Irrealis, aspect, and complementation in Old Javanese

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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
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:
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(1) \textit{ma-gawe ta sira tapa} \[^3\]
\begin{array}{llll}
AV_1\text{-work} & \text{PCL}_1 & \text{PRO}_3(S) & \text{austerities}
\end{array}
\[\text{Ad 67.2}\]

‘He performed austerities.’

(2) \textit{pratidina homa-yajña g-in-awe=nira} \[^4\]
\begin{array}{llll}
\text{every day} & \text{fire ritual} & \text{UV}_2\text{-work=} & \text{PRO}(-S)
\end{array}
\[\text{OJR 5.9}\]

‘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

AV\(_1\): \textit{ma-/a-}

As Dwi notes (2015: 115-122), intransitive uses of \textit{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 AV\(_2\) or AV\(_3\) form. The transitivity of VPs in \textit{ma-} can be extended only with the applicative suffix –\textit{an}, although there may be some exceptions.

AV\(_2\): \textit{um-/m-/um-}

Both transitive and intransitive VPs can be formed with \textit{um-}. Transitivity can be extended with the applicative suffixes –\textit{i/-ani} and –\textit{akěn}. It is generally accepted that \textit{um-} is of lower transitivity than \textit{maN-}.

AV\(_3\): \textit{maN-/aN-}

Both transitive and intransitive VPs can be formed with \textit{maN-}. Transitivity can be extended with the applicative suffixes –\textit{i/-ani} and –\textit{akěn}.

In clause linkages of VPs taking \textit{um-} and VPs taking \textit{maN-} the clause formed with \textit{um-} is likely to be in the subordinate clause. As Dwi points out (2015: 72) in clause linkages involving \textit{maN-} and \textit{um-} clauses verbs of perception like \textit{tumon} or \textit{-manon} (from \textit{ton} ‘visible’) the clause taking \textit{um-} (\textit{tumon}) is always found as the predicate of a subordinate clause, whereas the clause taking \textit{maN-} (\textit{manon}) is the predicate of the ordinate clause.\(^5\) The AV verb \textit{tumon} always becomes the predicate of the subordinate clauses, whereas the verb \textit{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 \textit{ton} as an imperative. While this is true, it is also the case that in canonical PRED-{\textit{ta-\textit{S}}} clauses \textit{ton} refers to the quality of being visible or seen. See, for example, *Arjuna-wiwaha* 1.11: \textit{ton ta ikang wukir Indrakila maparo} ‘Mount Indrakila 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]

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-.”

Wacana

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(4) phala-mūla pa-weh=nira
    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 -akën.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 -akën.

APP₁IND: -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: -akēn
The very important suffix -akēn 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 –ěn is chosen (see below).

IRR₂: -ěn
The marker -ěn 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 -akēn).

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:

\[
(5) \quad \text{tumurun} \quad \text{*pwa} \quad \text{sireng} \quad \text{i-ŋ} \\
\text{t-um-urun} \quad \text{sira} \quad \text{i-[ng} \\
\text{AV}_2-\text{descend} \quad \text{PTCL}_2 \quad \text{PRO}_3 \quad \text{S} \quad \text{PREP}_1-\text{SPEC}_{11} \quad \text{river} \\
\text{sinahut} \quad \text{*ta} \quad \text{wētis=nira} \quad \text{de-ning} \quad \text{wuhyay} \\
\text{s-in-ahut} \quad \text{PTCL}_1 \quad \text{calf=PRO}_3 \quad \text{by-LK-SPEC} \quad \text{crocodile} \\
\text{‘Descending into the river his calf was bitten by the crocodile.’}
\]

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:

\[
\text{V-S (Complement) (Complement)}.
\]

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 nontopical 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.

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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 *PREP*, 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:

<table>
<thead>
<tr>
<th>Diathesis</th>
<th>Affix</th>
<th>Non-topical clause</th>
<th>Topical clause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active (AV)</td>
<td><em>maN-</em></td>
<td>Pred-O/Comp-S</td>
<td>Pred &lt;-&gt; S-O</td>
</tr>
<tr>
<td>Passive (UV)</td>
<td><em>–in-</em></td>
<td>Pred-Adj-S</td>
<td>Pred &lt;-&gt; S-Adj</td>
</tr>
</tbody>
</table>

*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 Ogoblin’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.

