Balinese morphosyntax:
a lexical-functional approach
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Pacific Linguistics 547
Balinese morphosyntax: a lexical-functional approach

I Wayan Arka

Pacific Linguistics
Research School of Pacific and Asian Studies
The Australian National University
In memory of my father:

I Made Pugir
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</tr>
<tr>
<td>2</td>
<td>Second-person pronoun</td>
</tr>
<tr>
<td>3</td>
<td>Third-person pronoun</td>
</tr>
<tr>
<td>1/2</td>
<td>First- or second-person pronoun</td>
</tr>
<tr>
<td>A</td>
<td>Actor argument of a transitive verb</td>
</tr>
<tr>
<td>APPL</td>
<td>Applicative</td>
</tr>
<tr>
<td>ART</td>
<td>Article</td>
</tr>
<tr>
<td>AV</td>
<td>Agentive voice</td>
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<td>CAUS</td>
<td>Causative</td>
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<tr>
<td>DEF</td>
<td>Definite</td>
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<td>DUP</td>
<td>Duplicative (Mohawk)</td>
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<td>ERG</td>
<td>Ergative</td>
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<td>F</td>
<td>Female</td>
</tr>
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<td>FACT</td>
<td>Factual (Mohawk)</td>
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<td>FOC</td>
<td>Focus</td>
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<td>FUT</td>
<td>Future</td>
</tr>
<tr>
<td>h.r.</td>
<td>High register</td>
</tr>
<tr>
<td>INDEF</td>
<td>Indefinite (Mohawk)</td>
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<tr>
<td>l.r.</td>
<td>Low register</td>
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<tr>
<td>l-subj</td>
<td>Logical subject</td>
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<tr>
<td>M</td>
<td>Male</td>
</tr>
<tr>
<td>N</td>
<td>Neuter (Mohawk)</td>
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<td>NEG</td>
<td>Negative particle</td>
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<tr>
<td>NOM</td>
<td>Nominative</td>
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<td>NOMLZ</td>
<td>Nominaliser</td>
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<tr>
<td>NSF</td>
<td>Noun suffix (Mohawk)</td>
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<tr>
<td>OV</td>
<td>Objective voice</td>
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<td>PART</td>
<td>Particle</td>
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<td>PASS</td>
<td>Passive</td>
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<td>PERF</td>
<td>Perfective</td>
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<tr>
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<tr>
<td>PRE</td>
<td>Nominal inflection prefix (Mohawk)</td>
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<td>PROG</td>
<td>Progressive</td>
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<td>PUNC</td>
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<td>Q</td>
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<td>QW</td>
<td>Question word</td>
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<td>REC</td>
<td>Reciprocal</td>
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Abbreviations used in text

A  Actor or Transitive Agent
AFF  The AFFECT primitive in the conceptual structure
Agt  Agent
a-obj  Argument-structure object
ARG  Argument of the a-str
a-subj  Argument-structure subject
a-str  Argument structure
AVM  Attribute Value Matrices
Ben  Benefactive
COMP(L)  Complement (function)
c-str  Constituent structure
d-fns  Discourse functions
f-str  Functional structure
GB  Government Binding Theory
GF  Grammatical function
gf-str  Grammatical function structure
Go  Goal
HPSG  Head-driven Phrase Structure Grammar
LFG  Lexical Functional Grammar
LMT  Lexical Mapping Theory
l-obj  Logical object
O  Transitive Patient/Object
OBJ  Grammatical object
OBJθ  Object theta or restricted Object
OBLθ or OBL  Oblique
OT  Optimality Theory
P  Patient argument of a transitive verb
prag-str  Pragmatic structure
PRED  Predicate attribute in the (grammatical) functional structure
Pt  Patient
Q  Quantifier
QF  Quantifier float
RRG  Role and Reference Grammar
S  Intransitive subject
sem-str  Semantic structure
Spec  Specifier
SUBJ  Grammatical subject
TCOMP  Term complement
Th  Theme
## Abbreviations

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<td>TNS</td>
<td>Tense</td>
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<tr>
<td>TOP</td>
<td>Topic</td>
</tr>
<tr>
<td>U</td>
<td>Undergoer</td>
</tr>
<tr>
<td>XARG</td>
<td>Argument with control</td>
</tr>
<tr>
<td>XCOMP</td>
<td>Complement function with control</td>
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## Category labels

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<td>Adverb</td>
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<td>ADVP</td>
<td>Adverb Phrase</td>
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<tr>
<td>AP</td>
<td>Adjective Phrase</td>
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<tr>
<td>C</td>
<td>Complementiser</td>
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<tr>
<td>CP</td>
<td>Complementiser Phrase</td>
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<tr>
<td>D</td>
<td>Determiner</td>
</tr>
<tr>
<td>DP</td>
<td>Determiner Phrase</td>
</tr>
<tr>
<td>I</td>
<td>Infl, the inflection or the auxiliary node</td>
</tr>
<tr>
<td>IP</td>
<td>Infl Phrase</td>
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<tr>
<td>N</td>
<td>Noun</td>
</tr>
<tr>
<td>NP</td>
<td>Noun Phrase</td>
</tr>
<tr>
<td>P</td>
<td>Preposition</td>
</tr>
<tr>
<td>PP</td>
<td>Prepositional Phrase</td>
</tr>
<tr>
<td>S</td>
<td>Sentence (traditional) or flat sentence structure</td>
</tr>
<tr>
<td>Spec</td>
<td>Specifier</td>
</tr>
<tr>
<td>V</td>
<td>Verb</td>
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<td>VP</td>
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Acknowledgements

This book is a slightly revised version of my PhD dissertation submitted to the department of Linguistics, University of Sydney, in March 1998. I do not include Chapter 8 of the dissertation (Pragmatic structure) in this book in order to have coherent and focussed discussions of Balinese morphosyntax. Some references and discussions have been updated but the basic claims remain the same.

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Introduction

Balinese, a language in a sub-group of western Austronesian, is spoken by around three million speakers, mainly on the islands of Bali and Nusa Penida, but also in the western part of Lombok, and in some transmigration areas in other parts of Indonesia, such as Sumatra and Sulawesi.

There have been several linguistic studies of Balinese, mainly in the form of PhD dissertations. Hunter (1988) and Beratha (1992) are historical-descriptive in perspective, Artawa (1994) is typological, highlighting the ergativity in Balinese syntax, and Clynes (1995) is also descriptive, focusing on Balinese phonology and morphosyntax (based on the dialect of Singaraja). Pastika (1999) is functional, focusing on the voice selection in Balinese narrative discourse. Previous work on Balinese, not in the form of dissertations, also consists essentially of descriptive sketches of grammar, e.g. Kersten (1970), Barber (1977), Oka Granoka et al. (1985).

Serious theoretical discussion of how morphosyntax and semantics/pragmatics interact in Balinese has not yet been attempted. Previous researchers have presented good facts of Balinese syntax and morphology, but they have not been precise enough in their formulations/representations to capture the intricacies. It is not surprising that vexed questions such as the nature of grammatical relations in Balinese, and its typological orientation (accusative, active, or ergative), are not well explored to any considerable depth, and that these studies by and large fall short in making any theoretical claims and predictions in the linguistic study of Balinese.

This book is an in-depth, lexicalist, study of Balinese, aimed at filling the gap in the theoretical study of the language. It is focussed on the interaction between three important linguistic domains: morphosyntax, semantics and pragmatics. Its general goal is to discover the interactions within and between structures in these domains, and to make precise proposals as to how they can be captured.

This study has the following specific aims: firstly, to discover the nature of grammatical relations in Balinese; secondly, to provide a well-motivated account of the typological organisation of Balinese (accusative, active, or ergative); thirdly, to discover how the findings from the first two inquiries may lead to a better understanding of the universal or language-specific mapping of semantics onto (surface) syntax; fourthly, to gather evidence from Balinese to test the hypothesis that ‘prominence’ plays an important role in grammar, by investigating morpholexical processes such as applicativisation and causativisation.

The data used in this study were collected from different sources. Data having specific sources, quoted from real language use, are indicated by an abbreviation within parentheses at the end of each example. I attempt to illustrate my points by citing real uses.
Chapter 1

of Balinese in written texts (novels, drama plays, short stories, traditional stories, etc.) as well as in conversations. The written texts are selected arbitrarily and reflect a wide range of uses (formal and informal). The recorded data are based on Badung speakers.

Judgements of (un)acceptability (of the data that have no sources quoted in the examples) reflect the Badung dialect (i.e. my own/informants' dialect in the village of Tegal-Darmasaba, Badung). However, the claims made based on the data in this book are believed to apply also to other Balinese dialects, since Balinese dialects differ mainly in lexical stocks and pronunciations/intonations. It is likely that they do not exhibit significant differences in syntactic organisation.

This book consists of six main chapters (Chapters 2–7), followed by a conclusion (Chapter 8).

Chapters 2 and 3 deal with grammatical relations in Balinese. Chapter 2 is a detailed study of subjecthood. I argue that Balinese exhibits a well-defined notion of grammatical subject: an NP that has exclusive privileges with respect to certain syntactic phenomena such as relativisation, raising, control, and fronting as a question-word.

Chapter 3 demonstrates a well-defined notion of termhood in Balinese. Arguments classified as terms have certain syntactic properties distinguishing them from obliques, in relation to Quantifier Float, pronominal copy, depictive predicates and the possibility of a zero Actor in imperatives. I argue that there are three main types of voice distinguished in the Balinese voice system: agentive voice (AV), objective voice (OV), and passive. Crucially, it is argued that AV is not antipassive and OV is not passive. Also, voice-marking change and the concomitant change in subject selection associated with double-object constructions suggest that Balinese has a symmetrical system.

Chapter 4 deals with Balinese phrase structure, based on a version of X-bar theory (Bresnan 2001; King 1995; Kroeger 1993). The standard constituency tests (joint-fronting, material intervention, gapping, etc.) suggest that Balinese is a configurational language with relatively rigid word order. I argue at length that Balinese has a VP, and that it does not show convincing evidence for an incorporation analysis. Phrase-structure schemas are proposed which account for strict word order as well as possible variations, with certain pragmatic implications, such as extraposition associated with topicalisation.

