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SOME ANSWERS AND MORE PUZZLES: NEWLY DISCOVERED MODAL CATEGORIES AND THE HISTORY OF THE IWAIDJAN VERB SYSTEM[*]

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1. INTRODUCTION

The aim of this paper is to integrate newly discovered modal categories and their respective paradigms in Amurdak, a non-Pama-Nyungan language belonging to the Iwaidjan language family, within the verb system of Amurdak and with a partial historical reconstruction of the verb system of Proto-Iwaidjan. The key challenge is to account for the heavy innovation of Amurdak in the area of modal categories, on the foundations of inherited material. In a first pass at this problem this paper will first provide a morphological analysis of the new data and then link them comparatively to other Iwaidjan languages, pointing out anchor points as well as current problems. The main point the paper wants to make is that, although Amurdak displays striking innovations with respect to other Iwaidjan languages – especially some of the categories presented here -, there are substantial links, which put Amurdak closer to the core of the Iwaidjan language family than previously assumed. There are at least three major connections between language documentation and linguistic theory that this paper highlights.

First, discovering new data can depend on the existence of a theory or at least a hypothesis. In this case, for example, the hypothesis that the previously attested forms of the negative prefix belong to two different inflection classes that are in turn connected to the standard TAM inflection classes (see Mailhammer 2009) only made the elicitation of the relevant paradigms possible.

Second, the correct identification of grammatical categories and their semantic denotations greatly depends on the availability of suitable source data. Since some of the modal categories and their morphological expression described in this paper are not found in either related languages or languages of the area, it is serendipity if they are found at all and correctly described. They could have been hardly deductively derived at based on reasonable expectation, because of their typologically unusual morphological marking. Thus, the range of available texts and recorded material, despite being incomplete and lacking in many respects, was crucial in picking up on these forms and supporting the assumptions that ultimately lead to the discovery of the new paradigms. This underscores the pivotal significance of good quality language documentation, especially the emphasis of naturalistic data belonging to a large range of genres, because this

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vastly increases the chance that unexpected material surfaces, which then improves the grammatical description of the language informing in turn linguistic theory.

Third, new data can change the perception of the historical relationships of a language within its language family. Amurdak has always been seen as a peripheral member of the Iwaidjan language family (see e.g. Evans 2000), but over the years more and more links to other Iwaidjan languages have appeared, which challenge this view somewhat. This paper will also present a revised family tree of the Iwaidjan languages, in which Amurdak is not necessarily seen as such an outlier despite its considerable innovations.

This paper is structured as follows. Section 2 gives some background information on Amurdak focusing especially on the morphological realisation of verbal categories. Section 3 introduces two new grammatical categories, the hypothetical and the counterfactual, based on recent fieldwork, and also presents a more complete picture of the negative prefix. Section 4 opens up the comparative perspective comparing the modal categories found in Amurdak with those of the best-documented Iwaidjan languages, Iwaidja and Mawng, before section 5 attempts an integration of the new categories into the verb system of Amurdak and its prehistory, with implications for the reconstruction of Proto-Iwaidjan. Section 6 sums up the results and draws some conclusions.

2. VERB CATEGORIES OF AMURDAK AND THEIR MORPHOLOGICAL REALISATION

Amurdak is a somewhat unusual language within a somewhat unusual Australian language family of the so-called non-Pama-Nyungan languages, namely the Iwaidjan languages (see Evans 2000 for an overview), spoken in Northern Australia, see Map 1.

Map 1
The Iwaidjan language family (adapted from Evans 2000)

Amurdak is mildly polysynthetic with basically free word order and very little nominal morphology that contrasts with a much richer system of verbal inflection (see Mailhammer 2009 and Mailhammer & Handelsmann 2009 for overviews and further details). Generally, the verb root/stem is preceded by a person and number sensitive prefix that encodes directionality and TAM for S/A and that is followed by a range of suffixes and clitics that can encode a non-subject argument, a subspecification of non-singular subjects (dual, trial, plural), and other specific categories (e.g. malefactive, locational).

