3 The Palu’e passive: from pragmatic construction to grammatical device

MARK DONOHUE

1 An alternation in Palu’e

Voice constructions are usually associated with changes in the pragmatic status of the arguments of a clause, and so bear a strong resemblance to topic constructions in terms of their information structuring effects and entailments. Importantly, however, a defining criterion of voice alternations is that they morphologically monitor the changing status of the arguments of the verb, in terms of their grammatical function identity. By contrast, topic constructions are held to not affect the grammatical status of the arguments, but to restructure their pragmatic status. I shall present data from Palu’e, an Austronesian language of Central Indonesia, showing evidence that the language that has (recently) begun grammaticalising a topic construction into one member of a grammatical voice system, providing possible insights into the origin of voice systems in pragmatic structuring devices, and the nature of voice systems as constructional oppositions.

Palu’e is an Austronesian language spoken on the island of Palu’e, just off the middle of the north coast of Flores, in southern Indonesia. As with other languages of central Flores it has little bound morphology, with only some aspectual and adverbal clitics joining the language’s four genitive clitics as enclitics. There are some incipient proclitics, marking case and agreement for 1SG subject, but they do not concern us here. There are two possibilities for encoding bivalent clauses, which can be illustrated in the alternation between (1) and (2), showing clauses with AVP and PAV orders, respectively. The translations offered are taken from informants’ translations into Indonesian. I have called

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\(^1\) In addition to A, S and P, which are defined following Comrie (1978) as the most agent-like argument of a lexical predicate, the single argument of a monovalent verb, and the most patient-like argument of a lexical predicate respectively, the following abbreviations are used: 1, 2, 3 first, second and third person; COMP complementiser; CORE core; EMPH emphasis; GEN genitive; LINK link; NOM nominative; PASS passive; PERF perfective; PL plural; PRED predicate; PREP preposition; R realis; RED reduplication; SG singular; v\(_1\) active-like voice (A is subject); v\(_2\) passive-like voice (P is subject); VP verb phrase. Thanks are due to my Palu’e-speaking friends on Batam, and to Kazuya Inagaki.

\(^{1}\) Wayan Arka and Malcolm Ross, eds
The many faces of Austronesian voice systems: some new empirical studies, 59–85.
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A more complete version of this paper is available at
http://pluto.mssc.huji.ac.il/~msyfalk/PhilippineSubjects.pdf.

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data we have seen, however, has an important part to play in determining the legitimacy of the label ‘construction’ as the most appropriate one to describe the whole nature of voice alternations. The Palu’e voice alternation cannot be easily described as being a derivation, since there is no morphology involved in its creation: both the active and the passive are unmarked by any non-lexical morphology. We might appeal to non-overt morphology, but this would be simply applying an analysis to suit the theoretical constructs that we already have in place, and not empirically examining the data. Similarly we might, in a movement-based model of syntax, assume that there was a null operator that (for instance) absorbed the accusative case assigned by the verb to the P, and so forced that argument to a VP-external position (following standard Chomskyan analyses of passives — see, for instance, Jaeggli (1986) or Baker, Johnson and Roberts (1989)). I believe that the Palu’e data best support an analysis of construction primacy. The ‘construction’ of voice alternation is clearly what is being manipulated historically here, not any particular morpheme. There may well have been overt voice-marking morphology in Palu’e’s past, and there might be overt morphemes associated with voice alternations in the future, but the contemporary language has an unmarked passive. If it has changed from an inverse(-like) system to the modern system, then we have to accept that there are some morphosyntactic markers of the voice construction that are more resistant to change than others — the behaviour of reflexives, for instance, has not changed, even though the other evidence examined here suggests that the voice alternation is not inverse, but passive. On the other hand we must also accept that there are some aspects of the passive construction that are not as central as others: the voice alternation does not exist in Equi or raising constructions, where only active interpretations can be found. If ‘passive’ is a construction, this must be a non-essential part of the construction. While the only model that allows us to accurately think about the voice alternation is that of unified constructions, the idea of the ‘construction’ as a monolithic entity has been challenged by the inconsistencies in the behaviour of the construction.

As an epilogue, it is worth considering the analytical passive in Palu’e, which is formed with the verb coma ‘(be) affect(ed)’. This construction does not allow for the expression of the A, but also acts to change grammatical functions, as seen in the coordination data in (95).

Analytical passive in Palu’e

\[
\begin{align*}
P & \quad V \\
V & \quad vaw a \quad coma \quad cube. \\
V & \quad \text{pig that affect shoot} \\
\text{That pig was shot.}
\end{align*}
\]

\[
\begin{align*}
V & \quad vaw a \quad coma \quad cube \quad lka \quad _{\text{PREP}} \quad laju \quad lae \quad uta. \\
V & \quad \text{pig that affect shoot and:then run} \\
\text{That pig was shot and then ran to the bush.}
\end{align*}
\]

An analytical passive such as that seen in these two sentences is clearly an innovative development in Palu’e, since most other instances of passives in Austronesian languages, and certainly the more archaic versions, involve morphological marking.\(^{17}\) This might imply that systemically the language is filling a ‘need’ for a voice, which might

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\(^{17}\) The striking exception to this concerns the numerous analytical passives that can be found in non-standard varieties of Malay, using kena ‘affect’ or dapa ‘receive’. These, too, seem to appear in varieties of Malay that have lost the synthetic di- prefix in a passive use on verbs (Donohue 2004b).
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Analytical passive in Palu’e

\[
P \quad V
\]

(94) \textit{Vavi vaʔa coma cube.}
That pig was shot.

(95) \textit{Vavi vaʔa coma cube lka \_ laju lae uta.}
That pig was shot and then ran to the bush.

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sever (as using a knife’). The data is more problematic for those theories (such as most Chomskyan-derived models) that assume that the alternation in grammatical behaviour between the active and the passive is due to a change in the available Case roles: we could imagine that the Hokkien-style passive, in which only the demoted A is marked with an extra morpheme, could be analysed as having this morpheme absorbing the object-assigning Case role, and then being realised through movement prepositionally on the preverbal oblique A; the now caseless P then moves away from the verb and acquires subject properties through its new structural position. This is obviously not possible by means of any overt morpheme in Palu’e, and the analysis can be salvaged only if we posit a phonologically-null morpheme, or movement at LF. Adopting this first position would also be the same as claiming that many of the diagnostics that are used to test kinds of voice systems, particularly the reflexive construction as a test of core or oblique status, belong together only in the passive ‘construction’ artefactually: that they are, in fact, independent variables that coincide only as what we recognise as voice ‘types’ (passive, antipassive, inverse, Philippine-type) over a long period of time.

If we were to adopt the second stance, then we would be assuming that some of the diagnostics of a ‘construction’ are more or less stable than others. Assuming that Palu’e previously possessed a Philippine-type voice alternation (since we have attested examples of non-demoting voice in western Austronesian languages, and a reflexive construction in Palu’e that behaves just as the reflexive behaves in these related languages), we would be claiming that the amount of morphological material slowly reduced (similar to a language-wide extension of the particular Indonesian construction seen in (91) and (92)), but that even as the morphological clues to the construction are dropping the construction is changing. The motivation for the change towards an active-passive alternation, rather than the A-voice–P-voice alternation can only be guessed at.\footnote{Though it is worth noting that a change from non-demotional to demotional voice types is attested in Malay/Indonesian varieties as they occur in the east of the archipelago, away from their western homeland and presumably influenced by other eastern languages (Donohue 2004b).} The implication, however, is that syntactic change is possible without any morphological grammaticalisation: rather than morphology instigating the syntactic reinterpretation, the departure of morphology would have to be held responsible for the reinterpretation. We are also dealing, if we attempt to model this historical picture in morphologically based frameworks such as described above, a sequence of two different null morphemes. Clearly a model that admits the existence of various grammatical constructions is preferable to one that requires morphological markers to drive the syntactic derivations that it assumes. We also require the model to allow a relationship to exist between the A and the P in both the AVP and the PAV constructions that is identical, in order to drive the reflexive binding data. That is, there must be something constant in the representation of both the AVP and the PAV construction, even though there are clearly changing patterns of grammatical behaviour with respect to, for instance, floating quantifiers and conjunction reduction. This implies that we are best off considering a theoretical model that allows us to deal with separate modules of structure at the same time, such as the argument structure distinct from functional and constituent structures in Lexical Functional Grammar (e.g. Bresnan 2001).

Up to this point I have been using the label ‘construction’ simply as shorthand to refer to different syntactic phenomena that might just as easily have been described as ‘structures’ or ‘derivations’ or whatever other theory-specific term one might prefer. The
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More significantly, the apparently zero-morphological alternation seen in the Indonesian examples only manifests itself in a highly restricted set of circumstances: the A must be first or second person, and the verb must (irregularly) not take any active marking for there to be no morphological alternation. In Palu’e, on the other hand, this alternation is regular for all persons and for all verbs: any combination of A and P can appear, and no verbs are marked in either the active or the passive (other than for aspect and some forms of subordination).

In summary, the Palu’e PAV construction that we have examined can be productively analysed as a passive alternative of the AVP construction, and the apparently aberrant reflexive data are, while unusual, not unprecedented.

6 Implications for our understanding of ‘voice’

The Palu’e voice is an unusual exemplar of a voice system. In analysing it, when compared to more prototypical voice systems, we must conclude that it is either the very beginning of a voice system, or the very end of one. The two competing hypotheses run as follows:

1. Modern Palu’e voice is an inceptive ‘proto-voice’ system
   • the contemporary voice system is a recent innovation in Palu’e, and as such has not yet acquired all the hallmarks of a fully ‘mature’ voice alternation, including morphological marking (on nouns and on the verb), nor has the reflexive construction yet adapted to the presence of a function-changing construction in the language;

2. Modern Palu’e voice is the relic of an earlier more elaborate system
   • an earlier stage of the language possessed a more ‘complete’ voice system, presumably with both morphological and syntactic characteristics that were more ‘neat’ with respect to their characterisation in a typology of voice.