Chapter 5 deals with the issue of mapping regularities: how arguments are expressed syntactically. I argue for an indirect semantics-syntax relation involving two kinds of mapping: a-mapping (semantic structure \(\text{sem-str} \iff \text{argument structure (a-str)}\)) and f-mapping (argument-structure \(\iff \text{grammatical-function structure (gf-str)}\)). The a-mapping principles are driven by prominence matching and the f-mapping principles are regulated by means of underspecification with regard to features \([+/-\text{term}]\) and \([+/-\text{pivot}].\) It is demonstrated that the proposed mapping principles capture the fact that a logical subject/Agent may have three possible syntactic realisations: SUBJ, OBJ and OBL.

The conception of a syntacticised \(a-str\) is introduced, and its significance as an intermediate structure between semantics and surface syntax is illustrated in raising and control constructions, where complex arguments are involved. It is shown that there is no one-to-one correlation between \(a-str\) and \(gf-str,\) e.g. a complex argument at the level of

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1 The examples taken from recorded conversations have their source marked as TAPE. Other sources are from written texts, a list of which appears on p. 270.

2 Data checking to determine degrees of acceptability with certain constructions was done during a two-month period of field work (November–December 1996).
a-str is not always mapped onto a (X)COMP, but rather, based on the voice alternations and subjecthood tests, it can also be the surface SUBJ or OBJ.

Chapters 6 and 7 deal with binding and morpholexical processes. Both chapters further illustrate the significance of prominence in grammar, especially in a-str and sem-str. Chapter 6 explores Balinese causativisation and applicativisation, which are marked by the same (homonymous) morphemes -ang/-in. It is argued that these morphemes may have similar a-strs, which are inherently three-place structures, with the third argument being optional, awaiting the availability of an argument from the stem. They differ, however, in the argument fusion, which is assumed to take place in sem-str: causatives have the second argument (Causee) fused with either the Actor or the non-Actor of the stem, whereas applicatives have the matrix Actor fused with the Actor of the stem. The proposals for the parallel structures of causatives and applicatives are defended by showing evidence from reflexive binding.

In Chapter 7, I further discuss binding, showing the significance of prominence by looking at operator binding (i.e. binding involving the quantifier sabilang ‘every’ and interrogative items such as nyen ‘who’, encen ‘which’), and different kinds of reflexives (simple and complex). I show that linear order is also a constraint on binding. Additionally, while a-str prominence is certainly crucial, prominence in other structures, particularly those of sem-str and gf-str, appears to play a crucial role for simple reflexives. This chapter proposes a parameterisation of Principle A with respect to certain domains and prominence at certain structural levels.

The conclusion (Chapter 8) highlights a number of important points emerging from the present study. It reiterates the fact that the parallel-structures-based model of grammar accounts for mapping and grammatical function alternations, it reaffirms that Balinese has an active system, and it discusses critically the need to be aware of different kinds of information associated with different layers of structures, in order to avoid applying inappropriate diagnostic tests.
2 Voice and subject properties

2.1 Introduction

This chapter deals with 'subject properties' in Balinese, and with its status on the accusative-active-ergative continuum of clausal organisation types.

I show that the structure of Balinese includes a well-defined notion of (surface) grammatical subject (SUBJ) characterised by the following properties:

- canonical preverbal position (§2.4.2)
- exclusive access to relativisation with (s)ane (§2.4.3)
- exclusive access to raising (§2.4.4)
- exclusive access to control (§2.4.5)
- exclusive access to fronting as a question word (§2.4.6)
- privileged access, among term arguments, to extraposition to sentence-final position and contrastive focus with anak (§2.4.7)

With a definition of SUBJ in hand, I am then able to show that Balinese is an 'active' language, i.e. one that equates Actor-like arguments of intransitive verbs with Actor-like arguments of transitive verbs, and Undergoer-like arguments of intransitive verbs with Undergoer-like arguments of transitive verbs. It turns out that Balinese makes this 'intransitive split' at a rather low point in a hierarchy based on notions such as volition/controllability and motion.

This chapter expands considerably on previous work, e.g. Hunter (1988), Beratha (1992), Artawa (1994) and Clynes (1995). It begins with a consideration of the system of 'voice markings' which crucially underlies all further discussion.

2.2 Subject and voice markings

2.2.1 The grammatical subject (SUBJ)

The term 'subject' is used to refer to an argument characterised by 'subject-oriented' syntactic properties (to be discussed in detail shortly). This argument may be correctly called the SURFACE GRAMMATICAL SUBJECT, or more precisely in LFG terminology, the GRAMMATICAL FUNCTION SUBJECT, hence GF-SUBJ for short. (For clarity, I will frequently use GF-SUBJ, but SUBJ is also used when there is no problem of ambiguity). It should be differentiated from other kinds of subject such as a-
subject and logical subject. I will show (§2.4.2) that Balinese GF-SUBJ canonically comes in preverbal position. For example, the preverbal NPs in the Balinese sentences (1) and (2) (ia ‘(s)he’ and bawi-ne ‘the pig’, respectively) are both GF-SUBJs, in this sense:  

(1) ia pules
3 sleep  
‘(S)he is sleeping’

(2) a. Bawi-ne punika tumbas tiang (high register)  
pig-DEF that OV.buy 1

b. Tiang numbas bawi-ne punika
1 AV.buy pig-DEF that
‘I bought the pig’

(2a) contains a verb form called Objective Voice (OV) (Arka & Wechsler 1996; Wechsler & Arka 1998). In the OV construction, the Patient ‘the pig’ is GF-SUBJ. However, the same verb may appear in Agentive Voice (AV) (2b), indicated by a homorganic nasal prefix replacing the initial consonant. In the AV construction, the Agent is GF-SUBJ. Let me now go into a little more detail about voice marking in Balinese.

2.2.2 Voice marking

The AV/OV voice-marking contrast has been illustrated in (2) with a pronominal Agent. Here is another contrast with a non-pronominal NP polisi ‘policeman’:

(3) a. Nyoman ejuk polisi
name OV.arrest police

In the discussion throughout this book I will, if necessary, make the distinction explicit. For the definitions of different kinds of subject see footnote 11 in this chapter and also §5.2.

In morphemic glosses, first, second, and third person pronouns are represented by 1, 2, and 3 respectively. Most Balinese pronouns are unmarked for number and gender (except second person pronouns, which are marked for gender: c(a)l ‘2M’ vs ny(a)l ‘2F’). However, for simplicity I will often translate them as singular pronouns in the English paraphrases (e.g. ‘I’ instead of the more accurate ‘l/we’).

For the time being it is enough to say that Balinese has two registers (speech levels), kasar or ‘low’ register and alus or ‘high’ register. Certain lexical forms, including some pronouns, differ in the two styles. From now on, high register is indicated by ‘h.r.; low register examples are not marked. A more explicit and precise representation of the social information associated with the registers is given in Arka (1998).

The term Objective Voice was introduced by Kroeger (1993). It is traditionally called ‘Patient Focus’ in Philippine linguistics. It should be noted that I use the term OV in a slightly broader sense than Kroeger (1993) since the subject of the OV verb in Balinese (and also other Austronesia languages in Indonesia) is not strictly a Patient, rather it is an Undergoer (i.e. any non-Actor role).

Note that Balinese allows the AV verb with a definite Patient NP as in (2b). Other Austronesian languages (of the Tagalog-type) would prohibit this and would require OV instead. The voice selection (AV or OV) is determined by the (pragmatic) information structure associated with the Agent and the Patent of the transitive verb. Pastika (1999:113–115) points out that an overt definite NP object of the AV verb may show up in repetitive clauses where the patient is given emphasis and the Agent is pivotal (i.e. expressed as a zero or anaphorically controlled NP).
b. Polisi ng-ejuk Nyoman
   police AV-arrest name
   'A policeman arrested Nyoman'

The OV in (3a), as in (2a), is morphologically unmarked, and the AV in (3b), as in (2b), has a homorganic nasal prefix. The unmarked form can be thought of as having a zero prefix (Ø-) because there seems to be no convincing syntactic reason to regard either AV or OV as more basic than or as derived from the other. I argue in §3.2 that the AV/OV markings signal different mappings of the arguments, without syntactically changing their termhood status.

Hunter (1988) assumes that Balinese is ergative. Beratha (1992) recognises the ergative pattern in Balinese but does not discuss it in detail. Detailed discussion for the claim that Balinese is syntactically ergative (assuming that the OV form is basic) is given by Artawa (1994). In later work, Artawa, Artini and Blake (2001) claim that Balinese shows ergative constructions but make it clear that it does not mean that Balinese is necessarily an ergative language. Clynes (1995) argues for Patient primacy in Balinese but does not find any convincing evidence for the typological classification of Balinese into an ergative, accusative or mixed system (p.300) (although he discusses split intransitivity in Balinese). I argue that a closer examination of intransitive markings, discussed in §2.5, reveals that the term active system is more appropriate for Balinese.

There is another important voice in Balinese: the passive. I will argue in detail in §7.4 that Balinese has at least three kinds of passives. The following is a summary:

First, real passives (originally associated with high register, but currently also used for low register) marked by ka- as in (4):

(4) a. Jani gumi-ne merdeka ka-prentah (h.r.)
    now country-DEF free PASS-govern
    teken bangsa gelah. (KNK:23)
    by people own
    'Now the country has got freedom, it is governed by our own people'

b. Buku-buku-ne sane tebel-tebel patut ka-urukin (h.r.)
   book-RED-DEF REL thi ck-RED appropriate PASS-practice
   antuk siswa-siswa punika (ITN:16)
   by student-RED that
   'The thick books are the ones that are appropriate to be learned by the students'

[ng] is the form for a vowel-initial stem. [ng] is also used for a stem beginning with liquid sounds (i.e. [r] and [l]), in which case a schwa written as [e] may be inserted as in lempag 'hit' → ng-lempag or ng-e-lempag. An AV verb whose initial consonant has been replaced by a homorganic nasal is simply glossed without segmenting the form. Thus, naar 'eat' (from the stem daar) is glossed as 'AV.eat'. Also, for simplicity, the OV zero prefix is not represented, hence the OV verb Ø-daar is shown as daar and glossed as 'OV.eat'. However, segmentation is represented when the AV prefix can be clearly segmented as the case with the vowel initial stem, e.g. ejuk 'arrest' → ng-ejuk 'AV-arrest'.

