PIVOT AND NOMINALISATION IN ORYA

PHILIP C. FIELDS

1. INTRODUCTION

The Orya language group is located 140 kilometres west-south-west of Jayapura, the provincial capital of Irian Jaya, Indonesia.[1] There are approximately 1,600 speakers of this non-Austronesian language scattered over some 3,600 square kilometres of tropical rain forest. This paper describes the use of the Orya definite marker -na to mark nominals and, more specifically, the way it is used in encoding and decoding the pivot nominal, and the way the same marker is used in nominalisations.

The notion of pivot, as it has been developed by Foley and Van Valin (1984, 1985), is very helpful in explaining variations in core case marking found in Orya, such as is typically seen in subject changes in passive-like constructions. Foley and Van Valin (1984:77) define the core level as consisting of one or two arguments of the predicate (the nucleus), traditionally called the subject and object. In their theory, the properties of what is traditionally called subject are divided between the notions of pivot and actor (1984:124). At this point, it might help some readers to think of the pivot as the surface subject.

Pivot is defined as the *noun phrase that the clause is about*. The pivot is always one of the core arguments of the predicate, typically the actor or undergoer (1984:110, 134). A few languages which allow the dative to become a core argument of the predicate (as shown by affixation on the verb) also allow that nominal to become the pivot (Foley & Van Valin 1985:311). Passive and antipassive constructions of other languages exist to make the noun phrase which is normally not the pivot into the pivot (1984:111).

The notion of pivot is not the same as the notion of topic (and more is said about this in §2.2), since topics need not be core arguments of the verb. Topics are not necessarily involved in passive constructions, but pivots are. Topics are not necessarily the controller or

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[1] The Orya language is part of the Tor-Lake Plain Stock (Silzer & Clouse 1991:29, 71). The language most closely related to Orya is Berik. The author has been working with the Orya people since June 1984. Grateful acknowledgment is given here to the many Orya who have taught me their language, and especially to Hans Tenani, who worked closely with me in the preparation of this paper. The patient help of Alan Healey was also invaluable. The author's research of the Orya language was carried out under the auspices of the cooperative program of the Summer Institute of Linguistics and the University of Cenderawasih.

target of noun phrase ellipsis in multiclause constructions, but pivots are (Foley & Van Valin 1984:134; 1985:299-305, 355-358). The notion of pivot is also distinct from focus, since the pivot must be a core noun phrase, while a focused element need not be, although the pivot does share some of the discourse properties of focus.

1.1 ABBREVIATIONS USED IN THIS PAPER

=	equals
Ø	zero representation
1, 2, 3	first, second, third person
A	verbal affixes for actor number and actor gender
ABL	Ablative
ALL	Allative case marker
AUX	verb auxiliary
CAUSE	the operator CAUSE present in accomplishment verbs. See Appendix B.3.
COMPL	completive aspect
DAT	Dative case marker/verbal suffixes for dative number/gender
DEF	Definite marker
DEF	the definite marker -na.
DIS	Dislocation
DU	dual
DUR	Durative aspect
EMPH	Emphasis
EXCL	exclusive
F	feminine gender
FUT	future tense
HABIT	Habitual aspect
IMP	Imperative
INCL	inclusive
INTER	Interrogative

LIVE	the *gwe* verb class marker set signalling the operators DO and/or BECOME, present in activity and achievement verbs. See Appendix B.3.
LOC	Location
M	masculine gender
MAN	Manner
NT	Nontemporal marker
OF	Orya descriptor particle *de*
P	Past tense
PL	plural
PLSR	Pluraliser
POS	Possessive
PRES	Present tense
PUNCT	Punctiliar aspect
PURP	Purpose
PVT	pivot
REC	Recent
REDUP	Reduplication
REL	Relativiser
REPET	Repetitive aspect
SG	singular
TAKE-	'TAKE-' causative prefix
U	Undergoer NP marker/ verbal affixes for undergoer number/gender

2. THE ORYA PIVOT

2.1 THE ROLE OF THE PIVOT IN PASSIVE-LIKE CONSTRUCTIONS

Orya is a nominative-accusative language and is typical of Papuan languages in that core nominals, the actor and undergoer, are encoded in verb morphology (Foley 1986:96). Orya is also a member of a subset of Papuan languages "in which the dative nominals are

assimilated to the class of core relations and are indicated by verbal affixes" (Foley 1986:96). Thus gender and number are marked suffixially in the Orya verb for actor, undergoer, and dative. A full list of these suffixes appears in Appendix B. Case markers (explained in the text below) are also used to mark the undergoer and dative nominals. The dative nominal and all peripheral case nominals are marked by postpositions in Orya.

The choice of the pivot in Orya does not change verb agreement. Verb agreement is sensitive only to the three semantic core case roles of actor, undergoer, and dative. Morphological core case marking is sensitive to the surface syntax, including what noun phrase is pivot. When the undergoer nominal is not the pivot, it is marked by the enclitic *-sa*. The pivot of the clause is the only nominal that may be completely unmarked, or marked in several ways using the definite marker *-na*. (The complex relationship between *-na* and the pivot will be explained in §2.5.) Complicating this is the fact that both the actor and undergoer nominals, that is, the pivot and the other core nonpivot nominal, may be altogether absent from long stretches of a discourse. Although Orya is basically an SOV language, the position of Orya noun phrase elements in the core level is relatively free. The pivot is frequently the first, but may be the second noun phrase and almost always precedes the predicate, unless it is added at the end of a sentence as an afterthought. The most frequent position for the predicate is after the second or third noun phrase, and it is never first in a sentence, unless it is a response sentence. Semantic roles of actor, undergoer and dative are largely irrelevant in determining relative position within the core.

Before proceeding with examples, a note on Orya orthography will be helpful. Orya is pronounced with penultimate stress, and the orthography closely matches a phonetic representation. The vowels *ë* and *ï* are phonetically [æ] and [ɨ]. The glottal stop is written as an apostrophe. As shown in Appendix B, the Orya verb consists of an auxiliary and a verb complex. The auxiliary is often separated from the verb by one or more noun phrases. The verb complex is phonologically one word, but spaces are used in the orthography preceding the verb class marker and directionals longer than one syllable. The verb class marker and directionals will nevertheless be referred to as suffixes in this paper. There is a correspondence between Orya verb class markers and Foley and Van Valin's operators BECOME, DO, and CAUSE, briefly described in Appendix B.3. BECOME and DO actually share one marker in Orya, glossed in this paper as LIVE.

Examples (1) and (2) show the typical alternation of pivot in Orya passive-like constructions:

(1)   **Ano bian-na**   te ala-sa Lukas hap   lop
       my   father-DEF   money-U Lukas DAT take.U.PL

ta-bla-k-a.
A.SG.CAUSE.U.PL-DAT.SG.M-P-A.M
My father gave money to Lukas.
(In all of §2, the pivot noun phrase will be boldfaced in the Orya and in the free translation.)

In Orya, the difference between 'give' and 'take' is signalled by the presence of the dative suffix. In example (1), the verb 'give/take' is one of a number of suppletive verbs that will be seen in this paper. *Lop* indicates that the objects being 'given' are plural. (A male object given would be *zer-*, female object *gol-*, and a dual object *tesya-*. The plural form *lop* is the only one of these that must be followed by the causative verb class marker.) This verb is typical of all Orya verbs in that the actor number and actor gender morphemes are widely

separated by other suffixes, including dative number/gender (*-bla* above) and tense/aspect. The undergoer is marked by the enclitic *-sa*, and the dative by the postposition *hap*. The pivot is marked by *-na* in (1), but would not have to be. If the actor were simply named 'father', without the possessive 'my', or a proper name, the definite marker *-na* would not have been used, but the actor would still have been the pivot by default. An undergoer marked with *-sa* cannot be the pivot.

The undergoer is the pivot in (2).

(2)   ***Te ala-na***   *lop*   *ta-bla-k-a*
       money-DEF take.U.PL A.SG.CAUSE.U.PL-DAT.SG.M-P-A.M

       (ano bian)   *(Lukas hap)*.
       (my father) (Lukas DAT)
       Money was given to him (Lukas) (by my father).
       (Text in parentheses in this example may be added in the order given or
       preceding the verb.)

As elsewhere in this paper, the free translation above has been made passive in order to reflect that the Orya construction is passive-like. This helps to show that *te ala* 'money, tree leaves' is what this sentence is about. Foley and Van Valin (1985:303), would not classify this as a true passive, since the predicate in example (2) is exactly as it was in (1), and there are no added auxiliaries.[2] It is not so important here that, like passives in other languages, the actor, dative and other nominals may be dropped from (2). If those nominals were clear in the context, they could be dropped in (1) as well, since the verb is fully inflected. The important difference is that the nominal that was marked as undergoer in (1) has become the pivot, or has been foregrounded, in (2). Note also that the definite marker replaces the undergoer marker *-sa*.

2.2 THE ORYA PIVOT COMPARED TO TOPIC

As stated earlier, the notion of pivot is distinct from topic as defined by Foley and Van Valin. One primary difference is that pivot is restricted to core elements – for most languages only actor and undergoer, while topic can be any noun phrase element, and can be signalled in a number of ways, one of which is shown in (3).

(3)   *Te ala-na*   *in-kam,*   *ki*   *zep*   ***totore kire-kire   karek-na***
       money-DEF that-INSTR and then   any.old things   bad-DEF

       lop   *ta-k-a.*
       take.U.PL A.SG.CAUSE.U.PL-P-A.M
       And then with that money, **worthless and frivolous things** were bought
       (by him).

The topic of example (3) is the left-dislocated instrument 'that money'. It precedes the clause introducers and is separated by a pause. The pivot of the sentence is the undergoer, the

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2   Keenan (1985:250-261) distinguishes two broad types of passives. Strict morphological passives use affixation on the predicate, and periphrastic passives use auxiliaries. Orya does not fit into either category.

'worthless and frivolous things'. Thus topic and pivot in Orya, although there is overlap in the discourse processes which influence them, are signalled by different structures.[3]

2.3 THE ROLE OF THE PIVOT IN ELLIPSIS OF NOUN PHRASES

The Orya pivot is classified as a 'pragmatic pivot' (Foley & Van Valin 1984:115), which means that discourse features such as topicality (1984:134), "coreference, definiteness, and givenness are involved in the determination of the syntactic status of the arguments of the verb within a clause...pragmatic pivots represent the *syntacticization* of these discourse factors in clause-internal grammar" (1984:115, 123, 134). Languages with pragmatic pivots are termed 'reference dominated'. Instead of a pragmatic pivot, other languages are 'role dominated' having 'semantic pivots' or no pivots at all (1984:123). In those languages the pivot selection is completely predetermined by semantic roles (1984:117).

It is clear that Orya has a pragmatic pivot because the pivot may be either the actor or undergoer. One grammatical property of the pivot is that it is the controller of noun phrase ellipsis between coordinate clauses (Foley & Van Valin 1985:306-307). Consider the following examples:

(4)   [1]*Oskar* toko san song gwe-k-a,
      Oscar   store ALL go   A.SG.LIVE-P-A.M

      [2]*hwëna*   ki zep zë   boton da-'a-k,
      however   and then there false A.PL.CAUSE.U.SG.M-PUNCT-P

      [3]*"Eno buku-na   mes   jekjak   gwe-k-Ø."*
      your book-DEF P.AUX disappear A.SG.LIVE-P-A.F
      [1]**Oscar** went to the store, [2]but then was lied to [3]that his book had disappeared.