(1) Amurdak verb inflection: potential and perfective/imperfective (own field data)[1]

(a) *J-a-n-* *ja* *-burrki*.
away-1SG.S -POT - go -back
'I'll go back.'

(b) *A-man-* *burlka*.
1SG.S -POT –dance
'I'm going to dance.'

(c) *Wara-* *wun* *-kurrurlu*.
3sg.PFV$_4$.A-kill -3NSG.O
'He/She/It killed them.'

(d) *Wanu-* *wun* *-kurrurlu*.
3SG.IPV.S- kill -3NSG.O
'He/She/It used to kill them.'

Some of these categories are expressed by form-invariant affixes while others have up to four morphologically conditioned allomorphs that differentiate verbs into inflection classes labelled numerically (1 to 4). Table 1 lists the TAM categories and their morphological realisation with respect to lexically determined allomorphs.

[1] The abbreviations used in this paper follow the Leipzig Glossing Rules. 1 = first person, 2 = second person, 3 = third person, A = transitive subject, C = consonant, CFL = counterfactual, excl = exclusive, HYP = hypothetical, IMP = imperative, INCL = inclusive, IPFV = imperfective, IRR = irrealis, LL = land gender, N = number, N = nasal that assimilates in place to the following segment, NEG = negative, NSG = non-singular, O = object, obl = oblique, P = person, PFV = perfective, POSS = possessive, POT = potential, PRS = present, S = intransitive subject or unspecified subject in Amurdak, SG = singular, V = vowel, subscript numbers indicate inflection class, e.g. PFV$_4$ = class 4 perfective. Language abbreviations: Am = Amurdak, Ga = Garig, Il = Ilgar, Iw = Iwaidja, Mw = Mawng

Table 1
TAM categories of Amurdak and their morphological realisation

Category	Morphological realisation	Allomorphs
Perfective	P/N sensitive prefix	4
Imperfective	P/N sensitive prefix	4
Potential	P/N sensitive prefix	4
Negative	P/N sensitive prefix	2
Malefactive	P/N sensitive suffix	1
Hypothetical	P/N sensitive prefix	1
Counterfactual	P/N sensitive prefix	1
Imperative	prefix/suffix (*IRR1)	3 (?)

Within the categories that have allomorphs (except for the presently somewhat unclear imperative) there are two base paradigms, each of which has one minor variation. The two paradigms of the negative prefix align with these inflection classes, so that each one patterns with one of the base paradigms. The assignment of inflectional classes has not been sufficiently clarified, as there appears to be a mix of phonological and syntactic criteria. From a comparative viewpoint the existence of inflectional classes based on a person-number sensitive TAM prefix is rather unusual. Typically, Iwaidjan and many other Northern Australian languages show a split into transitive and intransitive person/number prefixes, and it looks like that this is indeed the historical basis for the TAM allomorphy in Amurdak (Mailhammer 2012). The other categories possess only one paradigm for all verbs but are nevertheless person/number sensitive, which is still typologically striking, as these categories are typically expressed by form-invariant morphology. However, it is possible that further research will unearth further variation in these categories.

3. "NEW" MODAL CATEGORIES: HYPOTHETICAL AND COUNTERFACTUAL

Previous descriptions of the Amurdak verb system (Handelsmann 1991, Mailhammer 2009 and Mailhammer & Handelsmann 2009) did not mention a hypothetical or a counterfactual category. The main reason for this was that although single forms of an otherwise unallocated prefix were attested, the existence of a complete paradigm could only be hypothesised, and it was impossible to even try to predict any forms. Moreover, typologically, it was far from clear that such categories should exist in such a form. The related languages possess general irrealis morphology (e.g. Mawng, cf. Singer 2006) but no distinct person-number sensitive forms for these and other modal categories, such as negative and malefactive.

Recent fieldwork targeted elicitation and text annotation sessions with a competent native speaker in which the remaining forms were gathered, confirming the hypothesis that prefixes belonging to both categories form full

person/number sensitive paradigms. All forms were checked multiple times with different sources and can be stated with some confidence. The next three sections describe the hypothetical (§ 3.1), the counterfactual (§ 3.2) and the negative (§ 3.3), for which a second paradigm was confirmed in recent fieldwork.