The abbreviations within the brackets after the examples refer to the data source. The numbers after the colons refer to the pages of the data source. See the Abbreviation List on p. 270.
Second, another kind of passive has been developed from the third-person pronoun -(n)a as exemplified in (5):

(5) a. Nyoman baang-a pipi teken Wayan name give-PASS money by name
Nyoman was given money by Wayan

b. Denyut nadi tangan-ne Gusti Ayu Jinar pulse blood.vessel hand-3POSS name
priksan-a teken Nyoman Santosa (TLS:95) examine-PASS by name
‘The pulse in the blood vessel of Gusti Ayu Jinar’s hand was examined by Nyoman Santosa’

Third, there are resultative passives marked by ma-:

(6) a. Tusing ada warung ane nu m-ampakang (TLS:102)
NEG exist kiosk REL still PASS-open
‘There were no kiosks still open’

b. Kamar-e nomor 10 ento ma-sambung room-DEF number 10 that PASS-connect
teken kamar tamu-ne (TLS:103) with room guest-DEF
‘Room 10 is connected with the guest-room’

Another interesting question is whether Balinese has an antipassive construction. I will claim that it does not and that the transitive AV verb does not have the properties of an antipassive verb (see §3.2.5). While the intransitive ma-forms have been claimed to show antipassive alternations (Pastika 1997; Sidhakarya 1995), I will argue that the evidence for them is not really convincing (see §7.4.5.2).

2.3 The complement Actor: its forms

Unlike the Agent of the AV verb which appears as GF-SUBJ and shows up in preverbal position, the Agent of the OV verb appears as a complement in which case it appears in postverbal position. There are four forms:

First, the Agent can be realised as an indefinite NP:

(7) a. Wayan gugut cicing name OV.bite dog
‘A dog bit Wayan’

---

8 In Chapter 7, I will refer to the ka-passive exemplified in (4) as high passive and the -(n)a passive in (5) as low passive. The labelling is a matter of convenience based on the historical origin and the sociolinguistic aspects of the markers, without necessarily making a claim that they are strictly used for their respective registers in contemporary Balinese.

9 See §7.4.5.1 for details.
b. *Wayan gugut cicing-e ento
name OV.bite dog-DEF that
'The dog bit Wayan'

Second, it can be expressed as a postverbal free pronoun:

(8) Bawi-ne punika tumbas tiang (h.r.)
pig-DEF that OV.buy 1
'I bought the pig'

Third, it can take the form of a third-person pronominal clitic =a (=na, if the host is vowel-final) on the verb (low register only):

(9) a. Potlot-e ento edengin=a Wayan
pencil-DEF that OV.show=3 name
'She showed Wayan the pencil'

Finally, it appears as a PP Agent in passives, headed by the prepositions teken/boa(n) (generally for low register) and antuk (for high register):

(10) a. Buku-ne jemak-a₁₀ teken Wayan
book-DEF take-PASS PREP name
'The book was taken by Wayan'

b. Buku-ne ka-ambil antuk I Guru (h.r.)
book-DEF PASS-take PREP art teacher
'The book was taken by the teacher'

I will consider the grammatical status of postverbal nominals with OV verbs in §3.2.5. Detailed discussion of the syntactic distinction between OV and passive is given in §7.4.3–7.4.4.

2.4 SUBJ properties in Balinese

2.4.1 SUBJ in the parallel structures model of grammar

In the theoretical framework I adopt here, namely Lexical Functional Grammar (LFG), the grammar of a language is modelled as a set of parallel structures; each has its own properties and constraints (Bresnan 1995, 1996, 1998, 2001; Mohanan 1990, 1997; among others), and each represents a different dimension of the structure of the language (details of the parallel structures are discussed in Chapter 5). Crucially, the framework includes grammatical function structure (or (g)f-str), argument structure (a-str) and semantic-structure (sem-str). There are no transformational derivations. Grammatical relation alternations such as passivisation are handled by mapping alternations (see §5.3 and §7.4). Also, the term GF-SUBJ unambiguously denotes the ‘surface’ or ‘grammatical’ subject in the grammatical function structure. It is the argument which is picked out by relativisation,

₁₀ Note that the third-person pronominal suffix is segmented as -(n)a if it is understood as a passive marker (i.e. followed by an Agent Oblique PP) and as =-(n)a if it is understood as an enclitic (i.e. linked to an argument position). See §7.4.3–7.4.4 for details.
raising, and other 'subject-oriented' properties (see also Li & Thompson 1976). Following Manning (1994; 1996b), the most prominent argument in the argument structure will be called the a-subject.\textsuperscript{11} The a-subject is crucially distinct from the GF-SUBJ. For example, the Agent \textit{tiang} '1' is the a-subject in both sentences in (2), but it is the GF-SUBJ (i.e. grammatical subject) only in (2b); in (2a) the GF-SUBJ is the Patient, \textit{bawi-ne} 'the pig'.

I will adopt the idea that 'subject', or precisely GF-SUBJ, is essentially a syntactic notion. In this sense, it has a privileged status with respect to some grammatical processes such as relativisation, raising, etc. In this sense, GF-SUBJ corresponds to PIVOT (Dixon 1979, 1994; Foley & Van Valin 1984; Manning 1994, 1996b). It must be determined syntactically, not semantically. For example, the definiteness property (see Keenan 1976) should not be considered as a subjecthood test.\textsuperscript{12} (This does not imply that these properties are totally unrelated to subjecthood).

In what follows, I will look at a range of ways to identify GF-SUBJ in Balinese. I show that the preverbal arguments of OV, AV, and intransitive verbs group together as GF-SUBJ.

### 2.4.2 Canonical positions

For the present purposes, it is enough to point out that, in an unmarked structure, GF-SUBJ appears preverbally in Balinese.\textsuperscript{13} The evidence comes from the unmarked reading of intransitive and transitive constructions as well as from reciprocal constructions.

#### 2.4.2.1 Intransitive predicates

The easiest way to identify GF-SUBJ is with an intransitive predicate, because there is only one argument. On the assumption that there is only one GF-SUBJ and the GF-SUBJ is the highest function in the syntactic hierarchy (Bresnan 2001; Keenan & Comrie 1977; among others) and it is generally obligatory in a sentence, then this single argument must be the GF-SUBJ.\textsuperscript{14} Canonically, intransitive sentences in Balinese have SV order as in (11):

\(\text{(11) a. Angin gunung matulak ka segara (ITN:16)}\)

wind mountain go to sea

'The wind from the mountain blew to the sea'

\textsuperscript{11} These terms are used inconsistently, in part because of differences in theoretical assumptions:

<table>
<thead>
<tr>
<th>This document:</th>
<th>(GF-)SUBJECT</th>
<th>a-subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dixon (1979, 1994):</td>
<td>pivot</td>
<td>(logical) subject</td>
</tr>
<tr>
<td>Guilfoyle et al (1992):</td>
<td>topic(Spec,IP)</td>
<td>subject(Spec,VP)</td>
</tr>
<tr>
<td>Manning (1994, 1996b):</td>
<td>pivot</td>
<td>a-subject</td>
</tr>
<tr>
<td>Bresnan &amp; Kanerva (1989):</td>
<td>SUBJ</td>
<td>thematic subject</td>
</tr>
<tr>
<td>Foley &amp; Van Valin (1984):</td>
<td>Pivot</td>
<td>Actor</td>
</tr>
</tbody>
</table>

\textsuperscript{12} That Keenan's criterial status is not unproblematical is shown by Johnson (1977).

\textsuperscript{13} Balinese phrase structure will be discussed in detail in Chapter 4.

\textsuperscript{14} While this is true for Balinese, I do not want to imply that this is also the case for other languages.
b. Luh Kerti *bangun* (KA:114)
   name get up
   ‘Luh Kerti got up’

c. Ni Luh Sari *malaih* ka *rurung-e* (LS:3)
   name run to lane-DEF
   ‘Ni Luh Sari ran to(ward) the lane’

Inverting the order will yield a pragmatic implication where the verb is given prominence or contrasted, as in (12):

(12) a. *Ia* pules ditu (pragmatically unmarked)
   3 sleep there
   ‘(S)he slept there’

b. Pules *ia* ditu (pragmatically marked)
   sleep 3 there
   ‘(S)he SLEPT there’ (e.g. not HELPED other people)

To conclude, intransitive constructions suggest that the GF-SUBJ NP comes preverbally in the unmarked reading.

2.4.2.2 Transitive predicates

Transitive verbs also appear to have SVO order in the unmarked reading. That is, the GF-SUBJ NP comes before the verb, as in (13a). Inverting the order yields a pragmatically marked reading (13b) (note the translation):

(13) a. *Ida* ng-adol *bawi* (h.r.)
   3 AV-sell pig (pragmatically unmarked)
   ‘(S)he sold a pig’

b. Ng-adol *bawi ida* (pragmatically marked)
   AV-sell pig 3
   ‘(S)he SOLD A PIG’ (i.e. instead of DOING SOMETHING ELSE)

It should be noted that in order to get the intended reading as shown in (13b) the word order inversion is obligatory. A detailed discussion of the phrase structure analysis of pragmatically marked sentences is given in §4.3.5.2.

2.4.2.3 Reciprocals

More evidence that the preverbal NP is GF-SUBJ comes from reciprocal constructions. Balinese reciprocals are marked by *saling*. There are at least two points to note. Firstly, consider the contrast between (a) and (b) sentences in (14) and (15) below. For monotransitive reciprocals, OV verbs must be used, as shown in the (a) sentences. The corresponding AV verbs are not allowed, as in the (b) sentences:

(14) a. Manusa patut saling tulung (KA:115) (h.r.)
    human appropriate REC OV.help
    ‘Human beings ought to help each other’
b. *Manusa patut saling nulung human appropriate REC AV.help ‘Human beings ought to help each other’

(15) a. Cerik-cerik-e ento saling lempag child-child-DEF that REC OV.hit ‘Those children hit each other’

b. *Cerik-cerik-e ento saling nglempag child-child-DEF that REC AV.hit ‘Those children hit each other’

Second, the reciprocals (in the unmarked reading) have SV order. Indeed, inverting the order is not always possible. In contrast to the SV order in (14), VS is not possible, as shown by (16a):

(16) a. *Patut saling tulung manusa appropriate REC OV.help human ‘Human beings ought to help each other’

b. Saling lempag cerik-cerik-e ento REC OV-hit child-child-DEF that ‘Hitting each other was what the children did’

Definiteness seems to be a factor here. Note that the GF-SUBJ in (16a) is an indefinite/generic NP manusa ‘human’. When the GF-SUBJ NP is definite, as in cerik-cerike ento ‘the children’ in (15a), the reciprocal allows the GF-SUBJ to appear postverbally, as shown by (16b). The result is a pragmatically marked structure carrying a pragmatically different meaning. (See the contrast between (15a) and (16b)).