In the first clause of example (4), 'Oscar', the only core nominal, is the actor pivot. But in the second clause, 'Oscar' is the implicit undergoer and is still the pivot. When the actor is not known, irrelevant, or purposefully omitted from the discourse, the Orya use this passive-like structure where the pivot becomes the undergoer and the verb is marked as having plural

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[3]   As will be seen in the course of this paper, pivot-signalling devices in Orya help to identify recurrent referents in the discourse. This would be called anaphoric referential processing of the topic by Givón. When speaking of topic as it relates to case roles on the clause level, Givón's (1990:901) notion of topicality is much like the notion of pivot. He states that "most languages code only *three* levels of topicality within the clause...SUBJECT > DIRECT OBJECT > OTHERS". Givón (1990:902, 740) seems to agree with Foley and Van Valin when he states: "Coherent discourse is thus characterized by **equi-topic clause-chains**. And 'topic' is a relevant functional notion only at the discourse level, minimally at the chain or paragraph level". Givón (1990:902) somewhat misrepresents Foley and Van Valin by claiming that they are among those that hold "that 'topic' is a *clause-level* function", whereas Foley and Van Valin (1984:134) clearly state that "Topics are structurally quite distinct from pivots and have different grammatical properties. In particular, they are external to the clause..." On the other hand, it is somewhat confusing that Foley and Van Valin do state earlier in the same paragraph that "Pivots are syntactic in nature...and a pragmatic pivot is a *syntacticization* of certain discourse relations, one of which is topicality, in the internal structure of the clause". The bottom line is that pivot (but not by that name) is included on the lowest level of all that Givón calls topic, and Foley and Van Valin agree that discourse topicality does play a role in pragmatic pivot selection on the clause level. It seems to me that the notion of topic becomes too broad if it is stretched to include clause level through broad discourse level phenomena, and we would be better off with the separate term of pivot for the clause level, as this would help us to differentiate between the various discourse processes pertaining to pivot versus topic.

actors. A sentence corresponding to an active sentence would specify an actor pivot in the second clause, as in (5).

(5)   ¹...²*hwëna   ki   zep   zë   zi-ni   boton*
           however and then there man-DEF false

       ta-'an-k-a, ³...
       A.SG.CAUSE.U.SG.M-PUNCT-P-A.M
       [¹**Oscar** went to the store,] ²but then **a man** lied to him there [³that his book
       had disappeared.]⁴

In example (5), 'Oscar', the pivot of the first clause, is no longer the pivot of the second clause, because an actor pivot has been supplied. Note, however, that if the actor 'man' were left out of the sentence, it would mean that 'Oscar' went to the store and ('Oscar') lied. (In this case, the sentence would imply that there was shared knowledge in the context concerning what store and who he was likely to lie to there.) So then, the basic rule for interpreting ellipsis of noun phrases in Orya coordinate clauses is that, if the gender or number marked in the verb do not indicate otherwise, the actor pivot of subsequent clauses will be coreferential with the the actor pivot of the first clause. If there is a shift in actor gender or number in the verb of clause 2 such that the undergoer affix can only agree with the pivot of clause 1, and if no actor pivot is specified, then the participant who is actor pivot of clause 1 has become the undergoer pivot of clause 2, as in example (4). This use of coreferentiality to identify the shifting roles of the pivot demonstrates that Orya has what is termed a 'pragmatic pivot'.

2.4 WHAT CASE ROLES MAY BE PIVOT?

Thus far, it is evident that in Orya both core roles of actor and undergoer may become pivot. It was also stated before that dative case is assimilated into the Orya core level, because dative gender and number are marked in the predicate. Because of this, it would be reasonable to suppose that dative might also be able to become pivot in Orya, as it can in some languages (Foley & Van Valin 1985:311). One way to test this is to see if a pivot of a matrix clause may be coreferential with an implicit dative of a relative clause that has no explicit pivot. Compare these examples:

(6)   ¹*Buku-na*   ²*men-sa gol-bwa-k-a*
       book-DEF   REL-U A.SG.take.U.F-DAT.SG.M-P-A.M

       walas tol-a   in   hap ¹mes   jekjak   gwe-k-Ø
       child small-DEF that DAT P.AUX disappear A.SG.LIVE-P-A.F
       ¹**The book** ²which was given to the small child (by a male) ¹has disappeared.
       (The relativiser *men* is followed by the undergoer marker *-sa* to show that shared
       the nominal 'book' is the undergoer of the relative clause.)

(7)   *¹*Walas-na*   ²*men zëbe   hap gol-bwa-k-a*
       child-DEF   REL 3DAT DAT A.SG.take.U.F-DAT.SG.M-P-A.M

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⁴   Note here that the *-na* suffix is affected by vowel harmony. In later examples, the /n/ of the *-na* suffix is deleted following /l/, and *we-na* becomes *we-nya*. Phonological rules for vowel harmony and epenthesis are in Fields (1991a). Most further phonological changes will not be mentioned, and morphemes discussed in the text will be cited only in their underlying forms.

¹*mes   gol-jekjak   gwe-k-a.*
P.AUX TAKE-disappear A.SG.LIVE-P-A.M
*¹**The child** ²to whom (it) was given ¹has disappeared with it.
(The relativiser *men* is followed by a pronoun that signals that the shared
nominal is the third person dative in the relative clause.)

In example (6), the pivot of the matrix clause 'the book...has disappeared' is the
actor/theme 'book',[5] and 'book' is also the undergoer pivot of the relative clause. If similar
pivot-sharing could be managed in Orya, where the pivot of the matrix clause was
coreferential with an implicit dative in the relative clause, this might show that dative
nominals could become pivot. This is what was attempted in (7), but the result is
ungrammatical. The pivot of the matrix clause is the actor *walasna* 'the child', but this
nominal cannot remain as pivot in a relative clause where it would be the dative, even though
dative is marked in the verb and the relative clause is correctly flagged to be modifying a
dative nominal, as (8) shows.

(8)   ¹...²*men zëbe hap **buku-na** gol-bwa-k-a* ¹
         REL 3DAT DAT book-DEF A.SG.take.U.F-DAT.SG.M-P-A.M
         ¹[**The child**] ²to whom the **book** was given [¹has disappeared with it.]

Example (8) is grammatical because a separate pivot for the relative clause, the undergoer
'book', has been supplied. Thus Orya, unlike a few languages (Foley & Van Valin
1985:311), does not allow the dative to be pivot even though there is dative affixation in the
predicate. Orya case-marking structure does not allow for this. Since dative cannot become
pivot, it is not surprising that similar tests to make peripheral noun phrases, such as location
or allative, into the pivot also fail in Orya. The Orya pivot is restricted to actor and
undergoer.

2.5 ENCODING AND DECODING THE PIVOT

For ease of presentation, most of the previous examples have included one nominal
marked with the definite marker -*na*. The -*na* does not indicate the pivot, but it does increase
the likelihood of the nominal being the pivot. The definite marker may be absent in some
clauses, and as shown below, it may occur more than once in others. The encoding and
decoding of the pivot is sensitive to a combination of semantic and discourse features
represented in the hierachy and rules below:

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5   Both macroroles of Actor and Undergoer, as defined by Foley and Van Valin (1984:30, 59), take on a
     variety of specific roles as shown in their Actor/Undergoer Hierarchy:

     ACTOR: Agent
       ⋮
     Effector
       ⋮
     Locative
       ⋮
     Theme
       ⋮
     UNDERGOER   Patient
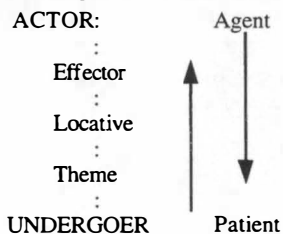
Hierarchy of Orya pivots:

Definite > Deictic/Descriptive > Nondefinite

Definitions:

A definite noun phrase is defined as one marked with the definite marker *-na* and not modified by a deictic. Personal pronouns and personal names, which are never marked with *-na*, are also definite.

Deictic/descriptive noun phrases include noun + *-na* + deictic, a noun modified by adjective(s), possessed kin, and a description phrase plus nominal (discussed in §3.3). All of the above may be actor or undergoer, and when they are undergoers, they are marked with *-sa*. There are also two other ways to mark deictic undergoers: *-na-ka* and *-na desa*. In all diectic/descriptive noun phrases, the definite marker is obligatorily used, as will be explained at the end of this section.

A participant that is referred to only in verbal affixes is nondefinite, as is a non-human participant represented by a noun without *-na*.

Rules:

The actor is the normal choice for pivot unless the undergoer is given a higher status on the hierarchy. (An nondefinite actor is pivot unless the undergoer is deictic/descriptive or definite. A deictic/descriptive actor is pivot unless the undergoer is definite.)

It is ungrammatical for both the actor and undergoer to be definite.

An explicitly expressed undergoer nominal must be marked with *-sa* unless it is marked with the definite marker *-na*. If it is marked with *-na* alone, it is a definite undergoer pivot, and the actor must be placed lower on the hierarchy (deictic/descriptive or nondefinite). Undergoers marked with *-na-ka* or *-na desa* may be superseded by a definite actor nominal. Undergoer nominals cannot be marked *-na-sa*.

Within this system, the Orya speaker has great flexibility in placing the actor or undergoer on the hierachy – being influenced by a variety of discourse considerations. The dynamics of the hierarchy are easier to grasp when seen in a series of similar sentences. We will start at the right-hand end of the hierarchy with nondefinite nominals.

(9)   *Otol   dan-sa   dwin-bi-'in   mawa.*
        banyan nuts-U A.PL.eat-DAT.F-PRES birds
        Birds are eating banyan tree nuts.
        (The verb 'eat' is one of a class of irregular verbs which take dative markers
        for what is semantically the undergoer. The feminine dative=undergoer marker
        stands for the collective banyan nuts. Living collectives are often marked as
        female, and nonliving collectives, such as sand or rice, are generally marked as
        male.)

Neither noun phrase in example (9) is marked with *-na*. A small degree of highlighting has been given to 'banyan nuts', the undergoer, by positioning it first and placing the actor last. However, an undergoer marked with *-sa* cannot be the pivot. The actor, in spite of placement, is the pivot. Alternatively, the actor could be placed before the predicate, as in (10):

(10)   *Otol   dan-sa   **mawa-na**   dwin-bi-'in.*
         banyan nuts-U birds-DEF A.PL.eat-DAT.F-PRES
         The birds are eating banyan nuts.

The actor in example (10) is now definite and thus has been clearly specified as the pivot and has been placed in a more normal position before the predicate. Orya speakers indicate that (9) might be uttered in the forest where a person would point out what he has noticed to a companion. It is a quick description of the state of affairs. Sentence (10) would be used to report the finding in the village. In such a context, 'birds' might be highlighted because the people would be interested in setting up bird blinds to hunt for them.

(11)   *Otol   **dan-na**   mawa dwen   gwi-bi-rin.*
         banyan nuts-DEF birds A.PL.eat REPET-DAT.F-REC
         Banyan nuts are often eaten by birds.

Sentence (11) is from a different discourse concerning interesting facts about banyan trees. When 'banyan nuts' become the topic of a sentence or two, that nominal is likely to be chosen as pivot, and the verb is changed to habitual or repetitive aspect. If the verb were still present tense, the sentence would be ungrammatical. This is because present tense would not make sense unless a definite or observable group of 'banyan nuts' were being eaten, as in (12):

(12)   *Otol   **dan-na**   **in-sa**   dwin-bi-'in   mawa.*
         banyan nuts-DEF those-U A.PL.eat-DAT.F-PRES birds
         Those banyan nuts are being eaten by birds.

