

PERSON MARKER SEQUENCES IN AUSTRALIAN LANGUAGES *

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1. Symbols and Abbreviations.
2. Classifying Australian Languages, and Typological Considerations.
3. Person Markers in Australian Languages.
4. Typological Development of Australian Languages: Person Markers.
5. Summary of Conclusions.

1. SYMBOLS AND ABBREVIATIONS

1.1. PHONETIC SYMBOLS

The language materials given in this article are from a variety of sources, including the author's fieldnotes, and several different systems of notation are used in the originals. One of these systems has been adopted for the purpose of this paper, and for the sake of uniformity, all the materials presented have been transcribed into it. It is as follows:

<i>Consonants</i>						
	labial	inter-dental	alveolar	palatal	retro-flexed	velar
Stops	b	ɖ	d	dʲ	ɖ̠	g
Nasals	m	ɳ	n	nʲ	ɳ̠	ŋ
Laterals		ɭ	l	lʲ	ɭ̠	
Trills			r		ɽ	
Continuants	w		ɾ	j		

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There is no need, for the purpose of this paper, to enter into discussions of a phonological nature. The only point worth mentioning is that the stops represented by the symbols given above are voiceless lenes. Also, it may be pointed out that the above chart is only a basic chart, and that several phonemes occur in Australian languages not referred to in this paper, which are not included in the chart. In fact, this basic chart contains several symbols which do not appear in any of the examples given here.

Vowels

i	u
e	
ø	o
a	

Again, vowel phonemes occur in some Australian languages not drawn upon in this paper, which have not been included in this chart. However, all the phonemes given in the above chart will be encountered in the examples.

Suprasegmentals

: length

1.2. ABBREVIATIONS

A	adjunct	n	negative
al	allative	O	object marker
b	bound	P	person marker
c	catalyst	p	past marker
cm	composite	pl	plural
d	dependent	pr	present tense marker
dl	dual	psu	possessive suffix
do	direct object suffix	S	subject marker
e	ergative	s	shortened
ex	exclusive	sg	singular
f	free	t	tense marker
fu	future marker	V	verb
I	interrogative	X	aspect or auxiliary
i	inclusive	1	first person
im	imperative	2	second person
iO	indirect object marker	3	third person
N	noun		

- + indicates the composing elements of portmanteau affixes; it is also used to link elements and affixes which are difficult to separate in the analysis without giving elaborate explanations which are irrelevant to the discussion.
- links connected elements or affixes which are easily separable in the analysis.
(i.e. empty space) separates free morphemes.
- () in a formula: encloses the formula and separates it from the text;
in a translation: encloses the translation of elements in the native examples which are not expressed in an idiomatically correct free English translation.
- [] in a formula: encloses elements in the analysis which are not overtly indicated in the native example;
in a translation: encloses words which are necessary in an idiomatically correct free English translation but have no direct equivalents in the native examples.
- { } denotes a formula part which is composed of sub-parts.
- < derived from.
- > changes into.

Remarks to the abbreviations:

The word "marker" has been added to items in the above list in those cases in which it would usually be said when reading out a formula aloud.

In the formulae, the individual abbreviations have not been separated from each other, e.g. by full stops, because no ambiguity can occur. Though the same letters are parts of different abbreviations, they cannot be mistaken for each other, because they occur in complementary distributions, e.g. p, pl, pr, psu (with p only appearing in isolation), or i and iO, im, with i = "inclusive" only appearing after dl or pl; etc.

2. CLASSIFYING AUSTRALIAN LANGUAGES, AND TYPOLOGICAL CONSIDERATIONS

One of the general results of early attempts at classifying the Australian languages as a whole - as far as they were known at the time at which such attempts were undertaken - was the assumption that the languages of the far north of Australia were quite different from, and unrelated to, those of the remainder of the continent which were

believed to be interrelated. Also, the northern languages were regarded as unrelated to each other.

The first large-scale study of this kind was that undertaken by P. Schmidt (1919a, 1919b). He was basing his findings predominantly on the lexical comparison of small corpora, by inspection only - this is especially true for the part of his work concerned with the northern part of Australia. A few factors of a typological and regional nature were taken into account in greater or less detail - more frequently for the south-east of Australia than for other parts. Schmidt's materials were in almost all cases greatly limited, inadequate, and information was totally lacking for large portions of the continent, especially in areas outside the south-east. He was also unaware of the fact that the languages of Arnhem Land and the Kimberleys which he included with his North Australian languages and in consequence, separated radically from the southern languages, were typologically strikingly different from those of the other parts of the continent in employing prefixes abundantly.

In his first attempt at establishing a typological classification of the Australian languages, Capell (1937) treated the languages of the Northern Kimberleys as constituting a separate group. It had, at that time, been definitely established that these languages were characterized by the frequent appearance and use of prefixes in addition to suffixes - the exclusive use of the latter had been found to be a feature of the other Australian languages which were typologically and structurally known at that time. The terms "prefixing languages" and "suffixing languages" were adopted by Capell to denote the two language types. The languages of the Southern Kimberleys and most of Arnhem Land were insufficiently known in their structures and typological features to permit their inclusion in the typological group constituted by the northern Kimberley languages - they were left typologically unclassified at that stage. Capell did however suspect that his northern Kimberley Group extended further westwards.

In spite of the pronounced typological contrast separating the languages of this group from the other then known Australian languages which was paralleled by a low degree of lexical similarity, Capell came to the conclusion that all Australian languages were of the same stock and could all be linked with each other. In this, he differed sharply from Schmidt. At the same time, no satisfactory explanation could be offered at that stage for the highly aberrant nature of these northern languages.