2.4.3 Relativisation

Keenan and Comrie (1977, 1979) argue for a hierarchy of ‘noun phrase accessibility’ with the subject at the top, then objects, and so on. The basic idea is that if a language can relativise on a lower ranked item (e.g. object) it can also relativise on any higher ranked item (i.e. subject). This should be interpreted as a strong cross-linguistic tendency (Fox 1987). In Balinese, only the purported subjects (i.e. GF-SUBJs) can be relativised. In (17), we have one-place predicates ‘thick’, ‘stupid’, etc., from which we know that their single argument is GF-SUBJ. Thus, the preverbal NP buku-buku-ne ‘the books’ in (17a) is the GF-SUBJ. In (17b), on the other hand, we have a zero nominal glossed as ‘the ones’ as GF-SUBJ of the relative clauses, which is in fact also the fronted OBJ of the matrix AV verb ngarenguang ‘take care’:

\[\text{In addition to subjects, possessors of subjects can be relativised as in (i), but not possessors of objects as in (ii):}\]

(i) Anak-e [ane panak-ne ngeling] ento person-DEF REL child-3POSS cry that ‘The person whose son is crying’

(ii) *[Anak-e [ane tiang ngalih panak-ne] person-DEF REL 1 AV.search child-3POSS ‘The person whose son I searched’

\[\text{15}\]
(17) a. Buku-buku-ne sane tebel-tebel sane patut (h.r.)
    book-RED-DEF REL thick-RED REL appropriate
ka-urukin...  (ITN:16)
PASS-teach
‘The books which are thick which are appropriate to be taught’

b. Lantas ane belog, ane bocok, ane tiwas
    Then REL stupid REL bad-looking REL poor
dong sing ada anak ngarengunang  (TLS:109)
PART NEG exist people AV.take.care
‘Then (the ones) who are stupid, who are bad-looking, who are poor,
    have no one to take care of them’

Now consider the following contrast with a transitive verb ‘bite’. To clarify the point,
the relative clause is put within brackets.

(18) a. Anak-e cenik [ane gugut cicing] ento
    person-DEF small [REL OV.bite dog] that
    ‘The child whom the dog bit’

b. *Cicing(-e) [ane anak-e cenik gugut ___ ] ento
    dog(DEF) [REL person-DEF small OV.bite ___ ] that
    ‘The dog that bit the child’

The acceptable sentence (18a) has its verb gugut ‘bite’ in the OV marking. The OV
Patient anak-e cenik ‘the child’, which is relativised, is understood as the GF-SUBJ. This
sentence is therefore fine. In (18b), in contrast, the OV patient is still in its preverbal
position; it is still the GF-SUBJ. But now the relativised noun is the Agent cicing ‘dog’
which is not GF-SUBJ. As a result, the sentence is not acceptable. When the verb
marking is changed into AV, which makes the Agent GF-SUBJ, then the noun cicing ‘dog’
can be relativised:

    c. Cicing(-e) [ane ngugut anak-e cenik] ento
        dog(DEF) [REL AV.bite person-DEF small] that
        ‘The dog that bit the child’

Here is another example in AV:

(19) a. Made Arini ane ng-anggon bungkung-e tenenan (TLS:105)
    name REL AV-use ring-DEF this
    ‘Made Arini who used this ring...’

b. *Bungkung-e tenenan ane Made Arini ng-anggon ___
    ring-DEF this REL name AV-use
    ‘This ring which Made Arini used ...’

The relativised NP Made Arini is the Agent-GF-SUBJ of the AV verb nganggon. The
relativisation is fine (19a). The post verbal NP bungkung-e tenenan ‘this ring’ is a Patient
complement. An attempt to relativise the complement fails (19b).

In the following examples, an attempt to relativise an OBL also fails (20b), whereas the
corresponding relativisation of the GF-SUBJ is fine (20a):
(20) a. Anak-e ane demen teken Nyoman
   person-DEF REL like to name
   'The person who likes Nyoman'

b. *Teken Nyoman ane anak-e demen
   to name REL person-DEF like
   'Nyoman, whom the person likes'

To conclude, only the purported GF-SUBJ can be relativised.

2.4.4 Raising

It is claimed that cross-linguistically only subjects may be raised (Chung 1978; Zaenen, Maling & Thráinsson 1985). Balinese has raising predicates which allow raising only of the purported subject argument (as noted by Artawa 1994). I will look at two kinds of raising: raising to 'subject' and raising to 'object'.

2.4.4.1 Raising to 'subject'

I will first give examples where the embedded verbs are intransitive. In this way, we know for certain that the raised argument is GF-SUBJ because this is the only argument available for an intransitive verb. Consider the following:

(21) a. Ngenah ia mobog
   seem 3 lie
   'It seems that (s)he is lying'

b. Ia ngenah mobog
   3 seem lie
   '(S)he seems to be lying'

In this intransitive verb example, the subject ia '(s)he' can be raised to the position to the left of the matrix predicate ngenah 'seem'.

More examples are illustrated by the predicates keweh (22) and sindah (23): the subject ia '3' (22b) and Nang Kepod (23b) are raised subjects:

(22) a. Keweh ia pules
   difficult 3 sleep
   'It is difficult for him/her to sleep'

   b. Ia keweh pules
   3 difficult sleep
   (Artawa 1994)
   'It is difficult for him/her to sleep'

(23) a. Sinah Nang Kepod dumunan seda sawireh
   apparent name earlier die because

16 In the following discussion, I employ the widely-used term 'raising', and the associated metaphors, to refer to the phenomena. This is for terminological convenience only and does not imply an analysis in which arguments of embedded predicates actually 'move' into their matrix clauses (see §5.2.4.4–5.2.4.5 for further discussion).
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Now let us look at the embedded predicates which are transitive, to test whether only GF-SUBJ can be raised. Consider the pair in (24), which basically mean the same, but differ in the voice marking of the embedded verb. (The bracketed clause is the complement of the predicate *ngenah* ‘seem/apparent’). The embedded GF-SUBJ in (24a) is the preverbal non-Agent argument *kapelihan-ne* ‘his/her mistake’ and the GF-SUBJ in (24b) is Agent *ci* ‘2’:

(24) a. Ngenah sajan [kapelihan-ne engkebang ci] (SUBJ = ‘mistake’) 
    seem much mistake-3POSS OV.hide 2

b. Ngenah sajan [ci ng-engkebang kapelihan-ne] (SUBJ = ‘2’) 
    seem much 2 AV-hide mistake-3POSS

‘It is very apparent that you are hiding his/her wrongdoing’

As expected, being the embedded subject, the OV Theme GF-SUBJ *kapelihan-ne* ‘his/her mistake’ (24a) and the AV Agent GF-SUBJ *ci* ‘2’ (24b) can raise. In contrast to the pair in (24), we can have the following pair (for clarity, the embedded GF-SUBJ position is represented by a dash):

(25) a. Kapelihan-ne ngenah sajan [__ engkebang ci] 
    mistake-3POSS seem much OV.hide 2

   ‘His/her wrongdoing appears to be being hidden by you’

b. Ci ngenah sajan [__ ng-engkebang kapelihan-ne] 
    2 seem much AV-hide mistake-3POSS

   ‘It is very apparent that you are hiding his/her wrongdoing’

The complements cannot raise, however. Referring to the pair in (24), the embedded Agent *ci* is the complement of the OV *engkebang* (a), and the Theme *kapelihan-ne* is the complement of the AV *ng-engkebang* (b). They cannot raise (26):

(26) a. *Ci ngenah sajan [kapelihan-ne engkebang __ ] 
    2 seem much mistake-3POSS OV.hide

   ‘It is very apparent that you are hiding his/her wrongdoing’

b. ?*Kapelihan-ne ngenah sajan [ci ng-engkebang __ ] 
    mistake-3POSS seem much 2 AV-hide

   ‘It is very apparent that you are hiding his/her wrongdoing’

Likewise, in (27) below, the verb *ngidemang* ‘close’ is in the AV form; the Agent *Nyoman Santosa* is the GF-SUBJ. It can be raised to the position of the matrix GF-SUBJ to the left of *keweh* (27a). *Paningalan* ‘eyes’, not being a subject, cannot raise (27b):
Voice and subject properties

(27) a. *Nyoman Santosa keweh ngidemang paningalan (TLS:98)
    name difficult AV.close eye

   b. ?*Paningalan keweh Nyoman Santosa ngidemang eye
difficult name AV.close

   ‘It was difficult for Nyoman Santosa to close his eyes’

Raising to SUBJ in Balinese seems to occur also with predicates such as enggal ‘quick’ (28) (example from Artawa 1994). Sentence (28a) shows the unraised version, (28b) the raised version and (28c) shows a failed attempt to raise the complement.

(28) a. Enggal tiang ng-adep umah
    quick I AV-sell house

   b. Tiang enggal ___ ng-adep umah
      quick I AV-sell house

   ‘It is quick for me to sell a house’

   c. *Umah enggal tiang ng-adep ___
      house quick I AV-sell

One might entertain the possibility that the purported raising predicates so far discussed are really adverbs. There are good reasons, however, for believing that they are predicates and not adverbs (see Wechsler & Arka 1998). For present purposes, I assume so.

To sum up, the purported GF-SUBJ of an embedded clause can raise to the position of the purported GF-SUBJ of the matrix clause. Non-GF-SUBJ arguments cannot raise. The patterning is based on the syntactic status of the arguments, not on their thematic role (see (24)–(26)).