The undergoer in example (12) is now deictic, being marked by *-na* + deictic + *-sa*. The deictic undergoer takes precedence over the nondefinite actor on the hierarchy, and is pivot even if the actor nominal is positioned before the predicate or first in the sentence.

(13)   *Otol   dan-na   in-sa   **mawa-na**   dwin-bi-'in.*
         banyan nuts-DEF those-U birds-DEF A.PL.eat-DAT.F-PRES
         The birds are eating those banyan nuts.

The context of example (13) is in the forest, observing a particular species of birds and a particular tree. Since the actor is marked with *-na* alone, it now ranks at the top of the hierarchy for pivot. The undergoer is deictic, second place on the hierarchy. It is rare in Orya discourse that both the actor and the undergoer are brought into focus in this way.

(14)   *Otol   **dan-na**   ki   mawa-na   in   dwen   gwi-bi-rin.*
         banyan nuts-DEF indeed birds-DEF those A.PL.eat REPET-DAT.F-REC
         Banyan nuts are indeed eaten by that kind of bird.
         (The two noun phrases in this sentence may be reversed.)

In example (14), the conversation has been about banyan trees and the birds that come to feed from them have been listed. In such a context it is possible for the actor (those birds previously listed) to be deictic, thereby taking the second place on the hierarchy, and for the undergoer (since it is topical) to be marked explicitly as definite. In other words, *-na* alone, signalling the speaker's choice of pivot, is higher on the hierarchy than *-na* plus a deictic. Evidence for this is the fact that, in Orya, deictics must be joined to noun phrases by *-na*. The *-na* morpheme is obligatory, and consequently somewhat semantically bleached, whenever a deictic is used. Also, *-na* plus deictic may be followed by *-sa* as in (13) and (12), meaning that the definite noun phrase is the undergoer; while *-na* and *-sa* may never occur on the same

noun phrase without an intervening deictic. Therefore it is clear, in sentences like (13), that -*na* alone ranks higher than definite noun phrases (-*na* plus deictic) in the hierachy of Orya pivots, no matter whether the pivot be actor or undergoer. It should also be noted that while only core roles of actor and undergoer can be marked with -*na* alone, peripheral noun phrases expressing any semantic role, such as location or instrument, can be made definite with the addition of -*na* plus a deictic.

> (15) *Ki   zep   song   gwe-k-Ø   toko-na   in   san.*
>   and then go   A.SG.LIVE-P-A.F   store-DEF that ALL
>   And then **she** went to that store.

Sentence (15) is ungrammatical without the deictic. A peripheral noun phrase as in (15) may be definite, *toko-na in san*, or indefinite, *toko san*, but may never be a 'marked' noun phrase, **toko-na san*. Thus there is a clear distinction between deictic/descriptive and definite noun phrases on the hierarchy of pivots and in grammatical usage, even though both include the suffix -*na*.

The list below summarises the various combinations of nondefinite, deictic, and definite nominals as they have been illustrated in examples (9) to (14). The pivot of each combination is in boldface.

> **A**   U-*sa*
> **A-*na***   U-*sa*
> A   **U-*na***
> A   **U-*na* deictic-*sa***
> **A-*na***   U-*na* deictic-*sa*
> A-*na* deictic   **U-*na***

Two additional methods of indicating deictic undergoers using the definite marker need to be shown to complete this section:

> A   **U-*na* desa**
> A   **U-*na-ka***

The first of these is one of the primary means that temporary participants or props are introduced into a narrative. As we will see in §2.7, once a participant's identity is established, his name will not be frequently stated. A participant who is no longer named but is present only in verbal affixes is demoted to nondefinite status, allowing the possibility of other participants being made more prominent by being marked definite or deictic/descriptive. Orya discourse uses the definite marker to introduce new participants, and the determiner *desa* may be used to show that the new participant is an undergoer that will soon be backgrounded. A second way of marking undergoers is by a deictic which points backward to a definite nominal or pivot in the immediate context and is often used as a partitive to indicate such things as 'one of them' or 'part of it'.

> (16) [1]***Gwe-nya*** *desa   zë-k   ta-k-a,*
>   pig-DEF   that.U there-LOC A.SG.kill.U.SG.M-P-A.M
>
>   [2]*ngala   **en-na-ka**   an-bla-in-k-i,*
>   intestines only-DEF-U.deictic extract-DAT.SG.M-out.of-P-A.SG.M

³*desa   bahla   so-k-a.*
that.U wrap.to.carry A.SG.CAUSE.U.DU-P-A.M
¹(He) killed a (wild) **pig** there, ²cut out **its intestines only**, ³and bundled
(and) carried them (hanging behind him from his shoulders).
(This sentence is like passive also, but this is difficult to show in the English free
translation while still maintaining the coordinate structure.)

Example (16) illustrates the way Orya discourse often omits actor nominals, allowing
undergoers to be temporarily foregrounded. The 'pig' is introduced in the first clause as a
temporary participant by being marked with the definite marker followed by *desa*. The
second clause of (16) illustrates the use of the partitive undergoer suffix *-ka*. As a dietic, it
refers back to the 'pig' of the first clause. While the normal undergoer enclitic *-sa* can never
be attached directly onto the definite marker, noun-*na-ka* is often used. The partitive *-ka* is
the only suffix that can be added to the definite marker *-na*, and *-ka* can never attach directly
to a noun. *Desa* is used again in the third phrase, but with a different meaning than it has in
the first phrase. When *desa* does not immediately follow a newly introduced participant, it
shows that 'the previous undergoer is now the nonpivot undergoer.' This meaning of *desa*
can also be seen in example (22).

2.6 THE PIVOT AND THE PRONOMINAL PARTICIPANT REFERENCE SYSTEM

As was stated at the end of §2.3, the basic rule for interpreting ellipsis of noun phrases is
that, if gender or number do not indicate otherwise, the actor pivot of the first clause will
continue to be pivot of subsequent clauses until a new pivot is indicated. The pivot can
change between the roles of actor and undergoer as signalled by verb agreement alone, as in
example (4). However, there are times when there is ambiguity because both the actor and
undergoer are the same gender and number. In such cases, conditioned by semantic and
discourse factors explained below, the pronoun *zëna* 'himself/herself/themselves' may be
used to remove ambiguity. The pronoun indicates that 'the previous pivot is now the actor
pivot' in the coordinate clause.

(17)   ¹*Habel   walas   tol-a   in-sa   lek tya-k-a*
        Abel   boy   small-DEF   that-U hit A.SG.CAUSE.U.M-P-A.M

        ²*in   zep   **zëna**   ase-k-a.*
        that then himself=PVT   disappear-P-A.M
        ¹**Abel** hit that small boy, ²and that is why **he** (Abel) disappeared.

(18)   ¹*Habel   walas   tol-a   in-sa   lek tya-k-a*
        Abel   boy   small-DEF   that-U hit A.SG.CAUSE.U.M-P-A.M

        ²*in   zep   ase-k-a.*
        that then disappear-P-A.M
        ¹**Abel** hit that small boy ²and that is why (he?) disappeared. (possibly
        ambiguous sentence)

The word *zëna* in example (17) removes any possible ambiguity as to who is the actor
pivot of the second clause. It is the established pivot of the preceding clause, 'Abel'. If *zëna*
is taken out of the sentence, as in (18), it is potentially ambiguous. It is just as likely that the
'boy' would disappear to avoid being hit again as it is that 'Abel' would disappear to avoid
retribution by the boy's relatives. Still, such ambiguous sentences are often used in

conversation since the context removes the ambiguity. (The ambiguity would be cancelled if the sentence were preceded by the question, "Why did the boy run away?") If not, a pivot must be specified, either by specifying 'that boy' or 'Abel', either by name or with the pronoun 'himself', as in (17). The potential problem with (18) is that both the participants are male. If one of the participants were a female, there would be no need to specify which participant was the actor of the second clause, because the actor gender marking on the verb would leave no room for ambiguity. Thus semantic factors implied in the verb, context, and gender/number each play a role in tracking the pivot, but if these are not enough, names or pivot-controlled pronouns like *zëna* are used.

In addition to *zëna,* Orya also has two sets of pronouns for all other noun cases, and these may be used to specify whether any given participant is related to the established pivot or to the other potentially-pivot participant. For instance, a noun may be 'at the location of the pivot' or 'at the location of the one who is not currently pivot', or a noun may be 'possessed by pivot' or 'possessed by the one who is not currently pivot'. On the other hand, a noun might not be possessed by, or located at, either of the two potentially-pivot participants. Names are used in those cases. However, for nominals related to the two potentially-pivot participants, pivot-controlled pronouns are often used instead of names to remove ambiguity. The complete list of pivot-related pronouns is in Appendix A. Here is a comparison of third person singular forms:

Comparison of third person singular pronouns:

Case	Pivot-Controlled or Reflexive	Normal/Unambiguous
Dative	*zëre hap*	*zëbe hap*
Possessive	*zëre mo*	*zëno*
Benefactive/Means	*zëre hon*	*zëbon*
Ablative	*zëre onakon*	*zëbon onakon*
Allative	*zëre osan*	*zëbon osan*
Location	*zëre onak*	*zëbon onak*

Consider the change of possessor from (19) to (20):

(19)   [1]*Paulus   Tomas-sa   lek tya-k-a,*
        Paul   Thomas-U   hit A.SG.CAUSE.U.M-P-A.M

        [2]*ki   zep zëre   mo   we-nya   ban   gol-hetyang   gwe-k-a.*
        and then his=PVT POS wife-DEF with A.SG.take.U.F-run LIVE-P-A.M
        [1]**Paul** hit Thomas, [2]and then ran away with his own wife.
        (As will be explained in §2.8, the use of *-na* is almost obligatory with possessed kin. Here it is obligatory with the accompaniment postposition *-ban*. A phonological rule accounts for the epenthesis of *y,* changing the definite marker to *-nya.*)

(20)   [1]...[2]*ki   zep zëno   we-nya   ban   gol-hetyang   gwe-k-a.*
        and then his.not.PVT wife-DEF with A.SG.take.U.F-run LIVE-P-A.M
        [[1]**Paul** hit Thomas,] [2]and then ran away with his (Thomas') wife.

The pivot in both clauses of (19) and (20) is the actor, 'Paul'. Changing the pronoun that indicates possessor, however, drastically changes the plot. Orya possessive pronouns can also be used to help specify a change of pivot, as in (21):

(21)   ...²ki zep **zëno**   **we-nya** jal   gwe-bla-k-Ø.
      and then his.not.PVT wife-DEF mad A.SG.LIVE-DAT.SG.M-P-A.F
    ...²and then **his (Thomas')** wife became angry at him (Paul).

In (21), the possessive signals that the possessor is not the previous pivot. Thomas' wife is identified, and she also is marked as the pivot of the second clause. The dative male that Thomas' wife is angry at, since he is not named, must be the previous pivot. If the possessive pronoun *zëre mo* had been used as in (19), it would be Paul's wife who would be angry at Paul. But in the (somewhat unlikely) event that Paul's wife was also angry at Thomas (in spite of her husband hitting him), his name could be used, or the undergoer pronoun *desa* could be used to specify the 'same undergoer as the previous clause', as in (22).