The results of further linguistic work carried out mostly by Capell himself in several parts of Australia and especially in the far north

in the years following the publication of his first typological classification, made it possible for him to determine the extent and composition of the entire group of prefixing languages which occupies the Kimberleys and most of Arnhem Land as well as the western part of the south coast and hinterland of the Gulf of Carpentaria. At the same time, the typological and structural features of languages in other parts of Australia became clearer as more details became available and the existence and characteristics of several new types of Australian languages became known.

The characteristic feature of the prefixing languages is the presence of bound person markers denoting the subject and the object which appear as prefixes in the verb complex in sequences whose internal order is not optionally alterable, and is rigidly determined by definite principles. At the same time, the person markers are usually subject to considerable morphophonemic changes upon being combined with each other. Other affixes in the verb complex, such as number, tense, aspect, mood, etc. markers are predominantly, though by no means exclusively, suffixal.

In addition to this general characteristic, it has been found that the majority of the prefixing languages have class-systems comprising two or more noun classes, with varying degrees of concord. This had, for a long time, been regarded as an exclusive feature of prefixing languages in Australia - only one suffixing language, Bandjalang in north-eastern New South Wales, was shown by Smythe (unpublished) to possess rudiments of a class system. However, a few years ago, Hale discovered the existence of a number of suffixing languages with class systems and concord in the Barkly Tablelands area, to the south-east of eastern Arnhem Land. Hale has not yet published his results, but a brief description of one of these languages was recently given by Chadwick (1968). A very interesting point about these particular classifying suffixing languages is the fact that the bound morphemes used to indicate the classes in them show great formal similarity to the prefixes which denote the classes in most of the multiple-classifying languages in Arnhem Land and in the Kimberleys (Capell 1961), though there is only little lexical affinity between these languages.

It may be mentioned in passing that another group of suffixing classifying languages has recently been established by Dixon (unpublished) in north-eastern Queensland.

3. PERSON MARKERS IN AUSTRALIAN LANGUAGES

It has been pointed out above that work continuing to date has yielded

considerable information about the structural and typological features of many Australian languages which has made it possible to distinguish a number of somewhat different language types. These differences affect various points of language structure - the one of interest to this paper is the indication of the person of the subject and object through free or bound person markers, and will be discussed briefly below.

Mention has been made above of the indication of the subject and object in prefixing languages through prefixal markers appearing in fixed subject-object or object-subject sequences usually displaying considerable morphophonemic changes.

The situation regarding the affixing and rigid sequences (accompanied by morphophonemic changes and fusion) of the subject and object markers is comparable in some of the languages of Victoria and southern coastal New South Wales, but there the markers are all suffixed, not prefixed.

The extreme opposite type is shown by some languages - e.g. in south eastern Queensland - in which the subject and object are denoted by free person markers, with great freedom in the order of the markers. In other comparable languages like some which are located in Central Queensland, certain preferred orders in the appearance of the free person markers are clearly observable.

Many other languages contain abbreviated person markers functioning as bound morphemes which are suffixed to the first word in the sentence - this is for instance the case in some of the languages of northern Western Australia, south of the Kimberleys. In some comparable languages, e.g. some located in the central west of the Northern Territory, the person markers are suffixed to special morphemes whose sole function is to carry these bound person markers. In some languages of these types, for instance in some in west-central and north-western Western Australia, the person markers can also appear suffixed to the verb base, and the choice between various possibilities including the indication of the person by free person markers appears to be optional and free in many cases and languages. Only in comparatively few languages are the person markers apparently always suffixed to the verb.

In some other languages, e.g. in some spoken in the extreme north of central New South Wales and in the adjacent areas in Queensland, the subject markers are always suffixed to the verb - whereas in such languages, the object is usually denoted by a free form person marker which generally follows the verb.

Transitional steps between these various possibilities occur - one of special interest is a language type in which the subject and object markers are bound forms, fused together in rigid sequences displaying morphophonemic changes, but in which the subject-object marker complex

itself constitutes a free form which can appear in various positions in an utterance. An example of this is the Waramungu language in the centre of the Northern Territory.

4. TYPOLOGICAL DEVELOPMENT OF AUSTRALIAN LANGUAGES: PERSON MARKERS

4.1. Taking into account typological diversities like those reviewed above, Capell established a theory explaining them as the manifestations of the steps in a typological development of Australian languages from the simple to the complex, or in the specific case of person markers, from free to bound forms (Capell 1956, 1961, 1967). In this, it was also taken into account that the person markers throughout most of the continent showed considerable formal similarity, irrespective of whether they were prefixed or suffixed to verbs, or found in other positions, and were evidently largely derived from a common set of proto-forms. Capell's theory can be outlined as follows:

4.2. The typologically original form is represented by languages characterised by a very free word order, and the absence of bound person markers. For instance, in Dungidjau, a language of the Waka-Kabic Group of south-eastern Queensland, "*you(sg) hit(past) me*" is *ŋindu ŋanja bum!* (fS2sg fOlsg V+p) or any of the other five possible sequences of these three words: fS V fO, fO fS V, fO V fS, V fS fO, V fO fS (author's fieldnotes). It seems that emphasis plays a part in the choice of a given word order, and the second word from the beginning of an utterance carries some emphasis - but this has not been studied in full yet.

Starting from this original type, a number of typological developments are observable in the indication of the person with verbs, leading to the emergence of bound person markers, and increasing rigidity in the order and sequence of elements.

