

SO. Order of Person Markers on the Verb

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1. Defining the values

Map SO represents the order of A and P person markers on the verb, relative to each other, where A stands for the person marker of the agentive argument of a transitive verb and P for the person marker of the patient argument of the transitive verb. Five values are represented:

@	1.	A and P do not or do not both occur on the verb	187
@	2.	A precedes P	97
@	3.	P precedes A	57
@	4.	Both orders of A and P occur	20
@	5.	A and P are fused	19
		total	380

The first value covers languages that exhibit no verbal person marking, have marking of only one of the transitive arguments, or allow both arguments to be marked but not in the same clause. This last possibility is sometimes found in languages which display hierarchical alignment of verbal person forms (see chapter SA), as is the case in Guajajara (Tupi-Guarani; north-eastern Brazil). As shown in (1), in Guajajara the transitive verb may agree with the A as in (1a) or the P as in (1b-c) depending on which is higher on the hierarchy: $1 > 2 > 3$, but it never agrees with both the A and P.

(1) Guajajara (Harrison 1986: 419)

- a. *a-esak kakwez kaʔl ihe*
 1SG.A-see DP.ATTESTED monkey I
 'I saw the monkey.'
- b. *he-kisi takihe-pupe aʔe*

31 1SG.P-cut knife-with I
 32 'He cut me with a knife.'

33

34 The form of the actual agreement markers is sensitive to
 35 whether the A outranks the P or vice versa. Thus the form of the
 36 first person markers in (1a), where the A is higher on the
 37 hierarchy than the P, is different from that in (1b), where it is the
 38 P that is higher than the A.

39 The second value, **A before P**, subsumes three types of
 40 languages: those in which both the A and P person markers are
 41 prefixes, as in Swahili (see 2), those in which both of the two are
 42 suffixes as in Amharic (Semitic; Ethiopia) (see 3), and those in
 43 which the two markers occur on opposite sides of the stem, as
 44 in Barbareño Chumash (Chumashan; California) (see 4).

45

46 (2) Swahili (Ashton 1947: 42)

47 *ni-li-mw-ona*

48 1SG.A-PST-3SG.P- see

49 'I saw him.'

50

51 (3) Amharic (Leslau 1995: 418)

52 *näggär-ä-h*

53 told.3SG.A-2SG.F.P

54 'He told you.'

55

56 (4) Barbareño Chumash (Wash 2001: 43)

57 *kh-kutiy-in*

58 1SG-see-2SG

59 'I see you.'

60

61 Analogously, the reverse order, **P before A**, covers the same
 62 three types of markers: A and P prefixes as in Retuarã
 63 (Tucanoan; Colombia) (see 5), A and P suffixes as in Lillooet
 64 (Salishan; British Colombia) (see 6) and a P prefix and A suffix as
 65 in Tauya (Madang, Trans-New Guinea; Papua New Guinea) (see
 66 7).

67

68 (5) Retuarã (Strom 1992: 218, 219)

69 *sa-ki-baʔakoʔo*
 70 3SG.P-3SG.A-ate-PST
 71 'He ate it.'

72
 73 (6) Lillooet (van Eijk 1997: 45)
 74 *núk^wʔ-an-c-as*
 75 help-TR-1SG.P-3SG.A
 76 'He helped me.'

77
 78 (7) Tauya (MacDonald 1990: 118)
 79 *nen-yau-a-ʔa*
 80 3PL.P-see-3SG.A-IND
 81 'She/he saw them.'

82
 83 In the vast majority of languages which have been assigned
 84 value 2 or 3, the A and P person markers exhibit a unique
 85 location relative to the verbal stem: both are prefixes, or
 86 suffixes or one is a prefix and the other a suffix. There are,
 87 however, languages in which the A and P exhibit the same order
 88 relative to each other, but vary with respect to their location vis-
 89 à-vis the stem. For instance, in Coeur d'Alene (Salishan;
 90 northern Idaho) one set of A and P forms is used in the
 91 completive and stative aspects, and another in the progressive.
 92 The first set of forms are suffixes, the second are prefixes. As
 93 shown in (8), the order of the A and P forms remains the same:
 94 the P forms precede the A forms.