2.4.4.2 Raising to ‘object’

Other Balinese raising verbs such ‘know’ may have AV/OV alternations: tawang (OV) vs nawang (AV). This means that they are transitive verbs containing at least two term arguments, the Actor and a non-Actor (in addition to another complex/clausal argument). (The precise analysis of raising in terms of the parallel structures is given in §5.2.4.4–5.2.4.5 and in relation to binding in §6.3.4.3). At this stage, the points to note are: (i) only the embedded GF-SUBJ can raise, and (ii) the raised argument can show up as either matrix GF-SUBJ or matrix complement. Thus, the label of ‘subject-to-object raising’ (SOR) is a misnomer for these constructions in Balinese.

Consider these examples:

(29) a. Tiang nawang Nyoman Santosa [ng-alih Luh Sari]
    I AV.know name AV-look.for name

   b. Nyoman Santosa tawang tiang [ng-alih Luh Sari]
      name OV.know I AV-look.for name

   ‘I knew that Nyoman Santosa looked for Luh Sari’

The verb tawang ‘know’ semantically takes the (whole) proposition ‘Nyoman Santosa looked for Luh Sari’ as the thing known. Syntactically, however, as shown by the bracketing in (29), the embedded subject Nyoman Santosa is taken as a syntactic dependent
NP of the matrix verb (see evidence for raising in §2.4.4.3 below, also §5.2.4.4–5.2.4.5). This is not obvious in (29a) where it occurs in its usual position before the embedded verb but it is clear in (29b). Here the embedded subject appears in the subject position of the matrix clause, marked as a non-Actor by the OV-marking on the matrix verb. In short, Nyoman is the purported GF-SUBJ of the embedded clause and can therefore raise to an argument position in the matrix clause (see §5.2.4.4–5.2.4.5 for a precise formulation of the a-str in raising verbs).

That only the purported embedded GF-SUBJ can raise into the higher clause is further illustrated by (30). It shows that any embedded GF-SUBJ argument can raise, for all four combinations of AV and OV on the matrix and embedded predicates (all four sentences have the same logical relations, indicated by the translation below):

(30) a. *Ia nawang Wayan lakar tangkep polisi (Wayan=lower S(pt) raised to O)  
   3 AV.know name FUT OV.arrest police

   b. Wayan tawang=a lakar tangkep polisi (Wayan=lower S(pt) raised to S)  
      name OV.know=3 FUT OV.arrest police

c. *Ia nawang polisi lakar nangkep Wayan (Police=lower S(ag) raised to O)  
   3 AV.know police FUT AV.arrest name

d. Polisi tawang=a lakar nangkep Wayan (Police=lower S(ag) raised to S)  
   police OV.know=3 FUT AV.arrest name

'He knew that the police would arrest Wayan.'

(31) illustrates the systematic failure of an attempt to raise any embedded object to either the subject or object position in the matrix clause:

(31) a. *Ia Nawang polisi Wayan lakar tangkep __  
   3 AV.know police name FUT OV.arrest

   b. *polisi tawang=a Wayan lakar tangkep __  
      police OV.know=3 name FUT OV.arrest

c. *Ia Nawang polisi lakar nangkep __  
   3 AV.know police FUT AV.arrest

d. *Wayan tawang=a polisi lakar nangkep __  
   name OV.know=3 police FUT AV.arrest

'He knew that the police would arrest Wayan.'

Here is another example, involving the matrix verb sadin 'believe'. (32a) has the embedded GF-SUBJ Nyoman as the matrix AV verb's complement. (32b) has the embedded GF-SUBJ Nyoman as the matrix OV verb's GF-SUBJ. Both sentences are fine. (32c) shows a failed attempt to raise the embedded non GF-SUBJ argument:

(32) a. Tiang tusing nyadin Nyoman [ngelah pipis liu]  
   1 NEG AV.believe name AV.own money much

   b. Nyoman tusing sadin tiang [ngelah pipis liu]  
      name NEG OV.believe 1 AV.own money much

17 But see evidence from example (33)–(34).
2.4.4.3 Evidence for raising

Evidence for raising comes from (i) structural position and (ii) adverbial insertion. The evidence from structural position lies in examples such as (29b), where the embedded GF-SUBJ appears separated from the embedded verb and in fact in the canonical position of the purported GF-SUBJ of the matrix verb, when the matrix verb has OV-marking. Both this and the raised argument’s postverbal position in the matrix clause (given AV marking) show that the raised argument is treated as a non-Actor in the matrix clause regardless of its Actorhood in the embedded clause.

Before tackling the evidence from adverbial insertion, I need to introduce an alternative argument structure that is an option for certain matrix verb taking a proposition as an argument (see §5.2.4.4–5.2.4.5 for conditions on this possibility). Consider (29a), repeated here as (33a):

(33) a. Tiang nawang Nyoman Santosa [ng-alih Luh Sari]
1 AV.know name AV-look for name
‘I knew that Nyoman Santosa looked for Luh Sari’

The evidence for the given bracketing comes from the existence of the alternation in (29b), repeated here as (33b):

b. Nyoman Santosa tawang tiang [ng-alih Luh Sari]
name OV.know 1 AV-look for name
‘I knew that Nyoman Santosa looked for Luh Sari’

But an alternative bracketing that treats the entire embedded clause as a term argument of the matrix verb is also available (33c), as shown by the alternation in (33d), where the entire clause appears in the matrix SUBJ position and the matrix verb has OV-marking:

c. Tiang nawang [Nyoman Santosa ng-alih Luh Sari]
1 AV.know name AV-look for name
‘I knew that Nyoman Santosa looked for Luh Sari’

d. [Nyoman Santosa ng-alih Luh Sari] tawang tiang
name AV-look for name OV.know 1
‘That Nyoman Santosa looked for Luh Sari, I knew (it)’

In short, it appears that the Balinese verb *tawang* ‘know’ has two argument structures: it can be a two-place predicate as exemplified by (33c–d), and it can also be a three-place predicate, its second argument being raised out of its third as exemplified in (33a–b). The verb *sadin* ‘believe’ behaves similarly.

Bearing this in mind, I turn now to the evidence from adverbial insertion. Consider sentence (34a):

(34) a. Cang (jani) nyadin ia (jani) // [ _-tusing lakar mulih buin]
1 now AV.believe 3 now NEG FUT go.home again
b. Cang (jani) nyadin jani ia // tusing lakar mulih buin
1 now AV.believe now 3 NEG FUT go.home again
'I now believe that (s)he will not return home again'

The adverbial jani ‘now’ can appear in several positions, but crucially, it can come after the matrix complement ia, and between ia and the embedded verb, while still modifying the matrix verb nyadin ‘believe’. This shows that ia is a constituent of the matrix, not the embedded, clause. (For this reading, there must be a clear pause after the adverb, marked in the example by a //.) Sentence (34b), with no material intervening between ia and the embedded verb, is structurally ambiguous: there may be no raising, especially if the intonational break is absent.

To sum up, verbs such as tawang ‘know’ and sadin ‘believe’ in Balinese may take clausal complements with or without raising. In the raising case, they are three-argument predicates with the second argument being the slot for the argument raised from the embedded GF-SUBJ. The raised argument, being the matrix second argument slot, is treated as a non-Actor argument. With the appropriate OV-marking on the matrix verb, the raised argument appears separate from the embedded verb, in the matrix GF-SUBJ position. Additionally, it may be separated from the embedded verb by adverbials belonging to the matrix clauses. These two phenomena are evidence that raising has occurred.

2.4.5 Control
2.4.5.1 The syntactic aspect of control

Control is another classic GF-SUBJ test: in many languages only a syntactic subject can be controlled (Zaenen, Maling & Thráinsson 1985). While this is not a categorical universal, however, Balinese control, like that of English, picks the GF-SUBJ. In consequence, voice-marking on the embedded verb must be switched in certain circumstances so that the controllee is properly controlled.

Consider the intransitive sentences in (35). The controllee coreferent with ia ‘3’ is the single argument of the intransitive verb (which is therefore the SUBJ):

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18 The adverb jani ‘now’ after the complement as in example (34a) could be interpreted as modifying the lower predicate (and hence giving no evidence for the matrix complement status of the raised argument) if the intonational break is omitted and also if the embedded clause has no auxiliary/temporal adverbial. For example, if there is no pause and the FUT auxiliary lakar and the adverb buin ‘again’ in (34a) are omitted then jani ‘now’ would likely be interpreted as modifying the lower verb ‘go home’ rather than the matrix ‘believe’.

19 To amplify on footnote 16, I use the term raising in a theory-neutral way. It does not imply a transformational process, and in the model of grammar adopted here, even when the embedded GF-SUBJ does not show up overtly in the surface constituency/c-str (as in example (33)), the embedded arguments are indeed filled in the grammatical function structure and argument structure representations (see §5.2.4.4–5.2.4.5). On these assumptions, there is no ‘movement’ from a lower to an upper argument position. It just happens that they are required to have referential/total identity through structure sharing and the argument must be (c-structure-wise) missing from the embedded clause. This is the essential idea of the raising constraint.