4.3. The first step in this is the presence of a preferred order, either before or after the verb complex, of free person markers, which at the same time may show preferred subject-object or object-subject sequences in given cases. Capell (1961) quotes examples from Juwinbara, a member of the Pama-Maric Group and formerly located in east-central Queensland. In Juwinbara, a tendency is noticeable for the free person marker to be placed after the verb, and for the pronoun subject to stand at the end of an utterance, e.g. *dago ŋagano: jindu* (A V+fu [zero=fOlsg] fS2sg) = "*you(sg) will soon see [me].*" The situation is very similar in Gunggari of central Queensland which is a member of the same group (author's fieldnotes): *gunilgu ŋana ŋindu* (V-fu fOlsg fS2sg) = "*you(sg)*

will hit me".

4.4. The next step is the appearance of somewhat abbreviated or modified person markers which still predominantly - or at least to a considerable extent - function as free forms. The presence of the shortened forms is either predictably conditioned by a number of factors, or when their use is optional, they may be governed in their appearance or order of appearance by some limiting principles or tendencies. These forms constitute a transitory stage towards the emergence of bound person markers.

Good illustrations of this type are provided by Narrinyeri (or Jaralde) of the Narrinyeric Group in the Lower Murray area, and by Wiradjuri of the Wiradjuri Group in southern central New South Wales (Capell 1956, 1961 and author's fieldnotes).

4.4.1. In Narrinyeri, the free person markers denoting the subject have two forms, one appearing in clause initial and the other in non-initial position. The subject and object markers tend to occur together, with the subject preceding the object, and the preferred position of the subject-object marker sequence is before the verb. The object markers are derived from the non-initial, i.e. shortened, forms of the subject markers, though some forms are irregular. Examples: *ḡadl jan laḡin* (fS1sg fO3sg V+p) = "I speared him" (sfS3sg: 11); *minj indl an deminjuwll* (I sfS2sg fO3pl V+p) = "what [did] you(sg) (them) shoot(past)?" (fS2sg: ḡindl, sfS3pl: ar).

Capell (1956) assumes that Narrinyeri represents the language type from which the prefixing language type may have developed, and points out that some of the subject and object markers in Narrinyeri show a strong formal resemblance to the corresponding markers in Yanyula, a prefixing language located in the western part of the Carpentaria Gulf country.

4.4.2. In Wiradjuri, two sets of person markers exist, one made up of full markers, and the other of abbreviated ones many of which function as suffixes and are therefore phonemically parts of the word to which they are added. In each set, separate subject and object forms are distinguished - there are also additional indirect object forms. Irrespective of whether the full or shortened forms are used - the choice between them appears to be optional - the person markers show a very strong tendency to occur together, and the two markers appear before or after the verb with approximately equal frequency. As regards the order within the subject and object marker sequence, it is in the first place determined by the fact that the shortened subject and indirect object

markers are all suffixal. In consequence, they appear either suffixed to the full or shortened person markers which are free forms, or to utterance-initial words like certain interrogatives which draw the person markers to themselves, or to the verb itself. With sequences of two full forms or a full and a non-suffixal shortened form (i.e. an object marker), the tendency is for the subject to precede the object, unless the subject is emphasised in which case it tends to follow the object. Examples: bumi nin-du (V+p sfO2sg-bS1sg) = "I hit(past) you(sg)", nadu-nu nungiri (fS1sg-biO2sg V+fu) = "I shall give you(sg)"; nal-gu bumi (sfO1sg-bS3sg V+p) = "he hit(past) me"; wargu-ndu nal dalai buqandira (I-bS2sg sfO1sg cmV+pr) = "why [do] you(sg) anger me?"; nindu jin jala (fS2sg sfO3sg V+im) = "you(sg) tell him!"; bumi nanal nindu (V+p fO1sg fS2sg) = "you(sg) hit(past) me"; nin jugu bumi (sfO2sg fS3sg V+p) = "he hit(past) you(sg)"; miri nungiri-du-nu (N V+fu-bS1sg-biO2sg) = "I shall give you(sg) [a] dog".

4.5. A further step in the typological development manifests itself in the appearance of bound person markers which are either suffixed to the first word in the sentence or to special morphemes ("catalysts") functioning as carriers of the bound person markers, or to the verb itself, with no, or only very little, morphophonemic changes affecting the markers. The order of the markers is very predominantly determined by the principle of the first person markers preceding those of the second and third, and the second person markers those of the third. At the same time, the choice between two or several positional possibilities of the subject-object marker sequence is free in many of the languages showing this type, and the person of the subject and object can in some languages also be optionally indicated by free person markers only.

The greatest concentration of languages of this type for which Capell (personal communication to the present writer) suggests the name "Affix-Transferring Languages" is found in Western Australia and the adjacent parts of the Northern Territory and South Australia, south of the Kimberleys and Arnhem Land, except for the north-eastern corner of the latter. However, such languages are also met with in other parts of Australia, in northern Queensland, coastal and inland New South Wales, Victoria, and in other parts. Examples: Ngarinman (northern central Northern Territory, a member of the Southwest or Nyungic Group) (Capell 1967): djia-na-ngu ba-ru (N-bS1sg-bO2sg V-fu) = "I shall shoot [a] kangaroo [for] you(sg)"; manari-na-ngu bina-ngu (N-bS1sg-bO2sg V-fu) or bina-ngu-na-ngu manari (V-fu-bS1sg-bO2sg N) = "I shall give you(sg) food"; Djaru (north-western central Northern Territory, a member of the Southwest Group) (Capell 1961): gula-na-ngu ju-ngu (n-bS1sg-bO2sg V-fu) =