(22)   **Zëre**   **mo we-nya** hen desa jal gwe-bla-k-Ø.
      his=PVT POS wife-DEF also him.U mad A.SG.LIVE-DAT.SG.M-P-A.F
    His (Paul's) wife was also mad at him (Thomas).

Word order does not influence the operation of the two sets of possessive pronouns. Either actor or undergoer (but never both) may be placed following the verb in the first clauses of (19) through (22), and the referents of the pronouns will remain as stated above.

As previously stated, pivot-controlled pronouns are used to remove ambiguity. Where there can be no ambiguity, for instance when there is an actor pivot but no undergoer, then the normal set is usually used and can only refer to the pivot. The normal/unambiguous set can also be used to represent the pivot where actor and undergoer number or gender make it clear who does what to whom. Semantic factors expressed in the verb, context, and gender/number play an important role in tracking the Orya pivot, but if these are not enough, names or pivot-controlled pronouns are used.

2.7 THE ORYA PIVOT IN CONNECTED DISCOURSE

We are now in a position to get a glimpse of how Orya tracks the pivot in connected discourse. In Orya, after the participants have been introduced, the primary tracking of them in the discourse is by means of verbal affixes for both gender and number of actor, undergoer and dative. Very few nouns or pronouns need to be used. If the participants are not named, this reduces them to nondefinite status on the hierarchy of Orya pivots. Other props or minor actors are introduced briefly as pivot, and then the pivotship reverts back to the already established major players.

The following is a translation of a traditional folktale from the village of Nembom Tol that was written by Hans Tenani. The complete Orya text is given in Appendix C. To show the way pivotal participants are tracked in the discourse, actor and undergoer names and pronouns that are actually present in the Orya text are boldfaced. These are classed as Definite Noun Phrases and are highest in rank on the pivot hierarchy. Actors and undergoers that are present only as verb affixes are in small print and are lowest on the pivot hierarchy. Temporary participants or props are italicised.

(23)   ᵃ**The man-DEF** (was) **name(d)-DEF Mr Aran.** ᵇ**He** went hunting from Nembom Tol village. ᶜBut **that man-DEF** was not a native from Nembom Tol. ᵈ**He** was a man from another village who lived there, living in his wife's village. ᵉFrom there very early in the morning he went hunting toward the downstream of

Jaku (river). ^fA *pig-DEF* that(*desa*) he killed there, the *intestines-DEF* only of it he cut out, this(*desa*) he carried (in a bundle behind his back). ^gThe *meat-DEF* he submerged (in water) there on the way home, in order to come get it from Nembon Tol the next day. ^hThe *sun-DEF* had passed (centre – about 1-2 PM), and so from there again he went up Jaku creek, he came up toward here to the fork of Uhum creek-DEF, and he went up that way, and then he came up to the Wina fork. ⁱHe saw on the way home that the Wina (creek was) "Very clear-DEF", and so went up that way. ^jOf course *people-DEF* had A.PL-told-U.M him, "When *arriving-here-DEF* (nominalisation) to Uhum fork, you must only go up the Uhum (creek). ^kIt (is) pure-DEF[6] water-DEF. ^lBut the other-DEF, – Its name-DEF (is) Wina – don't (go that way). ^mIt (is) cloudy-DEF. ⁿIt (is) at its headwaters that they DU-live, **two witches-DEF**-that.is.[7] ^oTheir name-DEF (is) **Two Women**. ^pThey (the plural people of Nembom Tol) A.PL-named-U.DU them **Two Women** for this reason: (Because) *Mr Tahol*, who took **two girls-DEF** from an areca nut tree (in another tale from Nembon Tol), **these**(*desa*) were A.DU-hidden-U.DU there (Wina headwaters) by Bati and Sonsyan (Tahol's sons). ^q**Those** (are) **they** (who) turned into witches, so therefore they were A.PL-named-U.DU **Two Women**."

In the beginning of our story, it is clear that 'Aran' is the first main participant, as he is designated using the definite level of the pivot hierarchy in each of the first four sentences. After that, he is present only in verbal affixes for the next six sentences. This allows for props to be brought on stage, such as the 'pig' in example (23). The sentence (23f) has already been given as example (16). Sentence (23j) would be in the Orya structure resembling passive if the noun phrase 'the people' were omitted. But here 'the people' refers primarily to the people of the village of Nembom Tol, and they are the implicit actors of the naming in (23), and they again figure in the story at the end. Quotes are a very important element in Orya narrative discourse. Here the quote of 'the people' serves to introduce the second set of main participants, the two 'witches', not only naming them but alluding to the story behind their naming.

(24)   ^aWhen **Mr Aran** stood at Wina, mid-way at the fork of the little stream name(d)-DEF Disu (tree type) Stump, there he met(footprints)-of.DAT.DU. ^b(He thought,) "Wow, these **two men-DEF** have very recently gone upstream spearing shimp." ^cAfter that he thought, "Oh, these are **the two witches-DEF** of which (people) A.PL-tell-DAT.PL. ^dPerhaps it is **them** indeed (who) have just gone-A.F up". ^eAnd then he A.M-TAKE-U.DU-followed their footprints up. ^fWhen he came up Wina, at Isrïm fork there he met (footprints)-of.DAT.DU going off away. ^g(He thought,) "Wow, they very recently A.DU-went-A.F up from here. ^h*The footprints-DEF* are cloudy." ⁱAnd there he feared, "Oh, these (are) **the two witches-DEF** of which (people) A.PL-tell-DAT.PL. ^j**This** (is) **them** going up". ^kAnd then again he turned winding from there up that river-DEF.

Having just introduced the 'witches' at the end of paragraph (23), 'Mr Aran' is again referred to by name to reestablish him as the pivot at the beginning of (24). Suspense

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6   The use of the definite marker with adjectives will be explained in §2.9.

7   The Orya suffix *-ye* is glossed here as 'that.is'. This suffix often marks noun phrases that are intentionally phrased as afterthoughts.

heightens as Aran first realises he is following two people, and then as he 'puts two and two together' to figure out who the two are. Sentences (24e) is the first usage of the suppletive Orya prefix set which I will call the 'TAKE-' causative. The 'TAKE-' causative is the only set of Orya verb prefixes, and they are clearly a grammaticalisation of an earlier serial verb construction involving the suppletive verb 'take'. The effect of these prefixes is to increase valence, so that the verb has a clear actor and undergoer. The roles of actor and undergoer are not for causation, but to maintain the leadership roles that have been set up. In this case, the verb which has been glossed as 'follow' is an intransitive verb meaning 'to avoid following a meander of a stream by ascending and cutting through the forest'. But by adding the 'TAKE-' causative, 'A.M-TAKE-U.DU', a dual undergoer is added. Note that Aran does not actually 'take' the two witches (or their footprints) anywhere. As we will see, this device is used to maintain a clear relationship between the pivot and nonpivot participants.

(25)   ªThe two witches-DEF however were at that time cleaning shrimp. ᵇFrom the headwaters of Wina at a small fork of a stream name(d)-DEF Laga, there he A.M-saw-U.DU them away up above. ᶜAnd they A.DU-said-DAT.M meeting him, "Hi friend, come here. ᵈDon't be afraid-DAT.DU of us. ᵉSit up here friend. ᶠWe.EXCL will A.DU-TAKE-U.M- you -up to our(pivot=DU) house, so that you can (eat) some baked sago there on (your) way past". ᵍFrom there then they together A.DU-took-U.M- him -ascended to their(pivot-DU) house. ʰThey A.DU-took-U.M- him -came to their house, and then A.DU-took-U.M-ate (with) him. ⁱTheir(pivot) little *tame pig-DEF* this(*desa*) A.DU-killed-DAT.M for him, and then their(pivot) *stored sago-DEF* they A.DU-made.sago.pudding-DAT.M for him. ʲWhile **they** (the two witches) (were) still A.DU-took-U.M-ate (with) him, and the sun(-nik) was quickly going down, then they said to him, "Oh, wait for us. ᵏWe are going to pick *areca nuts and betel peppers-DEF* over there for you so that you, friend, can chew- (while you are) -ascending (home)".

In paragraph (25), the witches take over the role of pivotal actors. This is signalled by their definite-level naming in (25a). But in (25b) and (25c), where there are no explicit pronouns, the pivot and nonpivot roles are quickly exchanged based on verb affixation alone. However, after this point, the witches are continually reinforced as being the pivotal actors by the five-times-repeated use of the 'TAKE-' leadership prefix. The use of the dative is also significant in maintaining the pivot versus nonpivot relationship in (25i). There the witches do not merely kill their 'tame pig' and 'make sago pudding', as it could have been expressed, but those actions are purposefully marked as being done 'for him'.

(26)   ªWhen they had quickly A.DU-made- *the day-DEF* -dark-DAT.M on him (so he couldn't leave), they said to him, "Today, too bad, don't leave. It is really getting dark". ᵇSo he didn't leave. ᶜAnd so those **two witches-DEF** A.DU-took-U.M-slept with him. ᵈThey told him, "Don't be afraid of us, friend. ᵉWe will A.DU-accompany-U.M- you tomorrow -up and away to Nembom Tol".

(27)   ªVery early the next day they A.DU-took-U.M-went. ᵇThey had A.DU-caused-DAT.M- **the man-DEF Mr Aran**'s *good thoughts-DEF* -to-disappear. ᶜAt that time he A.M-thought-U.DU, "These are real women". ᵈThen he didn't think of that (which he was told), like this, "Oh truly, people A.PL-told-U.M me like this, '(Two) **women-DEF** are living there, **two witches-DEF**'". ᵉThey had A.DU-caused-U.M-to-forget (it). (U.M in this verb references the collective 'thoughts' of Aran, not Aran himself.)

In (26), the witches are, of course, the implicit actor-pivots of (26a), while in (26b) the man is the implicit actor-pivot. After this exchange of pivotship, the witches are again explicitly named in (26c), and another use of the 'TAKE-' prefix emphasises their leadership in the man sleeping with them. The 'TAKE-' prefix is used instead of simply saying that the three people slept together using the normal plural form of the verb, and nothing that would 'raise eyebrows' is implied in their sleeping together. In (27b), the very specific explicit reference to 'the man Mr Aran's good thoughts' prepares the way for a change of pivot in (27c). Looking back through the discourse so far, it can be seen that that quotes are often preceded by a definite reference to the speaker/actor-pivot in the near context.

(28)   ᵃWhen they A.DU-brought(took-)U.M- him -close to the village, then from Nembom Tol he (was) A.PL-seen-U.M coming from away below, and then they said, "Oh that (is) **Mr Aran** who yesterday because of going hunting slept on the way here. ᵇ**That** (is) **him** coming up here". ᶜBut because of **their**, **the two women-DEF's**, A.DU-just.then-having-DAT.M him between them, *others-DEF* were saying, "That is perhaps a man from another village who is coming here". ᵈBut *others* said, "**That** (is) **Mr Aran** coming up here".

(29)   ᵃThen he arrived home to the village, and because of that people said to him, "Wow, but **you** have come alone! ᵇ**We** from here, ya'-know, were watching **you**(-*sa*) away down there. ᶜThere (were) **two women-DEF who** (were) A.DU-having-DAT.M **you**(-*sa*) between them".

(30)   ᵃ(And then he said,) "Was that perhaps a **man** with two wives coming up here behind me? ᵇThat is who(*desa*) you were -watching. ᶜWhat two **women-DEF** would **I** A.SG-TAKE-U.DU (and) -come up (here) with?!".

(31)   And then they asked him, "Where did **you** sleep yesterday?".