Of course, in a real sense these two hypotheses are not ‘in competition’ — there is nothing to preclude both of them from being applicable and true descriptors of the Palu’e situation, and I shall return to this point later in this section. Nonetheless, the implications of these two positions are quite different, and are most easily examined in isolation from each other. If we assume position 1, then we are claiming that it is possible for a passive alternation to exist in a language in the absence of any morphological marking. In effect, we are claiming that there is such a thing as a passive construction, independent of any morphological ‘load-bearers’. While this is not necessarily a bad claim, it certainly is one that is awkward for most of the widespread theoretical approaches to morphosyntax. In a theory, such as Lexical-Functional Grammar, which claims that operations such as passive, causative, applicative etc. are derived in the lexicon, the absence of any morphological material means that we must assume a zero-derivational process such as that which is assumed by some to apply to noun–verb alternations in, for instance, English. The extensive precategoriality that characterises Palu’e would lend support to this view of zero derivation (for instance, *tusu* can be used in a sentence as either a referent translatable as ‘breast’, or as a predicate translatable as ‘suckle (on a breast)’, and *kti*, translated here in referential functions as ‘knife’, can equally be used predicatively with the sense ‘cut off,
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Voice$_1$: active

\[(89)\]  \(Dákó \ ó-jwát-ó \ lóćà.\)  \((\text{Lango})\)
woman 3SG-hit-3SG man
'The woman saw the man.'

Voice$_2$: passive

\[(90)\]  \(Lóćà \ dákó \ ó-jwát-ó.\)  \((\text{Lango})\)
man  woman 3SG-hit-3SG
'The man was seen by the woman.'

In Lango too the A is the antecedent of the reflexive in both voices, and the marking of agreement on the verb shows clearly that there is no demotion of either argument. Some controversy has been associated with the analysis of the Lango alternation shown above as a voice alternation (e.g. Woolford 1991). In Tukang Besi, which we have seen in examples (83) and (87), there is no dedicated voice morphology, but the alternation in voice is indicated by a (potential) change in case marking on the NPs, and a change in the amount of pronominal agreement found on the verb (Donohue 1999:51–54, 461–490; 2004a).

Indonesian also shows what appears to be a purely word-order defined voice alternation, but only for first and second person As, and only with that class of verbs that do not show regular voice marking (though see Chung 1978 for a caution on the analysis of bare 'stem' verbs as invariably representing non-active clauses in Indonesian; Cartier 1984 also provides relevant discussion). Consider the following sentences using the verb makan, which in this construction shows no verbal marking in the active or non-active voices, and has a first person singular A and a P that vary only in its positions, not in any NP-marking.\(^\text{15}\)

**Indonesian**

Voice$_1$: active

\[(91)\]  \(Saya \ makan \ nasi \ itu.\)
1SG  eat  rice that
'I ate that rice.'

Voice$_2$: 'objective' / 'inverse'

\[(92)\]  \(Nasi \ itu \ saya \ makan.\)
rice  that 1SG  eat
'I ate that rice.' OR: 'That rice was eaten by me.'

This alternation seems to be identical to that found for Palu'e. The only significant difference involves the non-oblique status of the A in (92) compared to the Palu'e translation in (93), in which aku is oblique (as demonstrated earlier in this paper).

\[(93)\]  \(Lama \ vaʔa \ aku \ ka.\)
rice  that 1SG  eat
'I ate that rice.' OR: 'That rice was eaten by me.'

\(^{15}\) The lack of alternation in makan reflects the fact that the morphology which is functionally cognate with the active men- prefix — seen earlier in (84) — is here frozen onto the lexical root as *nua-, attached to the historical root *kaan. This historical prefix is present even in the non-local A non-active voices, where marking with di- is obligatory: di-makan, *di-kan.
Voice₁: active

\[(89) \quad \text{Dákó ó-jwát-ò lócà.} \quad \text{(Lango)}\]
\[
\text{woman 3SG-hit-3SG man}
\]
\[
\text{'The woman saw the man.'}
\]

Voice₂: passive

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\text{man woman 3SG-hit-3SG}
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\text{Indonesian}
\]
\[
\text{Voice₁: active}
\]

\[(91) \quad \text{Saya makan nasi itu.} \quad \text{1SG eat rice that}
\]
\[
\text{1SG eat rice that}
\]
\[
\text{'I ate that rice.'}
\]

\[
\text{Voice₂: 'objective' / 'inverse'}
\]

\[(92) \quad \text{Nasi itu saya makan.} \quad \text{rice that 1SG eat}
\]
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\text{'I ate that rice.' OR: 'That rice was eaten by me.'}
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\footnote{The lack of alternation in makan reflects the fact that the morphology which is functionally cognate with the active n\text{-}mep\text{-} prefix — seen earlier in (84) — is here frozen onto the lexical root as *n\text{-}ma-, attached to the historical root *\text{k}o\text{-}a\text{-}n. This historical prefix is present even in the non-local A non-active voices, where marking with di- is obligatory: di-m\text{-}kan, *di-k\text{-}an.}
however, do not employ passive voices, 13 while we have seen that Palu’e does. Can we reconcile the evidence for a passive voice alternation in Palu’e with the fact that the A and P in the reflexive construction does not show a change in syntactic status?

An unambiguous example of a language with a passive construction, involving demotion of the A to an adjunct function and yet retaining the A as the antecedent of a reflexive in either passive or active voice, is Marathi (Joshi 1993). In Marathi the verb is marked as passive, and there is a special case marker for the (optional) by-phrase agent in these clauses, all indicating an unproblematic passive. Yet at the same time the antecedent of the apan reflexive is restricted to only the by-phrase agent (which Joshi calls the logical subject), not the grammatical subject. Similar conditions apply to gapped arguments in un adverbal clauses. This arises because of a condition in the grammar of Marathi that requires these constructions to refer to the argument that is highest-ranked on the thematic hierarchy from the verb’s subcategorisation frame. While the agent in the sentences is clearly an adjunct, marked by the postposition kadun, the higher thematic role that it bears is enough to license it, and only it, being the antecedent of the reflexive, regardless of the changes in grammatical function assignment. These data are proof that it is possible for a construction to be analysed as a passive while the reflexive data behave very differently from the expected pattern. The behaviour of reflexives indicates that, at least optionally, they can be regarded as being constrained by the relative positions of the arguments in argument structure, regardless of any grammatical-function changing operations (such as passive, or potentially other voice) that have applied to the clause. 14 The reflexive data, in short, are not incompatible with a passive analysis of the voice system, though they do represent a highly unusual pattern.

What, then, of the lack of passive-marking morphology? While there are examples of languages lacking verbal (or auxiliary) morphology to indicate the passive, there is usually at least some indication of the passive, either as a VP-level marker (such as the Mandarin bèi, and other passive markers) or on the NP itself (such as Hokkien ho described in §2, or Manggarai le [Arka and Kosmas, this volume]). Is there a precedent for a voice alternation with no morphological marking at all?

A case similar to the Palu’e one can be found in Lango (Noonan & Bavin-Woock 1978; Foley & Van Valin 1984; Noonan 1992), in which only the order of the A and the P indicates the choice of voice. In (89) the grammatical subject is dákó, while in (90) it is lócà. The only morphological or phrase-structural difference between the two clauses is the position of the P in the clause.

See Schachter (1976, 1977) for the ‘classic’ presentation on these issues, Kroeger (1993) or Falk (2000a, 2000b) for more recent formal treatments. Indonesian is the exception. In Indonesian in addition to an ‘A-centric’ and ‘P-centric’ voice, which behave as described in §4.3.2 without demotion, there is a passive voice, which employs the same verbal morphology as the P-voice, but with additional nominal-marking morphology, suggesting that the importance of nominal marking, hinted at in the Hokkien examples seen in §2, is also salient in Austronesian languages. The equivalents of (88) in this true passive voice would be the clause seen in (i) below. Note that (ii) is ungrammatical, confirming the oblique status of the oleh phrase. See Arka and Manning (1998) for further discussion.

(1) Dia di-lihat oleh diri=nya.

3SG V2+see by self=3GEN

‘He was seen by himself.’

(ii) * Dirinya di-lihat oleh=nya.

3GEN V2+see by=3SG

This predicts that a ‘quirky reflexive’ such as that in Palu’e or Marathi should be possible in a language with a non-passive voice alternation (an antipassive, for instance). To my knowledge this has not been attested.

13

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The answer lies in the morphological form of the Palu’e voice construction. While a typical voice alternation involves the structures seen in the left columns of Table 3, as exemplified by the English passive data in §2, and an active/antipassive pattern would be that shown in the centre columns. The Palu’e voice shows the pattern seen on the right. This is clearly typologically marked with respect to the other two patterns, which both show strong patterns of morphological asymmetry between the two coding options.

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There are, of course, languages with voice systems other than those involving passive or antipassive alternations, most notably the voice alternations found in the Algonquian languages or the western Austronesian languages, in which there is no morphological markedness relation between the two (or more) voices in the language; Table 4 compares Palu’e to representations of these language types, arranged for comparison with Table 3.

