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Irrealis, aspect, and complementation in Old Javanese

THOMAS M. HUNTER

ABSTRACT

This article focuses on two issues in the study of the syntax and semantics of the Old Javanese: (1) the effects of irrealis on the marking of the “passive” or Undergoer Voice verb phrases of Old Javanese, and (2) the study of complementation in Old Javanese, with particular reference to a particle *n/an*, first studied in an article by E.M. Uhlenbeck (1986). The study is introduced with a brief survey of some of the major components of the morphosyntactic system of Old Javanese developed largely using the analytical framework of Nicholas Himmelmann’s study (2005) of the symmetrical voice systems of the Austronesian family. Some terms like PRO have been adapted for use from more recent transformational models with a view to making the research for the paper accessible to a wider range of readers interested in syntactic and semantic issues in language.

KEYWORDS

Old Javanese language; symmetrical voice systems; aspect; irrealis; complementation; PRO; typology of Austronesian languages.

1. INTRODUCTION

This article investigates two features of Old Javanese (OJ) syntax and semantics which quite often present puzzles to both linguists and translators. One of these is the interaction of irrealis and aspect which has decisive consequences for the choice of markers of diathesis in the “passive” or Undergoer Voice of OJ.¹ The other is the question of complementation, a subject which requires a

¹ I have preferred to use the term Undergoer Voice (UV) rather than passive, since the latter term suggests the syntactic priority of active voice, which is inconsistent in the treatment of an asymmetrical voice language of WPM. That being said, the term passive is widely used in

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clear understanding of the relationship of ordinate and subordinate clauses and the consequences for morphosyntax of employing these avenues for recursiveness in OJ. I have developed my description of these aspects of OJ syntax and semantics in terms of the description of symmetrical voice systems given in Adelaar and Himmelmann (2005), but with some variation in glossing conventions described in more detail below. I have not followed a particular theoretical model in this paper, but have adopted terms like PRO from more recent transformational models and intend my study of complementation in OJ to lay the groundwork for future studies that might explore the usefulness of contemporary theoretical models to the case of OJ in more depth.

1.1 PRELIMINARIES

My purpose in writing this paper is not to give a comprehensive description of the morphosyntax and clause structures of Old Javanese. However, since the two themes of the article involve complex syntactic and referential structures, I shall give first a brief review of the morphology, morphosyntax and clause structures of Old Javanese. This review is by no means meant to be complete; instead it will focus on the elements of structure and coherence which are needed to support this review of issues related to aspect, irrealis and complementation in OJ.

This review owes much to Oglobin's description of OJ morphosyntax in Adelaar and Himmelmann (2005a) and to a recent PhD dissertation (2015) by Dwi Puspitorini (hereafter: Dwi) which has provided valuable new insights on both clause structures and the interplay of semantics and syntax in the OJ voice system.²

Old Javanese is a symmetrical voice language. In his discussion of the differences between "symmetrical voice" and "proposed possessor languages" of the Austronesian family, Himmelmann (2005: 112) has provided a useful working definition of symmetrical voice systems like that of OJ:

The defining characteristic of these languages is the presence of at least two voice alternations marked on the verb, neither of which is clearly the basic form.

An OJ parallel to the Malay example given by Himmelmann shows the same type of voice alternations:

studies of OJ and has gained acceptance through usage. The terminology of voice in studies of PAN languages grew out of earlier studies of focus in Philippine languages and is widely used in the literature on WPM languages. Ross (2003) uses the term "patient voice" for UV. I have preferred UV as it refers to a macro-role which includes semantic roles like "patient", "theme", "recipient", and "benefactee".

² A short but very useful introduction to Old Javanese recently published by Willem van der Molen (2015) unfortunately came to my attention late in the writing of this article. However, I have attempted to do justice to his contributions in areas like the study of conjunctions which have a direct bearing on the discussion in this paper.

- (1) *ma-gawe ta sira tapa* [Ād 67.2]³
 AV₁-work PTCL₁ PRO₃ (S) austerities
 ‘He performed austerities.’
- (2) *pratidina homa-yajña g-in-awe=nira* [OJR 5.9]⁴
 every day fire ritual UV₂-work=PRO (-S)
 ‘He performed the fire ritual every day.’

For the sake of brevity I shall outline my understanding of the morphosyntax of OJ in terms of a set of glossing conventions drawn largely from those of Adelaar and Himmelmann (2005), but with some modifications and subcategories.

1.2 ACTOR VOICE AFFIXES

AV₁: *ma-/a-*

As Dwi notes (2015: 115-122), intransitive uses of *ma-* are either “stative” or refer to “events in stasis” depending on the semantic class of the unmarked monomorphemic base. Transitive uses are generally of lower transitivity than verbs taking AV₂ or AV₃ form. The transitivity of VPs in *ma-* can be extended only with the applicative suffix *-an*, although there may be some exceptions.

AV₂: *um-/m-/um-*

Both transitive and intransitive VPs can be formed with *um-*. Transitivity can be extended with the applicative suffixes *-i/-ani* and *-akĕn*. It is generally accepted that *um-* is of lower transitivity than *maN-*.

AV₃: *maN-/aN-*

Both transitive and intransitive VPs can be formed with *maN-*. Transitivity can be extended with the applicative suffixes *-i/-ani* and *-akĕn*.

In clause linkages of VPs taking *um-* and VPs taking *maN-* the clause formed with *um-* is likely to be in the subordinate clause. As Dwi points out (2015: 72) in clause linkages involving *maN-* and *um-* clauses verbs of perception like *tumon* or *-manon* (from *ton* ‘visible’) the clause taking *um-* (*tumon*) is always found as the predicate of a subordinate clause, whereas the clause taking *maN-* (*manon*) is the predicate of the ordinate clause.⁵ The AV verb *tumon* always becomes the predicate of the subordinate clauses, whereas the verb *manon* is used in the ordinate clause and only the ordinate clause can be topical. This

³ See Juynboll (1906) for the OJ text and Dutch translation of this verse.

⁴ See Van der Molen (2015: 66) for the OJ text for OJR 5.9, Robson (2015: 101) for an English translation.

⁵ Zoetmulder and Robson (1982: 2028) give the unmarked base *ton* as an imperative. While this is true, it is also the case that in canonical PRED-*ta*-S clauses *ton* refers to the quality of being visible or seen. See, for example, *Arjunawiwāha* 1.11: *ton ta ikang wukir Indrakīla maparō* ‘Mount Indrakīla was visible, getting closer (as they flew along).’

is one indication of the higher transitivity of the *maN-* forms compared to those taking *-um-*.

1.3 UNDERGOER VOICE AFFIXES

UV₁: *ka-*

Oglobin (2005: 618) describes the prefix *ka-* as referring to accidental or involuntary actions and so glosses *ka-* with INVOL (involuntary), rather than listing it as a type of “passive” construction. Hunter (1988) and Dwi (2015) follow Zoetmulder (1950) in seeing a contrast between a lower agency “*ka-passive*” and one marked with the prefix or infix *in-/in-* which is strongly agentive, and in that sense parallel with Malay-Indonesian *di-*. The addition of the applicative suffix *-an* forms “adversatives” which bring out the factors of accidental or involuntary action pointed out by Oglobin.⁶

UV₂: *in-/in-*

The UV₂ affix forms single argument VPs whose Subject is an Object/Undergoer. The erstwhile agent generally takes the form of a pronominal enclitic which in NPs indicates a possessor. While UV verbs are higher in transitivity in terms of the definiteness and differentiation of Object arguments, Dwi (2015) has argued convincingly that they should be considered intransitive since they are the single core argument of the verb, thus as in ergative syntax, coded with the intransitive Subject.

1.4 NOMINALIZING MORPHOLOGY

Nom₁: *pa-*

The nominalizing prefix *pa-* corresponds to the AV prefix *ma-*. Oglobin (2005a: 617) sees *pa-* and a number of other prefixes beginning with *p-* as forming verbal bases which are used without further morphological change in one type of imperative formation. Oglobin also postulates that the *ma-* and *maN-* verbs of OJ are based on the addition of the AV affix (*u*)*m-* to these derived verbal bases with *p-* initial. Nominal forms taking *pa-* also form nominal nouns parallel to VPs taking *ma-*. When, for example, the ditransitive verb *weh* (‘give’) is nominalized it indicates the Object of giving, or in semantic terms the theme of ditransitive verb:

- (3) *maweh* *juga* *sira* *dāna punya* [Ād 198.23]⁸
 AV₁-give EMPH PRO₃ (S) meritorious gifts
 ‘He indeed gave meritorious gifts.’

⁶ Ross (2002: 34) has made a similar observation, noting that prefixes used with stative or static reference in OJ (*ma-*, *a-*) were derived in PAN through a derivational process based on *ka-*: “Verbs [...] whose roots began with **ka-* and whose actor voice forms began with **ma-*, derived historically from **um-* + **ka-*.”