(32)   (And he said,) "Oh, **I** put up leaves (as a shelter and slept) downstream".

In paragraph (28), the minor players come back on stage without fanfare, introduced only by the locative village name and plural actors marked on the first verb. In spite of the low-key introduction, the village people now alternate with the man as pivot through (32). As they look down from their hilltop village, they see a man coming on the narrow path with one woman in front of him and one following. The discussion as to who this might be with two women reemphasises the main actors of this story, as does the discussion with Mr Aran himself, who arrives alone. And now for the conclusion of our tale:

(33)   ᵃAbout- **two women** (-undergoers) whom he (had) A.SG.taken.U.DU- (and) -slept-A.M with he didn't remember. ᵇAnd then right away he became feverish, and so A.M-told-DAT.F his wife(-DEF-*ka* (deictic undergoer)), "Make a fire for **me**. **I** am feverish". ᶜAnd then right away he trembled because of the fever. ᵈNot long after he vomited. ᵉBefore the end of the day-DEF, he convulsed, (and was a) *corpse-DEF*. ᶠAnd then they heard down below **those two witches-DEF** as they were cackling while going away from there, "*Ëhë' hyëe!*".

(34)   ᵃ(And they said,) "Oh, so **that** is who A.DU-took his (*zëno*-normal set) soul-DEF! ᵇThat is why they were just A.DU-laughing while going from there down! ᶜSo **that** (is) **who** A.DU-took-U.M- (and) -slept with him yesterday! ᵈSo it was their(*zëre*-pivot set) house he slept at!".

In (33), the hapless Aran is still the pivot. The two women are marked with -*sa* in the introductory relative clause, indicating they are nonpivot undergoers. Because of Aran's status as pivot, he, rather than the witches, is now seemingly cast as the instigator of 'TAKE-slept'. Here it becomes clear that the 'TAKE-' causative serves more to maintain the relationship between the current pivot and nonpivot participants than it does in actually assigning leadership. This contrasts with (26c) where the roles were reversed. For the last time, the cackling witches are brought forward as undergoer-pivots with a deictic-level reference in (33). The final dénouement in (34) is the realisation of the village people concerning what has occurred. Once again the pivotal roles of 'TAKE-slept' are reversed in (34c), with the villagers' exclamations making very clear who the real instigators were.

Having seen the way Orya handles participant reference in this story, it can now be appreciated how very different the Orya system is from switch-reference systems in many other Papuan languages. In those languages, chains of medial verbs are followed by a final verb which may be marked for a switch of pivot. Orya verbs are not chained one after another and show no such marking. As seen in the story above, noun phrases tend to be used at paragraph breaks, and these often signal that one main participant will persist as the implicit pivot over the next sentences. But, on the other hand, once two main participants are established, overt pronouns are dropped and the two may switch rather freely between actor-pivot and nonpivot undergoer roles, marked in the verb complex by changes in actor and undergoer gender and number. Other devices, such as the pivot-controlled pronouns and the 'TAKE-' causative prefix, both of which may be seen in the story above, help to keep the relationships between the main participants clear.

2.8 THE DEFINITE MARKER AND THE HONORIFIC SYSTEM

In addition to discourse considerations affecting the use of -*na* explained in §2.5 and §2.7, Orya also has an honorific system also comes into play, as in examples (35) and (36):

(35)   *Em san   mes-e   **zi-ni**   zer-k-a?*
     you INTER P.AUX-A.2 man-DEF TAKE-P-A.2
     (Spoken to a woman:) Are you married? (polite)

(36)   ***Em** san   mes-e   zi-si   zer-k-a?*
     you INTER P.AUX-A.2 man-U   TAKE-P-A.2
     (Spoken to a woman:) Are **you** married? (very rude)

If (35) and (36) were about taking a thing (such as money), both would be acceptable and the use of -*na* would be based on discourse considerations alone. However since these sentences are spoken in the second person about taking a husband, only the first is considered polite. When speaking directly to a person, it is not polite to refer to his or her relatives simply as nonpivot undergoers.

This is not the only place in Orya grammar where second person is treated specially. When marking verbs for gender, females receive the same marking as males when directly addressed.

Verbal suffixes for actor gender/person

Person	<u>singular/dual masculine</u>	<u>singular/dual feminine</u>
first	-Ø	-Ø
second	-a	-a
third	-a	-Ø

Note that third person males receive the suffix -*a*, and feminine third persons are marked by the absence of that suffix, as in example (37) below:

(37)   **Zen** *mes*   *zi-ni*   *ze-k-Ø*.
        she   P.AUX   man-DEF   TAKE-P-A.F
        She has/is married.

Most of the examples cited so far have been concerning third person male actors, so verbs have consistently ended with -*a*, but notice in examples (35) and (36) above that the second person woman receives the same suffix. When speaking directly to a person, she or he is addressed using the male third person suffix. Conversely, comparing first person with third person, when speaking of oneself, out of deference to the addressee, the feminine -Ø suffix is used.

So second person is shown special deference both in the verbal suffixes and in the honorific use of -*na*. However, when the relatives of a third person are spoken about, and particularly if there are any derogatory overtones, then it is common to refer to them as undergoers, as in examples (38) and (39) below:

(38)   **Zen** *mes*   *we-sya dan so-k-a*.
        he   P.AUX   wife-U   two   A.SG.CAUSE.LIVE.U.DU-P-A.M
        He has taken two wives. *Or*, He has taken a second wife. (somewhat
        derogatory, avoided in the presence of the person's other relatives)

(39)   *Zen mes*   **we-nya**   *dan so-k-a*.
        he   P.AUX   wife-DEF   two   A.SG.CAUSE.LIVE.U.DU-P-A.M
        He has taken two **wives**. *Or*, He has taken a second wife. (polite)

Conversely again, one seldom uses the special pivot-controlled pronouns (see §2.6) for the first person in Orya unless the speaker's leadership or seniority is clearly in view and is relevant to the conversation.

2.9 THE USE OF -*na* WITH ADJECTIVES

We have seen previously, in example (13), that -*na* can occur more than once in a clause. Before we conclude this section, it will be helpful for understanding examples later in the paper to explain that predicative adjectives also receive the -*na* marker, as in (40):

(40)   **Jalom-na**   *hale*   **san**   *jal-jal-(n)a*.
        crocodiles-DEF   downstream   ALL   fierce-REDUP-DEF
        Downstream crocodiles (are) very fierce.

This is not a problem in the analysis, since the predicative adjective is always descriptive of the pivot.

2.10 CONCLUSIONS CONCERNING THE USE OF -na WITH ORDINARY NOUNS

Before discussing the use of -na as a nominaliser, it will be helpful to draw together the various threads of the discussion to this point. We have seen that the notion of pivot aptly describes the way that either actor or undergoer nominals may be marked with -na in Orya. But not every clause will use -na to mark the pivot, and -na can appear more than once in some clauses. A hierarchy guides both the Orya speaker and listener in the encoding and decoding of pivotal status. Overt marking as definite (-na) outranks noun phrases marked as deictic/descriptive (which use -na obligatorily), and both of these outrank nondefinite noun phrases. The placement of a nominal on the three-tiered pivot hierachy is influenced by such discourse features as the introduction and prominence of participants, and the progression of the narrative. The definite marker also plays a role in the Orya honorific system. If speaking in the second person, it is only polite to refer to the person's family members as definite, not as a nonpivot undergoer. Similarly, when speaking in the first person, Orya speakers do not use pivot-controlled pronouns to refer to themselves unless their seniority or leadership is clearly in view and relevant in the discussion. The same definite marker also plays an important part in Orya nominalisation.

3. NOMINALISATION IN ORYA

3.1 NOMINALISATIONS VIA THE DEFINITE MARKER

If the definite marker -na is attached to a verb plus the non-temporal verb marker, the verb complex becomes nominalised. The resulting nominalisation behaves in every respect like an ordinary noun, and so may be modified by an adjective, possessed, pluralised, or coordinated. It also behaves like ordinary nouns in that it may serve as either actor or undergoer. Many nominalisations function as pivot, if marked by -na alone. If the nominalisation is marked as deictic/descriptive (-na + deictic), it may be superseded on the pivot hierarchy by a definite noun phrase, or it may also be a peripheral noun phrase if it is followed by the appropriate case postposition. It is the definite marker that is the nominaliser and not the nontemporal marker -n, which precedes it in nominalisations. The nontemporal marker (NT) is clearly a verbal affix because it occurs as the last suffix on imperatives.[8]

Example (41) was spoken by Hans Tenani as his story about Mr Aran (§2.7) was being reviewed. This sentence is a summary of (33f):

(41)   *Dekam zep na-sal-zim   ane-k   **ngangol** ë*
         and   then A.PL-hear-DAT.DU below-P laugh   A.DU.LIVE

kïnï-ora-n-na.
moving.from.there-down-NT-DEF
And then they heard the **laughter of (the) two (witches) as they were descending away from them.** Or, more freely: And then they heard the **fading echoes of two voices cackling in the distance.**
(In this section, **nominalisations** rather than pivot will be boldfaced.)

It is very clear in example (41) that quite a very complex bundle of information can be encoded in an Orya nominalisation. The verb for 'laugh' would be *ngangol gwe* in the

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8   Another use of the NT can be seen in example (52): The NT plus the *-kam (-kim)* adverbialising suffix changes verbs to manner adverbs.

singular, but here is *ngangol ë* for the dual witches. The verb complex is nominalised complete with two directional suffixes. The nominalisation in (41) was obviously tailor-made by Hans for its particular context; it is not just a stock form. Orya nominalisations are freely created even by young children, and they refer to the whole activity of the verbal form, not to any one participant or product of the action. The nontemporal marker (NT) replaces past tense and the actor gender suffix, but as these are already clear from the context, no information is lost by nominalising this verb. Since verbs with the non-temporal marker lose part of their normal affixation, the reader might be reminded of medial verbs, which are common in other Papuan languages. However, as already noted, Orya does not employ chains of such non-temporally marked verbs followed by a final verb.

Example (41) shows a nominalisation which is the semantic undergoer and pivot of the clause. Example (42) is of a nominalisation as an actor pivot:

(42)   *Ki   hwëna   eno-nik   mo   ë-n-na   in   molya*
       indeed however your-DU POS A.DU.live-NT-DEF that cannot

       oto   gwe-sï-k-Ø.
       please A.SG.LIVE-COMPL-DUR-A.F
       From advice given to a newly married couple: 'Indeed if so (if you don't follow my advice), your **life together** cannot be pleasing (in anyone's eyes).'

The Orya verb for 'live' in example (42) is another suppletive verb root. The dual actor form is used for the married couple (singular is *gwë*; plural is *ëgwë/lowehe*), so that actor number but not gender is again encoded in the construction. Since the married couple includes both a male and a female, they would be referred to as a female in third person, but as two males in second person. If the married couple were 'pleasing' instead of their 'life together' being pleasing the form would be:

(43)   *Ki   hwëna   em   molya   oto   ei-sï-k-ï.*
       indeed however you cannot please A.DU.LIVE-COMPL-DUR-A.M
       Indeed if so, you won't be pleasing (in anyone's eyes).