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Comparing these data, we can see that there is more commonality between Palu’e and the other language types, in terms of what Foley (1998) calls ‘symmetricality’ between the voice alternations in these systems. In both the inverse and the Philippine-type systems the amount of morphological marking on the verb is the same in both voice types, just as it is in Palu’e (of course, the fact that in Palu’e there is no morphology in both instances is significant, as we shall relate). Another point of similarity between the Philippine-type voice alternation and the Palu’e one concerns reflexive antecedency: the Palu’e data on reflexives from §4.3.1 are a challenge to the analysis of the AVP/PAV alternation as involving a passive voice alternation, but, as we saw in §4.3.2, they are consistent with the types of voice systems observed in related languages to the west. These languages,
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5 Conclusions: the Palu’e voice system

We have seen that there is a passive alternation in Palu’e, although some data, here represented by the reflexive construction, do not line up with the prototypical structure that might, based on a cross-linguistic survey, be expected in the behaviour of passives. Table 2 shows which argument displays the most syntactically privileged behaviour in the constructions examined here. The columns are divided according to whether we are discussing the (bivalent) AVP construction, the PAV construction, or a monovalent construction, in which case the single argument must precede the verb.

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</tr>
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Apart from the conclusions obtained by examining the reflexive data, the analysis of the Palu’e AVP/PAV alternation can unproblematically be described as one showing an active/passive alternation. While there are two core arguments in the AVP construction, with the A being the syntactically most privileged argument, the PAV construction presents the A as a non-core argument, and the P as the privileged argument. Apart from the lack of any morphological marking, this presents itself as a classic case of a passive alternation. The reflexive data, however, do not behave in that way. By comparison, western Austronesian voice systems typically do not involve demotion of the agent to non-argument status in the non-active voice, and so it is with the reflexive data seen in §4.3.1; this will be illustrated below.

When we compare the Palu’e reflexive data with that from other western Austronesian languages with symmetrical voice systems (Tagalog, Tukang Besi and Indonesian are used to exemplify these patterns), we find a remarkable congruence in the facts of reflexive binding. In the sentences below the grammatical subjects are shown in bold (the judgments for Palu’e are based on the evidence from the quantifier constructions, conjunction reduction and purposive sentences presented earlier). In the first four examples we can see the predicted pattern of the A binding a reflexive P, while the A is the grammatical subject.\(^{12}\)

\begin{align*}
\text{Voice}_1, \text{ A antecedes reflexive P} \\
(81) & \textit{Aku pela tmbo-gu.} & \text{(Palu’e)} \\
& \text{1SG watch body=1GEN} & \text{‘I looked at myself.’} \\
(82) & \textit{Naka-kita=ako ng=sarili=ko.} & \text{(Tagalog)} \\
& \text{V}1:\text{PERF-see=1SG NOM GEN=self=1SG GEN} & \text{‘I saw myself.’} \\
(83) & \textit{Te ia no-‘ita te karama=no.} & \text{(Tukang Besi)} \\
& \text{CORE 3SG 3R-see CORE self=3GEN} & \text{‘S/he saw her/himself.’} \\
(84) & \textit{Dia me-lihat diri=nya.} & \text{(Indonesian)} \\
& \text{3SG V}1:\text{see self=3SG GEN} & \text{‘S/he saw her/himself.’} \\
\end{align*}

In the alternative voice, morphologically marked in Indonesian and Tagalog, though not in Palu’e, the identity of the grammatical subject is changed, but the conditions on binding remain the same.

\begin{align*}
\text{Voice}_2, \text{ A antecedes reflexive P} \\
(85) & \textit{Tmbo-gu aku pela.} & \text{(Palu’e)} \\
& \text{body=1GEN 1SG watch} & \text{‘I looked at myself.’} \\
\end{align*}

\(^{12}\) In examples from Tagalog, Tukang Besi and Indonesian a distinction between clitics and affixes needs to be made, and so the conventions = to indicate a clitic boundary and - to indicate an affix boundary are used. These conventions differ from the presentation of Palu’e material elsewhere in this paper.
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(81)  \textit{Aku pela tmbo-gu.}  \hspace{1cm} \text{(Palu’e)}
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Voice2, A antecedes reflexive P

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\begin{tabular}{p{2cm}p{4cm}}
body-1GEN 1SG & watch  \\
'I looked at myself.'
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agent and a patient, an agent may bind a reflexive pronoun for the patient, but not the other way around (Dalrymple 1993). This is shown in (75a) and (75b), representing a grammatical sentence such as *He hurt himself*, and an ungrammatical sentence such as *himself hurt him*.

Reflexive binding: active clause

(75) a. ‘PRED (agent, patient )’
    binder reflexive
    (75b) ‘PRED (agent, patient )’
    reflexive binder

In a passive clause there is only one core argument; it will, by virtue of its core status, outrank any adjuncts. In this case the only reflexive that may be coded is on the (adjunct) agent, not the (core) patient. The disparity in grammatical functions overrides the difference in semantic roles. The following schema illustrates sentences such as *I was hurt by myself*, and the ungrammaticality of *myself was hurt (by me)*.

Reflexive binding: passive clause

(76) a. ‘PASS.PRED (patient) (agent )’
    binder reflexive
    (76b) ‘PASS.PRED (patient) (agent )’
    reflexive binder

When we examine the data from reflexives in Palu’e AVP clauses, the predictions from (75) are borne out: only the A may bind a P, not the other way round.

(77) *Aku bere tmbo-gu.
    1SG chop body-1GEN
    ‘I chopped myself.’

(78) *Tmbo-gu bere aku.
    body-1GEN chop 1SG
    ‘myself chopped me’

The data for the PAV construction, however, do not fit the predictions from (76) for passive clauses. Only the P may be coded with a reflexive, bound by the A; the predicted patient binding a reflexive A does not emerge.

(79) Tmbo-gu aku bere.
    body-1GEN 1SG chop
    ‘Myself, I chopped.’ OR: ‘Myself was chopped by me.’

(80) *Aku tmbo-gu bere.
    1SG body-1GEN chop
    ‘I, myself chopped.’ OR: ‘I was chopped by myself.’

The reflexive data, then, do not obviously support the view that in the PAV construction the A is demoted to adjunct status. They may, however, be interpreted as suggesting that the A in the PAV construction is just as much a core argument as it is in an AVP construction, which would not be compatible with a passive analysis.

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Ungrammatical in English, but acceptable in Indonesian (with different grammatical function assignment) as *Diriku kuiris.*
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\mid \mid \\
\text{binder reflexive reflexive binder}
\end{array}
\]

In a passive clause there is only one core argument; it will, by virtue of its core status, outrank any adjuncts. In this case the only reflexive that may be coded is on the (adjunct) agent, not the (core) patient. The disparity in grammatical functions overrides the difference in semantic roles. The following schema illustrates sentences such as *I was hurt by myself,* and the ungrammaticality of *myself was hurt (by me).*

**Reflexive binding: passive clause**

(76)  
\[
\begin{array}{c}
\text{a.} & \text{‘PASS.PRED (patient) (agent )’} \\
\mid \mid \\
\text{binder reflexive reflexive binder}
\end{array}
\]

When we examine the data from reflexives in Palu’e AVP clauses, the predictions from (75) are borne out: only the A may bind a P, not the other way round.

(77)  
*Aku bere tmbo-gu.*
1SG chop body-1GEN
‘I chopped myself.’

(78)  
*TMbo-gu bere aku.*
body-1GEN chop 1SG
‘Myself chopped me’

The data for the PAV construction, however, do not fit the predictions from (76) for passive clauses. Only the P may be coded with a reflexive, bound by the A; the predicted patient binding a reflexive A does not emerge.

(79)  
*TMbo-gu aku bere.*
body-1GEN 1SG chop
‘Myself, I chopped.’ OR: ‘Myself was chopped by me.’

(80)  
*Aku tmbo-gu bere.*
1SG body-1GEN chop
‘I, myself chopped.’ OR: ‘I was chopped by myself.’

The reflexive data, then, do not obviously support the view that in the PAV construction the A is demoted to adjunct status. They may, however, be interpreted as suggesting that the A in the PAV construction is just as much a core argument as it is in an AVP construction, which would not be compatible with a passive analysis.

---

11 Ungrammatical in English, but acceptable in Indonesian (with different grammatical function assignment) as *Diriku kuiris.*
(73)  *la cube vavi tene __ mata.
   3SG shoot pig for die
   ‘He; shot the pig in order (for 0) to die.’
   * ‘He shot the pig in order for it to die.’

In this sentence the only grammatical reading is the implausible one, that the A of the first clause, the shooter, is coreferent with the S of the second clause, the entity dying. This indicates that the constraints on cross-clausal coreference are syntactically governed, and not simply pragmatically constrained. We can confirm this impression by examining a similar bivalent–monovalent coordination, with a PAV construction in the first clause in (74).

(74)  Vavi ia cube tene __ mata.
   pig 3SG shoot for die
   * ‘He shot the pig in order to die.’
   ‘He shot the pig in order for it to die.’

Here the same semantic constraints on plausibility are operating, but the only possible interpretation has changed. Clearly conjunction reduction in Palu‘e is governed by syntactic factors, more than semantic or pragmatic plausibility.

4.2.3 Tests for subject status

The data from coordination and purposive subordination show that there is a clearly privileged argument in both constructions: in both cases, while the S of a monovalent clause is privileged, the privileged argument in a bivalent clause is the A if the clause has AVP order, and the P if it has PAV order. Assuming that conjunction reduction, if restricted, is restricted to a subject, this means that the subject of an AVP clause is the A, and the subject of a PAV clause is the P. These facts, combined with the evidence for valency alternations presented in §4.1, clearly indicate that a voice alternation has applied in the language.