95
 96 (8) Coeur d'Alene (Kroeber 1986: 77)
 97 a. *Gwič-t-s-↔n*
 98 see-TR-2SG.P-1SG.A
 99 'I saw thee.'
 100 b. *K^w-l-ʔc-gwič-↔n*
 101 2SG.P-1SG.A-ASP-see-M
 102 'I am seeing thee.'

103
 104 Such languages have also been classified under values 2 or 3,
 105 depending on whether the order is A > P or P > A, respectively.

106 Turning to the fourth value, **both orders of the A and P**, an
 107 example of a language displaying both orders of the A and P
 108 relative to each other is Ika (Chibchan; northeastern Colombia).
 109 In Ika the P forms and the second person singular and first and
 110 second person plural A forms are prefixes while the first
 111 singular A marker in the past and irrealis is a suffix. The third
 112 person forms are zero. In the case of prefixal forms the A
 113 precedes the P (9a), but when the A is first person, the order is P
 114 before A (9b).

115

116 (9) Ika (Frank 1990: 52, 21)

117 a. *nʌ-niwe-ʔzasana ki u-ʒ-e*

118 2SG.A-1PL.P-pay CNTR AUX-med-Q

119 'Did you pay us?'

120 b. *mi-tʃua-na-rua*

121 2SG.P-see-DIST-1SG.A

122 'I saw you.'

123

124 In some languages the existence of alternative orders of the A
 125 and P relative to each other is dependent on the position of the
 126 referents of the markers on the person and/or animacy
 127 hierarchies. This is not uncommon among the languages of
 128 Australia (e.g. Gunwinggu, Yukulta, Yulparija). Such
 129 hierarchically based ordering of the A and P is also found in
 130 Yimas (Sepik; Papua New Guinea), in which actually two
 131 hierarchies are involved, a person hierarchy (1 > 2 > 3) and a
 132 role hierarchy. The latter ranks the P higher than the A in the
 133 case of the first and second person, and the A higher than the P
 134 in the case of the third person. The higher ranking participant is
 135 placed closer to the verb stem. Thus when both participants are
 136 third person or the A is first or second person and the P third,
 137 we have P > A order as in (10).

138

139 (10) Yimas (Foley 1991: 202, 205)

140 a. *pu-n-tay*

- 141 3PL.P–3SG.A–see
 142 ‘He saw them.’
 143 b. *pu-ka-tay*
 144 3PL.A–1SG.A–see
 145 ‘I saw them.’

146

147 But when the A is third person and the P first or second, or the A
 148 is second person and the P first, we have A–P order, as in (11).

149

150 (11) Yimas (Foley 1991: 205–206)

- 151 a. *pu-a-tay*
 152 3PL.A–1SG.P–see
 153 ‘They saw me.’
 154 b. *ma-a-tay*
 155 2SG.A–1SG.P–see
 156 ‘You saw me.’

157

158 A conflict between the two hierarchies which arises when there
 159 is a first person A and a second person P is resolved by means
 160 of a portmanteau morpheme *mpan-/kampan*, as illustrated in
 161 (12).

162

163 (12) Yimas (Foley 1991: 207)

- 164 *kampan-tay*
 165 1SG.A.2SG.P–see
 166 ‘I saw you.’

167

168 In languages in which both the A and P forms occur on the same
 169 side of the verb, it is not always possible to determine what part
 170 signals the A and what part the P because the two are **fused**.
 171 Consider for instance the verbal paradigm in (13), involving the
 172 verb */ill/* – ‘to see’ in the present tense from Jaqaru (Jaqi; Peru).

173

174 (13) Jaqaru (Hardman 2000: 57)

175	<i>ill-k-ima</i>	I see you	1SG > 2SG
176	<i>ill-k-uta</i>	you see me	2SG > 1SG
177	<i>ill-k-ushta</i>	you see us	2SG > 1PL
178	<i>ill-k-utu</i>	she sees me	3SG > 1SG
179	<i>ill-k-ushtu</i>	she sees us	3SG > 3PL
180	<i>ill-k-tma</i>	she see you	3SG > 2SG
181	<i>ill-k-ta</i>	you see him	2SG > 3SG
182	<i>ill-k-t'a</i>	I see him	1SG > 3SG
183	<i>ill-k-tna</i>	we see him	1PL > 3SG
184	<i>ill-k-ti</i>	she see him	3SG > 3SG

185

186 A closer look at the above forms reveals that the second person
 187 is always associated with *-ma* if it is a P and with *-ta* if it is an A.
 188 But beyond this, no further definite segmentation appears to be
 189 possible.