Comparing examples (43) and (42) shows that the verb complex *oto gwesïk* 'pleasing' in (42) corresponds with the inanimate nominalisation *ënna* 'life together' rather than with the dual married couple. (Inanimate actor nouns are treated the same as female actors in Orya. No final vowel is suffixed to the verb.) However it is already clear that the complex pivot *ënna* 'life together' in (42) is a noun since it is modified by the possessive *enonik mo* 'your' and by the deictic 'that'.[9]

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9   This is in contrast with a number of other Irianese languages that have what is termed clausal nominalisation, "nominalizations with no lexically derived noun" (Comrie & Thompson 1985:391-393). Instead of a verb complex like 'dual.actor.live' being made into a noun as in example (42), some Irianese languages (among them Bauzi and Iau) would nominalise a whole clause including a separate noun phrase and verb phrase, as in the sentence 'You live together NOMinaliser will not be pleasing (if you don't listen to my advice)'. Note that in such a clausal nominalisation, the pronoun 'you' does not become possessive as in Orya example (42). This information is from interviews with Dave Briley (SIL) and Janet Bateman (SIL). Bauzi is a member of the Geelvink Bay Phylum, East Geelvink Bay Stock-level Family. Iau is one of the dialects of Turu, Tor-Lake Plain Stock, Turu family-level isolate. From interviews with a number of linguists, it seems that Papuan languages differ widely at this point, and comparing the various methods of nominalisation would be a fruitful area for further research.

Abstract nominalisations in Orya are frequently cast as the actor of the verb 'come'. Example (44) is from a discourse where the speaker relates the implications of a myth in modern-day life. *Kwako* is his son, and the 'curse' that 'comes' is the Biblical flood. (Fields et al. 1991)

(44) [1]*An-ye   sembilan-nak angkam lowehe   gwe-'an,   Kwako mae,*
       this-DIS nine-LOC   now   A.PL.live REPET-PRES Kwako PLSR

       [2]*men   dekon   ki   kamana an   olo-lo   gwe-k-ye,*
       when from.then indeed world this turned-REDUP A.SG.LIVE-P-DIS

       [3]*heip   gu-n-nu   in   kim   hata-k-Ø.*
       curse A.SG.CAUSE.U.F-NT-DEF that when came-P-A.F

       [1]This is the ninth (generation) now living, the (generation) of Kwako and others, [2]from the time when the world was changed (here implying cataclysmic change), [3]when that **curse** came.

In clause 3 of example (44), the abstract nominalisation 'curse' is the actor of a matrix clause, and the appropriate inanimate actor marker (feminine) is suffixed to the verb of the matrix clause. If the abstract nominalisation were an undergoer, the appropriate verbal affix for undergoer would have been used in the verb of the matrix clause. It is very clear that nominalised verbs are handled as ordinary nouns in regard to verbal agreement, functioning as semantic actors or undergoers. Nominalisations via the definite marker are the most common type used in Orya, but there is at least one other way to nominalise.

3.2 NOMINALISATIONS VIA THE ALLATIVE CASE MARKER

Orya can also nominalise with the use of the allative postposition *san*. Whereas nominalisations using *-na* may function as core or peripheral nominals, allative nominalisations function only as peripheral nominals. Allative case (ALL) is marked as a postposition to the noun, as in example (45):

(45) *Zen Jayapura san   sek   gwe-k.*
       they Jayapura ALL A.PL.go A.SG.LIVE-P
       They went to (or toward) Jayapura.

A verb that is used frequently with allative nominalisations is the verb *ang gwe* 'follow'. In English, one either 'keeps' or 'breaks' laws, but in Orya one either 'follows' them or 'doesn't follow' them. And this is true also of 'following' several other abstracts, such as God's will, or a person's desires. Consider example (46) from a sermon:

(46) *Zëno jalse   gwe-n   san hom ang*
       His rebuke/prohibit A.SG.LIVE-NT ALL not follow

       ta   gwe-k.
       A.PL.LIVE REPET-P
       They didn't follow (**in the direction of**) his **prohibitions**.

If, in another sentence, someone 'forgot' a 'rebuke', then a definite nominalisation would be used. The 'rebuke' would be the undergoer instead of an allative. When the verb used is 'follow' as in example (46), implying 'in some direction', then the allative is used instead. So the usage of allative nominalisations is based on the semantics of the verb used with the nominalisation. Another allative nominalisation can be seen in (50).

3.3 NOMINALISATIONS IN COMPLEX SENTENCE STRUCTURES

Section 3.1 presented nominalisations in simple sentence structures taking the roles of actor and undergoer. This was to show that nominalisations in Orya do indeed act like normal nouns marked with *-na*. We now turn to a brief overview of the role of nominalisations in more complex sentences. To introduce this, it will be helpful to understand the function of the ubiquitous particle *de* in Orya syntax. The particle *de* functions to set off a description phrase from a nominal that is described. Since it is somewhat like a preposition it is glossed below as OF. The description phrase may be of several types: a noun-purpose phrase, an allative phrase, or an adverbial. The descriptor particle *de* is not used with adjectives modifying nouns, but it is used, for example, when a noun followed by the purpose postposition describes another noun, as in 'work for (the purpose of) money' in example (47):

(47)   *te ala   hap   de   syal-(n)a*
        money PURP OF   work-DEF
        paying job

The descriptor particle stands between the purpose (*te ala* 'money') and the noun *syal* 'work' in example (47). 'Work' is not a nominalisation here but a noun form, since the definite marker is attached directly to the root.[10] A noun-purpose + *de* may also be followed by a nominalisation instead of a noun, as in (48):

(48)   [1]*Hën mawa sop mae   hap   de   **ë-hakal   gwe-n-na***
        also bird   skin PLSR PURP OF   A.PL-hunt   REPET-NT-DEF

        [2]*zi   mo   lang san   bahem.*
        people POS land ALL   don't
        [1]Also (if) **hunting** for such things as birds, [2]don't (go to do **it**) on someone else's land.
        (The verb root *hakal* 'hunt' is one of a class of irregular Orya verbs that are prefixed for dual or plural actors. If the actors are dual, the prefix is *a-*.)

Sentence (48) is an example of the way a condition is typically expressed in Orya. The condition, 'hunting for bird skins' (such as birds of paradise), is expressed as a nominalisation that serves as the pivot of the matrix clause.

The descriptor particle *de* also stands between allative case nominals and nouns:

(49)   *Bwasom san   de   ora*
        Bwasom ALL OF   path
        path to Bwasom

Nominalisations can stand in the place of both nouns in phrases similar to (49) above. The first nominalisation must be an allative nominalisation (described in §3.2). Hortatory text is fertile ground for nominalisations in Orya. This example is from a sermon:

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10   The verb form for work is *syal gwe* 'work LIVE'. This verb form, by itself, is never nominalised since it would mean the same as *syala* above. However, if other affixes are added to the verb, the resulting form can be nominalised, as in *zëno syal gwizimdinni* 'his making of (working with) dual objects (such as chairs)'. That the *syal* is a noun is also clear below:
        Zen te ala   hap   de   syal-sa   gol-k-a.
        he   money PURP OF   work-U   A.SG.take.U.F-P-A.M
        He took a paying job.

(50)   ¹*Dekam zep   hëndep   ho   namwa yal-na   hata-k-Ø*
        then   therefore eventually water flood   big-DEF   come-P-A.F

        ²*dekam zep   kïtak tap   gul-su-k-Ø*
        then   therefore all   finish   A.SG.CAUSE.U.F-COMPL-P-A.F

        zi   nol   drakdrak-na in-sa   ³Alap zëre mo
        men   head   hard-DEF   that-U   God his POS

        dwam gwi-bi-n   sin   de ë-gwë-n   srëm-na.
        desire   REPET-DAT.F-NT ALL OF A.PL-live-NT not-DEF
        ¹And so that big flood came, ²and finished off all those hard-headed people,
        ³(whose) **lives** were outside of God's **will**.
        (The two nominalisations of clause 3 are more literally: **the direction of**
        God's **will** OF **not behaving ones**.)

The first clause of example (50) above is straightforward. The pivot for the first two
clauses is the actor, *ho namwa yala* 'the big flood' that 'came' and 'finished off'. The third
part of the sentence is a phrase describing the definite undergoer of the second clause, 'those
hard headed people'. The phrase including the allative nominalisation before the *de*, *Alap
zëre mo **dwam gwibin sin**, might be translated as 'aiming at God's will'. On the other side
of *de*, the second nominalisation has the same form as the nominalisations via the definite
marker discussed earlier, *ëgwën **srëmna*** '(manner of) life not'. The verb-internal negative
srëm is used freely in Orya nominalisations. The whole final phrase functions much like a
relative clause, but does not have the structure of an Orya relative clause.

The descriptor particle also stands between an adverbial and a noun, as in example (51):

(51)   *dekam de zi*
        then   OF man
        person/people of that time

In example (52), the last sentence from the same sermon as (50), the descriptor particle
stands between a complex adverbial and a nominalisation:

(52)   ¹*Yesus zën   sa   nëp enlala-nak   aha-en   aha-en-kam*
        Jesus   himself FUT.AUX   to.us thoughts-LOC   one-only   one-only-MAN

        srip   gul-su-zim-d-i
        explain   A.SG.CAUSE.U.F-COMPL-DAT.PL-REC-A.M

        ²*ano li   tabi-n-kim   de emsa*
        my   miss.speak   A.SG.CAUSE.U.PL-NT-MAN   of you-U

        tawa tabi-n-ni.
        teach   A.SG.CAUSE.U.PL-NT-DEF
        ¹Jesus himself will explain to us individually in our hearts (liver) ²my **tongue-
        tied teaching** of you.

The second part of example (52) is the undergoer noun phrase of the verb 'explain'. On
the adverbial side of the *-de* particle, the verb 'misspeak (plural words)', has been changed
into a manner adverbial with the addition of the non-temporal marker and the adverbialising
suffix *-kam*. On the other side is a nominalisation of the verb 'singular actor teach plural
undergoers'.

4. CONCLUSION

The Orya suffix -*na* is 'pivotal' in more than one sense of the word. As the definite marker, it is one of the primary means by which Orya speakers highlight one core nominal over another in the stream of discourse. When the definite marker is added to a verb + non-temporal marker, the verb is nominalised. The resulting nominalisations contain all the many parts of the agglutinative Orya verb except for tense and actor gender. These nominalisations take on the same roles as normal nouns marked with -*na*, that is, they take their places as actors or undergoers, they are possessed, or fill noun slots in complex sentence structures.

APPENDIX A: ORYA NOUN PHRASE CONSTITUENTS

Normal Orya Noun Phrase order is as follows:

(Possessor   POS)   NOUN   (Adjective)   (Deictic)   (Case)

A minimum noun phrase would be a single noun or pronoun. An Orya clause may be complete with no noun phrase at all, if the participant(s) are already understood in the discourse. A large expansion of an Orya noun phrase is as follows:

> *Ki zep Bernat mo tane mo gol tetek-na*
> and then Bernat POS son   POS house decrepit-DEF

> *in kon song gwe-k-a.*
> that ABL go   A.SG.LIVE-P-A.M
> And then he went **from that decrepit house of Bernat's son**.
> (In the appendix, bolding highlights the element being discussed.)

A.1 ACTOR AND UNDERGOER CASE PRONOUNS

Orya pronouns, like nouns, are clearly marked for case relations. Actor pronouns follow the same pattern as those of the neighbouring Nimboran language (Foley 1986:71):

Actor and Undergoer Pronouns

Person/Number	Actor	Undergoer	A=U (reflexive)
first person (SG/DU/PL.EXCL)	*ëe*	*asa*	*aenaka*
first person (DU/PL.INCL)	*nen*	*nësa*	*nënaka*
second person	*em*	*emsa*	*enaka*
third person (SG/DU/PL)	*zen*	*desa*	*zënaka*

Pivot-is-Coordinate Pronouns (As in the sentence: Boas **and he** (established pivot) went.)