⁷ See Juynboll, H. H. (1906: 198).

- (4) *phala-mūla* *pa-weh=nira* [OJR 4.16]⁹
 fruits and tubers NOM₁-give=PRO₃ (-S)
 ‘His gifts (to the sages) were fruits and tubers.’

Nom₂: *paN-*

As a nominalizing morpheme *paN-* forms agentive nouns: *paN-* + *ton*, ‘visible; seen’ > *panon*, ‘eyes, instrument of seeing’. Verbal bases in *paN-* are also used as one type of imperative, which can have benefactive or causative reference with the addition of the applicative suffix *-akĕn*.⁹

1.5 APPLICATIVE SUFFIXES AND CONFIXES

While many verbs marked for diathesis can take Object complements without the addition of an applicative suffix, others require such a suffix to extend or focus the transitivity of the base. Hence we might speak of a three-way division of verbs, one taking 0-suffix, one the applicative set *-i/-ani/-an* and one the applicative *-akĕn*.

APP_{1-IND}: *-i/ani*

The applicative suffix *-i* (and its allomorph *ani-*) form applicatives which subcategorize Object complements as “locative” (Wechsler and Arka 1998) or “stationary/static” (Oglobin 2005a: 618). The *-i/-ani* forms are found only with Actor Voice VPs in the indicative mode. Therefore I have used the subscript marker _{-IND} to call attention to this constraint. In irrealis mode *-i/-ani* takes the form *-ana*, which can be analysed as based on the LF affix *-an* with the *-a* form of the irrealis marker.

APP₁/LF: *-an*

The suffix *-an* forms applicatives parallel to *-i/-ani*, but specialized for use with UV forms and confixes like *ma-* *-an* and *ka-* *-an*. This affix is well known in the history of AN constructions, which Himmelmann (2005: 6) refers to with the term Locative Voice (LV). Since VPs taking *-an* in OJ do not constitute a separate voice, as they do in many Philippine languages, I have used the term “Locative Focus” and have adopted the glossing convention LF for the *-an* suffix. This use of “focus” is meant to suggest the orientation of transitive VPs towards their (non-Subject) Object complements and is derived from earlier studies of the Philippine voice system. In Filipino, forms taking *-an* are found in a separate Locative Voice but in OJ are a subcategory of either Actor or Undergoer Voice.

⁸ See Van der Molen (2015: 52) for the OJ text for OJR 4.16, Robson (2015: 85) for an English translation.

⁹ Oglobin (2005a: 617) also lists more specialized *p-* prefixes forming verbal bases used in imperative or indicative mood. These include *paha-*, used in forming imperatives based on adjectival roots, *pi-*, which has intensifying or causative function and *paka-*, which forms verbal bases with the general meaning “use as x”. I shall not explore these more specialized *pa-* forms here.

In many cases the form with *-an* is not an exact parallel to the *-i/-ani* marker of the indicative mode. Confixes like the *ma- -an* forms refer to a reciprocal action, while “adversatives” and “accidental passives” are formed with *ka- -an*. This suggests the need for a more fine-tuned study of the similarities and differences between uses of *-i/-ani* in indicative mode and *-an* in irrealis mode.

APP₂: *-akěň*

The very important suffix *-akěň* forms applicatives which subcategorize Object arguments as “moved” or “strongly affected” (Oglobin 2005a: 616). Its higher transitivity also lends itself to the formation of benefactives, causatives, and imperatives.

1.6 IRREALIS MARKERS

IRR₁: *-a*

The irrealis marker *-a* is found as the final segment of all irrealis forms in the language except for VPs formed from UV₂ verb phrases based on zero-suffix mono-morphemic bases taking Object complements. In the latter case the suffix *-ěň* is chosen (see below).

IRR₂: *-ěň*

The marker *-ěň* appears to be a reflex of the PAN marker described by Wolff (1972: 73) as marking the “direct passive” in the non-past tense. As noted above it is specialized for use with the irrealis mode of transitive verbs which take Objects without the need of an additional applicative suffix (*-i* or *-akěň*).

1.7 FUNCTIONAL MORPHEMES

PTCL₁: *ta*

Morpheme *ta* has been variously described as a “topic marker” (Becker and Oka 1974; Hunter 1988), a “marker of discourse prominence” (Hoff: 1998) and an “emphasizing particle” (*nadrukpartikels*) (Zoetmulder 1950: 103). In their comments on *ta* Zoetmulder and Poedjawijatna (1992: 67-78) note that the primary uses of *ta* are to “emphasize” a clause-initial predicate or subject pronoun. Dwi (2015) has shown that *ta* marks a crucial boundary between clause-initial constituents (prototypically voice-marked predicates or Subject pronouns) and their complements. It therefore has a crucial role to play in clause-level syntax that in predicate initial canonical clauses overlaps with its role in marking discourse prominence. Hence, we might speak of *ta* as a particle marking a syntactic boundary.

PTCL₂: *pwa*

While earlier analysts tended to treat *pwa* as functionally equivalent to *ta*, Dwi (2015) has shown that in many cases there are syntactic constraints on the choice of *pwa* and *ta*. Citing her earlier work (Dwi 2003: 80-82) she calls attention to the fact that in linked ordinate-subordinate clauses *pwa* is used

with the subordinate clause, and *ta* in the ordinate clause. She illustrates this with an example (127) reproduced below as example (5). Here we are not speaking so much of an ordinate-subordinate construction as one in which the clause taking *pwa* happens as the background or necessary precondition of the clause taking *ta*, and the VP of the clause taking *pwa* is of lower transitivity than that of the *ta* clause:

(5)	<i>tumurun</i>	<i>pwa</i>	<i>sireng</i>	<i>lwah,</i>
	t-um-urun		sira	i-ng
	AV ₂ -descend	PTCL ₂	PRO ₃ (S)	PREP ₁ -SPEC ¹¹ river
	<i>sinahut</i>	<i>ta</i>	<i>wētis=nira</i>	<i>de-ning wuhaya</i>
	s-in-ahut			
	UV ₂ -bite	PTCL ₁	calf=PRO ₃	by-LK-SPEC crocodile
	'Descending into the river his calf was bitten by the crocodile.'			

Dwi (2015: 5.175) also notes that *pwa* is likely to be found with VPs taking *ka-*, the lower transitivity marker of Undergoer Voice.

1.8 CANONICAL STRUCTURE OF THE CLAUSE

As Oglobin (2005a: 617) points out the “most common linear order” in OJ is:

V-S (Complement) (Complement).

Dwi (2015) has expanded on the basic formula and made considerable advances towards our understanding of the role of word order in differing types of canonical clauses, and the importance of the particles *ta* and *pwa* in the structure of many clause types. Among other notable contributions she brings out the importance of the particles *ta* and *pwa* in marking the syntactic boundary between clause-initial predicates and their complements. She then charts the varying forms of word order which arise depending on the interaction of the semantic type of base words with markers of the AV-UV diathesis. As she notes, in many canonical constructions the initial constituent is a predicate/VP. In topical clauses this is followed by *ta* or *pwa*, but in non-topical clauses word order is the primary source of coherence within the clause. Dwi’s summary of canonical clause constructions in her Table 16 (2015: 178) is an invaluable tool for the analysis of OJ clause structure, and is among the contributions of her work that cry out for an English translation.

¹⁰ I assume that *i* might be the underlying formant for *i*, *ri* and *-ni*, but have not attempted in this paper to study the possibility of an underlying simplex form. I have used the glossing convention PREP with subscripts for the three forms. I have combined the PREP₃ gloss for *ri* with PTCL in response to Dwi Puspitorini’s comments on the role this morpheme plays in the marking of adjunct arguments in clause structure.

Since complementation has effects on clause structure and order of constituents, I have made frequent use of Dwi's findings, especially in cases in which topicalization and other rules involving movement have altered the conformity of clauses to the predicate-initial form of canonical constructions. Here I shall cite only one set of structural descriptions excerpted from her Table 16. This set contrasts the clause types found for transitive VPs marked with *maN-* and *-in-* in non-topical and topical clauses:

<u>Diathesis</u>	<u>Affix</u>	<u>Non-topical clause</u>	<u>Topical clause</u>
Active (AV)	<i>maN-</i>	Pred-O/Comp-S	Pred <-> S-O
Passive (UV)	<i>-in-</i>	Pred-Adj-S	Pred <-> S-Adj

Key: Pred = predicate (VP); O = Object; Comp = (Sentential Complement); S = Subject; Adj = Adjunct (non-core argument).