"I shall not give you(*sg*)"; Julbaridja (north-western Western Australia, Southwest Group) (O'Grady and Voegelins 1966): najugudjara-li-li-dju-djananjaŋa jabaŋga-ŋanja (fSldl-e-bSldl-ex-bal03pl V-fu) or: jabaŋga-ŋanja-li-dju-djananjaŋa najugudjara-li (V-fu-bSldl-ex-bal03pl fSldl-e) = "we two(*excl*) will creep up on them"; Wanman (north-western Western Australia, Southwest Group) (O'Grady and Voegelins 1966): bu-ŋgu-li-dja-nda (V-fu-bSldl-ex-b02sg) or: baralugudjara-li-dja-nda bu-ŋgu (fSldl-e-bSldl-ex-b02sg V-fu) = "we two(*excl*) will hit you(*sg*)"; Wambaŋa (Barkly Tablelands area in the Northern Territory, Tjingili-Wambajan Family) (Capell 1961): madjbi-ŋu-nj-u (V-b02sg-bSls-g-fu) = "I shall hit you(*sg*)"; Wudjawuru (southern central Victoria, Kulinic Group) (Capell 1956): ɛrenbub-ma-ŋen (V+pr-b0ls-g-bS2sg) = "[do] you(*sg*) love me?"; Malgin (north-western central Northern Territory, Southwest Group) (Capell 1967): maŋarŋ ŋu-ŋa-ŋgu djei-ŋgu (N c-bSls-g-b02sg V-fu) = "I shall give you(*sg*) food"; Ngardi (western central Northern Territory, Southwest Group) (Capell 1967): djaŋaru gula ŋu-ŋa-la nja-ŋgu (A n c-bSls-g-b03sg V-fu) = "I shall not see him today"; Mudbura (north-western Northern Territory, Southwest Group) (Capell 1967): gula ba-ŋa-ŋgu ŋarga ma-nŋi (n c-bSls-g-b02sg cmV-pr) = "I do not understand you(*sg*)"; ba-ŋanda-ŋ nja-ŋana (c-b0lplex-bS2sg V-fu) = "you(*sg*) will see us"; ba-li-wula nja-ŋana (c-b0ls-g-bS3dl V-fu) = "they two will see me"; Warburton Dialect of the Western Desert Language (western central Western Australia, Southwest Group) (Douglas 1964): buŋu-ŋa-nda (V+p-bSls-g-b02sg) or: ŋaŋulu njundunja buŋu (fSls-g-f02sg V+p) = "I hit(*past*) you(*sg*)".

4.6. A somewhat special case of a step on a level comparable to that represented by the affix-transferring languages is constituted by languages in which bound subject markers always appear suffixed to the verb, whereas the person of the object is usually denoted by a free person marker, which generally follows the verb. Languages of this type are predominantly found in New South Wales, in the central north, the west, the central south and the south-east, but they occur also in Victoria, and a few scattered languages located in northern Queensland and in western Western Australia also show this type. Guamu, a member of the Pama-Maric Group and located in northern central New South Wales in the extreme south of the territory occupied by the Group, may be quoted as an example (author's fieldnotes) and the type called "Guamu type" after it: gunli-gu-nda ŋana (V-fu-bS2sg f0ls-g) = "you(*sg*) will hit me"; gunli-gu-li ŋanana (V-fu-bSldl f03pl) = "we two will beat them".

4.7. The final step in the typological development is constituted by

the rigid fixation of the bound person markers in regular and predictable, i.e. not optionally alterable, sequences in which they are mostly subject to strong morphophonemic changes, and in the fixation of these subject and object marker sequences before or after the verb complex in affixal, i.e. prefixal or suffixal, form. Capell maintains that these two possibilities of fixation, prefixal and suffixal, have led to the emergence of the prefixing and suffixing language types in Australia. Examples of these final steps are provided by most of the prefixing languages of North Australia, and by some of the suffixing languages of Victoria and south-eastern coastal New South Wales.

4.7.1. Of the prefixing languages, Wardaman in southern central Arnhem Land which is a member of the Yangmanic Group of the Gunwingguan Family, shows the type clearly (Capell 1967). In this language, many of the bound person markers are recognizably derived from the free person markers, in spite of the morphophonemic changes. At the same time, the order of the bound person markers in Wardaman is as in most prefixing languages, determined by the same principle as that operating in most affix-transferring languages (see 4.5.) which for the sake of brevity, will be referred to as "principle of the hierarchy of persons" in this paper in some instances. The verb used in the examples given below is *bu* = "hit", the suffix *-n* is the present tense marker, and the ligative prefix *-n- ~ -ŋ-* appears between the prefixed person markers and the verb stem if the person marker complex ends in a vowel (the alternate *-ŋ-* is limited to person marker combinations of *1sg+2sg* and to *1sg+3sg*): *ŋa-ŋ-bu-n* = "I hit you(*sg*): *f1sg* = *ŋajugu*, *f2sg* = *jingi*. The same form *ŋa-ŋ-bu-n* also means "you(*sg*) hit me" and "I hit him": *f1sg* = *ŋanu*, *f2sg* = *jinjaŋ*, *f3sg* = *guŋa*. In such cases, ambiguity is avoided by the appearance of one or both of the free markers in the utterance unless the context is clear. Further examples from Wardaman: *ŋa-n-bu-n* = "he hits me": *f1sg* = *ŋanu*, *f3sg* = *jingu*; *ŋa-ni-n-bu-n* = "you(*pl*) hit me": *f1sg* = *ŋanu*, *f2pl* = *nuru*; *ŋan-bur-bu-n* = "they hit me": *f1sg* = *ŋanu*, *f3pl* = *wuru*; *ju-nu-n-bu-n* = "we(*excl*) hit you(*pl*)": *f1plex* = *jiru*, *f2pl* = *nuru*; *ŋa-jingu-n-bu-n* = "he hits us(*incl*)": *f1pli* = *ŋaru*, *f3sg* = *jingu*. Examples from other prefixing languages: Jiwadja (or Iwaidji) on the Cobourg Peninsula of Northern Arnhem Land (a member of the Iwaidjan Family) (Capell 1962): *gun-bu-ŋ* (*b1sg+b2sg-V-p*) = "I hit(*past*) you(*sg*)"; *gunb-aja-ŋ* (*b2sg+b3sg-V-p*) = "he saw you(*sg*)"; *jan-aja-ŋ* (*b1sg+b2sg-V-p*) = "you(*sg*) saw me"; Kakadu of north-western Arnhem Land (constituting the Kakadjuan family-type isolate) (Capell 1942): *b-ore:gara* (*b1sg+b2sg-V+pr*) = "I see you(*sg*)"; *g-ore:gara* (*b1sg+b3sg-V+pr*) = "I see him"; *ŋun-ore:gara* (*b1sg+b2sg-V+pr*) = "you(*sg*) see me". In some