190

191 2. Geographical distribution

192

193 As indicated on the map, among the 193 languages which have
 194 verbal person markers for both the A and P, there is a
 195 preference for placing the A before the P. This preference,
 196 however, is not manifested in all areas of the world. The
 197 placement of the A before the P is particularly frequent in
 198 Southeast Asia and the Pacific. It is also very common in Africa.
 199 Interestingly enough, all the African languages in the sample
 200 that display the opposite order (i.e. PA) are Nilo-Saharan. AP
 201 order prevails over PA also in Australia, South America and to a
 202 lesser extent in Eurasia.

203 In contrast to South America, North America exhibits a
 204 preference for PA rather than AP order. AP order is not only
 205 disfavoured relative to PA but also more geographically
 206 restricted. We see that PA languages are distributed all over the
 207 continent while most of the AP languages are in the western and
 208 central parts of the continent. In Mesoamerica, on the other
 209 hand, PA order is just as common as AP. This is also the case in
 210 New Guinea.

211 Fused A and P verbal person markers are found primarily
 212 in the Americas, particularly in North America. They are also

213 characteristic of the languages of the far north of Australia.
214 Fusion of A and P markers is uncommon in Africa and Eurasia.

215 Languages which have both orders of the A and P markers
216 relative to each other are common only in Australia. In fact in
217 Australia such languages prevail over those displaying a single
218 order be it AP, fused or PA. The only other area in which both
219 orders are encountered with some regularity is North America.

220 The order of the A and P relative to each other is not
221 independent of whether the two are prefixes, suffixes or occur
222 on opposite sides of the verb. AP order is particularly favoured
223 when the two person markers are on opposite sides of the verb;
224 of the 84 languages which have the two person markers on
225 opposite sides of the verb and display a unique order of the A
226 and P, in 75% the A precedes the P. This tends to be the case in
227 SVO and some verb-initial languages. This explains the
228 frequency of AP order in Southeast Asia, the Pacific and Africa.
229 Among the 36 languages in which the A and P are both prefixes,
230 AP and PA orders are very evenly distributed: 19 languages have
231 AP order and 17 PA. This is also more or less the case in the 34
232 languages in which the A and P are both suffixes: 15 have AP
233 order and 19 have PA order. Fused markers occur somewhat
234 more frequently in prefixal position (12 languages) than in
235 suffixal position (8 languages). This also holds for the
236 languages in the sample manifesting alternative orderings of the
237 A and P; 13 (65%) are prefixing.

238

239 **3. Theoretical issues**

240

241 One of the explanations that has been advanced for the
242 ordering of person affixes relative to each other is the principle
243 of relevance (cf. Bybee 1985, Bybee et al. 1990), which defines a
244 preference for placing affixes with a greater semantic effect on
245 the head closer to the head than those exerting a smaller effect.
246 The effect of the principle of relevance on the ordering of the A
247 and P is taken to be dependent on the alignment of verbal
248 person forms (cf. Bittner and Hale 1996). The expectation is that
249 in accusative alignment the P should be positioned closer to the

250 verbal stem than the A, and vice versa in ergative alignment.
 251 The predicted ordering patterns are thus the ones shown in
 252 (14).

253

254 (14) a. NOMINATIVE/ACCUSATIVE A-P-V-P-A

255 b. ABSOLUTIVE/ERGATIVE P-A-V-A-P

256

257 Among the 70 languages in which the A and P are either both
 258 prefixes or suffixes and which have a unique ordering of the two
 259 relative to each other, only 50 display either accusative or
 260 ergative alignment as the sole alignment. The alignment is
 261 accusative in 43 languages and ergative in 7. The P is placed
 262 closer to the verbal stem than the A in 63% of the languages
 263 with accusative verbal alignment, and the A is placed closer to
 264 the stem than the P in 71% of the languages with ergative
 265 alignment. In all, the predicted ordering occurs in 64% of the
 266 relevant languages. Another factor which is seen to influence
 267 affix order is the degree of grammaticalization of the
 268 morphemes in question. Diachronically older forms, i.e. forms
 269 that have undergone more development are expected to occur
 270 closer to the stem than younger forms (see e.g. Bybee et al.
 271 1991: 33). Due to lack of diachronic data, the effect of this
 272 factor is much more difficult to test.

273

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