3.1 Hypothetical

There are two core uses of the hypothetical forms, firstly the description of a hypothetical event (2a), and secondly an apprehensive use (2b).

(2) Uses of the hypothetical in Amurdak

(a) ***A-bal-*** *muna-wurduk.*
1SG.S -HYP - say.do -2SG.O
'I might say to you two.' [FT 93-1, 12:44]

(b) *Martakan,* ***u-bal-*** *walkardan!*
slow.careful 2SG.S-HYP - spill
'Careful, you might spill it!' [Handelsmann 1998: 134]

Apprehensive forms are not uncommon in Northern Australian languages and so is a formal and semantic connection to a hypothetical or irrealis form. The Amurdak hypothetical is, however, formally distinct from irrealis forms in related languages, which are all expressed by invariant suffixes rather than person/number sensitive prefixes, which raises questions as to the historical development (see below). Table 2 gives the full paradigm.

Table 2
The Amurdak hypothetical paradigm[2]

Person/Number	Hypothetical (*attested pre-2012)
1SG	*a-bal-**
1NSG	*urr-bal-*
2SG	*u-bal-**
2NSG	*urr-al-*
3SG	*wal-**
3NSG	*irr-al-*

Formally, the hypothetical prefix is made up of a person-number element followed by what can be segmented as the hypothetical component, -(*b*/*w*)*al*-. This follows from the close formal correspondence between the first elements of the hypothetical prefix in Table 2 and the person-number components in other paradigms, most notably the potential paradigm of class 3, which are either

[2] Forms marked by an asterisk are attested in pre-2012 texts, the remaining forms were elicited in 2012.

identical or can be reconstructed as identical for a previous stage of the language (cf. 2SG. *u-*, 2NSG. *urr-*, 3SG. **wa-*, 3NSG. *irr-*). [3]

3.2 Counterfactual

The use of the counterfactual is illustrated in (3).

(3) Amurdak counterfactual

(a) *Baju* ***yumu-*** *ngardjin.*
maybe CFL.3SG.S - go.down
'S/he/it should have climbed down.'

[Ngajanaminy]

(b) ***Y-indu-*** *wu-rlu* *naki* *irrambabak.*
CFL -3NSG.S- hit.kill-3SG.O dog 3SG.POSS
'They should have killed their dog.'

[KH_J02_001723B, 34:32]

The counterfactual is used for events in the past that did not take place, similarly to counterfactuals crosslinguistically. As with the hypothetical, Amurdak is areally unusual in not using a more general form-invariant irrealis marker to express this category (see e.g. Evans 2003: 373 for Bininj Gun-Wok, and Singer 2006: 62 for Mawng). Table 3 displays the paradigm of the Amurdak counterfactual.

Table 3
The Amurdak counterfactual paradigm

Person/Number	Counterfactual (*attested pre-2012)
1sg	*yam-a-*
1nsg	*yam-arr-*
2sg	*yin-u(wu)-**
2nsg	*y-awun-*
3sg	*yumu-**
3nsg	*y-indu- **

The formal segmentation of the counterfactual is less clear than that of the hypothetical. It is apparent, however, that a person-number element can be recognised that follows the part that expresses the counterfactual, which is the opposite of what we saw in the hypothetical. In some cases the correspondences are relatively obvious: the first person forms have counterparts in the person-number components of all categories (*a-* and *arr-* in the perfective, imperfective and potential paradigms), and the 2NSG *-awun-* matches the 2NSG in the perfective

[3] The forms of the first person hypothetical are less clear in terms of their correspondence, but the 1NSG is formally identical to the 2NSG. of the POT paradigm of class 3, although this raises questions as to how this might have come about, even though there generally is a high degree of formal overlap in the verb paradigms of Amurdak (Mailhammer 2009).

and the imperfective paradigms of class 4. Other cells are more elusive, e.g. -*u*(*wu*)- in the 2SG, which may match a common 2SG in *anu*- (perfective and imperfective) in a reduced form, and the 3NSG -*indu*, which partially lines up with the 3NSG in the perfective paradigm of classes 2 and 3 and the all imperfective paradigms (*wandu*-). The 3SG lacks any formal correspondence among the paradigms of the other grammatical categories. It is also not entirely clear what the formal realisation of the counterfactual element is beyond *y*-, which is, however, formally identical to the 'away'-part of the directional prefixes. Further research will have to clarify the morphological details, but the basic facts are that there is a counterfactual element preceding a person-number component that finds much correspondence in other verbal paradigms.