20 In Dyirbal (Bittner & Hale 1996; Dixon 1979, 1994), in Tagalog volitive clauses (Kroeger 1993) and in Polynesian languages (Chung 1978), the controllee must be the ‘a-subject/logical subject’, and not necessarily the GF-SUBJ.
The verbs *edot* and *makita* in (35) are intransitive and do not have AV/OV alternations. The verb *edot* can, however, take an applicative suffix *-ang*, which renders it transitive. It can then exhibit voice alternations:

(36) a. Ci edot-ang=a mati
2 OV.want-APPL=3 dead
(S)he wanted you to be dead/get killed'

b. Ia ng-edot-ang ci mati
3 AV-want-APPL 2 dead
(S)he wanted you to be dead/get killed'

Now consider the contrast in (37), where the embedded verb *sakinin* ‘hurt’ is transitive. The complement clauses differ only in the voice markings, which therefore cause the controllee *cai* ‘2’ to be associated with different grammatical functions. The controllee is the Agent-GF-SUBJ in the AV verb (37a) and Patient-GF-SUBJ in the OV-verb (37b). Note that simply switching the marking but retaining word-order in effect triggers different control relations and, as the translations suggest, different meanings. In contrast to (37a–b), attempts to control the complements give rise to bad sentences (37c–d):

(37) a. Cai edot [__ nyakitin bapa]? (KA:127)
2 want AV.hurt father
‘Do you want to hurt me (Father)?’

b. Cai edot [__ sakitin bapa]?  
2 want OV.hurt father
‘Do you want me (Father) to hurt you?’

c. *Bapa sing edot [cai sakitin __ ]
father NEG want 2 OV.hurt
‘I (Father) do not want you to hurt you’

d. *Bapa sing edot [cai nyakitin __ ]
father NEG want 2 AV.hurt
‘I (Father) do not want you to hurt me’

Here are some further examples from Artawa (1994) showing that the control constraint (i.e. only GF-SUBJ can be controlled) is respected in (38a) and (38b) but violated in (38c):

(38) a. Ia edot [__ meriksa dokter]
3 want AV.examine doctor
‘He wants to examine a doctor’

b. Ia edot [__ periksa dokter]
3 want OV.examine doctor
‘He wants to be examined by a doctor’
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c. *Tiang edot [dokter periksa_]
   1 want doctor OV.examine
   'I want to examine a doctor'

Another example involving the verb *majanji 'promise' (39a) has the lower GF-SUBJ controlled, hence the sentence is acceptable. Note that the embedded verb form is in AV, making the lower Agent GF-SUBJ properly identified with the matrix GF-SUBJ. In (39b), however, the verb form is in OV. The Agent is not GF-SUBJ and an attempt to control it fails:

(39) a. Ia majanji laker ng-aba-ang tiang kamben (KA:118)
    3 promise FUT AV-bring-APPL 1 clothes
   '(S)he promises that (s)he will bring clothes for me'

b. *Ia majanji kamben laker aba-ang tiang
    3 promise clothes FUT OV.br ing-APPL 1
   '(S)he promises that (s)he will bring clothes for me'

These observations demonstrate that in Balinese, following the prevalent pattern, only GF-SUBJ can be controlled.

2.4.5.2 The semantic aspect of control

While the controller is necessarily the grammatical subject in Balinese, the controller is not. The choice as to which matrix predicate's argument serves as a controller is not syntactically determined. Rather, it is determined by the semantics of the matrix verb (Foley & Van Valin 1984; Pollard & Sag 1994; Sag & Pollard 1991). The controller-controllee relation (or control relation, for short) is then both syntactically and semantically determined. The syntactic side has just been exemplified in the preceding subsection (§2.4.5.1). I now exemplify the semantic side, but at the same time, I give more examples confirming the syntactic side of control relations.

Following the classification of control relations in Sag and Pollard (1991) and Pollard and Sag (1994), we have the *orientation* type, the *commitment* type and the *influence* type.

The 'orientation' type in Balinese includes intransitive verbs such as *edot, makita 'wish*, *makeneh 'desire*, *perlu 'need* and *demen 'like (to do something)*. This type of control verb is characterised by having an Experiencer as controller. Illustrations using Balinese data have been given in the preceding subsection (e.g. examples (35)–(38)).

The 'commitment' type in Balinese includes verbs such as *majanji 'promise', *masumpah 'swear, vow', *nyak 'agree* and *negarang 'try, attempt*. The commitment type is characterised by having a committer as controller (i.e. the promiser, the swearer, etc.). This has been also exemplified in (39). The view that the control relation is semantic gets more support from the following contrast:

(40) a. *Ia nengarang [__ periksa dokter]
    3 AV.try OV.examine doctor
   '(S)he was trying to be examined by a doctor'

b. Ia negarang [__merika-ang awakne ka dokter]
    3 AV.try AV.examine-CAUS self to doctor
   '(S)he was trying to have himself examined by a doctor'
(40a) shows that the controlled argument is GF-SUBJ of the embedded verb *periksa*, satisfying the syntactic control constraint. However, the sentence is not really acceptable because the controlled argument is understood as the Patient, presumptively not in control over the event expressed by the embedded verb ‘examine’. (The semantic accommodation of ‘being cooperative’ is hard to get). Rather, the controller must be coreferential with an embedded argument understood to exercise control over the event expressed by the embedded verb (i.e. the embedded Agent). Thus, the idea in (40a) must be expressed by (40b), where an AV causative form (with a reflexive) is used, turning the embedded GF-SUBJ into an Agent/Causer.

Finally, the ‘influence’ type in Balinese includes verbs such as *tunden* ‘ask, require’, *ongkon* ‘ask, request, *orahin* ‘tell’, *perintah* ‘order’, *paksa* ‘force’ *baang* ‘allow, let’ and *larang* ‘prohibit’. The controller with this type of verb is the influenced argument; e.g. the Askee, not the Asker etc. Again, I argue for semantic determination of controller supporting Foley and Van Valin (1984), Sag and Pollard (1991), and Pollard and Sag (1994). Let me now show the evidence. Consider (41). Note the contrast where the voice marking of the matrix verb differs: AV *nunden* (41a) versus OV *tunden* (41b).

(41) a. Tiang nunden ipun maang Nyoman pipis
    1 AV.ask 3 AV.give name money

   b. Ipun tunden tiang maang Nyoman pipis
    3 OV.ask 1 AV.give name money

   ‘I asked him/her to give Nyoman money’

In either case the sentence is acceptable because both control relation constraints are respected. *Ipun* ‘3’ is understood as the Giver (embedded clause) and the Askee (matrix clause). That is, the embedded Giver is made GF-SUBJ by the AV verb in both cases (satisfying the grammatical requirement of the control relation). And, since the verb is of the influence type (i.e. ‘ask’), it is the Askee, not the Asker, who is responsible for the event denoted by the embedded verb. Because voice marking (AV or OV) is a function mapping marker (i.e. it reflects which argument becomes the GF-SUBJ), it follows that either voice is possible and that the meaning is preserved (see the translation for (41a) and (41b) above) as long as the embedded Agent is the matrix Patient/Askee.

Now, if the matrix verb’s voice marking is simply switched but the word-order is preserved, the control relation will change and so will the meaning:

(42) Tiang tun den ipun maang Nyoman pipis
    1 OV.ask 3 AV.give name money

   (i) *‘I asked him/her to give him/her money’
   (ii) ‘(S)he asked me to give Nyoman money’

The sentence is only acceptable on reading (ii). The unacceptability of reading (i) (which = sentences (41a,b)) is due to the violation of the semantic constraint on the control relation, because the matrix OV makes the preverbal nominal *tiang* ‘1’ a Patient-GF-SUBJ (i.e. the Askee, not the Agent/Asker) and therefore the controller of the embedded GF-SUBJ (which is the Giver because it is the AV Agent).

In the following sentences, the syntactic constraint on control is violated because the controller, while Agent, is not the GF-SUBJ. The sentences are all bad:

(43) a. *Ipun tunden tiang pipis baang Nyoman
    3 OV.ask 1 money OV.give name
b. *Ipun tunden tiang Nyoman baang _ pipiS
   3  OV.ask 1  name  OV.give  money

c. *Tiang nunden ipun Nyoman maang _ pipiS
   3  AV.ask 1  name  AV.give  money
   'I asked him/her to give Nyoman money'

All of the sentences are intended to mean the same as the translation suggests: the
controller and controlled argument NP is *tiang ‘1’. In (43a–b), *tiang is an Agent
complement whereas in (43c) it is a Benefactive complement.

In the following, the controllee is GF-SUBJ but not an Agent. The sentence is still bad:

(44) *Tiang nunden Nyoman [ __ baang ipun pipiS
   1  AV.ask Nyoman  OV.give 3  money
   ??‘I asked Nyoman to be given money by him’

This is because the Askee Nyoman, who is supposed to be the controller, the one in control
of the event described by the embedded verb, is actually a Benefactive, not an Agent (the
reading being forced by the OV marking on baang ‘give’). Thus, satisfaction of the
syntactic constraint alone does not seem to be enough: the GF-SUBJ must be perceived to
have a degree of control over the event.

The commitment type also shows a similar semantic restriction:

(45) *Tiang majanji baang Ipun pipiS
   1  promise  OV.give 3  money
   ??‘I promised to be given money by him’

The promiser who is supposed to be the person who is in control of the action/event (that
(s)he is promising) is a Benefactive. And as a result, the sentence is bad.

By way of contrast, English allows this sentence:

(46) I persuaded Fred to be examined by a doctor

Here the embedded Actor is the doctor and the controller is understood to be the Patient.
The sentence implies that Fred is a cooperative person (i.e. to have some degree of control
over the event). Balinese does not seem to allow a non-Actor controlled GF-SUBJ as
English does. Consider the unacceptable Balinese versions in (47a–b) (the sentences differ
only in the matrix verb voice marking):

(47) a. *Tiang ng-aju m Nyoman [ __ periksa dokter]
   1  AV-persuade  name  OV.examine  doctor
   ‘I persuaded Nyoman to be examined by a doctor’

b. *Nyoman ajum tiang [ __ periksa dokter]
   name  OV.persuade 1  OV.examine  doctor
   ‘I persuaded Nyoman to be examined by a doctor’

The corresponding sentences with AV subordinate clauses are acceptable but they have a
different meaning (i.e. the controlee Nyoman is the Agent):

c. Tiang ng-aju m Nyoman [ __ meriksa dokter]
   1  AV-persuade  name  AV.examine  doctor
   ‘I persuaded Nyoman to examine a doctor’
d. Nyoman ajum tiang [__ meriksa dokter]  
name OV.persuade 1 AV.examine doctor  
‘I persuaded Nyoman to examine a doctor’

To express the same idea as that in English example (46), a subordinate clause with a conjunction *apang*\(^{21}\) ‘so that’ and an explicit predicate specifying willingness to cooperate must be used:

(48) a. Tiang ng-ajum Nyoman\(_i\) [apang \(_i\) nyak periksa dokter]  
1 AV-persuade name so that 3 willing OV.examine doctor  
b. Tiang ng-ajum Nyoman\(_i\) [apang ia\(_i\) nyak periksa dokter]  
1 AV-persuade name so that 3 willing OV.examine doctor  
c. Nyoman\(_i\) ajum tiang [apang (ia\(_i\)) nyak periksa dokter]  
name OV.persuade so that 3 willing OV.examine doctor  
‘I persuaded Nyoman to be examined by a doctor’

The result is a structure which can be thought of as having a controlled argument (having no overt GF-SUBJ) as in (48a) (which is called anaphoric control, see §5.2.4.5 for further discussion). Or, if the GF-SUBJ is overt as in (48b), it is also generally understood to be corefential with the person persuaded, Nyoman (explicitly marked by the index, \(i\)). In contrast to (48a–b), (48c) shows the controller (Nyoman) as the matrix GF-SUBJ thanks to OV-marking, demonstrating again that changing the grammatical realisation of the controller does not alter the control relation.