These structural descriptions tell us that in the non-topical form of an AV clause taking *maN-* the VP is followed by either the Object or by a sentential complement and then the Subject. The structure of a non-topical UV clause is simpler. As Dwi has noted the single core argument of a "passive" or UV predicate is an Object picked out by the UV marking of the VP, and therefore that in effect UV predicates are intransitive. There are no other core arguments in a UV clause, but adjunct (peripheral/non-core) arguments can intervene between the predicate and the Subject (patient). Note too that in topical clauses clause-initial predicates can be interchanged with a second set of constituents, either the Subject (Actor) and Object in the active diathesis or the Subject (Undergoer/patient) in the passive.

2. IRREALIS AND ASPECT IN OLD JAVANESE

Oglobin (2005a) has given us an introduction to the use of irrealis marking in OJ in a study of three modes of the verb, which he characterizes as: imperative, indicative, and irrealis. One might also speak of a simpler contrast of irrealis and realis forms of the verb, but Oglobin's use of indicative has the virtue of bringing out the contrast with the imperative forms. In his contribution to the typological study of Adelaar and Himmelmann (20015), he provides a valuable table which gives a summary of the morphosyntax of the realis and irrealis verb, reproduced below as Table 1.

	INDICATIVE	IRREALIS
(a) root verbs: <i>pangan</i> 'eat'		
Active	<i>amangun, umangun</i>	<i>amangun-a, umangun-a</i>
Passive	<i>p-in-angan</i>	<i>pangan-ěn</i>

	INDICATIVE	IRREALIS
(a) suffixal verbs: <i>-weh-i</i> 'give' Active Passive	<i>ameh-i</i> <i>w-in-eh-i</i>	<i>ameh-an-a</i> <i>weh-an-a</i>

Table 1. Indicative and irrealis forms of “root verbs” and “suffixal verbs” (after Oglobin 2015: 619).

Oglobin’s chart reveals the fact that two sets of verbal affixes are in complementary distribution:

- The passive marker *-in-* and the passive irrealis marker *-ĕn*. The distribution is based on syntactic considerations: the infix *-in-* is found only in indicative mode, while *-ĕn* is found only in the irrealis forms of root verbs
- The applicative suffixes *-i* and *-ana*. In indicative mode the “first applicative” (locative) is *-i*, while in the irrealis mode it is *-ana*.

I have noted some characteristics of the second case of complementary distribution above (Section 1.5) and shall not offer further comments on that point here. What concerns us more is the question of whether *-in-* and *-ĕn* represent allomorphs, inflectional markers, or a case of suppletion drawing on the morpho-syntactic resources of WMP to solve a particular semantic problem in OJ. If we look at Malcolm Ross’ table of PAN voice, mode, and aspect morphemes (2002: 33), we note that the marker *-in-* is found only in the perfective mode – in which for clauses in indicative mood – it is associated with any one of four voices: Actor, Patient, Locative, and Circumstantial; however, it is found as the single marker of mode and voice only in the perfective mode of the Patient Voice.¹¹ Wolff’s description (1973: 73) of the PAN markers formed with *-in-* shows that it only occurs in the past tense, where *-in-* marks what Wolff calls the “direct passive.”

These facts suggest that *-in-* bundles features of past or perfective aspect with its voice-marking role in “passive” or Undergoer Voice constructions. This bundling of features of aspect and voice appears to have been first noted for OJ by Hunter (1988). He noted earlier work on the cross-linguistic role of PAN *-in-* in the formation of “static words” (Bloomfield 1917) and “passive substantives” (Van der Tuuk 1971). He then called attention to the aspectual consequences of voice markers in Samoan (Milner 1973) and Bahasa Indonesia (Kana 1983), and went on to cite Comrie’s comments on the “correlations

¹¹ Ross (2002: 38) makes this point explicit in his comments on the “voice-from-nominalization hypothesis” in PAN studies: “Despite the asymmetries of the voice morphemes in indicative forms, the aspect morphemes which occur in these forms are paradigmatically regular: the perfective is marked by **<in>*, the durative by reduplication. The one exception is that perfective **<in>* and patient voice **-ĕn* do not co-occur.” Note that this observation provides a strong historical basis for the perfective aspect of the marker *-in-* and its complementary distribution with the UV affix *-ĕn*, which is specialized for use in the “passive arealis” forms of OJ.

between aspect and voice, in particular between perfect (resultative) aspect and passive voice”:

[W]ith the perfect one is interested in a state resulting from an earlier situation. [In such cases] the resultant change of state is attributed primarily to P rather than A. [Thus] the perfect would be more likely than other aspects to correlate quite highly with the passive-ergative (Comrie 1981: 65).

Taking these studies into account it might be productive to view the UV₂ predicates of OJ as bundling voice-marking features with a perfective aspect. It follows logically from this that, if the UV₂ markers bundle both Undergoer valence in voice marking and “perfective” aspectual features then, unlike their AV and lower agency UV counterparts taking *ka-*, they are incompatible with irrealis mode, which by definition can never be “telic, punctual, or perfective”. If this understanding is incorporated into a glossing convention which writes the Undergoer Voice affix *-in-* “under erasure” in irrealis mode, we have a tool for clearly identifying the suppression of *-in-* under conditions of irrealis and the adoption of the suffix *-ĕn* for transitive root verbs in irrealis mode.

Since the correct identification of various participants in OJ sentences is crucial to the translator it can be very useful to use a constituent analysis of textual materials when analysing complex sentences. And since identification is particularly difficult in cases in which the primary marker of Undergoer Voice has been deleted, it can be helpful to write both the morpheme *-in-* and the glossing convention UV₂ under erasure. I shall use those conventions in this paper and have incorporated them (in Table 2) into a proposed revision to Oglobin’s chart above (Table 1).

Note that writing *-in-* under erasure implies a process-oriented view of OJ morphosyntax. The structural approach of Oglobin has yielded impressive and very useful results. However, his conclusion that the complementary distribution of *-in-* and *-ĕn* means that *-ĕn* is an inflectional ending sets up an identification which precludes recognition of the aspectual correlates of the choice of affixes in the OJ voice system. It might be useful for future studies and translations to bear in mind aspectual consequences of the choice of markers of diathesis.

	INDICATIVE	IRREALIS
(a) root verbs: <i>pangan</i> ‘eat’ Active Passive	<i>amangun, umangun</i> <i>p-in-angan</i>	<i>amangun-a, umangan-a</i> <i>p-in-angan-ĕn</i>
(a) suffixal verbs: <i>-weh-i</i> ‘give’ Active Passive	<i>ameh-i</i> <i>w-in-eh-i</i>	<i>ameh-an-a</i> <i>w-in-eh-an-a</i>

Table 2. Proposed emmedation to Oglobin’s chart (see Table 1) of indicative and irrealis forms of “root verbs” and “suffixal verbs”.

Oglobin has given us a very useful and detailed introduction to the imperative forms of OJ in his article for Adelaar and Himmelmann's study of the Austronesian languages (2005a: 619-620). He subdivides the imperative mode of OJ into four types of usage:

- (i) intention, wish, purpose, future
- (ii) mild hortative, optative
- (iii) possible, allowed or urged action/event
- (iv) appraisal, evaluation, conditional, concessive-conditional.

He also notes that irrealis can apply to nouns, a form of irrealis which is uncommon elsewhere.

Given the usefulness of Oglobin's categories and examples of irrealis, I shall not include further examples here, but will turn instead to the analyses of a single verse from *The marriage of Arjuna* (*Arjunawiwāha*) which reveals complex interactions of irrealis forms with strategies of complementation to be further reviewed in Section 3 following.

3. IRREALIS AND ASPECT IN VERSES FROM *THE MARRIAGE OF ARJUNA*

In *Arjunawiwāha* 35.8, Arjuna has come to Lord Indra to request leave from heaven to return to his family and kinsmen on earth. Indra grants his request and admonishes him to continue to pay attention to the practices of concentration he developed as an ascetic even after his return to happier circumstances in life. In verse 35.8, close to the end of the work, Lord Indra draws a comparison between the senses and the tendrils and tender shoots of plants which in the end bring down the greatest of temples. Here the poet has used irrealis forms to great effect in building a complex figure of speech. I have used underlining to mark the irrealis forms in the transcribed Old Javanese verse and have underlined the parallel phrases in the English translation:

*akweh caṅḍi rēbah katona tēkap ing waringin athawa bodhi hambulu
lit ny ālāya nikāna yan pipilaneḱa ḱawutana kapana yan hanā
hīnganyān watunēn tikang mada wimoha tumuwuh i manahta sapwani
yan tamtāmana wiṣṭi yan pangawaśanya basama mamubura ng parākrama*
[AW 35. 8]¹²

'Many are the temples that can be seen to collapse from the action of banyan, bodhi and ambulu trees,
It is the smallest of their roots that must be uprooted whenever they might appear.
And so too intoxication and sensual confusion that grow in your heart should be rooted out, swept away.
If their dangerous attraction is indulged in they will have a terrible power that will crush your heroism.'

¹² See Robson (2008: 144-145) for the OJ text of AW 35.8 and for another English translation.