instances, the morphophonemic changes are quite weak, and the elements of the marker sequences clearly recognizable, e.g. Nunggubuju of south-eastern Arnhem Land (constituting the Nunggubujan family-type isolate) (Capell 1942): $\eta a-ni-na-ni$ (bOlsg-bS3sg-V-p) = "he saw me"; $ni-ni-na-ni$ (bO2sg-bS3sg-V-p) = "he saw you(sg)"; $na-ni-na-ni$ (bOldli-bS3sg-V-p) = "he saw us two(incl)"; $nu-nu-na-ni$ (bOldlex-bS3sg-V-P) = "he saw us two(excl)"; $\eta a-mbi-na-ni$ (bOlsg-bS3pl-V-p) = "they saw me"; $na-mbi-na-ni$ (bOldli-bS3pl-V-p) = "they saw us two(incl)". An even better example is provided by Mara of south-eastern Arnhem Land (a member of the Maran Family) in which the elements of the set of examples given below can be analysed functionally as follows: $na-$ = bOli, $ni-$ = bOlex, $nu-$ = O2, $wa-$ = O3, $-n-$ ~ $-ŋ-$ = Osg, $-r-$ = Odl, $-l-$ = Opl, $-gu-$ = bS3sg, $-mi-$ = ligative, $-na-$ = "see", $-dja$ = pr: $na-n-gu-mi-na-dja$ = "he sees me"; $na-r-gu-mi-na-dja$ = "he sees us two(incl)"; $na-l-gu-mi-na-dja$ = "he sees us(incl)"; $ni-r-gu-mi-na-dja$ = "he sees us two(excl)"; $ni-l-gu-mi-na-dja$ = "he sees us(excl)"; $nu-ŋ-gu-mi-na-dja$ = "he sees you(sg)"; $nu-r-gu-mi-na-dja$ = "he sees you two"; $nu-l-gu-mi-na-dja$ = "he sees you(pl)"; $wa-r-gu-mi-na-dja$ = "he sees them two"; $wa-l-gu-mi-na-dja$ = "he sees them". A morphophonemic change appears in "he sees him" which instead of $*wa-n-gu-mi-na-dja$ is $wa-mi-na-dja$.

4.7.2. Examples of this final development among suffixing languages are, as has been pointed out, provided by some of the suffixing languages of Victoria and the south-eastern coastal and hinterland languages of New South Wales, e.g. Darawal (or Tharawal) on the central south coast of New South Wales (a member of the Yuin-Kuric Group) (Capell 1956). In this language, like apparently in all the Victorian and New South Wales languages of this type, the order of the bound person markers is always subject-object in contrast to the principle of the first person preceding the second and third, and the second the third, irrespective of their functioning as subject or object, which is characteristic of most of the prefixing and the affix-transferring languages (see above 4.7.1. and 4.5.). Examples: $bulma-i-a-dan$ (V-p-bS3sg-bOlsg) = "he struck me", $bulma-i-awula-jan$ (V-p-bS3dl-bOlsg: note the morphophonemic change $-dan > -jan$) = "they two struck me"; $bulma-i-a-njiŋ$ (V-p-bS3sg-bO2sg) = "he struck you(sg)"; $bulma-i-agunj$ (V-p-bS1sg+bO2sg: strong morphophonemic change: bS1sg = $-ŋal$, bO2sg = $-njiŋ$) = "I struck you(sg)". Other examples may be given from Djadjawurung in north-western central Victoria which is a dialect of the Kulin language of the Kulinic Group (Capell 1967): $baŋ-a-ninj$ (V-bS3sg[+zero t = pr]-bOlsg) = "he scratches me"; $baŋ-in-ŋalen$ (V-p[+zero P = S3sg]-bOldli) = "he scratched us two(incl)"; $baŋ-inj-a-ŋurinj$ (V-fu-bS3sg-bOlpli) = "he will scratch us(incl)".

Djadjala of north-western Victoria which is another dialect of Kulin is a further good example, e.g. dag-a-ninj (V-bS3sg[+zero t = pr]-bOlsg) = "he hits me"; dag-a-nanu (V-bS3sg[+zero t = pr]-bO2sg) = "he hits you(sg)"; dag-inj-a-nurin (V-fu-bS3sg-bOlpli) = "he will hit us(incl)".

However it appears that in Djadjala, the person of the object can at least in some instances be optionally indicated by a free person marker. Capell (1967) referring to Mathews' MSS., mentions that "he hits me" is given by Mathews both as dag-a-ninj (V-bS3sg[+zero t = pr]-bOlsg) and as njaneg dag-a (fOlsg V-bS3sg[+zero t = pr]). The latter is comparable to the language type mentioned in 4.6.