To conclude, for the influence type and commitment type of control verbs in Balinese, the controlled argument must be not simply a GF-SUBJ, but specifically an Actor GF-SUBJ.

### 2.4.5.3 Controlled SUBJ of adverbial clause

To express a temporal coincidence/sequence of two clauses in Balinese, an adverbial clause can be used. The GF-SUBJ of the adverbial clause is controlled by the GF-SUBJ of the matrix clause, as in (49a). (49b), with OV-marking, shows that a non GF-SUBJ

\(^{21}\) The conjunction *apang* can also appear with the orientation type, as in (i):

(i) a. Ia edot __ sugih  
3 want rich  
‘(S) he wants to be rich’

b. Ia\(_i\) edot apang \(_i\) sugih  
3 want apang rich  
‘(S) he wants to be rich’

c. Ia\(_i\) edot apang ia\(_i\) sugih  
3 want apang 3 rich  
‘(S) he wants (him) to be rich’

The commitment type does not allow an *apang* clause:

(ii) a. Ia majanji teka  
3 promise come  
‘(S) he promised to come’

b. *Ia majanji apang ia teka  
3 promise apang 3 come
argument in the adverbial clause cannot be controlled. (The adverbial clause is enclosed in square brackets).

(49) a. Made Rawi macelep [ ng-aba yeh a lumbur] (NK:93)  
   name enter AV-bring water one glass

b. *Made Rawi macelep [yeh a lumbur aba ]  
   name enter water one glass OV.bring

‘Made Rawi entered bringing a glass of water’

The alternations in (50) show that the controller is always the GF-SUBJ of the matrix clause:

(50) a. Tiang ngaen-ang Nyoman surat [ ngeling]  
   1 AV.make-APPL name letter cry

   ‘I made a letter for Nyoman while I was crying’

b. Nyoman gaen-ang tiang surat [ ngeling]  
   name OV.make-APPL 1 letter cry

   ‘I made a letter for Nyoman while (and as a result) he was crying’

The understood GF-SUBJ of the (second) predicate ngeling ‘cry’ must be the matrix GF-SUBJ. In (50a), the matrix GF-SUBJ is the AV Agent tiang. The AV Goal/Recipient Nyoman cannot be understood as the person who is crying because it is a complement. In (50b), with OV-marking which makes the Goal Nyoman a GF-SUBJ, the situation is reversed. The OV Actor tiang ‘1’ becomes a complement; it can no longer control the GF-SUBJ of ngeling ‘cry’. Instead, the matrix GF-SUBJ Nyoman is the understood GF-SUBJ of ‘cry’.

There is a constraint to note: an overt pronoun cannot appear as the GF-SUBJ of the adverbial clause just exemplified. Thus in contrast to (50b), we cannot have a pronoun ia ‘3’ before the verb ‘cry’ (as a separate sentence, the bracketed string with ia is fine):

(51) *Nyoman gaen-ang tiang surat [ia ngeling]  
   name OV.make-APPL 1 letter 3 cry

   ‘I made a letter for Nyoman while (and as a result) he was crying’

However, in certain other types of subordinate clause in Balinese, zero pronominals are optional but are interpreted as taking the matrix GF-SUBJ. Consider:

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22 I distinguish the adverbial clause shown in (49) from a coordinated structure shown below where SUBJ and OBJ can be shared. The crucial difference is that the coordinate structure must appear with an explicit conjunction as in (a), otherwise the sentence is bad as in (b):

a. Ia maca tur menahin surat-e  
   3 AV.read and AV.correct letter-DEF

   ‘(S)he was reading and correcting the letter’

b. *Ia maca menahin surat-e  
   3 AV.read AV.correct letter-DEF

The fact that sentence (49a) appears without an explicit conjunction suggests that it is not a coordinate clause. However, it should be noted that more than one of these clauses can appear in sequence. In theory, there is no principle why a clause cannot have more than one adverbial clause. Nevertheless, it may be the case that such constructions constitute some kind of clause chaining rather than subordination. I leave this for future research.
Voice and subject properties

(52) a. [Wusan _ masugi], tiang raris nakenin ipun (h.r.)
   After wash.face 1 then AV.ask 3
   ‘After washing my face, I then asked him/her’

   b. [Wusan __ masugi], ipun raris takenin tiang
   After wash.face 3 then OV.ask 1
   ‘After (s)he washed his/her face, I then asked him/her’

The subordinate clauses in (52) are introduced by the conjunction *wusan* ‘after’. The matrix clause verb is in AV (52a) and in OV (52b). The GF-SUBJ is therefore the AV *tiang* and OV *ipun* respectively. Then, the understood person washing his/her own face (i.e. the GF-SUBJ of the embedded verb) is the GF-SUBJ *tiang* in (52a) and *ipun* in (52b) respectively.

The following examples further illustrate that the controlled argument in the adverbial clause must be GF-SUBJ:

(53) a. Nyoman tingalin tiang [suud __ ng-alap nyuh-ne]
   name OV.see 1 after AV-pick up coconut-3POSS
   ‘I saw Nyoman after Nyoman picked up his coconuts’

   b. *Nyoman tingalin tiang [suud __ nyuh-ne alap __]
   name OV.see 1 after coconut-3POSS OV.pick up
   ‘I saw Nyoman after he picked up his coconuts’

(53a) has *Nyoman* as the GF-SUBJ of both ‘OV.see’ and ‘AV-pick up’, whereas (53b) has *Nyoman* as the GF-SUBJ of only the matrix verb (‘OV.see’), not of the adverbial clause (hence, a syntactic-control constraint violation). The same applies for the contrast below:

(54) a. Nyoman baang tiang pipis [suud __ ma-gae]
   name OV.give 1 money after ma-work
   ‘I gave Nyoman money after he finished working’

   b. Tiang maang Nyoman pipis [suud __ ma-gae]
   1 OV.give name money after ma-work
   *‘I gave Nyoman money after he finished working’

Note that (54b) is fine on the reading ‘I gave Nyoman money after I finished working’.

However, it should be noted that an overt pronominal can appear as the GF-SUBJ of an adverbial clause, in which case there is no control relation at all. In such a case, it can, but need not be, corefential with the matrix GF-SUBJ. For example, instead of (52a) (with a zero pronominal in the subordinate clause), we can have (55a) (with an overt pronominal *tiang* as the GF-SUBJ of the embedded and the matrix clauses). We can also have (55b), where the embedded GF-SUBJ of the adverbial clause is different from the GF-SUBJ of the matrix clause.

(55) a. Wusan tiang masugi, tiang raris nakenin ipun
   after 1 wash.face 1 then AV.ask 3
   ‘After I washed my face, I then asked him/her’

   b. Wusan ipun masugi, tiang raris nakenin ipun
   after 3 wash.face 1 then AV.ask 3
   ‘After (s)he washed her/his face, I then asked him/her’
To sum up, Balinese has both controlled and uncontrolled adverbial clauses. As with other types of control relation, the controlled type obeys the syntactic constraint that the controllee must be GF-SUBJ of its own clause.

2.4.6 Fronted QW

Balinese fronted question words (QW) can only be GF-SUBJ. First, consider (56) which shows that the QW targeting an argument generally appears in situ:

(56) a. Nyoman meli montor anyar
   name AV.buy car new
   ‘Nyoman bought a new car’

   b. Nyen meli montor anyar?
      who AV.buy car new
      ‘Who bought a new car?’

   c. Nyoman meli apa?
      name AV.buy what
      ‘What did Nyoman buy?’

The AV Actor Nyoman is the GF-SUBJ in (56a) and is questioned by the QW nyen ‘who’ (56b). The AV Theme montor anyar comes after the verb (56a) and is questioned in this position by the QW apa ‘what’ (56c). The same also applies in the following OV examples:

(57) a. Ia gugut lalipi
      3 OV.bite snake
      ‘(S)he was bitten by a snake’

   b. Nyen gugut lalipi?
      who OV.bite snake
      ‘Who was bitten by a snake?’

   c. Ia gugut apa?
      3 OV.bite what
      ‘What bit him/her?’

The high register also shows a similar pattern. This is exemplified by the QW sira ‘who’ (58) which questions the AV Agent (i.e. GF-SUBJ):

(58) a. Beh, bes aringgit sira purun mijet nika? (NK:94)
   PART only one.ringgit who willing AV.massage that
   ‘Well, if it’s just for one ringgit, who is willing to do the massage?’

   b. Sira nulu ngin tiang Bli Man? (TLS:96)
      who AV.help 1 brother name
      ‘Who will help me, (Brother) Man?’
Now, in a marked structure, an AV complement can be fronted, but the QW nyen ‘who’ still appears in situ (59a). Also, the QW GF-SUBJ can be fronted with the complement coming between it and the AV verb (59b). In either case, the two sentences logically mean the same, as the translation suggests. That is, the QW is still understood as questioning the Agent, thanks to the constraint that only GF-SUBJ QW can be fronted (and also thanks to the mapping constraint that the AV Agent is GF-SUBJ):

(59) a. Gumi-ne [nyen ngelah _ ?] (MRH:13)  
   country-DEF who AV.own

b. Nyen gumi-ne [ _ ngelah _?]  
   who country-DEF AV.own
   ‘Who owns the COUNTRY?’

A non-GF-SUBJ (term) item cannot be questioned by a fronted QW, as shown by the contrast in (60): (60b) is bad on the reading that it is the QW-fronted version of (60a). The sentence is fine if the QW is understood as the AV GF-SUBJ (60c). That is, the fronted QW cannot be understood to be the complement of the AV verb.