4.3 Constructions with invariant restrictions

The tests in §4.2 have shown that there is morphosyntactic evidence for an alternation in the assignment of grammatical functions to different syntactic roles in the different coding options. In this section I shall show that, if we examine the data from reflexive constructions, we find that there is also evidence for a grammatical relationship between the A and the P remaining the same.

4.3.1 Reflexive binding

A complication in the analysis is found when we examine the data that reflexive constructions allow us to examine. A standard analysis of reflexive binding involves the assumption that the higher argument (in terms of a thematic hierarchy) may bind the reflexive pronoun in a lower argument; conversely, a reflexive in a higher position may not be licensed by a lower argument. Thus given a bivalent clause with two core arguments, an
(73)  \( la \)  cube  \( vavi \)  tene  \( _{2} \)  mata.
3SG shoot pig for die
‘He; shot the pig in order (for Ø₁) to die.’
* ‘He shot the pig in order for it to die.’

In this sentence the only grammatical reading is the implausible one, that the A of the first clause, the shooter, is coreferent with the S of the second clause, the entity dying. This indicates that the constraints on cross-clausal coreference are syntactically governed, and not simply pragmatically constrained. We can confirm this impression by examining a similar bivalent–monovalent coordination, with a PAV construction in the first clause in (74).

(74)  \( Vavi \)  \( ia \)  cube  tene  \( _{2} \)  mata.
pig  3SG shoot for die
* ‘He shot the pig in order to die.’
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4.2.2 Purposive clauses

Purposive clauses with *tene* 'will' are restricted in terms of coreference possibilities, allowing overt omission of an argument in the purposive clause if and only if both it and the argument with which it shares identity are either an S or an A in their own clause. The data, however, are not so clear, and require a more elaborate argument.

In the following sentence there is one possible referent available to control the subordinate clause, since there is only one argument of the monovalent predicate of the main clause.

(68)  
\[
\begin{align*}
1a & \text{ \textit{pugu} \textit{tene} \quad \textit{pana}.} \\
3SG & \text{ get.up for go} \\
& \text{ 'He got up in order to go.'}
\end{align*}
\]

The following data involve a monovalent predicate in the main clause and a bivalent predicate in the purposive clause. Both are completely grammatical, and while (69) is unproblematic, the interpretation of (70) is equivocal.

(69)  
\[
\begin{align*}
\textit{Ke?o-gu} & \quad \textit{pana le Cua tene} \\
\text{elder.sibling-1GEN} & \quad \text{go PREP Cua for} \\
\quad & \quad \textit{cia} \quad \textit{ata} \quad \textit{pisa-n-e}. \\
\text{search person shaman-3GEN-EMPH} & \quad \text{ 'My elder brother went to Cua in order to look for a shaman.'}
\end{align*}
\]

(70)  
\[
\begin{align*}
\textit{Ke?o-gu} & \quad \textit{pana le Cua tene} \quad \textit{ata} \\
\text{elder.sibling-1GEN} & \quad \text{go PREP Cua for person} \\
\quad & \quad \textit{pisa-n-e} \quad \textit{ravi}. \\
\text{shaman-3GEN-EMPH} & \quad \text{cure} \\
& \quad \text{ 'My elder brother went to Cua in order for a shaman to heal him.'}
\end{align*}
\]

The coreference data in these sentences can be interpreted as showing that in purposive clauses the omitted argument can be either the A or the P of the purposive clause. Alternatively, looking at the construction through voice-coloured glasses, we could analyse the second clause as showing a preverbal 'by-phrase' NP *ata pisane*, and an omitted S (of a passive clause). That is, the second conjunct in (70) represents a PAV construction, shown in (71), and not an AVP construction such as that shown in (72).

(71)  
\[
\begin{align*}
\textit{Ke?ogu pana le Cua tene} & \quad [\quad \textit{ata} \quad \textit{pisa-n-e} \quad \textit{ravi} \quad ]. \\
\text{for person shaman-3GEN-EMPH} & \quad \text{cure} \\
& \quad \text{ 'My elder brother went to Cua in order for to be healed by a shaman.'}
\end{align*}
\]

(72)  
\[
\begin{align*}
\textit{Ke?ogu pana le Cua tene} & \quad [\quad \textit{ata} \quad \textit{pisa-n-e} \quad \textit{ravi} \quad \text{__} \quad ]. \\
\text{for person shaman-3GEN-EMPH} & \quad \text{cure} \\
& \quad \text{ 'My elder brother went to Cua in order for a shaman to heal (him).'}
\end{align*}
\]

Empirically we cannot choose between these two analyses. The nature of the restriction becomes clear only when we examine sentences in which the first clause is bivalent (or if we apply the floated quantifier test described in §4.1.1 and §4.1.2). In these instances there are clear restrictions on which argument can be gapped into the purposive clause.
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Purposive clauses with *tene* ‘will’ are restricted in terms of coreference possibilities, allowing overt omission of an argument in the purposive clause if and only if both it and the argument with which it shares identity are either an S or an A in their own clause. The data, however, are not so clear, and require a more elaborate argument.

In the following sentence there is one possible referent available to control the subordinate clause, since there is only one argument of the monovalent predicate of the main clause.

(68)  
\[ \text{la paju tene } \_ \_ \_ \text{ pana.} \]
\[ \text{3SG get.up for } \_ \_ \_ \text{ go} \]
‘He got up in order to go.’

The following data involve a monovalent predicate in the main clause and a bivalent predicate in the purposive clause. Both are completely grammatical, and while (69) is unproblematic, the interpretation of (70) is equivocal.

(69)  
\[ \text{Ke?o-gu } \_ \_ \_ \text{ pana le Cua tene} \]
\[ \text{elder.sibling-1GEN go PREP Cua for} \]
\[ \_ \_ \_ \text{ cia ata pisa-n-e.} \]
\[ \text{search person shaman-3GEN-EMPH} \]
‘My elder brother went to Cua in order to look for a shaman.’

(70)  
\[ \text{Ke?o-gu } \_ \_ \_ \text{ pana le Cua tene ata} \]
\[ \text{elder.sibling-1GEN go PREP Cua for person} \]
\[ \text{pisa-n-e ravi.} \]
\[ \text{shaman-3GEN-EMPH cure} \]
‘My elder brother went to Cua in order for a shaman to heal him.’

The coreference data in these sentences can be interpreted as showing that in purposive clauses the omitted argument can be either the A or the P of the purposive clause. Alternatively, looking at the construction through voice-coloured glasses, we could analyse the second clause as showing a preverbal ‘by-phase’ NP *ata pisan-te*, and an omitted S (of a passive clause). That is, the second conjunct in (70) represents a PAV construction, shown in (71), and not an AVP construction such as that shown in (72).

\[ \text{P A V} \]
\[ (71) \text{Ke?ogu pana le Cua tene [ } \_ \_ \_ \text{ ata pisa-n-e ravi ]}. \]
\[ \text{for person shaman-3GEN-EMPH cure} \]
‘My elder brother went to Cua in order for to be healed by a shaman.’

\[ \text{A V P} \]
\[ (72) \text{Ke?ogu pana le Cua tene [ ata pisa-n-e ravi } \_ \_ \_ \text{ ].} \]
\[ \text{for person shaman-3GEN-EMPH cure} \]
‘My elder brother went to Cua in order for a shaman to heal (him).’

Empirically we cannot choose between these two analyses. The nature of the restriction becomes clear only when we examine sentences in which the first clause is bivalent (or if we apply the floated quantifier test described in §4.1.1 and §4.1.2). In these instances there are clear restrictions on which argument can be gapped into the purposive clause.
S = A

(61)  Ama-gu  pana le uma lka  - take rero-n.
    father-1GEN return PREP garden and.then meet friend-3GEN
    ‘My father went to the garden, and then Ø_j met his friend.’

A = S

(62)  Ama-gu  kla kaju lka  - pulu lae mua.
    father-1GEN split wood and.then return PREP house
    ‘My father split some wood, and then Ø_j returned home.’

P ≠ S

(63)  Ama-gu  lie ina-gu  lka  - nodo.
    father-1GEN see mother-1GEN and.then sit
    ‘My father met my mother, and then Ø_j sat down.’

From the data above is uncontroversial to assume that there is a constraint that restricts
conjunction reduction to members of the S,A grouping, indicating its privileged status in
this construction. We do, however, find instances of S = P correspondences, but only
when the P occurs preverbally in a PAV clause.

P = S with preverbal P

(64)  Aku ia  balu lka  - palu lae mua-n.
    1SG 3SG hit and.then return PREP house-3GEN
    ‘He hit me, and then Ø_k returned to his house.’
* ‘He hit me, and then (he) returned to his house.’

P ≠ S if P is postverbal

(65)  ia  balu aku lka  - palu lae mua-n.
    3SG hit 1SG and.then return PREP house-3GEN
    ‘He hit me, and then I returned to his house.’
    ‘He hit me, and then (he) returned to his house.’

Other instances of the S,P grouping being the privileged one when the P is preverbal
can be seen in examples (66) and (67).

S = P

(66)  Ina  loʔo-gu  ia  pela lka  - meaʔu.
    mother small-1GEN 3SG watch and.then shy-PERF
    ‘He watched my aunt, and then (she) got embarrassed.’
* ‘He watched my aunt and then Ø_j got embarrassed.’

P = S

(67)  Ama  loʔo-de  ia  pela lka  - kau ia.
    father small-12GEN 3SG watch and.then angry 3SG
    ‘He watched my uncle, and then (he) got angry with him.’
* ‘He watched my uncle and then Ø_i got angry with him.’