4.8. An important transitional step between languages representing the final developmental step discussed above in 4.7., and the steps reviewed earlier is constituted by languages in which the subject and object markers form an inseparable unit which itself is a free form normally appearing in juxtaposition to the verb, but optionally preceding or following it. The composing elements of this unit are usually subject to morphophonemic changes.

4.8.1. Languages of this type constitute a direct transitional type between that represented by languages like Narrinyeri and especially Wiradjuri (see 4.4.2.) (i.e. languages in which the person markers begin to show tendencies towards functioning as dependent and bound forms appearing together in positions before or after the verb) on the one hand and the languages with consistently prefixed or suffixed person marker combinations on the other. Languages in which bound subject and object markers appear suffixed to the first word in a sentence or to catalysts, i.e. affix-transferring languages (see 4.5.), differ from the transitional languages under discussion - which may be called the Wara-munga type after their best-known representative - in the fully affixal nature of their person marker sequences which themselves cannot function as free forms. It seems difficult to envisage a typological development leading from the Wiradjuri type through the affix-transferring type to the rigid markers-prefixing type, because with person markers combinations which appear in affix-transferring languages in positions preceding the verb, the affixing function operates in the wrong direction, i.e. towards the morpheme preceding the person marker combination. This particular difficulty does not present itself with an envisaged development from the affix-transferring type to the rigid markers-suffixing type.

However, it is relatively easy to visualise a direct typological

development leading from the Wiradjuri type through the Waramunga type to both the rigid markers-prefixing and the markers-suffixing types, because in the Waramunga type languages, the person marker complexes tend to be juxtaposed to the verb, optionally preceding or following it, with their affinity to the verb not outweighed by other affinities. The development of the juxtaposition situation into an affixal one, with positional preferences hardening into pre- or suffixing, is easily conceivable. The two principles governing the order of the person markers in most Australian languages with bound person markers, i.e. a) subject precedes object, and b) the first person precedes the second and third, and the second the third, are fairly close to evenly distributed in the Waramunga type languages (see below 4.8.2. and 4.8.3.), with the first showing some prevalence over the second. The development of a definite preference for one of these two orders from a situation in which both are approximately evenly represented appears distinctly possible.

At the same time, a direct development from the Narrinyeri type (see 4.4.1.) to the markers-prefixing type can also be conceived, but one difficulty which presents itself in this is the fact that in the Narrinyeri type, the order of the person markers is generally that of the subject preceding the object, whereas in the markers-prefixing languages the order is usually determined by the hierarchy of the persons which, as has just been stated, is quite frequently though not predominantly also the case in the Waramunga type languages.

It can of course be argued that in the Narrinyeri type in which the markers are still free forms more elaborate tendencies governing the order of the person markers have not yet emerged - such tendencies are clearly observable in the Wiradjuri type in which some of the morphemes function as bound morphemes, and they are even more clearly in evidence in the Waramunga type languages which supports the assumption that the hardening of person markers ordering tendencies may be somehow directly proportional to the increasing presence of bound person markers.

The same difficulty as with the Narrinyeri type and the markers prefixing type exists with the assumption of a typological development of the rigid markers-suffixing type from the affix-transferring type. In markers-suffixing languages, the order of the person markers is persistently subject-object, irrespective of the persons involved, whereas in the affix-transferring type it is very predominantly governed by the principle of the hierarchy of the persons. It seems therefore that the typological development of the markers-suffixing type can be more easily visualised as having taken place from the Waramunga type in which the occurrence of the order subject-object somewhat outweighs that of the other order (see below 4.8.2.).

At the same time, it is quite conceivable that the markers-suffixing type has developed from the Guamu type in which the subject markers are suffixed to the verb, with the object indicated by a free form usually following the verb (see 4.6.). The change of the free form object marker to a suffixed bound form, sometimes subject to morphophonemic changes, is not difficult to think of.

This latter possibility has in its favour that in the markers-suffixing languages, the subject markers appear to be somewhat less affected by morphophonemic changes than the object markers. This is not the case in Waramunga type languages, and seems to be a plausible phenomenon in an assumed development of the markers-suffixing type from the Guamu type.

4.8.2. The best known language of this transitional Waramunga type is the Waramunga language (Capell 1953) in the central Northern Territory which constitutes the Waramungic group-type isolate in the Pama-Nyungan Family. Until recently, this type was, in addition to Waramunga, only known to be also represented, to some extent, by Awabakal of the Lake Macquarie-Newcastle area on the central coast of New South Wales (an extinct member of the Yuin-Kuric Group) (Capell 1956), though this language deviates from the Waramunga type in a few rare instances. However, recent work has demonstrated that this type is also present, though in a slightly different form, in Lamalama (or Gangganda) of the Princess Charlotte Bay area of central eastern Cape York Peninsula (a member of the Bay Pama Subgroup of the Pama-Maric Group) (D.C. Laycock, personal communication to the present writer), and a somewhat comparable phenomenon has also been observed in languages of the Daly Family of western Arnhem Land (D.T. Tryon, personal communication to the present writer). The now established widely scattered distribution of this general type shows it to be more representative than has been believed to be the case which enhances its significance as an important transitional type. Examples: Waramunga (Capell 1953): *gunaba angu bunju* (N bO2sg+bS3sg V+p) = "[the] dog bit you(sg)" (fP2sg¹ = aŋi, fP3sg = ŋaia); *gunaba ambugu bunju* (N bO2dl+bS3sg V+p) = "[the] dog bit you two" (fP2dl = ambul, fP3sg = ŋaia); *nanji aŋandu* (V+p bS2sg+bO1sg) = "you(sg) saw me" (fP2sg = aŋi, fPlsg = aŋi); *nanji adjirgi* (V+p bO1dlex+bS3pl) = "they saw us two(excl)" (fPl1dlex = adjila, fP3pl = adjul); *nanji aŋaŋu* (V+p bS1sg+bO2sg) = "I saw you(sg)" (fPlsg = aŋi, fP2sg = aŋi); *jawlri adjuladji njinju* (N bS3pl+bO1sg V+p) = "they gave me [a] kangaroo" (fP3pl = adjul, fPlsg = aŋi); *gandi arguiani djugundjira* (N bS2pl+bO1pli

¹ In Waramunga, only the subject markers occur as free forms - there are no free form object markers. For this reason, fP = "free person marker" is used in the examples, instead of the fS = "free subject marker" and fO = "free object marker" as given elsewhere.