<table>
<thead>
<tr>
<th></th>
<th><strong>Indicative</strong></th>
<th><strong>Irrealis</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) root verbs: <em>pangan</em> ‘eat’</td>
<td><em>amangun, umangun</em></td>
<td><em>amangun-a, umangan-a</em></td>
</tr>
<tr>
<td>Active</td>
<td><em>p-in-angan</em></td>
<td><em>pangan-ęn</em></td>
</tr>
<tr>
<td>Passive</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Oglobin’s chart reveals the fact that two sets of verbal affixes are in complementary distribution:

- The passive marker \(-\text{in}\) and the passive irrealis marker \(-\dot{e}n\). The distribution is based on syntactic considerations: the infix \(-\text{in}\) is found only in indicative mode, while \(-\dot{e}n\) 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 \(-\text{in}\) and \(-\dot{e}n\) 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 \(-\text{in}\) 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 \(-\text{in}\) shows that it only occurs in the past tense, where \(-\text{in}\) marks what Wolff calls the “direct passive.”

These facts suggest that \(-\text{in}\) 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 \(-\text{in}\) 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 \(*\text{<in>}\), the durative by reduplication. The one exception is that perfective \(*\text{<in>}\) and patient voice \(*\dot{e}n\) do not co-occur.” Note that this observation provides a strong historical basis for the perfective aspect of the marker \(-\text{in}\) and its complementary distribution with the UV affix \(-\dot{e}n\), 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”:

“With 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 -ěn 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 -ěn means that -ěn 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.

<table>
<thead>
<tr>
<th>(a) root verbs: pangan ‘eat’</th>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(a) suffixal verbs: -weh-i ‘give’</th>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicative</td>
<td>ameh-i</td>
<td>w-in-eh-i</td>
</tr>
<tr>
<td>Irrealis</td>
<td>ameh-an-a</td>
<td>w-ím-eh-an-a</td>
</tr>
</tbody>
</table>

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:

\[\text{akweh candi rébah katona tékap ing waringin athawa bodhi hambulu lit ny álāya nikāna yan pipilaneka dāvutunaka kāpuna yan hunā hingānān awatunēn tikang māda vimōha tumuwhih i maňha sapwani yan tamtāmana wištī yan pangawašanya basama māmubara ng parākrama}\]

\[\text{[AW 35.8]}^{12}\]

‘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**
  \[UV_{1}\text{-visible-IRR}\]
  ‘(that) may be seen’
- ***p-in-ipil-an-a**
  \[\text{to pick up one by one-}LF-IRR\]
  ‘should be plucked out one by one’
- **ḍ-in-awut-an-a**
  \[\text{uproot-LV-IRR}\]
  ‘should be weeded out’
- **kapān-a**
  \[\text{when-IRR}\]
  ‘whenever (future)’
- **hana-a**
  \[\text{exist-IRR}\]
  ‘(they) may exist’
- ***w-in-atu-n-ěn\textsuperscript{13}**
  \[\text{weed out-IRR}\]
  ‘should be weeded out’
- **t-in-amtam-an-a**
  \[\text{absorbed in-}LF-IRR\]
  ‘(if) indulged in’
- **amubura**
  \[\text{pulp, porridge-IRR}\]
  ‘will crush’

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

\begin{align*}
(6) & \text{lit } ny \text{ \ālāya \ nikāna \ yan } \\
& \text{LK \ LK-DEM}^{3+3} \text{ COND} \\
& \text{smallness \ of \ roots \ of \ them \ that}
\end{align*}

\textsuperscript{13} The form \textit{winatu-něn} takes the –něn allomorph of -ěn found after words ending in a vowel.
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.
4. COMPLEMENTATION IN OLD JAVANESE

This section of the present study focuses mainly on the role in clause structure of the morpheme set $n/\text{an}$ 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 $\text{ka}-\text{an}$ and $\text{pa}-/\text{paN}-\text{an}$ in many cases represent nominalizations of embedded sentential complements. In his comments on a derivation in $\text{ka-}\text{an}$- 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) \[\text{mang-rêngô } \text{pwa sang watêk } \text{Yadu } \text{ri}\]
\[AV_{3}\text{-hear } \text{PTCL}_{2}\text{ (title) clan Yadava } \text{PREP}_{3}/\text{PTCL}\]
\[\text{ka-alap-an } \text{sang Subhadra de sang } \text{Arjuna}\]
\[UV_{1}\text{-seize-APP}_{1}\text{ (title) Subhadra by (title) Arjuna}\]

‘The Yadava clan heard about (ri) the abduction of Subhadra by Arjuna.’