Each line of the verse contains at least one irrealis form. Of a total of seven uses of irrealis, three are based on transitive VPs in Undergoer Voice which have lost the *-in-* marker of diathesis and take either *-ěn* or *-ana* as suffixes. One of the uses of irrealis in the verse is with an interrogative pronoun (*kapan* ‘when’), while others are found with Actor Voice verbs (*mamubura*) or in a “first passive” construction (*ka-ton-a*, ‘might be seen’). Analyses of the irrealis forms found in AW 35.8 are summarized below:

- *ka-ton-a*
UV₁-visible-IRR
‘(that) may be seen’
- **p-in-ipil-an-a*
UV₂-to pick up one by one-LF-IRR
‘should be plucked out one by one’
- *q-in-awut-an-a*
UV₂uproot-LV-IRR
‘should be weeded out’
- *kapān-a*
when-IRR
‘whenever (future)’
- *hana-a*
exist-IRR
‘(they) may exist’
- **w-in-atu-n-ěn*¹³
UV₂-weed out-IRR
‘should be weeded out’
- *t-in-amtam-an-a*
UV₂-absorbed in-LF-IRR
‘(if) indulged in’
- *amubura*
aN-(b)ubur-a
AV₃-pulp, porridge-IRR
‘will crush’

A close analysis of the second line of this verse reveals a structure parallel to cleft constructions of English:

(6)	<i>lit</i>	<i>ny</i>	<i>ālāya</i>	<i>nikāna</i>	<i>yan</i>
		LK		LK-DEM ₃₊₃	COND
	smallness	of	roots	of them that	

¹³ The form *winatu-něn* takes the *-něn* allomorph of *-ěn* found after words ending in a vowel.

<i>pipilaneka</i>				<i>ika</i>
p-in-pipil-an-a				
⊕v ₂ -take up-LF-IRR				DEM ₃
should be picked up one by one (those) ¹⁴				
'(It is) the smallest roots that <u>should be uprooted</u> one by one'				
<i>ḍawutana</i>	<i>kapāna</i>	<i>yan</i>		<i>hanā</i>
ḍ-in-awut-an-a				
⊕v ₂ -take up-LF-IRR	when-IRR	COND		EXIST-IRR
should be weeded out	whenever	that/if		exist
'plucked out one by one whenever they appear'				

Example (6) illustrates the abundant use of irrealis forms in a passage which might be characterized overall as representing the type of irrealis Oglobin (2005a: 620) refers to as “urged action,” but which also includes conditional and hortative uses of irrealis mode. Note that the NP *lit ny ālāya nikāna* ‘the smallness of those roots’ is linked to the impersonal pronoun *ika* which follows the verb, which refers anaphorically to this NP and can hence be considered the formal Subject of the UV verb. To summarize: it is the shoots which are the Subjects of a series of Undergoer Voice verbs which each insist on the need to uproot the physical shoots which destroy temples, or in the third and fourth lines of the verse, which will destroy one’s prowess in battle.

A review of works like Comrie’s study of aspect (1976) will show that, while irrealis is cross-linguistically common enough, it is rarely spread through a language to the degree that it is in OJ. This might be the case because the poetic diction of the *kakawin* called for the development of strategies to handle the development of poetic figures and tropes which depend on an imaginative projection of the possibilities of, for example, love, the virtues of the ascetic life or the need to strategize in matters of political struggle. The long history of the *kakawin* and the thorough course of study which was expected of any courtier or priest aspiring to literary greatness could be among the factors which supported this unusual degree of development in the aspectual category of irrealis.

¹⁴ I have used the glossing convention DEM (demonstrative) for the impersonal pronouns of OJ. The claim of Becker and Oka (1995) that these are deictic pronouns aligned along a “cline of person” in terms of distance from the speaker is still controversial, and their further claim that there is a second “additive” set of the basic set of three needs further reconsideration in the light of a larger set of examples. However, the existence in Modern Javanese of a parallel set *iki, iku, ika* supports the idea of a tripartite system. Therefore it might be possible to analyse *ikana* as combining the basic 3rd person form (*ika*) with an additional 3rd person marker *-a* separated from the base form with an epenthetic *n*. This could very well indicate the greater distance of reference with *ikana* than with *ika*, and should be left open as a possible distinction of some importance in the organization of spatial (and temporal) reference in OJ. I have therefore used DEM with the subscript ₃₊₃ to characterize the reference of *ikana*.

4. COMPLEMENTATION IN OLD JAVANESE

This section of the present study focuses mainly on the role in clause structure of the morpheme set *n/an* which Uhlenbeck proposed as a “third connective” in his study of “clitics, suffixes, and particles” in OJ (1986). However, since these “connectives” play a crucial role in complementation in OJ, we should briefly review other strategies which have been noted as supporting embedding of sentential components within larger clauses, hence serving as important avenues for recursiveness in OJ.

Hunter (1988: 74-75; 82-83) has noted that complex formations based on the confixes *ka- -an* and *pa-/paN- -an* in many cases represent nominalizations of embedded sentential complements. In his comments on a derivation in *ka- an-* he notes the following:

In some cases the nominalized form is based on a strongly agentive and volitional verb (like *alap*, ‘seize’) and hence retains the agentive *de* phrase in the substantive construction (Hunter 1988: 75).

Hunter’s example 17, given below as example (7), illustrates this type of nominalization:

- (7) *mang-rěngö* *pwa* *sang* *watěk* *Yadu* *ri*
 AV₃-hear PTCL₂ (title) clan Yadava PREP₃/PTCL
ka-alap-an *sang* *Subhadra* *de* *sang* *Arjuna*
 UV₁-seize-APP₁ (title) *Subhadra* by (title) *Arjuna*
 ‘The Yadava clan heard about (*ri*) the abduction of Subhadra by Arjuna.’¹⁵

Hunter’s comments on nominalizations in *pa- -an* and *paN- -an* illustrate similar effects of raising:

As in the case of the *ka-R-an* substantives, when underlying clauses are nominalized they bring with them core adjuncts [read: arguments] of the underlying clause. In the case of *pa-R* substantives the first modifier often represents the Actor of the underlying clauses and takes the possessive relation to the derived substantive construction (Hunter 1988: 81-82).

Hunter’s example (30), reproduced here as example (8), is based on a nominalization of a clause based on a mono-transitive VP as a *paN-R*:

- (8) *k-in-on=nira* *m-ajar-akěn-a* *ri*
 UV₂-order=PRO₃ AV₂-inform-APP₂-IRR PREP₃/PTCL
pamangguh=nira *duḥkha* *ri*
 paN-pangguh
 NOM-AV₃-obtain=PRO₃ pain, sorrow PREP₃/PTCL

¹⁵ Cited in Zoetmulder and Poedjawijatna (1992: II. 91, Section 113).

<i>sang</i>	<i>Dhṛtarāṣṭra</i>
title	Dhṛtarāṣṭra

'He_i was ordered by him_j to inform Dhṛtarāṣṭra of the pain that he_i had met with.'¹⁶

The example of sentential nominalization taking *ka-R-an* given in example (7) above also involves the use of *ri*, a particle or preposition that Dwi (2015) has shown is frequently found in constructions involving embedding of sentential components. In a section of her work on the particles *i*, *ri*, *ing*, and *ring* Dwi (2015: 142-144) notes that, like pronominals, these particles have "formal characteristics that can be used to separate subject and non-subject arguments". Her examples demonstrate the role played by *ri* in strengthening the non-subject nature of a complement. In her further discussion, she brings out the role played by the particle *ri* in constructions where a non-subject complement is a sentential constituent of the clause:

The presence or absence of a particle [like *ri*] is not determined by the type of verbal affix involved, but rather by the definiteness of the noun. The particle only marks definite non-subject arguments, but definite nouns are not always preceded by a particle. The presence of a preposition [= particle] is obligatory if the non-subject argument takes the form of a clause [emphasis mine].¹⁷

Dwi's example (20), reproduced below, gives us a good example of the use of *ri* to introduce a sentential component raised to Object position:

(9)	<i>manastapa</i>	<i>sang</i>	<i>Saramān</i>	<i>t-um-on</i>
	down-hearted	(title)	Sarama	an
			(name)	COMP
	<i>ry</i>	<i>anak=nira</i>	<i>p-in-alu</i>	<i>tan</i>
			p-in-alu	<i>pa-doṣa</i>
	PREP ₂ /PTCL	child=PRO ₃	AV ₂ -hammer	NEG
				AV ₁ -fault
	'Sang Sarama was sad at heart upon seeing her child beaten without any fault.'			

Uhlenbeck (1986) describes *n/an* as a type of "connective whose "normal position is directly after a personal pronoun or noun with a pronominal suffix" and notes that it "is syntactically connected with the verbal group which follows it." He further points out that the "following verbal group" could have "either as agent or as patient the person to whom the pronoun or

¹⁶ Cited in Zoetmulder and Poedjawijatna (1992: II. 78, Section 98).