It is clear that, whatever syntactic privileges in a cross-clausal deletion construction
accrue to S in a monovalent SV clause and the A in an AVP clause are also found with the P
in a PAV clause, to the exclusion of those privileges being found on the A.
(61)  **Ama-gu pana le uma ika — take rero-n.**
father-1GEN return PREP garden and.then meet friend-3GEN
‘My father went to the garden, and then \( \theta \_j \) met his friend.’

(62)  **Ama-gu kla kaju ika — pula lae nua.**
father-1GEN split wood and.then return PREP house
‘My father\( j \) split some wood, and then \( \theta \_j \) returned home.’

(63)  **Ama-gu lie ina-gu ika — nodo.**
father-1GEN see mother-1GEN and.then sit
‘My father\( j \) met my mother\( k \), and then \( \theta \_j \#k \) sat down.’

From the data above is uncontroversial to assume that there is a constraint that restricts conjunction reduction to members of the S,A grouping, indicating its privileged status in this construction. We do, however, find instances of \( S = P \) correspondences, but only when the \( P \) occurs preverbally in a PAV clause.

(64)  **Aku ia balu ika — palu lae nua-n.**
1SG 3SG hit and.then return PREP house-3GEN
‘He\( j \) hit me\( k \), and then \( \theta \_k \) returned to his house.’

\(*) \text{‘He}_j \text{ hit me}_k \text{, and then (he}_j \text{) returned to his house.’} \)

\( P \neq S \) if \( P \) is postverbal

(65)  **Ia balu aku ika — palu lae nua-n.**
3SG hit 1SG and.then return PREP house-3GEN
‘He hit me, and then I returned to his house.’

\*) ‘He hit me, and then (he\( j \)) returned to his house.’

Other instances of the S,P grouping being the privileged one when the \( P \) is preverbal can be seen in examples (66) and (67).

(66)  **Ina lo?o-gu ia pela ika — mea?u.**
mother small-1GEN 3SG watch and.then shy-PERF
‘He\( j \) watched my aunt\( j \), and then (she\( j \)) got embarrassed.’

\*) ‘He\( j \) watched my aunt\( j \) and then \( \theta \_j \) got embarrassed.’

(67)  **Ama lo?o-de ia pela ika — kau ia.**
father small-12GEN 3SG watch and.then angry 3SG
‘He\( j \) watched my uncle\( j \), and then (he\( j \)) got angry with him\( j \).’

\*) ‘He\( j \) watched my uncle\( j \) and then \( \theta \_j \) got angry with him\( j \).’

It is clear that, whatever syntactic privileges in a cross-clausal deletion construction accrue to \( S \) in a monovalent SV clause and the \( A \) in an AVP clause are also found with the \( P \) in a PAV clause, to the exclusion of those privileges being found on the \( A \).
If a bivalent clause has an adjunct, then ambiguity over the scope of the quantifier arises; the restriction of the quantifier is to either the P in the clause or to an adjunct.

(58)  Konen bere-naba lambu-lambu noʔo kti(-kti) tettiʔon.
     3PL cut-all cloth-RED PREP knife-RED all
     ‘They cut all the cloth with knives.’ OR: ‘They cut the cloth with all of the knives.’

So far we have seen instances of the augmented quantifier with both monovalent and bivalent clauses, with the quantifier restricted to an adjunct or the P. This behaviour is different in PAV clauses. This construction can be used with a PAV construction, but the only possible interpretation is that the quantification is restricted to the A, not the P. Again we have evidence of the changed syntactic status of the P.

(59)  Keʔo(-keʔo) konen vaʔa ka-naba tettiʔon.
     corn-RED 3PL that eat-all all
     ‘They all ate the corn.’
     * ‘They ate all of the corn.’

It is clear that the simple tettiʔon construction is restricted to core arguments, any of A, S or P, as opposed to adjuncts, over which it cannot have scope. The augmented -naba (RED-) tettiʔon is differently restricted, being able to modify non-core participants or a core P: it is restricted to anything other than an S or an A. This data shows that in the PAV construction, the A cannot be interpreted as a core argument, and shows behaviour similar to the adjuncts of other clause types. The P in a PAV clause, on the other hand, behaves in a similar way to the S or A of the other clause types in not being able to be modified by the floated quantifier. This suggests that the assignment of lexical arguments to grammatical functions is different in the two clause types, the P in the PAV clause behaving like a monovalent clause’s S, and the A of the PAV clause behaving like an adjunct.

4.2 Testing for subject

The tests in the previous section allow us to judge the core status of the A in a PAV clause. We have not, however, judged the functional status of the P with respect to the A to determine which is more syntactically privileged. In other words, we have not evaluated which of A and P should be considered the subject of the clause in AVP and PAV clauses. Two tests are advanced here to investigate this question.

4.2.1 Conjunction reduction

In sentences with coordinated clauses we find that one NP of the second conjunct may be omitted under conditions of co-identity with an NP in the first conjunct. In SV+AVP conjunction the restriction on the identity of the omitted argument and its antecedent is that they must both be either S or an A in their own clause. Sentences illustrating this are shown in (60)–(63).

S = S

(60)  Aku pula lae mua lka __ nodo le kandera.
     ISG return PREP house and.then sit PREP chair
     ‘I came back home, and then Ø sat down.’
If a bivalent clause has an adjunct, then ambiguity over the scope of the quantifier arises; the restriction of the quantifier is to either the P in the clause or to an adjunct.

(58)  
Konen here-naba lambu-lambu no?o kti(-kti) teti?ón.
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‘They cut all the cloth with knives.’ OR: ‘They cut the cloth with all of the knives.’

So far we have seen instances of the augmented quantifier with both monovalent and bivalent clauses, with the quantifier restricted to an adjunct or the P. This behaviour is different in PAV clauses. This construction can be used with a PAV construction, but the only possible interpretation is that the quantification is restricted to the A, not the P. Again we have evidence of the changed syntactic status of the P.

(59)  
corn-RED 3PL that eat-all all
‘They all ate the corn.’
* ‘They ate all of the corn.’

It is clear that the simple teti?ón construction is restricted to core arguments, any of A, S or P, as opposed to adjuncts, over which it cannot have scope. The augmented -naba (RED-) teti?ón is differently restricted, being able to modify non-core participants or a core P: it is restricted to anything other than an S or an A. This data shows that in the PAV construction, the A cannot be interpreted as a core argument, and shows behaviour similar to the adjuncts of other clause types. The P in a PAV clause, on the other hand, behaves in a similar way to the S or A of the other clause types in not being able to be modified by the floated quantifier. This suggests that the assignment of lexical arguments to grammatical functions is different in the two clause types, the P in the PAV clause behaving like a monovalent clause’s S, and the A of the PAV clause behaving like an adjunct.

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S = S

(60)  
Aku pula lae mua lka _ nodo ie kandera.
1SG return PREP house and.then sit PREP chair
‘Ij came back home, and then Øj sat down.’
(52)  Somu konen bere teti?ón.
garlic 3PL chop all
‘They chopped all of the garlic.’ OR: ‘The garlic was all chopped by them.’
* ‘All of them chopped the garlic.’

The data here indicate that the restriction of the floated quantifier is to non-adjunct arguments; as long as an argument is core, be it an A, S or P, it may be the restriction of the floated quantifier. This applies to monovalent clauses, and to bivalent AVP clauses. In PAV clauses, however, only the P may be the restriction of the quantifier. Either the restriction of this quantifier construction changes in the PAV clause type, or else the grammatical status of the arguments has changed, such that only the P ‘counts’ as a non-adjunct, while the A behaves as an adjunct.

4.1.2 Augmented floating quantification

Floated quantifiers may appear with other nominals, strikingly with non-core nominals being a possibility. In these cases the simple teti?ón construction described in §4.1.1 is not used. Rather, the verb must have an extra cliticised unit, naba, and a nominal to which the quantifier is restricted must be reduplicated.10 If either the reduplication or the clitic naba are omitted, then the clause is ungrammatical; if both are omitted, then the only possible interpretation of the restriction of the quantifier is to a core argument of the clause, since this is then a case of simple, rather than augmented, floated quantification. These possibilities (and impossibilities) are shown in (53)–(56).

(53)  Konen(-konen) va?a pana-naba le nata-nata teti?ón.
3PL-RED that go-all PREP village-RED all
‘They went to all the villages.’
* ‘All of them went to the villages.’

(54)  * Konen va?a pana naba le nata teti?ón.
(56)  Konen va?a pana le nata teti?ón.
3PL that go PREP village all
‘They all went to the villages.’
* ‘They went to all of the villages.’

The sentences in (53)–(56) show the behaviour of the quantifier in monovalent clauses. It is not the case that the -naba (RED-) construction is used only to express quantification of adjunct participants. This quantifier construction is also found with bivalent clauses without adjuncts, in which case the floated quantifier is unambiguously restricted to the P, not the A. This can be seen in (57).

3PL that eat-all corn-RED all
‘They ate all the corn.’
* ‘All of them ate the corn.’

10 Reduplication is an option that is available for indicating plurality of nouns, regardless of the present of quantifiers in the clause. Plural pronouns may be reduplicated, but are usually not, and do not require it.
(52) **Somu konen bere teti?ôn.**
   garlic 3PL chop all
   ‘They chopped all of the garlic.’ OR: ‘The garlic was all chopped by them.’
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The data here indicate that the restriction of the floated quantifier is to non-adjunct arguments; as long as an argument is core, be it an A, S or P, it may be the restriction of the floated quantifier. This applies to monovalent clauses, and to bivalent AVP clauses. In PAV clauses, however, only the P may be the restriction of the quantifier. Either the restriction of this quantifier construction changes in the PAV clause type, or else the grammatical status of the arguments has changed, such that only the P ‘counts’ as a non-adjunct, while the A behaves as an adjunct.