Hunter’s comments on nominalizations in $\text{pa-}\text{an}$ and $\text{paN-}\text{an}$ illustrate similar effects of raising:

As in the case of the $\text{ka-R-an}$ substantives, when underlying clauses are nominalized they bring with them core adjuncts [read: arguments] of the underlying clause. In the case of $\text{pa-R}$ 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 $\text{paN-R}$:

(8) \[\text{k-in-on=nira } \text{m-ajar-akên-a } \text{ri}\]
\[UV_{2}\text{-order=}\text{PRO}_{3}\text{ AV}_{2}\text{-inform-APP}_{2}\text{-IRR } \text{PREP}_{3}/\text{PTCL}\]
\[\text{pamangguh=nira } \text{duḥkha } \text{ri}\]
\[\text{paN-pangguh NOM-AV}_{3}\text{-obtain=}\text{PRO}_{3}\text{ pain, sorrow } \text{PREP}_{3}/\text{PTCL}\]

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].

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:

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

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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=nirän g-um-away-akên
nimitta-nira an
PRO₃ PTCL₁ reason=PRO₃ COMP AV₂-WORK-APP₂

sa-pa-kon ikang naga
all-orders DEM₃-SPEC naga, serpent
[Ad 38.3]

‘That was the reason that he carried out all the orders of the serpents.’

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

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

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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 sangibu, ‘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 AV\(_1\) 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” yan.
it is hoped can give us new insights into the role of the complementizing morphemes \textit{n/an}. Before taking that step, however, I should first take note of the fact that the forms \textit{n/an} are paralleled by a set \textit{r/ar} which can be analysed as honorific formants parallel to \textit{n/an}. We should also pay attention to a parallel set which has second-person reference and a set \textit{k/ak} with first-person reference. Examples of the use of \textit{n/an} and \textit{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 \textit{r/ar} trigger the same phonological change of following segments beginning with \textit{m-} to \textit{p-} which is completely regular following \textit{n/an}.

An example of the use of \textit{r} instead of \textit{n} illustrates the fact that the usual sandhi change of a following \textit{m-} to \textit{p-} is also retained after \textit{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” (\textit{Basantatilākā}):

\begin{verbatim}
(11) ka-wit śarat-samaya kāla=nira -r
      UV_1-origin fall season time=PRO_3 COMP_1(RESP)
      para ngkā [OJR 2.1]22
      (m)ara SPEC-DEM_3

‘The beginning of the fall season was the time that (he) went there.’
\end{verbatim}

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

\begin{verbatim}
(12) *‘The beginning of the fall season was his time that went there.’
\end{verbatim}

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 \textit{n/an}, \textit{r/ar}:

\begin{verbatim}
22 See Van der Molen (2015: 46) for the OJ text of OJR 2.1, Robson (2015: 15) for an English translation.
\end{verbatim}
(13) *m-ulih* ta *sira* tūt hawan *r*  
*AV₂*-return *PTCL₁* PRO₃(S) along the way *COMP*  
angēn-angēn ta Sang Rāghawa [OJR 3.18]  
in-angēn-angēn  
ículos₂ 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 angēn-angēn 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*-angēn-angēn ta Sang Rāghawa  
ículos₂ 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.  