¹⁷ *Ada tidaknya partikel tidak ditentukan oleh jenis afiks verbalnya, tetapi oleh ketakrifan nomina. Partikel hanya memarkahi argumen bukan subjek berupa nomina takrif, tetapi nomina takrif tidak selalu didahului partikel. Ketakrifan nomina ditentukan oleh afiks verbal. Kehadiran preposisi bersifat wajib jika argumen bukan subjek berwujud klausa* (Dwi 2015: 143).

pronominal suffix refers" (1986: 338-339).

If we look at Uhlenbeck's description in terms of the language of syntactic description which was emerging at the time of his writing we would say that what he is describing is a prototypical case of "equi-NP deletion" or "pro-drop." I have therefore found it useful to adopt the term PRO from more recent GB approaches to indicate the null-pronoun Subjects of embedded NPs when dealing with the syntax of embedded or linked clauses in OJ which are introduced with the complementizers *n/an*, *r/ar* and *t/at* and to identify those morphemes as functional markers of complementation. Hence I use the glossing convention COMP when providing constituent analyses in the examples following.

From Uhlenbeck's three examples it is clear that in each case there has been equi-NP deletion following the connective. This should be a signal to the analyst that the clause following the connective is an embedded (or raised) VP, whose Subject is coreferential with the NP or NP-pro in the clause-initial predicate position. Uhlenbeck's second example (23), reproduced below, provides a good example of the use of *n/an* in a cleft construction:

- (10) *ya ta nimitta=nirān g-um-away-akĕn*
 PRO₃ PTCL₁ reason=PRO₃ COMP AV₂-WORK-APP₂
sa-pa-kon ikang naga [Ad 38.3]
 all-orders DEM₃-SPEC naga, serpent
 'That was the reason that he carried out all the orders of the serpents.'¹⁸

Uhlenbeck's other examples bring up problems of analysis which require further analyses. We shall return to these examples below.¹⁹

Van der Molen (2015: 26-38), basing his findings on Zoetmulder's *De taal van het Ādiparwa* (1950), has more recently provided some important insights into the uses of *n/an*, which he also notes is an important component of the conditional marker *yan*. He studies the *an/n/yan* forms under the heading of

¹⁸ Both this translation and that of Uhlenbeck conceal the fact that the antecedent for the null pronoun of the embedded clause is the third person possessive programme of the clause initial constituent "his reason" (*nimitta-nira*). Uhlenbeck (1986: 338) suggests: "That was the reason for his doing all that the snakes ordered him."

¹⁹ Uhlenbeck (1986: 338) also points out that "nasalized verbs" of the AV series *ma*, *maN*- are "denasalized" following *n/an*: "[N]asalized verbs taking part in this construction lose their initial nasal, replacing it by the corresponding homorganic stop of the p-t-k set." While this phonological change might be linked to morpho-syntax it is more likely that it falls under a general sandhi rule of OJ which calls for the denasalization of AV prefixes *ma*, *maN*- following the /n/ of a number of words with grammatical function. These include the negatives *tan*, *tatan*, *ndatan*, which regularly trigger the change of stative *ma*- prefixes to *pa*-. Uhlenbeck's example (22) illustrates the regular phonological change from *ma*- to *pa*- in an embedded AV clause. However, this example brings up issues about topicalization which require further analysis. We shall therefore return to this example below.

“Conjunctions” and lists several typical uses illustrated by examples. These include:

- Uses of *an* to mean ‘in order to’. As he notes, in this use of *an* the sub-clause will take “arealis” mode.²⁰
- Uses of *an* to mean ‘while, as’. He then reviews several usages under this heading, noting first that “a sub-clause headed by *an*” can “add information on the predicate of the main clause [...] or other elements of the main clause.” He then notes that the most frequent use involves the linker *-ni* and other possessive constructions. His example (6) illustrates this usage well: *nāhan ta lingning rare, an śumāpa sang ibu*, ‘thus were the words of the child while cursing its mother’. In his example (8), Van der Molen describes the “sub-clause” as giving information on the “subject of the main clauses” and in his last example he notes cases where the sub-clauses contains “information on the object of the main clause.”²¹

So far I am in agreement with Van der Molen’s analysis. However, an important difference arises in his discussion of the order of elements in clauses following *n/an* and the loss of a pronoun or NP referring to the Subject in the “sub-clause”:

The order of elements in the sub-clauses headed by *an* is the same as in main clauses: the subject follows the predicate. However, different from main clauses, in sub-clauses headed by *an* no separating particle [like *ta* or *pwa*] is used. Another difference is shown by example (4): the subject of the sub-clause is not mentioned. This is in agreement with a general rule in Old Javanese that the subject does not have to be repeated once it has been mentioned and as long as it remains the same. This rule applies not only to sub-clauses but also to main clauses (Van der Molen 2015: 36).

It is true that topic continuity is a general feature of OJ discourse, and it is also true that the referential aspect of the markers of diathesis supports longer stretches of discourse without an overt Subject NP or pronoun than is usual in languages like English. However, this “general rule” is not what is at stake in the loss of pronominal or NP markers of the (grammatical) subject in subordinate clauses. These very clearly have to do with equi-NP deletion or PRO and require a treatment which takes into account the syntactic and referential consequences of clause linkages of the ordinate-subordinate type.

We can now turn to the analysis of a representative set of examples which

²⁰ Van der Molen follows the usage of the late P.J. Zoetmulder in using the term “arealis”, which nicely invokes the work of one of the towering figures in Old Javanese studies. Since this study is aimed at least partly at typologists working in WMP languages, I have used the more current term “irrealis”.

²¹ Van der Molen (2015: 37) also notes the suppression of the AV₂ prefix *-um-* after *-an/-n* and the denasalization of *(m)a-/(m)aN* that is a regular phonological feature of sequences involving a functional morpheme ending in *-n* and a following VP with *m-* initial. I shall forgo making comments on this insight or his useful introduction to the uses of the conditional “conjunction” *yān*.

it is hoped can give us new insights into the role of the complementizing morphemes *n/an*. Before taking that step, however, I should first take note of the fact that the forms *n/an* are paralleled by a set *r/ar* which can be analysed as honorific formants parallel to *n/an*. We should also pay attention to a parallel set which has second-person reference and a set *k/ak* with first-person reference. Examples of the use of *n/an* and *r/ar* show that they are neutral and respectful variants of a third person morpheme with complementizing functions. That the usage of the two sets is parallel can be shown by the fact that *r/ar* trigger the same phonological change of following segments beginning with *m-* to *p-* which is completely regular following *n/an*.

An example of the use of *r* instead of *n* illustrates the fact that the usual sandhi change of a following *m-* to *p-* is also retained after *r*. The example is from the second canto of the OJR, in a description of the journey of Rāma and Lakṣmaṇa through the countryside. The metre is the 14-syllable metre “Beauty mark of spring” (*Basantatilāka*):

- | | | | | | |
|------|-------------------------|-----------------------|-----------------------|--------------------------|-------------------------|
| (11) | <i>ka-wit</i> | <i>śarat-samaya</i> | <i>kāla=nira</i> | <i>-r</i> | |
| | UV ₁ -origin | fall season | time=PRO ₃ | COMP ₁ (RESP) | |
| | <i>para</i> | <i>ngkā</i> | | | [OJR 2.1] ²² |
| | (m)ara | SPEC-DEM ₃ | | | |
- ‘The beginning of the fall season was the time that (he) went there.’

Note that the antecedent for the null pronoun following COMP is the third person possessive pronoun of *kāla=nira*, so equivalent to an English phrase ‘his time’, which cannot be the antecedent of PRO:

- (12) *’The beginning of the fall season was his time that went there.’

This suggests that the application of principles of the government and bonding type to OJ structures of complementation will need to take account of factors like the referential character of markers of diathesis, their linkage with Subject and non-Subject pronouns, and the eligibility of enclitic pronouns as antecedents of embedded clauses.

Another example from the OJR illustrates some of the problems of analysis which arise around OJ clauses making use of complementizing strategies based on *n/an*, *r/ar*:

²² See Van der Molen (2015: 46) for the OJ text of OJR 2.1, Robson (2015: 15) for an English translation.

- (13) *m-ulih* *ta* *sira* *tūt hawan* *r*
 AV₂-return PTCL₁ PRO₃(S) along the way COMP
angĕn-angĕn *ta* *Sang Rāghawa* [OJR 3.18]²³
in-angĕn-angĕn
 ɕv₂-thoughts PTCL₁ (title) (name)
 'He returned home as he thought about Sang Rāghawa along the way.'