3.3 Negative

The third category for which recent fieldwork has uncovered more forms is a negative prefix. A significant part of one paradigm and indications of a second are attested in pre-2012 data. The available forms suggested that the paradigms correspond to two of the paradigms found in the perfective and the imperfective categories (classes 1 and 3 and 2 and 4 respectively, see §1 above). Targeted elicitation yielded two full paradigms, given in Table 4.

Table 4

The Amurdak negative prefix

Person/Number	Negative 1 (*attested pre-2012) patterns with classes 1/3	Negative 2 patterns with classes 2/4
1SG	*al-a-**	*al-aN-*
1NSG	*al-arr-**	*al-aN-*
2SG	*al-u-**	*al-uN-**
2NSG	*al-urr-*	**al-un-*
3SG	*al-u-** (cl. 3) / *alawu-* (cl. 1)	*al-u(wa)-*
3NSG	*al-uwurr-* (cl. 3) / *alawurr-* (cl. 1)	*al-uwun-*

Even though the person-number elements of the two negative prefix paradigms do not formally match that of the paradigms in classes 1/3 and 2/4 in full, there are some clear connections, such as the assimilating nasal (N) as the final segment in the 1st person and 2SG cells (see Mailhammer 2009 for further details about the verb prefixes). Nevertheless, the verbs taking negative 1 and 2 are found in

classes 1 and 3 as well as in classes 2 and 4 respectively.[4] Formally, the negative element is clearly *al-* and this appears to be connected to the negative particle *alamuniyi* 'not', which may perhaps be reconstructed as 'I don't do' (cf. Amurdak *ala-muna*(*ny*) 'I don't say, do'). Although it is evident that the remaining material marks person and number, it is not always obvious where it finds matches among the other categories. For example, 3sg -(*w*)*u*- and -*u*(*wa*)- cannot be linked in any straightforward way to a 3sg form in any of the other paradigms. And the 3NSG -(*u*)*wurr*- / -*uwun*- is formally similar to the 2nsg in classes 1/3 (*anuwurr*-) and 2 (*anuwun*-). Synchronically it is clear that the element following the part denoting the negative expresses person and number, but it is also evident that its formal reconstruction is considerably more complex. Example (4) illustrates the use of the negative prefix.

(4) The Amurdak negative prefix

(a) ***Al-a-*** *miyardma* *walij*.
NEG-1SG.S- want, like food
'I don't want any food.' [FTr 12-2-2]

(b) *Am-* *bunany* ***al-un-*** *jildi*.
1SG.PFV.S- yell, call and NEG-2SG.S- listen
'I call you, but you don't (never) listen'
[FTr 11-1-6 FT 11, 12:05-12:25]

(c) *Anga-* *munany-bu* *ny arldawu* ***al-u-*** *yildi* *-nganu*
1SG.IPFV.S-say, do-3SG.OBL and no NEG-3SG.S-listen, -1SG.OBL
'I'm talking to him, but isn't listening to me.'
[FTr 11-1-5, FT 11:11-11:24]

Like the hypothetical and the counterfactual, the negative prefix finds no counterpart in related languages. The following section opens up the comparative perspective, paving the way for the implications for a reconstruction of the Proto-Iwaidjan verb system, which are laid out in section 5.