Person	singular	dual	plural
first exclusive		*are han*	*aremaehan*
first inclusive		*nëre han*	*nëremaehan*
second		*ere han*	*eremaehan*
third		*zëre han*	*zëremaehan*

Normal/Nonpivot Coordinate Pronouns (As in the sentence: **Boas** and he (not necessarily pivot) went.)

Person	singular	dual	plural
first singular exclusive		*aban*	*abanmae*
first plural inclusive		*nëban*	*nëbanmae*
second dual		*eban*	*ebanmae*
third		*deban*	*debanmae*

If the two participants coordinated are of equal rank, one not leading or having seniority, the normal pronoun set may be used with the verb marking dual actors.

> ***Boas deban*** *song ë-k-a.*
> Boas and.he go   A.DU.LIVE-P-A.M
> **Boas and he** went.

However, if there is a clear difference in seniority or rank between the two participants to be coordinated, or if one has been established as a main actor in a narrative, the pivot-is-coordinate set would likely be used. In that case, *zëre han* would be used in place of *deban* above.

If names of persons are used for both coordinate nouns, the second name is marked with the coordinate postposition *han*.

> ***Boas Niko han*** *song ë-k-a.*
> Boas Niko and   go   A.DU.LIVE-P-A.M
> **Boas and Niko** went.

There is a morphological similarity between the normal coordinate set above and *ban*, a postposition used with ordinary nouns.

> ***Boas hlal-(n)a ban*** *song gwe-k-a.*
> Boas axe-DEF   and   go   A.SG.LIVE-P-A.M
> **Boas** went **with an axe**.

A.2 DATIVE AND NONCORE CASE PRONOUNS

Dative and noncore pronouns display the dichotomy between normal/nonpivot pronouns and pivot-controlled pronouns described in §2.6. Case-marking postpositions on these pronouns correspond to those used on nouns. The Orya prefer to write these postpositions separated from the noun or pronoun because this improves readability and makes the orthography look more like that of the national language. As explained in §2.4, the dative nominal cannot be pivot, but the dative nominal may be coreferential with an actor or undergoer pivot.

Dative-is-also-pivot pronouns

Person	singular	dual	plural
first exclusive	*are hap*	*arenik hip*	*aremaehap*
first inclusive		*nëre hap/nërenik hip*	*nëremaehap*
second	*ere hap*	*erenik hip*	*eremaehap*
third	*zëre hap*	*zërenikhip*	*zëremaehap*

Normal dative pronouns

Person	singular	dual	plural
first exclusive	*abehap/ap*	*abenik hip*	*abemaehap*
first inclusive		*nëbe hap/ëp/nëbenik hip*	*nëbemaehap*
second	*ebehap/ep*	*ebenik hip*	*ebemaehap*
third	*zëbe hap*	*zëbenik hip*	*zëbemaehap*

Possessor-is-pivot pronouns

Person	singular	dual	plural
first exclusive	*are mo*	*arenik mo*	*aremaemo*
first inclusive		*nëre(nik) mo*	*nëremae mo*
second	*ere mo*	*erenik mo*	*eremaemo*
third	*zëre mo*	*zërenik mo*	*zëremaemo*

Normal possessive pronouns

Person	singular	dual	plural
first exclusive	*ano*	*anonik mo*	*anomaemo*
first inclusive		*nëno(nik mo)*	*nënomaemo*
second	*eno*	*enonik mo*	*enomae mo*
third	*zëno*	*zënonik mo*	*zënomaemo*

It is impossible to assign a single precise meaning to the next set of pronouns. This set is used for means in sentences such as 'Boas sent the letter (hand-carried) **by him**'. The same set is used for benefactive in sentences like 'Boas works **for him**'.

Benefactive/means is-pivot pronouns

Person	singular	dual	plural
first exclusive	*are hon*	*arene bon*	*aremaehon*
first inclusive		*nërene bon*	*nëremaehon*
second	*ere hon*	*erene bon*	*eremaehon*
third	*zëre hon*	*zërene bon*	*zëremaehon*

Normal benefactive/means pronouns

Person	singular	dual	plural
first exclusive	*abon*	*abonne bon*	*abonmae*
first inclusive		*nëbonne bon*	*nëbonmae*
second	*ebon*	*ebonne bon*	*ebonmae*
third	*zëbon*	*zëbonne bon*	*zëbonmae*

Pronouns for three other case roles follow the pattern of the benefactive/means pronoun set above. The postpositions below are substituted for the separately written postpositions

hon and *bon* above. Where *bon* is included in the pronoun, such as *ebon*, the postpositions below follow that pronoun.

Other cases using the authoritative pronoun set

Ablative	*onakon*
Allative	*osan (osan dep)*
Location	*onak*

Ablative	person	singular	dual	plural
Is pivot	third	*zëre onakon*	*zërene onakon*	*zëremae onakon*
Normal	third	*zëbon onakon*	*zëbonne onakon*	*zëbonmae onakon*

Instrument, manner, and time noun phrases are marked with the adverbialising suffix *-kam*. The adverbialising suffix is written as an enclitic attached to the last word of the noun phrase since, if separated, it can be confused with the adverb *kam* meaning 'at night'. Since instrument, manner and time noun phrases are rarely persons, they do not have an equivalent pronoun set.

APPENDIX B: ORYA VERB PHRASE CONSTITUENTS

The Orya verb phrase has eleven parts, of which only three are obligatory: the root, the tense/aspect suffix, and the actor gender suffix. Numbers refer to sections of the description below.

Tense/aspect auxiliary ... Adverb ... Verb complex

1

Verb Complex:

TAKE-ROOT-REDUP	CLASS Directional^{x2}	-REPET	-DAT	-Tense/Aspect	-ACTOR GENDER
2	3	1	4	1	5

The verb complex is phonologically one word, however; Orya speakers prefer to write the verb class markers separated from the verb stem. Directionals, when longer than one syllable, are also separated from the preceding element of the verb. This vastly improves readability of the verb complex, which may extend to at least eleven syllables.

B.1 TENSE/ASPECT AUXILIARIES AND TENSE/ASPECT SUFFIXES

The first element of the verb phrase and the next-to-last element of the verb complex work together to express tense and aspect, but the system is not a symmetrical one. All three forms of past tense have the same auxiliary, but are differentiated by the tense/aspect suffixes. The present tense auxiliary is used with differing tense/aspect suffixes to mark aspect. The other auxiliaries work in agreement with the tense suffixes to mark tense only.

	Person		
	<u>first</u>	<u>second</u>	<u>third</u>
Past	*mesë ...-k*	*mese ...-k*	*mes ...k*
Recent	*mesë ...-l*	*mese ...-l*	*mes ...l*
Very recent	*mesë ...-nan*	*mese ...-nan*	*mes ...-nan*
Present	*ama ...'an*	*ema ...'an*	*man ...'an*
Future	*asa ...-l*	*esa ...-l*	*sa ...-l*
Irrealis	*de ...-'anam*	*de ...-'anam*	*de ...-'anam*

(The irrealis uses the descriptor particle in place of an auxiliary.)

Normal present tense is marked as in:

> *Zen* **man**   *sangsang gwe-***'ar**-*a.*
> he   PRES.AUX sick   A.SG.LIVE-PRES-A.M
> He **is** sick.

The present tense auxiliary is used in combination with the tense/aspect suffixes to mark durative aspect in the first of the next four examples, punctiliar past in the second, repetitive aspect in the third, and habitual in the fourth.

> *Zen* **man**   *sangsang gwe-***k**-*a.*
> he   PRES.AUX sick   A.SG.LIVE-P-A.M
> He was sick for a period of time (in the past).

> *Zen* **man**   *sangsang gwe-***'an**-*k-a.*
> he   PRES.AUX sick   A.SG.LIVE-PUNCT-P-A.M
> He was sick **at that point** in time (in the past).

> *Zen* **man**   *sangsang* **gwe**-*gwe-k-Ø.*
> she   PRES.AUX sick   A.SG.LIVE-REPET-P-A.F
> She was sick **again and again** (in the past).

> *Zen* **man**   *sangsang* **gwe**-*gwe-nan-Ø.*
> she   PRES.AUX sick   A.SG.LIVE-REPET-REC-A.F
> She is continually/frequently sick.

The repetitive aspect marker may be placed before any of the tense/aspect suffixes. It is homophonous with the *gwe* verb class marker glossed in this paper as LIVE. As in the last example above, verbs with the *gwe* class marker may also be marked with the *-gwe* aspect marker, resulting in *gwe-gwe*. The *-gwe* aspect marker is never inflected for actor number like the *gwe* verb class marker.

An adverbial phrase may optionally be contracted with the past auxiliary (*mesë, mese,* and *mes*). When this happens, the last word of the adverbial phrase is suffixed with *-ë, -e,* or *-Ø* for first, second, or third persons respectively.

> *Ëe karek-kam-ë*   *sangsang gwe-k-Ø.*
> I   bad-MAN-1(P.AUX) sick   A.SG.LIVE-P-1.A
> I was really sick.

B.2 'TAKE-' CAUSATIVE PREFIX

As stated in §2.7, the Orya *zer-/gol-* prefix set is clearly a grammaticalisation of an earlier serial verb construction involving the verb 'take'. The verb 'take' and this set of prefixes are

compared below. These are the only Orya verb prefixes. The effect of these prefixes is to increase valence, so that the verb has a clear actor and undergoer. The roles of actor and undergoer need not necessarily imply causation, since the prefix is often used to maintain the leading or leadership roles that have been set up, as was seen in several places in §2.7. Note that dual and plural undergoer forms are not as closely related as the singular undergoer forms.

Independent verb	Causative prefixes		
'Take'	'TAKE-'	Actor number	Undergoer gender/number
gol	*gol-*	singular	singular female
ol	*ol-*	dual	singular female
nol	*nol-*	plural	singular female
zer	*zer-*	singular	singular male
ër	*ër-*	dual	singular male
nër	*nër-*	plural	singular male
tesya	*zi-*	singular	dual
lesya	*i-*	dual	dual
desya	*ni-*	plural	dual
lop-ta	*golë-...-bir*	singular	plural
lob-la	*olë-...-bir*	dual	plural
lop-da	*nolë-...-bir*	plural	plural

B.3 VERB CLASS MARKERS

Orya regular verbs consist of a verb stem followed by a verb class marker. The classification scheme below and the notion of operators is based on Foley and Van Valin (1984:36-74), who based their work on that of David Dowty. In this theory, there are four classes of verbs: stative, achievement, activity, and accomplishment. The four classes are differentiated by the presence of operators BECOME, DO, and CAUSE. Stative verbs have no operators. Achievement verbs have the operator BECOME, so the verb 'die' is analysed as having a logical structure of 'BECOME not live'. Orya displays a high degree of correlation between the semantic operators originally proposed by Dowty and the verb class marking system.

Examples of meaning change with Verb Class Markers

tawa-na	knowledgeable	(Stative verb)
tawa gwe	learn	(BECOME know)
tawa gwe (tawa gwi-bil)	study (study about it)	(DO BECOME know)
tawa ta	teach him	(DO CAUSE BECOME know)

The two sets of Orya verb class markers, similar to the 'TAKE-' causative prefixes, are clearly grammaticalisations of earlier serial verb constructions. The verb class markers are suppletive morphemes corresponding to independent irregular verbs with the same suppletive characteristics. Dowty's four-part scheme is not quite appropriate for Orya, however, since two verb classes, activity verbs (having the operator DO) and achievement verbs (having the operator BECOME), are marked with the various forms of *gwe*. However, in defense of Dowty's theory, it is significant that the irregular Orya verb *gwë*, which corresponds with the

gwe marker, possesses both an activity sense 'live, stay', and an achievement sense 'happen'. The various forms of *gwe* have been glossed as LIVE in this paper.