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(53) **Konen(-konen) va?a pana-naba le nata-nata teti?ôn.**
   3PL-RED that go-all PREP village-RED all
   ‘They went to all the villages.’
   * ‘All of them went to the villages.’

(54) * **Konen va?a pana naba le nata teti?ôn.**

(55) * **Konen va?a pana le nata-nata teti?ôn.**

(56) **Konen va?a pana le nata teti?ôn.**
   3PL that go PREP village all
   ‘They all went to the villages.’
   * ‘They went to all of the villages.’

The sentences in (53)–(56) show the behaviour of the quantifier in monovalent clauses. It is not the case that the -naba (RED-) construction is used only to express quantification of adjunct participants. This quantifier construction is also found with bivalent clauses without adjuncts, in which case the floated quantifier is unambiguously restricted to the P, not the A. This can be seen in (57).

(57) **Konen va?a ka-naba ke?o-ke?o teti?ôn.**
   3PL that eat-all corn-RED all
   ‘They ate all the corn.’
   * ‘All of them ate the corn.’

\(^\text{10}\) Reduplication is an option that is available for indicating plurality of nouns, regardless of the present of quantifiers in the clause. Plural pronouns may be reduplicated, but are usually not, and do not require it.
arguments show that morphological tests alone, such as the presence or absence of a preposition marking an NP, are not sufficient to judge the grammatical status of a participant. The floated quantifier constructions do, however, provide us with a syntactic test that can be appealed to in order to decide whether a nominal is argument or adjunct.

4.1.1 Simple floated quantifiers

The universal quantifier teti?ón 'all' must appear in a clause-final position in Palu’e.⁹ When a monovalent clause appears with a clause-final quantifier, the quantifier can only be interpreted as being restricted to the S of the clause (regardless of the semantic nature of the S; this applies to all the tests illustrated here, though other tests, such as the possibilities available for adverbial clause marking, are sensitive to the unergative/unaccusative distinction).

(48)  Aku  ari-gu       nodo  teti?ón.
      lSG younger.sibling-1GEN sit all
   ‘All of my younger brothers and sisters are sitting down.’

Even when there is an adjunct closer to the quantifier than the subject, the quantifier cannot be interpreted as being restricted to the adjunct.

(49)  Konen  pana  le  muu  va?ə  teti?ón.
      3PL   go  PREP village that all
   ‘All of them went to that/those village(s).’
   ‘They went to all of those villages.’

Floated quantifiers are also found with bivalent verbs; in this case the restriction of the quantifier is potentially ambiguous, as the quantifier can be interpreted as being restricted to either of the core arguments (but not both at the same time).

(50)  Konen  bere  somu  va?ə  teti?ón.
      3PL   chop garlic that all
   ‘They chopped all of that garlic.’ OR: ‘All of them chopped that garlic.’

Notably, in bivalent clauses too the quantifier cannot be interpreted as being restricted to an adjunct nominal, even if it is ‘closer’ to the quantifier. Only the core arguments of the clause are eligible to control the NP-external quantifier.

(51)  Konen  bere  somu  no?o  kti  va?ə  teti?ón.
      3PL   chop garlic with knife that all
   ‘All of them chopped the garlic with those knives.’ OR:
   ‘They chopped all of the garlic with those knives.’
   ‘They chopped the garlic with all of those knives.’

When we examine a PAV construction with a floated quantifier we find that a reading with the quantifier restricted to the A is not possible, as seen in (52).

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⁹ It is clear that konen ‘3PL’ and teti?ón ‘all’ must, at least historically, be morphologically complex, involving the use of the third person genitive -n. Synchronously, however, there is no alternation and so these lexemes must be treated as unanalysable. Some of the data in this section has been presented as Donohue (2004e).
arguments show that morphological tests alone, such as the presence or absence of a preposition marking an NP, are not sufficient to judge the grammatical status of a participant. The floated quantifier constructions do, however, provide us with a syntactic test that can be appealed to in order to decide whether a nominal is argument or adjunct.

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(48) *Aku ari-gu nodo teti?ón.*
1SG younger.sibling-1GEN sit all
‘All of my younger brothers and sisters are sitting down.’

Even when there is an adjunct closer to the quantifier than the subject, the quantifier cannot be interpreted as being restricted to the adjunct.

(49) *Konen pana le mua va?a teti?ón.*
3PL go PREP village that all
‘All of them went to that/those village(s).’
* ‘They went to all of those villages.’

Floated quantifiers are also found with bivalent verbs; in this case the restriction of the quantifier is potentially ambiguous, as the quantifier can be interpreted as being restricted to either of the core arguments (but not both at the same time).

(50) *Konen bere somu va?a teti?ón.*
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When we examine a PAV construction with a floated quantifier we find that a reading with the quantifier restricted to the A is not possible, as seen in (52).

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\(^9\) It is clear that *konen* ‘3PL’ and *teti?ón* ‘all’ must, at least historically, be morphologically complex, involving the use of the third person genitive -n. Synchronously, however, there is no alternation and so these lexemes must be treated as unanalysable. Some of the data in this section has been presented as Donohue (2004c).
Other predicates, however, appear with objects that may be marked with a preposition, or with a bare NP. An example of this kind of predicate is kau ‘hate’.

Object optionally marked by a preposition

(40)  \( Aku \ kau \ no\?o \ ia. \)
1SG  hate  PREP  3SG
‘I hate him.’

(41)  \( Aku \ kau \ ia. \)
1SG  hate  3SG
‘I hate him.’

By contrast, ‘normal’ bivalent predicates such as cia ‘look for’, seen earlier, do not allow for a prepositional option. While (27) is grammatical, prepositionally coded objects with this predicate are not: *ia cia (no\?o / le / lau / lae) kami. When we compare the behaviour of the PP that normally follows a predicate such as yaro or kau with a PP in a clause such as those seen in (35)–(37), we find differences. Sentences with a topicialised adjunct appear with the PPs retaining their prepositions when appearing preverbally, as in (42) and (43), based on (37).

(42)  \( No\?o \ ina\-gu, \ aku \ pana \ lau \ Todo. \)
PREP  mother-1GEN  1SG  go  PREP  Todo
‘With my mother, I went to Todo.’

(43)  \( Lau \ Todo, \ aku \ pana \ no\?o \ ina\-gu. \)
PREP  Todo  1SG  go  PREP  mother-1GEN
‘To Todo, I went with my mother.’

On the other hand, the preposition must be omitted in sentences based on clauses such as (38)–(41) with a topicialised object. This can be seen in (44)–(47), where only bare NPs are acceptable, regardless of whether or not the verb permits alternation in the appearance of the preposition or not.

(44)  \( Ia \ aku \ yaro. \)
3SG  1SG  love
‘I love him.’

(45)  * \( No\?o \ ia \ aku \ yaro \)

(46)  \( Ia \ aku \ kau. \)
3SG  1SG  hate
‘I hate him.’

(47)  * \( No\?o \ ia \ aku \ kau \)

We can see that some prepositionally marked NPs behave as do Ps in bivalent clauses when in a preverbal position, showing that they are not in fact adjuncts, but rather exceptionally case-marked arguments of the verb. This is analogous to English predicates such as ‘look at’, which take prepositionally marked objects (the ungrammaticality of *he looked it at proves that a phrasal verb analysis is untenable for these predicates). Under passivisation the preposition is ‘left behind’, and does not occur with the new subject: it was looked at, *at it was looked. Palu’e shows similar behaviour in the topicalisation structure shown in (46), but does not allow preposition stranding as English does. These
Other predicates, however, appear with objects that may be marked with a preposition, or with a bare NP. An example of this kind of predicate is kau ‘hate’.

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Aku kau ia.  
1SG hate 3SG  
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(42)  
Noʔo ina-gu, aku pana lau Todo.  
PREP mother-1GEN 1SG go PREP Todo  
‘With my mother, I went to Todo.’

(43)  
Lau Todo, aku pana noʔo ina-gu.  
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‘To Todo, I went with my mother.’

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(44)  
aia  
3SG 1SG love  
‘I love him.’

(45)  
* Noʔo ia aku yaro

(46)  
aia  
3SG 1SG hate  
‘I hate him.’

(47)  
* Noʔo ia aku kau

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converse proposition, that prepositions always mark adjuncts, is not true, as will be demonstrated below), and that they follow all subcategorised-for nominals in the clause. Some examples are shown in (35)-(37), illustrating a locative preposition and the instrumental/accompaniment preposition.

Clause with two core arguments and one adjunct (locative)

(35)  * la bere kaju lae uma.
3SG chop wood PREP garden
‘He chopped the wood in the garden.’

(35)’ * la bere kaju uma
(35)” * la bere lae uma kaju

Clause with an instrumental

(36)  * la bere kaju no?o tobo.
3SG chop wood PREP machete
‘He chopped the wood with a machete.’

(36)’ * la bere kaju tobo
(36)” * la bere no?o tobo kaju

Clause with a comitant

(37)  Aku pana lau Todo no?o ina-gu.
1SG go PREP Todo PREP mother-1GEN
‘I went to Todo with my mother.’

(37)’ * Aku pana lau Tobo inagu
(37)” # Aku pana no?o inagu lau Todo

The presence of prepositional marking, in contrast to the bare NPs that are core arguments, might be thought to be a test for grammatical status. There are, however, some verbs that select for prepositionally marked postverbal NPs (thus, PPs), which are demonstrably not adjuncts, evidenced by their different behaviour when appearing preverbally. An example of this sort of prepositionally marked object in an unmarked postverbal position can be seen in (38). We can see from this example that there are some predicates that, when they take a nominal object, must have it marked with a preposition; *yaro* is one such predicate. The use of this preposition is obligatory with this predicate.