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

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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*.
our purview, another 89 examples can be found.\(^{25}\) As might be expected, the examples from the OJED show that the uses of \(t\/at\) and \(k\/ak\) are found exclusively in dialogues developed within a narrative framework. Their frequent uses of “imperative” bring out the performative aspects of the domain of interaction strongly, while uses as “connectives” are clearly parallel with uses in the narrative of third person \(n/an\). An example from the OJR illustrates uses of both \(k\/ak\) and \(t\/at\) in the first line of a verse (OJR 22.17), which describes the demon king Rāwaṇa’s plea to his giant brother, Kumbhakarṇa, that he come to his rescue in the now desperate battle with Rāma and his monkey armies:

\[
\begin{aligned}
Ngke \ k\ ton-a \ asih=t=ta \ at \\
\text{‘Now } \text{let me see the love that you have for your older brother,’}\quad 26
\end{aligned}
\]

\[
\begin{aligned}
\text{Yan } \text{śīrna } \text{musutālilanga} \\
\text{‘When your enemies are crushed you will be free from disturbance.’}
\end{aligned}
\]

\[
\begin{aligned}
\text{Wiryanța } \text{katonēng } \text{pala} \text{g} \text{a} \\
\text{‘Let your valour be seen on the field of battle,’}
\end{aligned}
\]

\[
\begin{aligned}
\text{Lumrā } \text{ta } \text{yašantēng } \text{tribhuvana.} \\
\text{‘And your fame and glory spread throughout the three worlds.’}
\end{aligned}
\]

Note that the first person verb phrase \(k\ ton-a\) (‘may I see’) represents an irrealis use with an optative or mildly hortative connotation, while the second person usage with \(at\) is clearly parallel with complementizing uses of \(n/an\):

\[
\begin{array}{llll}
\text{ngke} & k & \text{ton-a} & \text{asih=ta} & \text{at} \\
\text{SPEC-DEM}_{1+3} & \text{COMP}_1 & \text{see-IRR} & \text{affection-PRO}_{2} & \text{COMP}_2 \\
\text{ma-kaka} & \\
\end{array}
\]

\[\text{AV}_1-\text{older sibling} \]

‘Here/now let me see the affection that you have for (your) older brother.’

In the concluding verse from the same canto, Kumbhakarṇa has been disfigured when the monkey general Sugrīva cuts off his nose in the heat of battle. Kumbhakarṇa then declares his eagerness to die, running amok on the battlefield:

\[
\begin{array}{llllll}
\text{merang} & \text{an} & \text{m-ūr} & \text{wirūpangsula} & \text{ma-irang} & \text{wirupa} & \text{aN-kasula} \\
\text{COMP}_3 & \text{AV}_2-\text{retreat} & \text{disfigured} & \text{AV}_1-\text{desperate decision} \\
\end{array}
\]

‘Ashamed to retreat as (he was) disfigured, he made a desperate decision […]’

\(^{25}\) \textit{Ndak} appears to have developed through combination of the interjection \textit{nda/ndā} (‘Look! There! Behold!’) with the first person formative and is well known to have propositive uses. The OJED (OJED 1,181) describes \textit{ndak} as a “deictic particle with connotation of the first person”.

\(^{26}\) I use “that” here not as an impersonal pronoun, but as the complementizing morpheme used (optionally) in introducing subordinate clauses: “I think that she’s asleep now.”

\(^{27}\) See Van der Molen (2015: 478) for the OJ text, Robson (2015: 578) for a translation.
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) Rāvana’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) matang nya laku tât
matang=nya 0-laku ta at
the reason go forth (IMP) PTCL₁ COMP₂
\at/ parât ujarî
0-para at 0-ujar-i
COMP₂ approach (IMP) COMP₂ say-APP₁ (IMP)
‘That’s the reason you should set forth to approach (him), tell him […]’

yan mapăm bèk -nîka [OJR 7.38]
mapa-ambèk
COND AV₁-NOM₁-heart/disposition LK-DEM₃
‘[…] 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:

\[\text{Based on the usual triggering of the loss of a following nasal by } at/\at/ \text{ we would expect } patya \text{ here. This example appears to represent an exception to the general rule.}\]

\[\text{See Van der Molen (2015: 596) for the OJ text, Robson (2015: 497) for a translation.}\]

\[\text{See Van der Molen (2015: 132) for the OJ text, Robson (2015:138) for a translation.}\]
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.
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’. 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 Arjunawiwaha 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

32 It is possible to treat kinolnya as a substantitve meaning ‘the one embraced by her’, that is the Object of the AV verb (suswa-suswani).
commissions Arjuna to restore heaven to its former beauty and explains her rationale:

(21)  
\[
pahayun \quad ikang \quad surālaya  
\]
\[
\text{pahayu-(a)n} \quad \text{nomA-good/beautiful-LF} \quad \text{abode of heroes}  
\]
\[
\text{layanya} \quad \text{magōng} \quad \text{biśama}  
\]
\[
\text{laya=nya} \quad \text{ma-gōng} \quad \text{biśama}  
\]
\[
dissolution=\text{PRO}_3 \quad \text{great} \quad \text{terrifying}  
\]

‘Bring back the goodness and beauty of heaven, (for) its ravished state is great and terrible indeed.’