4. THE COMPARATIVE PERSPECTIVE: IRREALIS CATEGORIES IN IWAIDJA AND MAWNG

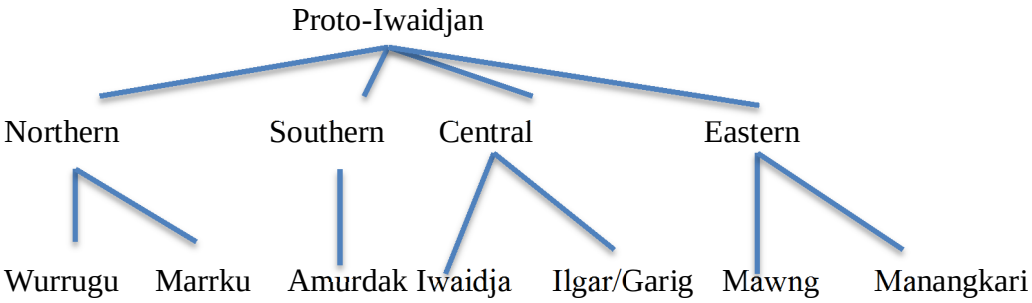
This section gives an overview of the formal realisation of the grammatical categories represented by the Amurdak paradigms described in section 3 above. It will be shown that none of the languages we have reliable data for has formal expressions like that found in Amurdak. Both Central and Eastern Iwaidjan appear to be more in line with other Northern Arnhem Land languages and other Non-Pama-Nyungan languages in using two, at least historically, reconstructable irrealis suffixes that are not person-number sensitive to express modal categories.

[4] As Table 4 shows, the third person of Negative 1 has different forms for class 1 and for class 3. It is not yet clear whether this is just the case here or whether the other cells of negative 1 also show this difference, and whether Negative 2 might perhaps have forms that separate class 2 apart form class 4.

Figure 1 shows the family tree of the Iwaidjan languages.

Figure 1

The Iwaidjan languages



4.1 Central Iwaidjan (Pym & Larrimore 1979, Birch p.c., Evans p.c.)

Table 5 lists the modal categories and their morphological realisation in Central Iwaidjan.[5]

Table 5

Modal Categories in Central Iwaidjan[6]

Category	Morphological realisation	Allomorphs
Future (POT)	P/N sensitive prefix	2
Optative (CFL in Il/Ga)	IMP-prefix + *IRR-suffix	3 (suffix)
Counterfactual (HYP in Il/Ga)	IMP-prefix + *IRR-suffix	3 (suffix)
Imperative	prefix + *IRR-suffix	3 (suffix)

This shows the use of an irrealis suffix in combination with other modal morphology to express a future tense, an optative, a counterfactional and an imperative. While the future and the imperative show more similarities with Amurdak, the counterfactual and the optative are different not only because of the irrealis suffix but especially because it shows allomorphy, whereas the hypothetical and counterfactual elements in Amurdak are the same for every verb. The data from Central Iwaidan suggest that Amurdak innovated the counterfactual and hypothetical from sources different from the irrealis. This view is supported by the data from Eastern Iwaidjan, as the following section will show.

4.2 Eastern Iwaidjan (Mawng; Singer 2006)

Table 6 displays the modal categories of Mawng (representing Eastern Iwaidjan).

[5] The future tense is included in the modal categories here, as it also as modal uses in all languages.

[6] *IRR1 and *IRR2 represent the two irrealis suffixes that can be reconstructed for Proto-Iwaidjan, and for which cognates exist in other northern Australian languages (see Verstraete 2005).

Table 6
Modal categories in Mawng

Category	Morphological realisation	Allomorphs
Future	P/N sensitive prefix	2
Hypothetical	*IRR1-suffix	4
Counterfactual	*IRR2-suffix	4
Imperative	*IRR2-suffix	7

Although Mawng also uses irrealis suffixes to express modal categories, it does so differently from Iwaidjan. First the two irrealis morphemes do practically all the work (except in the future/potential, which is formally cognate across all Iwaidjan languages and which is expressed by a person-number portmanteau prefix), in contrast to Central Iwaidjan, where other affixes occur as well. Second, the number of irrealis allomorphs is higher in Mawng than in Iwaidja, especially for the imperative.