Independent verb 'live/happen'	LIVE class marker	actor number
gwë	*gwe (gwi)*	singular
ë	*ë (ei)*	dual
lowehe	*ta/në (nei)*	plural

Orya accomplishment verbs (having the logical operators DO + CAUSE BECOME) are marked with the various forms of *gul/ta*. These suppletive morphemes encode not only actor number, but also undergoer number and gender, as does the corresponding irregular verb 'kill'. To kill a singular female is *gwi*, which corresponds to the feminine accomplishment class marker *gul*, and to kill a singular male is *ta*, which corresponds to the male accomplishment class marker *ta*. It may be that, in the process of serialisation, the verb 'kill' has undergone a gradual semantic bleaching as follows:

kill (affect mortally) > affect adversely > affect directly.

The various forms of *gul/ta* have therefore been glossed as CAUSE in this paper. Note the similarity of the paradigms below:

Accomplishment Verb Class Markers

Actor number	Undergoer gender/number			
	fem.sing.	male.sing.	dual	plural
singular	*gul*	*ta*	*so*	*tabi/guluda*
dual	*ul*	*la*	*oso*	*labi/ulida*
plural	*nul*	*da*	*noso*	*dabi/nulida*

Forms of the independent verb 'kill'

	fem.sing.	male.sing.	dual	plural
singular	*gwi*	*ta*	*zï*	*tamera*
dual	*ul*	*la*	*ïzï*	*lamera*
plural	*nul*	*da*	*nïzï*	*damera*

There are other Orya verbs with semantic undergoers that do not use the accomplishment set of class markers, but instead mark the undergoer with dative suffixes. Many, but not all, of these verbs are those where the undergoer is not actually changed or necessarily affected in a real way, such as 'tell him'. The undergoer nominal, however, receives the undergoer case marker, not the dative case marker. Examples of this are found in B.4 below.

B.4 DATIVE VERBAL SUFFIXES

Dative verbal Suffixes

singular female	*bir*
singular male	*bla(bwa/bya/bli/bli/blu)*
dual	*zim*
plural	*birida*

Some Orya activity verbs use the dative suffixes for the undergoer instead of the undergoer verb class markers. The undergoer nominal, however, is still marked with the undergoer case marker -*sa* and not with the dative case postposition *hap*. For instance, the activity verb *syal gwe* means 'work'. *Syal gwe-zim* means 'make dual object' or 'work with dual object'. Evidently verbs such as *syal* are marked in the lexicon as not being able to take the undergoer class marker set. For such verbs the dative suffixes do double duty, marking either dative or undergoer.

> *Pinihas   swe   **kursi-na   in-sa   syal***
> Pinihas   deceased   chair-DEF   that-U   make
>
> ***gwi-zim-k-i***   *abe   hap.*
> A.SG.LIVE-DAT.DU-P-A.M   for.me   DAT
> Pinihas, who has passed away, **made that chair** for me.

Note that in the example above, *kursi* 'chair' (a word borrowed from Indonesian) is marked as a definite undergoer. In Orya, nouns with legs or arms are dual nouns, so the dual dative suffix of the verb agrees with 'chair'. The dative nominal *abe hap* 'for me' can optionally be marked in the verb as well. On the rare occasions where this is done, there are two dative suffixes, the first referencing the semantic undergoer, and the second marking the semantic dative, as in:

> ...*syal   gwi-zim-**bli-k-a**.*
>   make   A.SG.LIVE-DAT.DU-DAT.SG.M-P-A.M
> ...made that chair **for me**.

B.5 ACTOR GENDER SUFFIXES

The suffix -*a* is used to mark male gender for third person singular and dual only. The same suffix is used as an honorific for second person, as explained in §2.8. The chart below shows that, when combined with tense/aspect suffixes, male forms for very recent/habitual and present/punctiliar are irregular.

Tense/aspect	3F.SG/DU 1SG/DU 1/2/3PL	3M.SG/DU 2SG/DU
Past	-*k*	-*ka*
Recent	-*l*	-*la*
Very Recent/Habitual	-*nan*	-*nda*
Present/Punctiliar	-'*an*	-'*ara*
Future	-*l*	-*la*

APPENDIX C: AN OLD STORY FROM NEMBOM TOL

This is the full Orya text of the folk tale written by Hans Tenani. Sentence numbering and highlighting matches the English translation in §2.7.

(23)   ᵃ**Zini bosena Aran Bak**. ᵇ**Zen** man Nembom Tol ë nakon has gweka. ᶜHwëna **zini in** Nembom Tol ë walsa hom. ᵈ**Zen** hwëna aha ë nakore zi zë gwëka, we gon zik mo ënak gwëka. ᵉZë kon zep kak tangannak has gweka Jaku hale san. ᶠ*Gwenya* desa zëk taka, *ngala* en *naka* anbla inki, desa bahla soka. ᵍ*Eini* man zë os ta guk halzaka, ka'an de otan Nembom Tol ë nakon song gweblan hap. ʰ*Yaklana* mes alan heka, dekon zep otan Jaku san zaheka, hata zaka Uhum dang gunnu, desan zep hwëna zahyaka, ki hata zaka Wina dang gunnuk. ⁱWinasa hlau'un zaka, "Lalak tanganna", desan zep zaheka. ʲSap **zini** man aïsïl dak, "Uhum dang gunnuk de *hata zanna*, Uhum en san emki zahyan. ᵏZen weyana lalakna. ˡDiki ahana–Zëno bosena Wina, – desan bahem. ᵐZen kïl-kïlï. ⁿZen zëno ananak ë gwenan, **we dowal dare** naye. ᵒZëno nik mo bosena **We Dare**. ᵖZen **We Dare**kam mae hap ki bose nosok: *Tahol Bak* mensa **wenam tol darena** tesyakake walen timnik, **desa** zë aning osoka Bati ne Sonsyan ne. �q**In zen** we dowal hap jok ëk, in zep bose nosok **We Dare**".

(24)   ᵃ**Aran Bak** kim Winasa hata haka, ngïrïnnïk weya tane bosena Disu Tïhï dang gunnuk, zë zep tolezim'inka. ᵇ"Wëo, zi **darena** an nër hom ki weyasa tëko hap aklanbir zahe'nara." ᶜDekon zep enlalak gweka, "O, an **we dowal darena** mensa nen gwizimninke. ᵈAn san ha **zen** mes ki yahenan yap". ᵉKi zep ki tana wei san zitïl zahe'anka. ᶠKim Winasa hata haka, Isrïm dang gunnuk dekon zep tolezim ane ane'an haka. ᵍ"Wëo, angkon tangan nër hom yahe'an. ʰ*Tana weina* kïlï ban." ⁱZë kon zep aïrï'anka, "O an **we dowal darena** mensa nen gwizimninke. ʲ**An zen** ki yahe'nan". ᵏKi zep ki otan weyana insa wale kïnï zahe'anka.

(25)   ᵃ**We dowal darena** in dekam hwëna tëkosa ngan labi'nik. ᵇAna nakon Winasa weya tane bosena Laga dang gunnuk, zë zep ake'an haka. ᶜZë kon zep en gublu'nak, "Naba tol. ᵈAsa bahem aïrïzimdin. ᵉAwek tol nikin aneza. ᶠËe asa **emsa** ërzaher are nik mo gol san, dobe maesa **eka** zëk ang gul kïnïha". ᵍDekon zep apdenak ërzahek zëre nik mo gol san. ʰGolak ërhatahak, ki zep ërtembane gwek. ⁱZëre mo *zaho tanena* desa lablak, dekam zep zëre mo *dobe banamdana* aulmublak. ʲZen kim nama ërtembane gwe'nak, yakla nik kim nabakam dum gwe he'anka, ki zep enblak, "O asa eis guzim. ᵏËe wangir walenna wakinsa ebe hap lanbla'an ora san eka tol ëheng so zahe".

(26)   ᵃKim nabakam *orapna* ansa kawesïn ulbli'ak, ki zep dekon enblak, "Namen tol bahem gwëhan. Man tangan kawesï'nïn". ᵇHom hëndep gwë halka. ᶜZë zep ki **we dowal darena** in ërtak. ᵈZëk aïsïl-aïsïl lak, "Asa bahem tol aïrïzimdin. ᵉËe asa emsa ka'an Nembom Tol ënak zon la guluhal".

(27)   ᵃKa'an kak'nen tangannak ërsong gwek. ᵇ**Zini Aran Bak** mo *enlala dawemna* mes srëm lablak. ᶜDekam man kïl soka, "An we tangan". ᵈDekam hom mensa enlalak gweka, amakan, "O eiwa, asa man sap aïsïl dak, amakan, '**Wenya** zëk dan ë gwenan, **we dowal darena**'". ᵉIn mes hwëna eititi lak.

(28)   ᵃËnak kim ërgolek gwehak, dekam zep Nembom Tol ë nakon kara da ane guhuk, dekon zep ëguk, "O in **Aran Bak** men zen ir has gwe song gwen nakim ta kïnïkake. ᵇ**In zen** zahya'ara". ᶜHwëna **wenya dan-dan zen mo** ngïrïnnïk ëblalne, *ahakorena* man zë kon ëguk, "In aha ë nakore zi mes yap song gwe'an zala". ᵈ*Ahakon* man ëguk, "**In Aran Bak** zahya'nara".

(29) ^aKi zep hata zaka ënak, dekon zep nen gubluk, "Wëo, **em** hwëna e 'nene hata'nara! ^b**Ëe** dwan angkon kië em*sa* kara la ane gusun. ^c**Wenya dan** zen man em*sa* ngïrïnnïk ëblalne".

(30) ^a"In san ha ano lun san mes yap zahya'nara yap, we dare **zi**? ^bIn desae kara la gusun. ^c**Ëe** onda kore **wenya** ban de zizahyan hap?!".

(31) Ki zep dakensïblïk, "**Em** ir ondawek taka?".

(32) "O, **ëe** halenak-ë ki te alasa eyas gulonk".

(33) ^aMensa **we dare** han zitaka, hom enlalak gweka. ^bKi zep hëndep ewe'anka, dekon zep we zemka¹¹ gubirki, "**Ap** syauknu i tasïblï. **Ëe** ama ewe'an". ^cKi zep hëndep ewen naban yal-yal gwe'anka. ^dHom holo gwe'ak, ki zep wëk gweka. ^eHom hën orapna zausu'nuk, ki zep tïlsïkï, *tokna*. ^fDekon zep nasalzim anek **we dowal darena insa** kim nga-ngol ëkïnïonk, "Ëhë! hyëe!".

(41) [Dekam zep nasalzim anek, **ngangol ë kïnï oranna**.]

(34) ^a"O an **zen** mo zëno angna ër zen! ^bIn zep nga-ngol ë kïnïnanon! ^c**An zen** mo ir ërtak zen! ^dZëre mo golak an zep mo tïlïdane!".

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11   The possessive pronoun used here, *we zem-ka* ('his wife') is a contraction of *zëre mo we-nya-ka*, a member of the pivot-controlled pronoun set.