(22)  
\[
kadi \quad saphalanta \quad tāśraya \quad nikān  
\]
\[
\text{sa-phala=nta} \quad \text{ta āśraya} \quad \text{nika an}  
\]
\[
\text{as if} \quad \text{fruit=PRO}_2 \quad \text{PTCL}_1 \quad \text{refuge} \quad \text{Link-DEM}_3 \quad \text{COMP}  
\]
\[
\text{saphalān} \quad \text{tulungēn}  
\]
\[
\text{sa-phala an} \quad \text{t-in-ulung-ēn}  
\]
\[
\text{with fruit} \quad \text{COMP}_3 \quad \text{UV}_2 \text{assistance-IRR}_2  
\]

‘It’s as if your fruitfulness (will be) the refuge of that (heaven) which deserves that it be assisted.’

The poet’s double use of complementizing morphemes is paralleled by a doubled use of saphala, ‘fruitful’ which accentuates the parallels between the “fruitfulness” of the heroes’ gift of refuge, and the “fruitfulness” of heaven as its being fit to be given assistance. If we read this line in terms of processes of complementation, the first use of an introduces a subordinate phrase “that is fruitful (to be)”. Here the antecedent of PRO is the demonstrative pronoun (n)ika and the subordinate phrase can be read as a relative clause (in English): “those who are worthy to be (x),” which set up the expectation of a VP which will further define the matter of who or what is to be considered worthy. In the second case an embeds a UV2 clause in irrealis mode (tulungēn ‘to be helped’). Here PRO that refers anaphorically to “those who are worthy” (nikān saphala).

It is often the case that adjunct arguments are topicalized through movement to the initial position of the clause, or a clause is introduced with a conjunction which displaces the initial predicate containing the antecedent of PRO in an embedded clause. The latter case is illustrated in a verse from The Lineage of Hari (Hariwangśa, HW). In the preceding verses the sage Narada has visited Krishna, who has been pining for a reunion with the goddess Śrī, in whatever human form she has taken in the present life. Narada tells him about Rukmiṇī, the daughter of Bhīṣmaka, and assures him that she is meant to be his wife. Krishna determines to win Rukmiṇī by force, but first he will send an emissary to present his case to her privately. In HW 4.3 he decides to send
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 Bhismaka’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)  

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<tbody>
<tr>
<td>tadanantara</td>
<td>n</td>
<td>dĕlĕ-dĕlön</td>
<td>[mara sira</td>
</tr>
<tr>
<td>thereupon</td>
<td>COMP</td>
<td>tĕv₂-intent gaze-IRR</td>
<td>[EMPHE PRO₃(S)</td>
</tr>
<tr>
<td>ng</td>
<td>utusën</td>
<td>lumampaha</td>
<td>[HW 4.4a]</td>
</tr>
<tr>
<td>SPEC</td>
<td>tĕv₂-order-IRR</td>
<td>AV₂-stride-IRR</td>
<td></td>
</tr>
</tbody>
</table>

‘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 (dĕlĕ-dĕlön, ‘be considered attentively’) follows the VP in the relative clause sira ng utusën 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)  

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<tr>
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<tbody>
<tr>
<td>[sira</td>
<td>ng</td>
<td>utusën</td>
<td>lumampaha</td>
</tr>
<tr>
<td>[PRO(S)</td>
<td>SPEC</td>
<td>tĕv₂-envoy-IRR</td>
<td>AV₂-stride-IRR</td>
</tr>
<tr>
<td>n</td>
<td>dĕlĕ-dĕlön</td>
<td>mara</td>
<td></td>
</tr>
<tr>
<td>COMP</td>
<td>tĕv₂-intent gaze-LF</td>
<td>EMPH</td>
<td></td>
</tr>
</tbody>
</table>

‘[He who should be commissioned to set out] (was) considered carefully.’