4.3 Implications for Proto-Iwaidjan

The comparative perspective across all Iwaidjan for which we have reliable data suggests at least three implications for the reconstruction of the modal categories of Proto-Iwaidjan. First, Proto-Iwaidjan almost certainly expressed a future/potentialis category with a person-number sensitive prefix that probably originally was transparently segmentable, even this is not always the case anymore in the attested languages. Nevertheless, the future/potential component is salient enough and is probably to be reconstructed as *-*bana*-.[7] Second, two irrealis suffixes have to be reconstructed for Proto-Iwaidjan. This is not only because of the evidence from Central and Eastern Iwaidja, but there is good indication that some Amurdak imperatives preserve traces at least of a frozen irrealis suffix (*IRR1). Third, in contrast to the future/potential the irrealis categories probably possessed several allomorphs.

5. INTEGRATING THE NEW CATEGORIES INTO THE VERB SYSTEM OF AMURDAK ANDA RECONSTRUCTION OF THE PROTO-SOUTH-IWAIDJAN VERB

The aim of this section is to see how the Amurdak data, especially the "new" categories and forms can be matched up with the comparative data to draw some implicative conclusions for a reconstruction of the Proto-South-Iwaidjan (or Pre-Amurdak) verb. What we will see is that despite clear formal correspondences, Pre-Amurdak must have both innovated heavily and retains ancient material at the same time in the development of the many person-number sensitive modal prefixes. The key questions this raises are where the additional material these

[7] It is likely that the first syllable of *-bana-* represents an older and more widespread irrealis affix that is also found in other northern Australian languages (Mark Harvey, p.c.).

innovations display comes from and how exactly it was combined with inherited elements. The basic development appears to have been to combine the person-number prefix component with new material similar to what happened in all Iwaidjan languages in the future/potential, and also in the directional prefixes in the Central Iwaidjan languages.

Table 7 lays out the correspondences between the "new" modal categories and the perfective paradigms of classes 3 and 4 as well as the potential paradigm of class 4.

Table 7
Person-number components across grammatical categories in Amurdak

P/N	HYP (-*bal*-)	CFL (**y*V*m*V-)	NEG 1 (*al*-)	NEG 2 (*al*-)	PFV class 3	PVF class 2	POT class 4 (-*man*)[8]
1SG	*a*-	-*a*-	-*a*-	-*aN*-	*a*-	*a*N-	*a*-
1NSG.INCL	*urr*-	-*arr*-	-*arr*-	-*aN*-	*a*-	*a*N-	*a*-
1NSG.EXCL	*urr*-	-*arr*-	-*arr*-	-*aN*-	*arr*-	*a*N-	*arr*-
2SG	*u*-	-*u*(*wu*)-	-*u*-	*uN*-	*anu*-	*anu*N-	*u*-
2NSG	*urr*-	-*awun*-	-*urr*-	-*un*-	*awurr*-	*awun*-	*urr*-
3SG	Ø-	Ø- (*?)[9]	-*wu*-	-*u*(*wa*)-	*wa*-	*wa*-	Ø-[10]
3NSG	*irr*-	*-*andu*-[11]	-*wurr*-	-*wun*-	*warr*-	*wandu*-	*irran*-

As Table 7 shows, the person-number component of these categories can be related to person-number components of other categories in relatively straightforward way, although details are not always clear. The key question for the historical account is where the additional material comes from, i.e. what is put in brackets following HYP, CFL and NEG in row one of Table 1. For the negative prefix there is at least a formal correspondence with the negative particle *alamuniyi*, but if this is really a frozen negative verb form, then this tells us nothing about the origin of *al*-. As mentioned above, the *y*V- part of the

[8] I reconstruct the first and second person forms as historically ending in an assimilating nasal, N, just like the respective forms in PFV$_2$. This would have resulted in them coming out as labials with following assimilation and simplification: **aN-ban*- > **amban*- > **amman* > **aman*-. A similar phonological development can explain the 1sg.pfv with *m*- initial roots, e.g. *a-ma-rlu* 'I got it' (< **am-ma*- < **aN-ma*-).

[9] The formal exponent of the 3sg is not clear. Given the present data, a person-number element cannot be confidently segmented.

[10] Synchronically, this is a portmanteau form, *wan*-, which can potentially be reconstructed as **wa-ban*- with following lenition and ensuing contraction **wawan*- > *wan*-. This would make the *w*- the reflex exponent of the 3SG.