Object obligatorily marked by a preposition

(38)  * Aku yaro no?o kau.
1SG love PREP 2SG
‘I love you.’

(39) * Aku yaro kau

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The morphosemantic information encoded in the preposition *no?o* can also be coded by the obviously related, but proscribed, inceptive case marker *no(?)-*; thus, in the immediately preceding sentences the object of hatred, *no?o ia*, will be realised prescriptively as [‘no?o ia] ~ [‘no?o ja], but in normal speech as [‘no?ia] or [‘no?ia], these last two variants showing degrees of cliticisation: *no-ia ~ no?-ia*, rather than being realised as two separate words, *no?o ia*. The syntactic behaviour of the two morphemes in the clause is in all cases identical, and for the sake of brevity only the full preposition *no?o* will be described here.
converse proposition, that prepositions always mark adjuncts, is not true, as will be demonstrated below), and that they follow all subcategorised-for nominals in the clause. Some examples are shown in (35)–(37), illustrating a locative preposition and the instrumental/accompaniment preposition.

Clause with two core arguments and one adjunct (locative)

(35)  
\textit{la bere kaju lae uma.}  
3SG chop wood PREP garden  
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(35)'  *  
\textit{la bere kaju uma}

(35)''  *  
\textit{la bere lae uma kaju}

Clause with an instrumental

(36)  
\textit{la bere kaju no?o tobo.}  
3SG chop wood PREP machete  
‘He chopped the wood with a machete.’

(36)'  *  
\textit{la bere kaju tobo}

(36)''  *  
\textit{la bere no?o tobo kaju}

Clause with a comitant

(37)  
\textit{Aku pana lau Todo no?o ina-gu.}  
1SG go PREP Todo PREP mother-1GEN  
‘I went to Todo with my mother.’

(37)'  *  
\textit{Aku pana lau Tobo inagu}

(37)''  *  
\textit{Aku pana no?o inagu lau Todo}

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Object obligatorily marked by a preposition\textsuperscript{8}

(38)  
\textit{Aku yaro no?o kau.}  
1SG love PREP 2SG  
‘I love you.’

(39)  *  
\textit{Aku yaro kau}

\textsuperscript{8} The morphosemantic information encoded in the preposition no?o can also be coded by the obviously related, but proscribed, incipient case marker no(i)-; thus, in the immediately preceding sentences the object of hatred, no?o ia, will be realised prescriptively as [\textit{no?o ia}] ~ [\textit{no?i ja}], but in normal speech as [\textit{no?ia}] or [\textit{no?ja}], these last two variants showing degrees of cliticisation: no-ia ~ no?-ia, rather than being realised as two separate words, no?o ia. The syntactic behaviour of the two morphemes in the clause is in all cases identical, and for the sake of brevity only the full preposition no?o will be described here.
Approximate representation of a topicalisation structure

(33)

\[
\begin{array}{c}
\text{CP} \\
\text{XP}_{\text{TOP}} \\
\text{IP} \\
\end{array}
\]

\[
\begin{array}{c}
\text{time} \\
\end{array}
\]

Approximate representation of a PAV structure

(34)

\[
\begin{array}{c}
\text{IP} \\
\text{NP} \\
\text{IP/\text{NP}} \\
\end{array}
\]

\[
\begin{array}{c}
\text{time} \\
\end{array}
\]

It is clear, then, that the PAV clause in Palu’e does not involve the P appearing in a pre-clausal Topic position. Having established that the PAV construction is not simply an instance of topicalisation, we can now turn to tests that will elicit the syntactic status of the arguments in AVP and PAV clauses.

4 Testing the syntactic status of the alternation

In this section I shall present arguments that the alternation between AVP and PAV orders in Palu’e correlates with a change in the grammatical status of the arguments of the clause. The evidence used comes from three different constructions: the two floated quantifier constructions allow us to identify core arguments, and conjunction reduction and purposive subordination allow us to identify which core argument is the grammatically privileged subject.\(^7\)

4.1 Argument/Adjunct status

The status of the PAV clauses as instances of topicalisation or passives can be partly decided by examining the status of the A. If the A is a core argument, then the topicalisation analysis is strongly supported, since that would indicate no ‘demotion’. On the other hand syntactic evidence that the A is not a core argument would strongly support an analysis of this construction as involving a passive voice contrast with the AVP coding option.

Morphologically it is not clear that the A should be treated as an adjunct. It is a general characteristic of adjuncts in Palu’e that they are marked by a preposition (though the

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\(^7\) Donohue (2003), and many others, shows that, in essence, not all constructions are equal for the purposes of determining subject. The constructions selected here appear to be adequately diagnostic for Palu’e.
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(33)

\[
\begin{array}{c}
\text{CP} \\
\text{XP}_{\text{TOP}} \\
\text{IP} \\
\end{array}
\]

\[
\begin{array}{c}
\text{time} \\
\end{array}
\]

Approximate representation of a PAV structure

(34)

\[
\begin{array}{c}
\text{IP} \\
\text{NP} \\
\text{IP/NP} \\
\end{array}
\]

\[
\begin{array}{c}
\text{time} \\
\end{array}
\]

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\(^7\) Donohue (2003), and many others, shows that, in essence, not all constructions are equal for the purposes of determining subject. The constructions selected here appear to be adequately diagnostic for Palu’e.
The placement of time expressions clearly delimits the left edge of the clause, and the topic, which occurs sentence-initially preceding all other elements of the clause, can only be followed by a time expression, never preceded by one.

Turning to bivalent clauses, we find a very similar picture. The basic AVP sentence in (27) can be expanded by means of a time expression as shown in (28), with the temporal occurring in all positions, as described in (29). This unproblematically matches the description in (22).

(27) \textit{la cia kami.}  
\begin{itemize}
\item \textit{3SG look.for 1PL.EX} \\
\textit{He looked for us.} \\
\end{itemize}

(28) \textit{la cia kami vaicvi.}  
\begin{itemize}
\item \textit{3SG look.for 1PL.EX yesterday} \\
\textit{He looked for us yesterday.} \\
\end{itemize}

(29) a. \textit{la cia vaicvi kami.}  

b. \textit{la vaicvi cia kami.}  

c. \textit{Vaicvi ia cia kami.}  

When we examine the PAV construction we find that there is no evidence to indicate that the sentence-initial NP in P role is a topic. No intonation break is required between this NP and the rest of the clause, and we find that temporal adjuncts may precede this NP. This is shown in (31) and (32). Note particularly that (32c), elaborating on the basic clause in (30), is grammatical. This contrasts strongly with the putatively analogous, but ungrammatical, sentence in (26)c.

(30) \textit{Kami ia cia.}  
\begin{itemize}
\item \textit{1PL.EX 3SG look.for} \\
\textit{He looked for us.} (OR: 'We were looked for by him.') \\
\end{itemize}

(31) \textit{Kami ia cia vaicvi.}  
\begin{itemize}
\item \textit{1PL.EX 3SG look.for yesterday} \\
\textit{He looked for us yesterday.} \\
\end{itemize}

(32) a. \textit{Kami ia vaicvi cia.}  

b. \textit{Kami vaicvi ia cia.}  

c. \textit{Vaicvi kami ia cia.}  

These facts suggest the following different structures, representing a topic structure in (33), and the PAV structure in (34).

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6 Topicalisation of the P, with behaviour identical to other topics, including the intonation cues, is also possible, but is not the construction being discussed here.
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b. *la vaicvi cia kami.*  
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6 Topicalisation of the P, with behaviour identical to other topics, including the intonation cues, is also possible, but is not the construction being discussed here.
It is possible to topicalise on any phrasal element in the clause. In (18) we can see an adaptation of (16) with a topicalised subject; (19) shows the use of a resumptive pronoun inside the clause.

(18) \(\text{Ata laki va?a, pana le nata-gu.} \)
\[\text{person male that go PREP village-1GEN} \]
\[\text{‘That man(1) went to our village.’} \]

(19) \(\text{Ata laki va?a, ia pana le nata-gu.} \)
\[\text{person male that 3SG go PREP village-1GEN} \]
\[\text{‘That man, he went to our village.’} \]

We can determine that the topic must appear preceding the clause by examining the distribution of temporal expressions in the clause. Building on (16), examples (20) and (21) show the (myriad) possibilities for the temporal noun \(\text{vaicvi} \) ‘yesterday’.

(20) \(\text{ia pana le nata-gu vaicvi.} \)
\[\text{3SG go PREP village-1GEN yesterday} \]
\[\text{‘He went to our village yesterday.’} \]

(21) a. \(\text{ia pana vaicvi le natagu.} \)
b. \(\text{ia vaicvi pana le natagu.} \)
c. \(\text{Vaicvi ia pana le natagu.} \)

Simply put, the time expression can appear in any position in the clause, as shown in (22).

(22) \(\text{A time adverbial may occur anywhere in its clause, not intruding into NPS or PPs} \)

When there is a topicalised element in the sentence we find a constraint on the possible positions for temporal adjuncts: a temporal adjunct may not appear preceding the topicalised phrase. Sentence (24) illustrates the inability of a time expression to precede a topicalised oblique, and in (26) we can see that a time expression cannot precede a topicalised subject (S).