---

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 (*dělě-dělön*) 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:

\[
\begin{align*}
Ndan & \text{ pintangkwa harebu haywa maluy ing madhu manis i wuwusta } \\
& \text{ ring puḍak } \\
tolih & \text{ ringranga ning rimang kĕnakĕnān alara turida ri dwa ning guyu } \\
yadyastun & \text{ ngwang iki } \text{ ṇ} \text{ dudul-dudulĕn ing hyun idan-idanĕn ing } \\
& \text{ karāsikan } \\
nyāmāku & \text{ ṇ} \text{ pĕjahāsilunglunga karaskw iki } \text{ ṇ} \text{ awiji tangis linangwakĕn }
\end{align*}
\]

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.
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 inamerrya ri hati, ‘the one cherished by her in her heart’ (AW 2.6b). 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) yadyastun  ngwang  iki  n
yadyastun  def-person
even-if  PRO₁  DEM₁  COMP

0-dudul-dudulēn  ing  hyun
in-dudul-dudul-ēn

0-idan-idanēn  ing  karāsikan
in-idan-idan-ēn  ka-rāsika-n

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.
Thomas M. Hunter, Irrealis, aspect, and complementation in Old Javanese

(26) uv2-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 UV1 form whose antecedent is ngwang iki, (‘this person’= I) in the pre-COMP position. Both the UV1 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-ën) and “being driven mad” (idan-idanën).

(27) nyāmāku n pējahāsilunglunga
nyāma aku pējah-a a-silunglung-a
surely PRO1 COMP die-IRR AV1-provisions-IRR1

karaskw iki n awiji
karas-ku a-wiji
karas=PRO1 DEM1 COMP AV1-contents

writing board-PRO1
tangis linangwakēn
l-in-angō-akēn
tears AV2-poetic beauty-APP2

‘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 pējah, ‘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 linangwakēn, ‘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) lĕnglĕngnyângadèg i-ng natar
lĕnglĕng-nya aN-adèg
beauty-PRO3 AV3-stand PREP1-SPEC house-yard
yaya
u amâryakēna
surely, as if COMP AV1-surpass, leave behind-APP2-IRR1

kalangēn ing niśākara
UV1-beauty PREP1-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 amâryakēna, ‘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) ya ta nimittaniran gumawayakēn
PRO3 PTCL1 nimitta=nira n g-um-away-akēn

sapakon ikang naga
sa-pa-kon all-NOM1-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,

in most cases the third person pronoun ya does not refer to a specific third person participant in the speech act, but rather a phrase or clause in the preceding stretch of discourse which is explicated in the cleft construction. Hence in these cases it can be said to mark “discourse anaphora” rather than anaphora to a specific third person antecedent. In this sequence the complementizing morpheme n introduces a subordinate clause in AV₂ form. If, as appears to be the case, the antecedent for PRO of the subordinate clause is the enclitic, possessive pronoun -nira, ‘his’ then we must begin to think of a differing set of constraints on government than those which are commonly found, at least in the Indo-European family. This is brought out in a more direct English translation: *“That was his reason that carried out all the orders of the serpents.”

The final example presents some problems of analysis which I believe can be solved by understanding the adverbial phrase sugyan as a lexeme similar to English ‘seems’ in that it controls raising of sentential components to Subject position. This example is drawn from the prose work Āśramavasaparwa (The Book of the Hermitage, AsP), which translates the fourteenth Canto of the Mahābhārata. In this passage Yudhiṣṭhira gives advice to Kuntī, Sañjaya, and Vidura about how they should behave in the hermitage when they meet Dhṛarāṣṭra and his wife Gandhari. He cautions them against speaking ill of their son Duryodhana, who still lives but might soon reap the rewards of his past misdeeds:

(30) sugyan ta n 0-waluyana lara-nira [AsP]³⁸
    COMP₃ in-waluy-an-a
    it seem likely PTCL₁ UV₂-return-LF-IRR pain=PRO₃

‘It seems likely that his pain (for instance, the pain he caused) will return.’