The first clause is in Actor Voice and takes the canonical form PRED-*ta*-S of a topical clause. *Tūt hawan*, 'following the way' is an idiomatic phrase used adverbially in many examples to mean 'along the way'. The second clause has no marker of diathesis, but follows the canonical form PRED-*ta*-S which normally takes a voice-marked VP as its first constituent. The alternative is to read *angĕn-angĕn* as a UV₂ verb phrase which has lost its marker. If we take this interpretation then we have a prototypical construction in the embedded clause:

- (14) *in-angĕn-angĕn* *ta* *Sang Rāghawa*
 ɕv₂-thoughts PTCL₁ (title name)

Note, however, that this clause is missing the enclitic PRO₃ *-nira* which would normally code the ("demoted") agent of a UV₂ construction. This is attributable to the embedding of this clause as a subordinate clause marking simultaneous action with the main clause and the consequent requirement of a null pronoun in the subordinate clause.

Given that the domain of the first and second person forms of a language is the domain of personal interaction, while third person forms are constitutive of the realm of narration, we can expect there to be differences in the semantic range of clitics and complementizing morphemes when they are found in first and second person usage versus third. A survey of the forms of *t/at* and *k-ak* in the OJED bears this out. While Zoetmulder and Robson list *n/an* only as a conjunctive particle, they list *t/at* as both a "connective particle with connotation of the first person" and "a particle for forming the imperative", and the definitions and examples of *k/ak* follow suit, including both connective and uses which fall under the heading of "imperative" in the OJED. However, the examples of these uses suggest that they should be considered irrealis forms which have a hortatory or optative force, rather than imperative.²⁴

Instances of these important formatives are more common than might be imagined. A corpus search of the OJED lists 98 uses for *at* and 329 for *t*, while for *k/ak* 56 examples are recorded. If we include the particle *ndak* in

²³ This passage is given by Zoetmulder and Robson (1982: 1470) as verse 3.34. However, in the text and translation of Santosa (1980: 72) it is given as found in verse 3.18, and this is also the case in Van der Molen (2015: 34). The citation in the OJED appears to be incorrect.

²⁴ See Zoetmulder and Robson (1982: 36) and (1982: 1892) respectively for *k/ak* and *t/at*.

<i>lēhng</i>	<i>aku</i>	<i>k</i>	<i>maty-a</i> ²⁸	
prefer	PRO ₁	COMP ₁	die-IRR	
'(It's) better <u>that I</u> die'				
<i>lingnya</i>	<i>an</i>	<i>pamuka</i>		[OJR 22.89] ²⁹
ling-nya		maN-(w)uk-a		
speech=PRO ₃	COMP ₃	AV ₃ -furious attack-IRR		
'he said <u>as</u> he mounted a furious attack.'				

In another verse from the OJR we find a good illustration of the very common imperative formation based on *t/at*. In this verse (OJR 7.38) Rāvaṇa's sister, Śūrpanakhā, admonishes him to seek out Rāma and give him the lesson he deserved for having disgraced and disfigured his own sister:

(17)	<i>matangnyaya</i>	<i>laku</i>	<i>tât</i>	
	matang=nya	0-laku	ta	at
	the reason	go forth (IMP)	PTCL ₁	COMP ₂
	<i>at</i>	<i>parât</i>		<i>ujari</i>
		0-para	at	0-ujar-i
	COMP ₂	approach (IMP)	COMP ₂	say-APP ₁ (IMP)
'That's the reason you should set forth to approach (him), tell him [...]'				
	<i>yan</i>	<i>mapāmbĕk</i>	<i>-nika</i>	[OJR 7.38] ³⁰
		mapa-ambĕk		
	COND	AV ₁ -NOM ₁ -heart/disposition	LK-DEM ₃	
'[...] what kind of (low) character he is!'				

From these and the following examples, it should be clear that there is a set of complementizing morphemes which are aligned with first and second person uses in the performative domain and third person forms used in the narrative domain.

With example (18) we return to the narrative domain, and a case in which the action of the verb in the subordinate clause introduced with the COMP marker is carried out in a time frame simultaneous with that of the ordinate clause:

²⁸ Based on the usual triggering of the loss of a following nasal by *at/k* we would expect *patya* here. This example appears to represent an exception to the general rule.

²⁹ See Van der Molen (2015: 596) for the OJ text, Robson (2015: 497) for a translation.

³⁰ See Van der Molen (2015: 132) for the OJ text, Robson (2015:138) for a translation.

- (18) *t-in-ūt=nya* *sa-para-n* *ikang* *manuk*
 UV₂-follow=PRO₃ all-destination-LF DEM₃-SPEC bird
an *pang-layang* [Udy 42.13]
 (m)ang-layang
 COMP AV₃-fly along
 ‘He followed that bird everywhere it went as (it) flew along.’

COMP is used here to launch a subordinate clause describing an action which is simultaneous with that of the matrix clause. Note that the antecedent of PRO in the embedded clause is the bird, the grammatical subject of the clause-initial predicate in Undergoer Voice. An English equivalent of this construction using passive voice in the ordinate clause and active in the subordinate is possible, although most writers would replace the initial passive construction with an active clause. Examples (19a) and (19b) give the literal and reformulated translations of example (18):

- (19a) All the destinations of the bird were followed along by him as (it) flew along.
 (19b) He followed the bird everywhere that it went as it flew along.

An example from *The Marriage of Arjuna (Arjunawiwāha)* represents a second case in which it appears that the COMP marker has triggered loss of the marker of diathesis of an embedded VP. At the same time it illustrates some of the complexities of poetic discourse which make analysis difficult for both linguists and translators. In this section of the AW the poet describes the attempted seduction of Arjuna (Pārtha) by Indra’s handmaidens, focusing in AW 4.3 on one of the women who has used petals of a pandan blossom sheath as a writing material, and the sheath itself as an *anak-anakan*. An *anak-anakan* is a ‘doll’ used to exchange love-letters between paramours. Often inscribed with a plaintive plea that the absent lover return to take part in caring for their “child,” *anak-anakan* are part of a Javano-Balinese cultural pattern that defines adult couples in terms of their producing offspring.

- (20) *Wwantěn* *mañumbana* *puḍak* *ginuritnya*
 maN-cumbana g-in-urit=nya
 EXIST AV₃-kiss pandan UV₂-etch-PRO₃

Pārtha *ndân* *suswa-suswani*
 nda an aN-susw-suswa-(a)ni
 (name) Look! COMP₃ AV₂- breasts-APP₁

<i>kinolnya</i>	<i>hanan</i>		<i>liningling</i>	[AW 4.3] ³¹
k-in-ol=nya	hana	<u>n</u>	l-in-ingling	
UV ₂ -embrace-PRO ₃	EXIST	COMP ₃	UV ₂ -gaze intently	

‘One of them kissed and fondled a pandan blossom sheath on which she had inscribed (the name) “Pārtha”. Look there! She offers it her breasts, embraces it and at times gazes (at it) intently.’

Since there is an alternation in these lines between AV and UV predicates, with little overt information about the identity of the object of the affections of the apsaras, it can be more than a little challenging to sort out the syntax of a sequence like AW 4.3a-b. We first encounter an AV clause “there was one who fondled a pandan blossom sheath, on which she had written the name Pārtha (= Arjuna)”. The second clause is introduced with an exhortative phrase which includes an embedded marker of COMP (*nda an*) followed by an unmarked (reduplicated) VP which takes the first applicative suffix, which we have noted above is specialized for use in the indicative voice, that is in non-irrealis Actor Voice constructions. This suggests that the preceding COMP has triggered the (usual) loss of a nasalized AV prefix (*aN-* or *maN-*) and that we should therefore interpret *suswa-suswani* as ‘she offers (it) her breasts’. Then, in a shift of choice of diathesis which is not uncommon in OJ, the Object of her offering her breasts in the AV clauses serves as the Object of a following UV₂ clause *k-in-ol=nya* ‘be embraced by her’.³² The series of clauses focusing on the *anak-anakan* doll lovingly attended to by an apsaras is rounded off with a clause introduced with the existential verb *hana*, the third person marker of COMP and the UV verb *l-in-ingling* ‘be gazed at lovingly’. The sequence gives us “there were times that she gazed at it lovingly”.

The analysis of AW 4.3 helps us to understand the role of complementizers and applicative affixes in shifts between active and passive diathesis. In the second clause of AV the null pronoun following COMP is coreferential with the apsaras who is the Actor in the first clause. She is also the Actor in the first predicate of this clause. But the applicative suffix *-ani* (of *suswa-suswani*) calls into the case frame an Object of “offering the breasts” which then serves as the Subject (Undergoer) of the following UV₂ predicate. The final clause, introduced with the sequence of an existential verb and COMP, once again has as its grammatical subject the Object of embracing set up by the preceding UV₂ predicate (*kinolnya*).