(23) \(\text{Le nata-gu, ia pana vaicvi.} \)
\[\text{PREP village-1GEN 3SG go yesterday} \]
\[\text{‘To our village, he went.’} \]

(24) a. \(\text{Le natagu, ia vaicvi pana.} \)
b. \(\text{Le natagu, vaicvi ia pana.} \)
c. \(\text{* vaicvi le natagu, ia pana} \)

(25) \(\text{Ata laki va?a, pana le nata-gu vaicvi.} \)
\[\text{person male that go PREP village-1GEN yesterday} \]
\[\text{‘That man(1) went to our village yesterday.’} \]

(26) a. \(\text{Ata laki va?a, (ia) vaicvi pana le natagu.} \)
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(18) \textit{Ata laki va?a, pana le nata-gu.} \\
\hspace{1cm} \text{person male that go PREP village-1GEN} \\
\hspace{1cm} \text{"That man(,) went to our village."}

(19) \textit{Ata laki va?a, ia pana le nata-gu.} \\
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(24) a. \textit{Le nata-gu, ia vaicvi pana.} \\
\hspace{1cm} \text{b. Le nata-gu, vaicvi ia pana.} \\
\hspace{1cm} \text{c. * vaicvi le nata-gu, ia pana}

(25) \textit{Ata laki va?a, pana le nata-gu vaicvi.} \\
\hspace{1cm} \text{person male that go PREP village-1GEN yesterday} \\
\hspace{1cm} \text{"That man(,) went to our village yesterday."}

(26) a. \textit{Ata laki va?a, (ia) vaicvi pana le nata-gu.} \\
\hspace{1cm} \text{b. Ata laki va?a, vaicvi (ia) pana le nata-gu.} \\
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Hokkien: topicalised agent in passive clause

(14) * [Ho i], hi? e kau [VP phah].
    PASS 3SG that LNKR dog hit
    'By him, that dog was hit.'

(15) * [i], hi e kau [VP ho phah].
    3SG that LNKR dog PASS hit
    'Him, that dog was hit by.'

The differences between the passives in the two languages shown are quite considerable, but commonalities are also clear: the grammatical status of the arguments changes, crucially involving what seems to be a defining feature of voice systems generally, a change in the identity of the argument assigned subject status. The morphology required by the construction can typically range from the multiple highly explicit instances, as in English, to the single NP marker ho in Hokkien.

With this background sketch of passive variation (and it is just a sketch; more detailed accounts of the kind of variation encountered cross-linguistically can be found in, amongst others, Foley and Van Valin 1984, Klaiman 1991, Shibatani, ed. 1988, Siewierska 1984, and Van Valin and LaPolla 1997) we can proceed to a syntactically detailed discussion of the AVP:PAV alternation in Palu’e.

3 The Palu’e alternation: syntactic or pragmatic?

We can first examine whether the PAV clauses in Palu’e are in fact instances of simple topicalisation, rather than a distinct clause type, or whether they are simple sentences without any necessary topicalisation, but with another sort of clause-internal alternation.

We know there is a sentence-initial topic position from sentence pairs such as the following. In (16) the goal appears in the usual postverbal position, but in (17) it appears in a sentence-initial topic position. The usual prosodic correlates of topical status are found: an intonationally distinct contour on the topic phrase, the possibility of a pause following the topic, and (for core nominals) the possibility of appearing in the clause with a resumptive pronoun (this will be illustrated later).

(16) la pana le nata-gu.
    3SG go PREP village-1GEN
    'He went to our village.'

(17) Le nata-gu, ia pana.
    PREP village-1GEN 3SG go
    'To our village, he went.'

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4 There is another passive construction in Hokkien, involving a VP-initial passive marker tio?. This is a compulsorily agentless passive, allowing sentences such as Hi? e kau tio? phah 'That dog was hit', but not (for most speakers) *hi? e kau tio? i phah.

5 Three morphemes, le, lue and lau, will all be glossed simply as PREP for 'preposition'. They are generic prepositions which vary, amongst other factors, in the relative elevation of the NP that they mark (lae: lower, lue: higher). These factors are not relevant to the discussion here.
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Table 1: The English and Hokkien passive constructions compared

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In English, and indeed overwhelmingly frequently in languages with a voice construction (Siewierska 1984; Haspelmath 1990), there is marking on the verb, or at least on a verbal auxiliary or the verb phrase, to indicate the passive construction. Similarly the A, optional in the passive construction, is overtly marked usually in a way that is consistent with some sort of adjunct. In Hokkien, on the other hand, we find that the verb is unchanged morphologically from the form seen in the active, and that the only indicators of the passive are the preverbal position of the A (the normal position for adjunct) and the marker ho that appears with this NP. Another difference is related to the sole morphological exponent of the passive being the marking on the A: the A is obligatory in this clause, not optional, as in English.

Hokkien: active clause

(10) I [vp phah hi? e kau ].
3SG hit that LNKR dog
‘He hit that dog.’

Hokkien: passive clause

(11) Hi? e kau [vp [ho i] phah ].
that LNKR dog PASS 3SG hit
‘That dog was hit by him.’

Hokkien: agentless passive clause

(12) * Hi? e kau [vp phah ].
that LNKR dog hit
‘That dog was hit.’

Unlike a language like English, in which the pragmatic and grammatical tiers are quite separate, allowing for a demoted agent to be topicalised, the passive agent cannot appear topicalised in Hokkien, a fact which sets it apart from other adjuncts.

Hokkien: main topicalised P

(13) Hi? e kau, i [vp phah ].
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assignment of subject and object functions. In many instances these two systems will overlap in a language: most languages with a passive voice, for instance, require the P to be topical, and code it as such. English is a language that does not have this requirement, but does have both a grammaticalised voice system and a productive system of pragmatic topicality.

English: active/passive alternation

(3) Cats always chase those rats in the afternoon.
(4) Those rats always get chased by cats in the afternoon.

English: topic alternation

(5) Those rats, cats always chase(‘em) in the afternoon.

English: topicalised agent appearing with a passive voice in the same sentence

(6) By cats, those rats always get chased in the afternoon.

The similarity of voice and topicality is often reflected in the morphosyntax of a language. A complement clause in (Singapore) Hokkien may appear without a complementiser if the main clause object is in the VP, as in (7), but requires a complementiser if the object is external to the VP, through either topicalisation or passivisation, seen in (8) and (9), respectively. Thus, regardless of the grammatical status of the VP-external argument, its absence from the VP serves to trigger the requirement for a complementiser, khi.

Hokkien: simple complement construction

(7) Mama [VP kio kinna [COMP cia? py]].
mother tell child eat rice
‘Mother told the child to eat the rice.’

Hokkien: main clause passivised

(8) Kinna [VP [ho mama] kio [COMP *(khi) cia? py]].
child PASS mother tell COMP eat rice
‘The child was told by mother to eat the rice.’

Hokkien: main clause topicalised

(9) Hi? e kinna, mama [VP kio _ [COMP *(khi) cia? py]].
That LNK child mother tell COMP eat rice
‘That child, mother told to eat the rice.’

Comparing the English and Hokkien passive constructions shown in the sentences above we can observe most of the cross-linguistic diversity that is associated with passives, and which is summarised in Table 1. Here the notation m-X is used to indicate that some extra of morphology is present on the X, be it inflectional, derivational, adpositional or case.
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the different clause types ‘unmarked’ and ‘marked’, based mainly on their frequency of occurrence.2

Unmarked clause type in Palu’e
A V P

(1) *la cube vavi va?a.
3SG shoot pig that
‘He shot that pig.’

Marked clause type in Palu’e
P A V

(2) *vavi va?a *ia cube.
pig that 3SG shoot
‘That pig, he shot (it).’ OR: ‘That pig was shot by him.’3

There is no doubt that sentences such as (1) represent the unmarked, or ‘basic’, coding choice in Palu’e: this is the structure most frequently encountered in narrative of whatever genre, it is the form given in response to pragmatically neutral translation requests, and it is the form that is translated with unmarked (= active, non topicalised) clause structures in Indonesian. Our question concerns the best analysis of (2): is it better analysed as an instance of topicalisation, bearing a relationship to (1) similar to that which pertains between the first translation given for it, ‘That pig, he shot’, and the translation given for (1), or is it in fact an instantiation of a voice alternation, showing a relationship more similar to that between the second translation of (2) and the translation given for (1)?

Following a short survey of voice systems, and the passive in particular, I shall present various tests for the syntactic status of the arguments in AVP clauses such as (1) and PAV clauses such as (2), and based on this empirical investigation shall discuss the implications of the Palu’e data for our models of voice systems in general, and the historical development of the Austronesian voice system in particular.

2 Voice systems and some atypical passives

All languages utilise some form of diathesis, and often more than one; but they can be hard to tell apart. In this discussion the analysis of the diathesis is problematic, the clearest choices being between a passive(-like) analysis and a topicalisation analysis.

An alternation in diathesis may be grammaticalised, as in the use of a voice system, or more purely pragmatic, such as in the function of topicalisation, which is ‘overlaid’ as a separate pragmatic module on the grammatical structure without affecting, for instance, the

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2 Palu’e examples are presented in a phonemic transcription. This matches IPA norms, with the following exceptions: b, c, j represent [b, tʃ, dʒ], mb and nd (and yg, which does not appear in the data here) are prenasalised (marginal) phonemes, and the accent ‘marks regular bimorality for the vowel of a monosyllabic foot. Phonemic CC clusters are broken up with an epenthetic vowel. The hyphen - marks a clitic boundary; there are no affixes in Palu’e, so this distinction does not need to be maintained.

3 For these two sentences, the Indonesian forms given would be: (1) Dia panah babi itu (2) Babi itu dia panah – Babi itu dipanah dia – Babi itu dipanahnya.
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