V+im) = "*you(pl) bring us(incl) food*" (fP2pl = argu₁, fPlpli = anjula).

Concerning the order of the elements in the fused person marker units in Waramunga, the following can be said:

Out of a total number of sixty observed instances in which the persons of the subject and object markers were non-identical, the order of the elements was determined by the principle of the hierarchy of the persons (i.e. of the first person markers preceding those of the second and third persons, and those of the second preceding those of the third) in *fourteen* instances, against the pressure of the principle of the subject preceding the object which was overridden. In *eighteen* cases out of the sixty, the order of the elements was determined by the principle of the subject preceding the object, against the pressure of the other principle which was overridden. In twenty-seven cases out of the sixty, the two principles were leading to identical results, and these cases could not be taken into account in determining the numerical distribution of the two principles. In one instance, the morphophonemic changes were so extensive that they made the identification of the subject and object markers impossible.

Out of eight observed cases in which the persons of the subject and object markers were both the third, the principle of the subject preceding the object marker was prevailing in five, and the principle of the hierarchy of the persons in two, with one instance being impossible to analyse because of too extensive morphophonemic changes.

This clearly shows the preponderance of the principle of the subject preceding the object over that of the hierarchy of persons in the determination of the order of the elements in the fused person markers in Waramunga. However, this preponderance is not great, and the principle of the hierarchy of persons is also strongly in evidence.

4.8.3. Examples from other languages: Awabakal: banuŋ bungula (bS1sg+bO2sg V+p) = "*I hit(past) you(sg)*" (fsS1sg = baŋ, fO2sg = biŋ); wamumbinun banuŋ (cmV+fu bS1sg+bO2sg) = "*I will let you(sg) go*" (fsS1sg = baŋ, fO2sg = biŋ); godæra bidia nuwa (N bS2sg-bO1sg V+im) = "*give (yousg) me [the] cudgel*" (fsS2sg = bi, fO1sg = dia); biluwa bungula (bO2sg+bS3sg V+p) = "*he hit(past) you(sg)*" (fO2sg = biŋ, fsS3sg = nuwa); Lamalama (Gangganda): magam jenu (V[+zero = pr] bS1sg+bO2sg) = "*I see you(sg)*" (fPlsg = ja, fP2sg = dui, da). However, the possessive suffix 2sg is -nu, and it appears that the subject-object person marker units are analyzable into bS+psu, to which in most cases the suffix -n ~ -na is added - this is a very common direct object suffix in Australian languages. The addition of this suffix seems to be optional in some instances. Morphophonemic changes are considerable, and the principles

determining the order of the elements within the units seem to be in general comparable to those encountered in Waramunga. However, the picture is not really clear in those instances in which the principle of the hierarchy of persons seems to prevail, because in the observed cases the morphophonemic changes are too extensive to allow a completely unambiguous interpretation.

In the light of what has been said, the example given above is in fact analyzable as $V[+zero = pr] \text{ bS1sg} + \{\text{bO2sg} < \text{psu2sg}\}$. Other examples: *danan magam* ($\text{bS2sg} + \{\text{bO3sg} < \text{psu3sg}\} - \text{do}$ $V[+zero = pr]$) = "*you(sg) see him*" ($\text{fP2sg} = \text{dui}, \text{da}; \text{fP3sg} = \text{lui}, \text{la}; \text{psu3sg} = -\eta u$); *magam danduna* ($V[+zero = pr] \text{ bS2sg} + \{\text{bO3pl} < \text{psu3pl}\} - \text{do}$) = "[*do*] *you(sg) see them?*" ($\text{fP2sg} = \text{dui}, \text{da}; \text{fP3pl} = \text{nde}j; \text{psu3pl} = \text{ndu}$); *ḡajim nada* ($V[+zero = pr] \{\text{bO1sg} < \text{psulsg}\} + \text{bS2sg}$) or ($V[+zero = pr] \text{ bS2sg} + \{\text{bO1sg} < \text{psulsg}\}$) = "*you(sg) hear me*" ($\text{fP1sg} = \text{ja}; \text{psulsg} = \text{daw}; \text{fS2sg} = \text{dui}, \text{da}$). As is shown by the formula, the unit *nada* in this last example can be analyzed in two different ways. The first possibility is $\{\text{na-} < -\text{daw}\} - \text{da}$, i.e. $\text{psulsg} - \text{bS2sg}$, which would, at the same time, constitute an instance of the supremacy of the ordering principle of the hierarchy of persons over that of the subject preceding the object. What seems to militate against this analysis is the fact that $\text{psulsg} - \text{taw}$ is a suffix, and as such not likely to appear as the first element of a unit which constitutes a free form. Too little is known about the language as yet, though, to be able to be certain on this point. Also, more study of morphophonemic changes in the language in general may help to decide this question - though a change of $t > n$ would have to be assumed in both possible analyses. The second possible analysis of *nada* is $\{\text{na-} < \text{da}\} - \{-\text{da} < -\text{daw}\}$, i.e. $\text{bS2sg} - \text{psulsg}$ which would be in the light of the ordering principle of the subject preceding the object. The difficulty with this interpretation is the loss of the final $-w$ of $\text{psulsg} - \text{daw}$ without the addition of the apparently optional $\text{do} -n \sim -na$. Again, further study is needed to clarify this point.