Another complex example from the *Arjunawiwāha* comes up after Arjuna has won a magically powerful weapon from Lord Shiva. In the meantime heaven has come under siege by the demon Niwātakawaca and Indra has sent several of his handmaidens with an entreaty that he return to heaven to assist Indra in the defence against Niwātakawaca. In AW 12.12c-d the emissary

³¹ See Robson (2008: 52) for the OJ text, (2008:53) for a translation.

³² It is possible to treat *kinolnya* as a substantitive meaning ‘the one embraced by her’, that is the Object of the AV verb (*suswa-suswani*).

her a poetic lament and request that she agree to an elopement. If she agrees they will elope by the light of the full moon. If not he will attack Bhīṣmaka's kingdom and launch a terrible battle. In HW 4.4a he next considers whom best to send as an emissary. I have used brackets in (23) and (24) to indicate a clause which I propose has been displaced because of the topicalization of the first constituent (*tadanantara*):

(23)	<i>tadanantara</i>	<i>n</i>	<i>dělě-dělön</i>	[<i>marā sira</i>
			<i>d-in-ělě-RDP-(ě)n</i>	
	thereupon	COMP	UV ₂ -intent gaze-IRR	[EMPH PRO ₃ (S)
	<i>ng</i>	<i>utusěñ</i>	<i>lumampaha</i>]	[HW 4.4a] ³³
		<i>in-utus-ěñ</i>	<i>l-um-ampah-a</i>	
	SPEC	UV ₂ -order-IRR	AV ₂ -stride-IRR]	
	'After that full attention was immediately given to (the question of) who should be commissioned to set forth.'			
	['After that he gave his full consideration (to the matter of) who should be commissioned to set forth.']			

In example (23) the predicate or NP that normally takes the topical initial position in the clause has been displaced by a conjunction marking a sequence of events in time (*tadanantara*, 'after that') and an instance of COMP. This means that the sentential component containing the antecedent for the UV predicate (*dělě-dělön*, 'be considered attentively') follows the VP in the relative clause *sira ng utusěñ lumampaha*, 'he who should be commissioned to set out'. If we remove the initial conjunction then we are left with an anomalous case where a construction begins with a complementizer instead of an initial predicate containing an NP or pronoun eligible to be the antecedent to the null pronoun of the embedded clause.

If, however, we remove the conjunction and rearrange the clause so that there is a predicate prior to COMP and then move the bracketed portion of the example to the pre-COMP position it becomes clear that the construction represents a case of the raising of a sentential component to subject position:

(24)	[<i>sira</i>	<i>ng</i>	<i>utusěñ</i>	<i>lumampaha</i>]
			<i>in-utus-ěñ</i>	<i>l-um-ampah-a</i>]
	[PRO(S)	SPEC	UV ₂ -envoy-IRR	AV ₂ -stride-IRR]
	<i>n</i>	<i>dělě-dělön</i>	<i>marā</i>	
		<i>d-in-ělě-RDP-n</i>		
	COMP	UV ₂ -intent gaze-LF	EMPH	
	'[He who should be commissioned to set out] (was) considered carefully.'			

³³ The OJ text for HW 4.4 is excerpted from the unpublished manuscript of Hunter et al (2009) based on a hand-written collection of kakawin texts compiled by the late P.J. Zoetmulder. For an earlier text and Dutch translation see Teeuw (1950).

The antecedent can now be seen to be the subject pronoun *sira*. Note that the antecedent is marked as an Undergoer by both the UV predicate in the post-COMP position (*děľě-děľön*) and the UV verb of the relative clause (*utusěn*) that is now initial to the construction. From this it appears that voice marking of VPs and linkages to subject and non-subject pronouns are crucial to maintaining agreement patterns both internal to clauses and in clause-linkages involving complementation.

Poetic diction in the *kakawin* genre often calls for complex strategies that involve irrealis marking and complementation. This is especially marked in the verses called *bhāṣa wilapa* that are inserted into a narrative at points when the hero or heroine composes verses expressing their longing, which will then be inscribed on the ephemeral writing surface of a leaf of the pandan blossom sheath and sent in secret to the beloved. In one example from *Taking refuge with Ghaṭotkaca* (*Ghaṭotkacāśraya*, GK) the hero begins his verse with a plea to his beloved that she “not return again into the honeyed words she had inscribed on a pandan blossom”, by this indicating that an exchange of love letters and the beginnings of romance have already taken place. He then continues with his request. Note that in each of the succeeding three lines we find examples of the use of COMP in ordinate-subordinate constructions and irrealis forms in Undergoer Voice which have lost the *-in-* marker of UV:

*Ndan pintangkwa harebu haywa maluy ing madhu manis i wuwusta
ring puḍak
tolih ringranga ning rimang kěnakěnân alara turida ri dwa ning guyu
yadyastun ngwang iki n dudul-dudulěn ing hyun idan-idaněn ing
karāsikan
nyāmāku n pějahâsilunglunga karaskw iki n awiji tangis linangwakěn*

And so my request will be – listen well good lady:

Do not return again
into the honeyed words
you inscribed on a pandan blossom,
Look back on the confusion of lovesickness
that duplicitous laughter
has brought to one sick with love,
If I were roused to passion,
driven to distraction
in the consummation of desire,
Surely I would die,
taking as provisions for the journey,
my writing board
with its content of tears
fashioned into poetry.

(25)

<i>tolih</i>		<i>ringrang-a</i>	<i>ning</i>	<i>rimang</i>
0-look back (IMP)		perplexity-IRR ₁	LK-SPEC	lovesickness
<i>kěnakěnân</i>		<i>alara</i>	<i>turida</i>	<i>ri</i>
<i>kěna-kěna</i>	an	a-lara		PREP ₃ /PTCL
touched-RDP	COMP	AV ₁ -pain	lovesickness	(because) of
<i>dwa</i>		<i>ning</i>	<i>guyu</i>	[GK 23.2] ³⁴
		LK-SPEC		
duplicity	(of the/your)	smile		

'Look back on the perplexity of the lovesick one struck again and again as (he) suffers the pains of love because of the duplicity of your smile.'³⁵

In (25) the initial imperative (*tolih*, 'look back') is followed by a noun meaning perplexity (*ringrang*) which is marked for irrealis so refers to what the lover (Abhimanyu) will experience in the future. The following phrase (*ning rimang*) makes use of a definite possessive phrase (*ning*) linked to a substantive denoting a quality (*rimang*, 'lovesickness') which forms a phrase "the lovesick one" which has parallels in phrases like *sang inaměrnnya ri hati*, 'the one cherished by her in her heart' (AW 2.6b).³⁶ Following this we find the reduplicated base form *kěna-kěna*, 'touched, hit repeatedly' followed by COMP and a subordinate Actor Voice clause "as (he) suffers the pain of lovesickness", whose Subject is a null pronoun (PRO), which has as its antecedent "the lovesick one" of the ordinate clause.

Example (26) following gives us an example of the use of complementizing morphemes in a concessive construction:

(26)

<i>yadyastun</i>	<i>ngwang</i>	<i>iki</i>	<i>n</i>
yadyastun	def-person		
even-if	PRO ₁	DEM ₁	COMP
<i>0-dudul-dudulěn</i>	<i>ing</i>	<i>hyun</i>	
<i>in-dudul-dudul-ěn</i>			
ᬘᬕᬲᬱ- [*] lean-RDP-IRR ₂	PREP ₂ -SPEC ('by')	desire	
<i>0-idan-idaněn</i>	<i>ing</i>	<i>karāsikan</i>	
<i>in-idan-idan-ěn</i>		ka-rāsika-n	

³⁴ See Robson (2016: 136 for the OJ text of GK 23.2, (2016: 137) for an English translation.

³⁵ While Zoetmulder and Robson (1982: 848) give the main verbal derivations as having to do with "dressing" or "putting on" clothing, the base form *kěna* is given with meanings including 'suitable, hit by and struck by'. It is clear that the reduplicated *kěna-kěna* refers to the lovesick one's being repeatedly struck by the pains of love.

³⁶ This is a conjectural interpretation of *ning rimang* as used in sentences of this type. If we take *rimang* as an adjective in the construction it leads to difficulties establishing the antecedent of the subordinate clause.

𑖀𑖄₂-madness-IRR2 PREP₁-SPEC UV₁-love delights-LF
 ‘Even if I were aroused by desire to an inclination (to sexual fulfilment),
 driven mad by the delights of making love’

The concessive nature of the sentence illustrated in (26) is immediately set up with the conjunction *yadyastun*, ‘even if’. This is followed by a series of two parallel clauses in UV₂ form whose antecedent is *ngwang iki*, (‘this person’ = I) in the pre-COMP position. Both the UV₂ predicates are based on monomorphemic bases which have strong affective connotations. The irrealis forms, with their loss of an initial marker of diathesis, emphasize both the concessive aspect of their respective clauses and the characterization of the patient (Abhimanyu) as strongly affected by the emotional states of “being strongly inclined” (*dudul-dudul-ĕn*) and “being driven mad” (*idan-idanĕn*).