If we understand sugyan, ‘surely; possibly; it may be’ as related to verbs like ‘seem’ in English then it is clear here that COMP is involved in a case of raising to subject. This process of raising can be described as follows:

a. stage 1
   [lara -nira w-in-aluy-an-a] sugyan
   [pain -PRO₃(HON) UV₂-return-LF-IRR] it may be
   *‘[His pain will be-returned] seems likely.’

b. stage 2
   n [w-in-aluy-an-a lara -nira] sugyan
   COMP [UV₂-return-LF-IRR] pain -PRO₃ it may be
   *‘That [his pain will be-retuned] seems likely.’

³⁸ This line from the Āśravwasaparwa is excerpted from Zoetmulder (1963/1995: 136).
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 UV\textsubscript{2} 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.\textsuperscript{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.

\textsuperscript{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**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>Adj</td>
<td>Adjunct (non-core argument)</td>
</tr>
<tr>
<td>APP</td>
<td>applicative</td>
</tr>
<tr>
<td>AV&lt;sub&gt;1&lt;/sub&gt;</td>
<td>actor voice marking (1): ma-, a</td>
</tr>
<tr>
<td>AV&lt;sub&gt;2&lt;/sub&gt;</td>
<td>actor voice marking (2): -um-, um-, m-</td>
</tr>
<tr>
<td>AV&lt;sub&gt;3&lt;/sub&gt;</td>
<td>actor voice marking (3): maN-, aN-</td>
</tr>
<tr>
<td>COMP</td>
<td>complementizer</td>
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<tr>
<td>COND</td>
<td>conditional</td>
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<td>DEM&lt;sub&gt;1&lt;/sub&gt;</td>
<td>deictic/demonstrative pronoun-proximate (1st person alignment)</td>
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<td>deictic/demonstrative pronoun-medial (2nd person alignment)</td>
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<tr>
<td>DEM&lt;sub&gt;3&lt;/sub&gt;</td>
<td>deictic/demonstrative pronoun-distal (3rd person, narrative alignment)</td>
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<td>GB</td>
<td>government and binding</td>
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<td>indicative mode</td>
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<td>INVOL</td>
<td>involuntary</td>
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<td>IRR</td>
<td>irrealis</td>
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<tr>
<td>LK</td>
<td>linker</td>
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<tr>
<td>LF</td>
<td>locative focus (for OJ marker –an)</td>
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<td>NEG</td>
<td>negation</td>
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<td>NOM&lt;sub&gt;1&lt;/sub&gt;</td>
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<tr>
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<td>PRO</td>
<td>pronoun</td>
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<td>PTCL</td>
<td>particle</td>
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<tr>
<td>PTCL&lt;sub&gt;1&lt;/sub&gt;</td>
<td>the particle ta involved in marking a syntactic boundary and/or discourse</td>
</tr>
<tr>
<td>PTCL&lt;sub&gt;2&lt;/sub&gt;</td>
<td>the particle prwa, with functions similar to PTCL&lt;sub&gt;1&lt;/sub&gt;</td>
</tr>
<tr>
<td>PTCL&lt;sub&gt;3&lt;/sub&gt;</td>
<td>the particle ri</td>
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<td>R</td>
<td>root</td>
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<tr>
<td>RDP</td>
<td>reduplication</td>
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<tr>
<td>RESP</td>
<td>marker of respect</td>
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</tbody>
</table>
S  subject
SPEC specifier (marks definite or individuated NPs or demonstrative pronouns)
UV$_1$ undergoer Voice marking (1): ka
UV$_2$ undergoer Voice marking (2): -in-, in-
VP verb phrase

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

AbhW  Abhimanyuwiwaha (kakawin)
Ad  Adiparwa
AN Austronesian
AsP Asramavasaparwa
AW Arjunawiwaha of Mpu Kaαwa (kakawin)
GK Ghaqotkacαraya of Mpu Panulu (kakawin)
HW Hariwangsa of Mpu Panulu (kakawin)
OJ Old Javanese or Kawi language
OJR Old Javanese Rαmαyana or Kakawin Rαmαyana
OJED Old Javanese-English Dictionary (Zoetmulder and Robson 1982)
PAN Proto-Austronesian
PMP Proto-Malayo-Polynesian
Udy Udyogaparwa
WMP Western Malayo-Polynesian

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Robson, Stuart. 2015. *The Old Javanese Rāmāyana; A new English translation with an introduction and notes.* Tokyo: Research Institute for Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies


