Tagalog, Yapese); Sundic (Achinese, Indonesian); Central Eastern Malayo-Polynesian (Anejom, Fijian, Kaliali-Kove, Kilivila, Larike, Mono Alu, Maisin, Maori, Paamese, Savu, Tinrin, Tolai)

Eurasia: **Altaic** Mongolian (Dagur); Tungus (Evenki, Ju-Chen); Turkic (Crimean Tatar, Turkish); Japanese, Korean; **Kartvelian** Georgian; **Nakh-Dagestanian** Archi; **Northwest Caucasian** Abxaz; **Chukchi-Kamchatkan** Chukchi **Elamo-Dravidian** Dravidian (Kannada); Elamite; ?**Austric** Austroasiatic (Mundari), **Indo-Hittite** Albanian; Anatolian (Hittite); Armenian; Celtic (Welsh); Germanic (Dutch); Greek; Indic (Hindi, Kashmiri); Iranian (Kurdi, Ossetic); Romance (Italian); Slavic (Polish); **Language Isolates** (Ainu, Basque, Burushaski, Gilyak, Hurrian, Ket, Nahali, Sumerian) **Uralic-Yukaghir** Finnic (Finnish); Ugric (Hungarian); Yukaghir

Australia & New Guinea: **Australian** Garawan (Garawa); Gunwinyguan (Ngalakan); Malak-Malak; Mangarayi; Maran (Alawa); Nyulnyulan (Nyulnyul); Pama-Nyungan (Arabana, Bandjalang, Gugu Yimidhirr, Kalkatungu, Kayardild, Ngiyambaa, Panyjima, Uradhi, Yidin, Yukulta); Tiwi; West Barkly (Djingili); Wororan (Ungarijn); Yiwaidjan (Maung); **Pidgins & Creoles** (Cape York Creole); ?**Indo-Pacific**  Trans New Guinea (Amele, Barai, Daga, Grand Valley Dani, Imonda, Hua, Kewa, Kobon, Salt-Yui, Sentani, Selepet, Tauya, Wambon, Waskia, Usan); West Papuan (Sahu, Tehit); Geelvink Bay (Yava); Sko (Vanimo); Torricelli (Au, Mountain Arapesh); Gapun; Sepik (Abelam, Alamblak, Yessan Mayo, Yimas); East Papuan (Anem, Nasioii, Yele)

North America: **Eskimo-Aleut** (Greenlandic); ?**Na-Dene** Athapascan (Navajo, Umpqua); Haida; Tlingit) ?**Amerind** Kutenai; Yurok; Algonquian (Plains Cree); Chimakuan (Quileute); Salishan (Comox); Wakashan (Nootka); Keresan (Acoma); Yuchi; Siouan (Dakota); Caddoan (Wichita); Iroquoian (Tuscarora); Tsimshian (Coast Tsimshian), Chinookian (Upper-Chinook); Takelma; Coos (Hanis Coos), Sahaptin (Nez-Perce); Wintun; Maiduan (Mountain-Maidu); Yokuts (Valley-Yokuts); Miwok (Southern Sierra Miwok); Zuni; Tunica; Atakapa; Yuki-Wappo (Wappo); Muskogean (Choctaw); Huave; Mixe-Zoquian (Copainala-Zoque, Sierra Popoluca); Mayan (Chontal, Jacaltec); Karok; Palaihnihan (Achumawi); Pomo (Southeastern Pomo); Washo; Seri; Yuman (Mohave); Tonkawa; Tanoan (Kiowa); Takic (Luiseno); Pimic (Northern Tepehuan); Aztecan (Pipil); Coric (Cora); Mixtecan (Copala Trique); Zapotecan (Valley Zapotec); Popolocan (Choco); Chinatecan (Lealao-Chinantec); Chibchan (Tarascan)

South America: ?**Amerind** Yanoman (Sanuma); Misumalpan (Miskito); Rama; Aruak (Ica); Guaymi; Warao; Mura (Pirahã); Choco (Epena Pedee); Waorani; Zaparoan (Iquito); Quechuan (Imbabura Quechua); Aymaran (Aymara); Mapudungu; Tucanoan (Retuarã, Southern Barasano, Tuyuca); Nambiquaran (Nambiquara); Cayuvava; Candoshi; Tupi-Guarani (Guarani); Arawan (Paumari); Maipuran (Amuesha, Ashaninca, Waura, Arawak); Peba-Yaguan (Yagua); Carib (Makushi, Hishkaryana); Panoan (Capanahua, Chacobo); Tacanan (Cavinena); Bororoan (Bororo); Ge-Kaingang (Canela-Kraho, Xokleng); Nadeb; **Pidgins and Creoles** (Saramaccan)

## Endnotes

1       To the best of my knowledge the discussed asymmetry in regard to subject and object agreement markers has been hitherto noted only by Gilligan (1988: 204, 404). The explanation that Gilligan offers for this asymmetry is couched in Chomsky's Government and Binding theory. Gilligan associates absence of null arguments accompanying agreement (my grammatical agreement) with theta role assignment by a nonlexical head (Infl) and location in specifier position. He argues that since lexical heads never assign theta roles to a specifier position, there is no possibility that a thematic nonsubject can be accompanied by agreement yet fail to be licensed. This explanation obviously does not hold unless one makes exactly the same set of assumptions about constituent structure and theta and case assignment as in the version of GB that Gilligan is assuming. I will therefore have nothing further to say about it.

2       The use of the term grammatical agreement for the last stages of grammaticalization is not entirely fortuitous. Perhaps a better term would be degenerate agreement. My choice of terminology is motivated by the grammaticalization cline.

3       In his sample of 100 languages, Gilligan (1987) identified 17 languages exhibiting null arguments and no form of overt agreement marking, all from Southeast Asia and Oceania.

4       The appositional relationship between verbal person forms and their accompanying nominals has been variously conceived of. Some linguists for instance, Bresnan & Mchombo (1987), Bresnan (1995) and Baker (1991, 1996), view it as similar to that between anaphoric pronouns and left- or right-dislocated topics as, for instance, in the English *The doctor, she really helped the patients/The doctor really helped them, the patients*. Other linguists, most notably Jelinek (1984,1988) and De Groot & Limburg (1986), see the appositional relationship between bound pronominal arguments and their accompanying nominals as more like the NP nonrestrictive appositions in *He, the doctor, told me, the patient, what to do*.

5       The sample is constructed using the sampling methodology developed in Rijkhoff et al. (1993).

6       In Northern Tepehuan there are ambiguous subject clitics only for the first and second person singular and plural and in Southeastern Tepehuan for these and third person plural.

7       This figure includes only the bound anaphoric markers, not the free anaphoric pronouns. If the latter were included, all languages would have one of the three types of agreement.

8       Though I systematically checked if the agreement markers did or did not co-occur with questioned phrases, this information was not always available.

9       I have not listed Russian or the other Eastern Slavonic languages here since in the preterite the verb is not inflected for person and thus the use of overt pronouns in the preterite may be attributed to the lack of person agreement. The conditions under which independent pronouns are used in other tenses in East Slavic differ from those in West and South Slavic but this is not an issue that can be pursued here.

10 For instance, Langdon (1977:277) argues that the person prefixes in Yuman are the result of pronoun incorporation. This is posited as the major source of bound pronominal paradigms in North America in general by Mithun (1988). As for the reinterpretation of already existing markers, according to Chafe (1977:203) the Iroquoian languages have reinterpreted number markers as person markers and then gender markers.

11 Note that in Nocte whether the agreement marker is an A or O is indicated by the presence of an additional inverse marker and in Plains Cree by both a direct and inverse marker.

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| pattern | Anaphoric | Ambiguous | Grammatical | Attested |
|---|---|---|---|---|
| a | A | | | yes |
| b | | A | | yes |
| c | | | A | yes |
| d | O | | | yes |
| e | | O | | ?yes |
| f | | | O | no |
| g | AO | | | yes |
| h | | AO | | yes |
| i | | | AO | no |
| j | A | | O | no |
| k | | A | O | no |
| l | O | A | | yes |
| m | O | | A | yes |
| n | A | O | | no |
| o | | O | A | no |

Table 1: The distribution of bound A and O anaphoric, ambiguous and grammatical agreement markers

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1  To the best of my knowledge the discussed asymmetry in regard to subject and object agreement markers has been hitherto noted only by Gilligan (1988: 204, 404). The explanation that Gilligan offers for this asymmetry is couched in Chomsky's Government and Binding theory. Gilligan associates absence of null arguments accompanying agreement (my grammatical agreement) with theta role assignment by a nonlexical head (Infl) and location in specifier position. He argues that since lexical heads never assign theta roles to a specifier position, there is no possibility that a thematic nonsubject can be accompanied by agreement yet fail to be licensed. This explanation obviously does not hold unless one makes exactly the same set of assumptions about constituent structure and theta and case assignment as in the version of GB that Gilligan is assuming. I will therefore have nothing further to say about it.

2  The use of the term grammatical agreement for the last stages of grammaticalization is not entirely fortuitous. Perhaps a better term would be degenerate agreement. My choice of terminology is motivated by the grammaticalization cline.

3  In his sample of 100 languages, Gilligan (1987) identified 17 languages exhibiting null arguments and no form of overt agreement marking, all from Southeast Asia and Oceania.

4  The appositional relationship between verbal person forms and their accompanying nominals has been variously conceived of. Some linguists for instance, Bresnan & Mchombo (1987), Bresnan (1995) and Baker (1991, 1996), view it as similar to that between anaphoric pronouns and  left- or right-dislocated topics as, for instance, in the English *The doctor, she really helped the patients/The doctor really helped them, the patients*. Other linguists, most notably Jelinek (1984,1988) and De Groot & Limburg (1986) see the appositional relationship between bound pronominal arguments and their accompanying nominals as more like the NP nonrestrictive appositions in  *He, the doctor, told me, the patient, what to do*.

5  The sample is constructed using the sampling methodology developed in Rijkhoff et al. (1993).

6  In Northern Tepehuan there are ambiguous subject clitics only for the first and second person singular and plural and in Southeastern Tepehuan for these and third person plural.

7  This figure includeds only the bound anaphoric markers not the free anaphoric pronouns. If the latter were included, all languages would have one of the three types of agreement.

8  Though I systematically checked if the agreement markers did or did not co-occur with questioned phrases, this information was not always available.

9  I have not listed Russian or the other Eastern Slavonic languages here since in the preterite the verb is not inflected for person and thus the use of overt pronouns in the preterite may be attributed to the lack of person agreement. The conditions under which independent pronouns are used in other tenses in East Slavic differ from those in West and South Slavic but this is not an issue that can be pursued here.

10    For instance, Langdon (1977:277) argues that the person prefixes in Yuman are the result of pronoun incorporation. This is posited as the major source of bound pronominal paradigms in North America in general by Mithun (1988). As for the reinterpretation of already existing markers, according to Chafe (1977:203) the Iroquoian languages have reinterpreted number markers as person markers and then gender markers.

11    Note that in Nocte whether the agreement marker is an A or O is indicated by the presence of an additional inverse marker and in Plains Cree by both a direct and inverse marker.