[11] The reconstruction concerns the initial vowel of the prefix, which is tentatively given as -*a*- based on the 3NSG forms in the PFV of classes 2 and 4, although this is speculative, as there is no independent evidence for this.

counterfactual prefix is formally identical with the initial syllable of the 'towards' directional forms, e.g. *yuba-* in *yuba-yak* 'He went here', but this may well be a coincidence, at least until more tangible evidence is presented that would connect the two. The hypothetical component -(*b*)*al-* has no formal correspondence anywhere in Amurdak and it is also peculiar because it follows the person-number element rather than preceding it, which has ramifications for answering the question of what of the new material may be seen as retentions and which prefix components could be innovations. This is obviously an important issue for the reconstruction of the prehistory of Amurdak and the verb system of Proto-Iwaidja, and three observations may be relevant here.

First, the origin of the hypothetical appears to be distinct from that of the counterfactual and the negative prefixes. Its person-number components are more transparently related to those of the potential, while the point of reference for the other two categories seems to be the perfective, cf. Table 7.

Second, the fact that the hypothetical element follows the person-number component suggests that this category and its formal realisation are older than the other two, because it is more tightly integrated, and cannot be readily analysed as a former clitic that has become part of the prefix. For instance, many modal functions are expressed with added adverbs in languages like Iwaidja, and it seems conceivable that such adverbs can cliticise and eventually end up as parts of new modal prefixes.

Third, it may well be that the hypothetical element -(*b*)*al-* is originally bimorphemic and that it is connected to an old irrealis morpheme *-ba-*, which is probably contained in *-bana-*, which is part of the potential/future prefix not only in Amurdak but across all Iwaidjan and many northern Australian languages (see Verstraete 2005). It would appear, however, that the Amurdak hypothetical is a reflex of a category that already existed in Proto-Iwaidjan, but that was lost in all other branches for which we have sufficient data. The reason for this is that it seems doubtful that the *-ba-*morpheme was still transparently available at a Proto-Iwaidjan stage, because all Iwaidjan languages have future/potential form in which this element had already merged with what might be another possible morpheme *-na-*. Thus, it looks like the Amurdak hypothetical is a retention rather than an innovation. This is probably different for the counterfactual and perhaps the negative; at least the counterfactual may have replaced an older irrealis category, because Amurdak has not preserved any of the inherited irrealis morphology other than in what appear to be frozen forms in imperatives such as *mangkarlu* 'get it' corresponding to the root *mak* 'get' (cf. *-ng*, irrealis 1 in Mawng, Singer 2006: 61).[12]

To sum up, this preliminary comparative investigation has shown that the morphology expressing the Amurdak modal categories of hypothetical, counterfactual and negative has a twofold origin. Partly it was innovated to replace formations with irrealis morphology found in other related languages and used in connection with existing prefixal person-number marking, and partly it

[12] That the irrealis 1 suffix is not used to express imperatives in Mawng, is unproblematic, as the inherited irrealis 1 suffix is used in Iwaidja to form imperative (see Pym & Larrimore 197: 74).

seems to be a retention of morphology that appears to go back to Proto-Iwaidjan. However, many details remain obscure, e.g. the ultimate source of the innovated and retained material, and this will have to be left to further research.

6. CONCLUSION

This paper has presented paradigms of Amurdak modal morphology that are not found in related languages as well as considerations for their development and connection within the Iwaidjan language family. The most striking difference between Amurdak and other Iwaidjan languages is the existence of person-number sensitive prefix paradigms for the categories of hypothetical, counterfactual and negative. There are clear morphological correspondences between the morphology of these categories and other categories, especially with respect to the person-number components. The hypothetical patterns with the potential whereas the counterfactual and the negative paradigms pattern with the perfective paradigms. However, details about the form and origin of the morphemes expressing these categories are unclear to a significant degree. It appears that Amurdak has both retained older morphology – in the case of the hypothetical – but innovated elsewhere potentially replacing inherited irrealis morphology.

In terms of a connection between language documentation and linguistic theory, this paper demonstrates how our hypotheses about grammar and its development both inform and are informed by targeted fieldwork drawing on a mix of elicitation and the investigation of naturalistic data.

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