Examples from Maranunggu, of the Brinken-Wogaity Group of the Daly Family: *jære ḡawanja-nimbæ gur do*: ($A \text{ bS1sg} + \text{fu} + X - \text{dO2sg} \text{ V fu}$) = "*tomorrow I shall hit you(sg)*". In this language, the person marker unit consists of two parts which are clearly separable in analysis. The part containing the subject marker which always precedes the second part, is analyzable into $\text{bS} + \text{t} + X$ appearing in various orders within the part except that X is usually last - and they are subject to morphophonemic changes. The second part is the free person marker which enters into a dependence relation to the first part and is positionally inseparable from it, though it is phonologically separate. The entire person markers unit is a positionally free form in the utterance, e.g. *djaIdjara ḡæḡe-*

nimbæ wud je bug (A bSlsg+p+X-dO2sg V p N) or: djalɟara wud ɣæŋe-nimbæ
je bug (A V bSlsg+p+X-dO2sg p N) = *"yesterday I gave you(sg) [a] book"*.

5. SUMMARY OF CONCLUSIONS

5.1. To highlight the theory of a typological development in the indication of the persons of the subject and object in Australian languages through free and bound person markers as outlined above, the following summary conclusions can be given:

A) The point of origin is represented by languages which employ only free person markers and are characterised by a very free and optionally changeable word order. Example: Dungidjau. Type: free type.

B) The first step away from this is the appearance of a preferred order of the free person markers. Examples: Juwinbara, Gunggari. Type: preferred order free type.

C) The next step is the appearance of somewhat abbreviated or modified person markers which still function as free forms. Example: Narrinyeri. Type: Narrinyeri type.

D) This leads to a step in which a portion of these abbreviated or modified person markers functions as bound forms. They can appear affixed to each other, with a number of possibilities concerning their preferred order and sequence existing in parallel. Example: Wiradjuri. Type: Wiradjuri type.

E) From the Wiradjuri type (D), the development goes in three directions:

a) The person markers are all bound forms which are affixed to each other, usually showing morphophonemic changes. The fused unit constituted by them is however a free form which is juxtaposed to the verb and optionally precedes or follows it. The order of the elements within the fused unit is somewhat more frequently that of the subject preceding the object than that of the first person markers preceding those of the second and third, and the second person markers preceding those of the third. Example: Waramunga. Type: Waramunga type.

b) The person markers are bound morphemes which are usually joined together without fusing or displaying morphophonemic changes, and which are either suffixed to the first word in the sentence, or to special morphemes functioning as carriers of the bound person markers, or to the verb itself. The ordering principle within the subject-object markers sequence is very predominantly that of the first person markers preceding those of the second and third, and the second person markers preceding those of the third. The choice between at least two positional

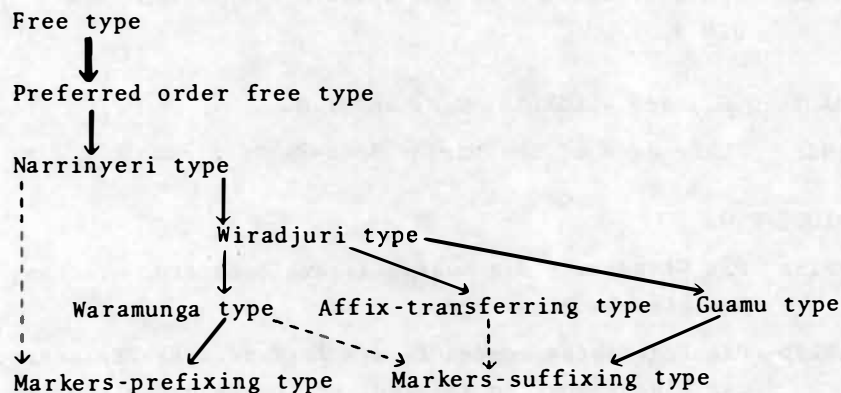
possibilities of the subject-object markers sequence itself is frequently optional, and the alternative use of free person markers can also be optionally present. Examples: Nagarinman, Wanman, Julbaridja, Warburton dialect of the Western Desert language. Type: affix-transferring type.

c) The subject markers are bound morphemes suffixed to the verb, and the object markers are free forms which generally follow the verb. Example: Guamu. Type: Guamu type.

F) From the Waramunga type (Ea), a type is derived in which the fused person marker unit is persistently prefixed to the verb. The order of the elements within this unit is mostly determined by the same principle of the hierarchy of the persons which is greatly predominant in the affix-transferring type (Eb). The development of this type is, though less easily, also conceivable directly from the Narrinyeri type (C). Examples: Wardaman, Jiwadja, Kakadu. Type: markers-prefixing type.

G) From the Guamu type (Ec) or from the Waramunga type (Ea) - perhaps more probably from the former - a type is derived in which a sometimes fused person marker unit is consistently suffixed to the verb with morphophonemic changes generally affecting the always suffixed object markers somewhat more than the subject markers. The development of this type is perhaps also conceivable from the affix-transferring type, but there are some difficulties. Example: Darawal. Type: markers-suffixing type.

5.2. The steps in the development highlighted above can be shown in a developmental chart as follows:



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