- (27)
- | | | |
|--------------------------------|---|--|
| <i>nyāmāku</i> | <i>n</i> | <i>pĕjahāsilunglunga</i> |
| <i>nyāma aku</i> | | <i>pĕjah-a a-silunglung-a</i> |
| surely PRO ₁ | COMP | die-IRR AV ₁ -provisions-IRR ₁ |
|
 | | |
| <i>karaskw</i> | <i>iki</i> | <i>n awiji</i> |
| <i>karas-ku</i> | | <i>a-wiji</i> |
| <i>karas=PRO₁</i> | DEM ₁ | COMP AV ₁ -contents |
|
 | | |
| writing board-PRO ₁ | | |
| <i>tangis</i> | <i>linangwakĕn</i> | |
| | <i>l-in-angö-akĕn</i> | |
| tears | AV ₂ -poetic beauty-APP ₂ | |
- ‘Surely I will die, taking as provisions for the journey my writing board that contains (my) tears fashioned into poetry.’

The first use of COMP in example (27) sets up an embedded clause which completes the concessive formation begun in the preceding line. The construction is prototypical. Prior to COMP, we find a personal pronoun (*aku*, ‘I’), which serves as the antecedent of the irrealis form of the verbal base *pĕjah*, ‘die’ which follows the complementizer. The second use of COMP sets up a subordinate clause which can be understood as a relative clause (*n awiji tangis linangwakĕn*, ‘that contains tears fashioned into poetry’). To recapitulate, examples (26) and (27) illustrate the prominence of effects of complementation and irrealis forms of UV predicates in the diction of the *bhāṣa wilapa* verses of the *kakawin*.

In an example from *The Marriage of Abhimanyu* (*Abhimanyuwiwāha* or *AbhW*) we find another case in which a sentential component in the pre-COMP position is the antecedent for an embedded VP in AV₂ form. In this verse the first stages of the marriage of Abhimanyu and Uttari have been completed and dusk has arrived. One of Princess Uttari’s trusted servants arrives to tell

her to put on the make-up powder said to ward off the danger of the liminal period of dusk and to prepare her adornment, as the prince is about to change into his evening clothes. The narrator then describes the striking beauty of the princess as she stands in the house yard:

(28)	<i>lěnglěngnyângadĕg</i>		<i>i-ng</i>		<i>natar</i>
	<i>lěnglěng-nya</i>	aN-adĕg			
	beauty-PRO ₃	AV ₃ -stand	PREP ₁ -SPEC		house-yard
	<i>yaya</i>	<i>ṅ</i>	<i>amāryakĕna</i>		
	surely, as if	COMP	a-mary-akĕn-a		
			AV ₁ -surpass, leave behind-APP ₂ -IRR ₁		
	<i>kalangĕn</i>	<i>ing</i>	<i>niśākara</i>		[AbhW 69.1] ³⁷
	UV ₁ -beauty	PREP ₁ -SPEC	night-maker (moon)		
	'Her beauty standing in the house yard (was) as if to surpass the poetic beauty of the moon.'				

In constructions in which the antecedent is a sentential component attributed to a third person, the entire sentential component serves as the antecedent of the null pronoun following COMP. The sentential clause "her beauty as she stood in the courtyard" the serves as the grammatical Subject to the AV predicate *amaryakĕna*, 'would surpass, put an end to'.

In two final examples illustrating the use of complementizing morphemes in cases of clause linkage or subordination we look first in example (29) at Uhlenbeck's first example and following this a construction which features a case of raising similar to that found in English clauses based on the verb "seems" (example 30).

(29)	<i>ya</i>	<i>ta</i>	<i>nimittaniran</i>		<i>gumawayakĕn</i>
			nimitta=nira	<i>ṅ</i>	g-um-away-akĕn
	PRO ₃	PTCL ₁	nimitta-PRO ₃	COMP	AV ₂ -work-APP ₂
	<i>sapakon</i>	<i>ikang</i>	<i>naga</i>		[Ad 38.3]
	sa-pa-kon				
	all-NOM ₁ -order those	DEM-SPEC	serpent(s)		
	'That was the reason that he carried out all the wishes of the serpents.'				

The combination *ya ta* is often found introducing clauses in what can be considered OJ equivalents of English cleft constructions. In these constructions,

³⁷ For the OJ text and translation see Creese (2009) in Hunter et al (2009). The text and translation of the *Abhymanyuwīwāha* is as yet unpublished. For discussions of this important work of the Balinese tradition of *kakawin* composition see Creese (2001, 2005).

c. stage 3

<i>sugyan</i>	<i>ta</i>	<i>u</i>	<i>waluyana</i>	<i>lara-nira</i>
it may be	PTCL ₁	COMP	[UV ₂ -return-LF-IRR]	pain= PRO ₃

'It seems likely that his pain will come back.'

In this analysis when *sugyan* takes the initial predicate position in a canonical construction COMP is required, and the clause which is raised is configured as [predicate *ta* COMP]. Note that the antecedent of the UV₂ verb *waluyana* cannot take the pro-COMP position in the construction so must be sought in the enclitic third person pronoun of the Object complement of the UV verb phrase.³⁹

5. CONCLUSIONS

This study has focused on two main themes: first, an investigation into the bundling of features of aspect with the active-passive diathesis of Old Javanese and the consequences this has for morphosyntactic form and interpretation; second, an investigation into the syntax of clause linkages involving complementation in Old Javanese and how these interact with the active-passive diathesis and features of discourse organization.

My hope is that the discussions and examples presented in this paper will prove useful to translators and to linguists, especially those working in the linguistic typology of the Austronesian languages. I hope that these discussions might also be useful to theoreticians interested in the morphosyntax and clause structures of languages outside the Indo-European family.

³⁹ Given that many instances of the use of *sugyan* given in the OJED do not involve complementation, perhaps we should refer to *sugyan* not as a "raising-verb", but as an adverbial which under some conditions has similar functions. See Wechsler and Arka (1998) for a treatment of raising-verbs and raising-predicates based on the methodology of Head-Driven Phrase Structure Grammar (HPSG).

ABBREVIATIONS

a. *Glossing conventions*

Adj	Adjunct (non-core argument)
APP	applicative
AV ₁	actor voice marking (1): <i>ma-</i> , <i>a</i>
AV ₂	actor voice marking (2): <i>-um-</i> , <i>um-</i> , <i>m-</i>
AV ₃	actor voice marking (3): <i>maN-</i> , <i>aN-</i>
COMP	complementizer
COND	conditional
DEM ₁	deictic/demonstrative pronoun-proximate (1st person alignment)
DEM ₂	deictic/demonstrative pronoun-medial (2nd person alignment)
DEM ₃	deictic/demonstrative pronoun-distal (3rd person, narrative alignment)
EMPH	emphatic
EXIST	existential
GB	government and binding
HON	honorific
IMP	imperative
IND	indicative mode
INVOL	involuntary
IRR	irrealis
LK	linker
LF	locative focus (for OJ marker <i>-an</i>)
NEG	negation
NOM ₁	nominalizing and verbal stem marker <i>pa-</i>
NOM ₂	nominalizing and verbal stem marker <i>paN-</i>
NP	noun phrase
O	object
PRED	predicate
PREP	preposition
PRO	pronoun
PTCL	particle
PTCL ₁	the particle <i>ta</i> involved in marking a syntactic boundary and/or discourse
PTCL ₂	the particle <i>pwa</i> , with functions similar to PTCL ₁
PTCL ₃	the particle <i>ri</i>
R	root
RDP	reduplication
RESP	marker of respect

S	subject
SPEC	specifier (marks definite or individuated NPs or demonstrative pronouns)
UV ₁	undergoer Voice marking (1): <i>ka</i>
UV ₂	undergoer Voice marking (2): <i>-in-, in-</i>
VP	verb phrase

b. *Languages, dictionaries, and works in Old Javanese language*

AbhW	<i>Abhimanyuwīwāha</i> (<i>kakawin</i>)
Ād	<i>Ādiparwa</i>
AN	Austronesian
ĀśP	<i>Āśramavasaparwa</i>
AW	<i>Arjunawīwāha</i> of Mpu Kaṅwa (<i>kakawin</i>)
GK	<i>Ghaṭotkacāśraya</i> of Mpu Panuluh (<i>kakawin</i>)
HW	<i>Hariwangśa</i> of Mpu Panuluh (<i>kakawin</i>)
OJ	Old Javanese or Kawi language
OJR	Old Javanese <i>Rāmāyaṇa</i> or <i>Kakawin Rāmāyaṇa</i>
OJED	<i>Old Javanese-English Dictionary</i> (Zoetmulder and Robson 1982)
PAN	Proto-Austronesian
PMP	Proto-Malayo-Polynesian
Udy	<i>Udyogaparwa</i>
WMP	Western Malayo-Polynesian

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