(60) a. Ci ngalih apa ditu ibi?  
   2 AV.search what there yesterday
   ‘What did you look for there yesterday?’

b. *Apa [ci ngalih _ ditu ibi]? (fronted complement QW)  
   what 2 AV.search there yesterday
   ‘What did you look for there yesterday?’

c. Apa ci [ _ ngalih _ ditu ibi]? (fronted SUBJ QW)  
   what 2 AV.search there yesterday
   ‘What looked for you there yesterday?’
   (e.g. a ghost might have disturbed the addressee)

Note that this QW fronting is purely syntactic, not semantic. For example, one might think that (59b) is possible because the intervening NP gumi-ne ‘the country’ is inanimate and not a possible Agent and therefore cannot be GF-SUBJ of ngelah ‘own’. But, this is ruled out by (60c), where ci ‘2’ is a semantically legitimate Agent for the AV verb ‘look for’.

The following evidence from a double object construction further excludes the possibility that the QW constraint is semantic:

(61) Nyen Ketut maang pipis?  
   who name AV.give money
   (i) Who gave Ketut money?  
   *(ii) Who did Ketut give money to?

The immediately preverbal NP Ketut is a possible Agent (because it refers to a person) but, as the translation suggests, it must be understood as the AV Benefactive (reading (i)). Though it is the closest animate NP to the verb, it cannot be understood as the AV Agent: reading (ii) is not possible. The sentence initial QW nyen, though separated from the verb

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23 The AV complement, but not OV (Agent-) complement, can be fronted. This will be further discussed in the phrase-structure section (§4.3.3.1).

24 In the following examples, capital letters are used to suggest a certain pragmatic emphasis.
by the NP Ketut, is understood as questioning the AV Agent, which is the GF-SUBJ (reading (i)).

To conclude, fronted QW in Balinese is restricted to GF-SUBJ only.

### 2.4.7 Non-canonical positions

Finally, I come to another characteristic of subjects, i.e. their ability to appear in two non-canonical positions: extraposed sentence-finally, and sentence-initially in contrastive focus with anak. It should be noted that the ability of subjects to appear in different positions is constrained by pragmatic factors and may give rise to variations in acceptability for different native speakers. Also, variable position as such is not unique to GF-SUBJ, because other items such as adjuncts can easily appear in several positions. The term 'non-canonical position' here is therefore meant to apply to arguments that do otherwise have certain (fixed) positions, namely GF-SUBJ before the verb and OBJ after the verb (but also see certain restriction of QW fronting discussed in §2.4.6, examples (59)–(61)).

#### 2.4.7.1 Extraposition

Recall that we have seen some examples of non-canonical structures where GF-SUBJ is extraposed towards the right, either to the end of the sentence or before a sentence adverb (e.g. examples (12)–(13)). Further observation suggests that only GF-SUBJ, not other terms, can be extraposed to sentence-final position easily.²⁵ (62) illustrates the evidence from transitive sentences. Sentence (62a) has canonical order, SVO. Extrapolishing the GF-SUBJ tiang is possible (62b–c).²⁶

(62) a. Tiang ningalin Nyoman dibi
   L AV.see name yesterday
   'I saw Nyoman yesterday'

b. Ningalin Nyoman tiang dibi
   AV.see name L yesterday
   'I saw Nyoman yesterday'

c. Ningalin Nyoman dibi tiang
   AV.see name yesterday L
   'I saw Nyoman yesterday'

²⁵ Note that an AV object can be topicalised and extraposed sentence initially (see example (66d)).

²⁶ Extra position of subject to sentence-final position may have different pragmatic implications. This extrapolation of subject to sentence-final position—which might be better called an antitopic construction, see §4.3.5.2—may be ambiguous with the extrapolation of the verb to sentence-initial position, in which case the fronted verb gets contrastive focus. In this contrastive focus reading, constructions such as (62b–c) would be translated as 'What I did (yesterday) was meet Nyoman'. Admittedly, the difference between unmarked and antitopic constructions is not always clear, particularly with AV verbs. For this reason, I do not show the difference in the translation in (62)–(65). However, clear cases showing different pragmatic implications are observed in OV verbs with the third person NP as in examples (109), §4.3.5.2.
A term-complement may not be easily extraposed. For example, if the Agent *tiang* appears with the OV verb, and thus does not function as GF-SUBJ, it cannot appear in different positions (63):

(63) a. Nyoman tingalin *tiang* ibi
   name OV.see 1 yesterday
   ‘Nyoman, I saw yesterday’

b. *Nyoman tingalin ibi *tiang*
   name OV.see yesterday 1

c. *Tiang Nyoman tingalin ibi
   1 name OV.see yesterday

Extraposition picks the purported NP GF-SUBJ, irrespective of voice-marking or thematic role. That a complement cannot be easily extraposed gets further support from the double-complement constructions shown in (64). (64a) shows the Benefactive complement *Wayan* in its canonical position. It cannot be easily extraposed (64b), but the Agent subject *tiang* can (64c):

(64) a. Tiang maang Wayan nasi
   1 AV.give name rice
   ‘I gave Wayan rice’

b. ??Tiang maang nasi Wayan
   1 AV.give rice name

c. Maang Wayan nasi *tiang*
   AV.give name rice 1
   ‘I gave Wayan rice’

Switching the verb form to OV makes the Agent *tiang* ‘1’ a complement (65). In contrast to (64c), the Agent *tiang* cannot be extraposed, as shown in (65b). But the Benefactive *Wayan* is the GF-SUBJ, so it can be extraposed (65c):

(65) a. Wayan baang *tiang* nasi
   Wayan OV.give 1 rice
   ‘I gave Wayan rice’

b. *Wayan baang nasi *tiang* (tiang ≠ GF-SUBJ)
   Wayan OV.give rice 1
   ‘I gave Wayan rice’

c. Baang *tiang* nasi Wayan (Wayan = GF-SUBJ)
   OV.give 1 rice Wayan
   ‘I gave Wayan rice’

To sum up, only the purported GF-SUBJ allows extraposition.

2.4.7.2 Contrastive FOCUS with anak

Among term arguments, only the GF-SUBJ can appear in a cleft structure, in contrastive FOC(us), with the particle (PART) anak. Sentence (66a) illustrates a canonical, unmarked structure. Sentence (66b) shows the subject bearing contrastive FOC, as the translation
suggests. Sentence (66c) shows a failed attempt to assign contrastive FOC to a complement. Note that the badness of (66c) is not simply because of fronting the complement. It is possible to do it with a topicalised effect (66d). (Observe the pragmatic differences between (66c) and (66d) in the translations).

(66) a. Tiang numbas buku punika
   1 AV.buy book that
   'I bought the book'

b. *Anak tiang numbas buku punika
   PART 1 AV.buy book that
   'It is me who bought the book'

c. *Anak buku punika tiang numbas
   PART book that 1 AV.buy
   'It is the book that I bought'

d. Buku punika, tiang numbas
   book that 1 AV.buy
   'As for the book, I bought it'

Turning the voice marking into OV as shown in (67a), we get the opposite possibility of contrastive focus with anak, as expected. Being the OV subject, the theme buku punika 'the book' can now get contrastive FOC with anak (see (66c) versus (67b)). And, in contrast to (66b), the Agent NP tiang cannot take anak because it is a complement (67c):

(67) a. Buku punika tumbas tiang
   book that OV.buy 1
   'I bought the book'

b. Anak buku punika tumbas tiang
   PART book that OV.buy 1
   'It was the book that I bought'

c. *Anak tiang buku punika tumbas
   PART 1 book that OV.buy
   'It is me who bought the book'

As expected, neither complement of a ditransitive verb can be fronted with anak. Consider the applicative AV verb numbas-ang 'buy-APPL' (68a). The Benefactive Nyoman and the Theme buku both resist fronting with anak (68b–c):

(68) a. Anak tiang numbas-ang Nyoman buku 
   (tiang = SUBJ)
   PART 1 AV.buy-APPL name book
   'It is me who bought Nyoman a book'

b. *Anak Nyoman tiang numbas-ang buku 
   (Nyoman ≠ SUBJ)
   PART name 1 AV.buy-APPL book
   'It is Nyoman whom I bought a book for'

c. *Anak buku tiang numbas-ang Nyoman 
   (buku ≠ SUBJ)
   PART book 1 AV.buy-APPL name
   'It is a book which I bought Nyoman'
The study of GF-SUBJ properties in Balinese can be concluded as follows. GF-SUBJ canonically appears in a preverbal position in an unmarked structure. However, in pragmatically marked structures, it can be extraposed sentence-finally or fronted with the FOCUS particle anak. Other term arguments do not allow these. Only GF-SUBJ can be relativised with (s)ane, raised, controlled and questioned by a fronted QW.

2.5 Balinese as an active language

2.5.1 Intransitive forms

There are five morphologically minimal forms for Balinese intransitives: the bare intransitive (69a), the nasal intransitive (69b), the ma­ intransitive (69c), the maN­ intransitive (69d), and the reduplicated intransitive (69e). (The symbol '<' in (69b-e) means 'derived from'). The forms in (69b–d) can be clearly thought of as being marked, and (69a) as unmarked. The status of the reduplicated form is less clear.

(69) Intransitive morphology

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<tr>
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</thead>
<tbody>
<tr>
<td>a. bare</td>
<td>e.g. ulung</td>
<td>'fall down', teka 'come'</td>
</tr>
<tr>
<td>b. with nasal prefix</td>
<td>e.g. negak</td>
<td>nyongkok 'squat', tegak-in 'OV.sit on something', tegak-ang 'OV. cause somebody to sit down'.</td>
</tr>
<tr>
<td>c. with ma- prefix</td>
<td>e.g. makaad</td>
<td>malincer 'spin', lincer 'pretend to sleep', pules 'sleep', kecog-kecog 'jump repeatedly', angguk-angguk 'nod repeatedly'.</td>
</tr>
<tr>
<td>d. with maN- prefix</td>
<td>e.g. mamules</td>
<td>'pretend to sleep'</td>
</tr>
<tr>
<td>e. reduplicated</td>
<td>e.g. kecog-kecog</td>
<td>angguk-angguk 'nod repeatedly'</td>
</tr>
</tbody>
</table>

The 'bare' intransitive verbs such as ulung 'fall' shown in (69a) appear as head predicates in sentences without any overt affixation. However, motivated by the fact that the form reflects the (presumably marked) mapping of non-Actor onto GF-SUBJ, I will analyse these forms as O-forms. That is, they have a zero-prefix, equivalent to the O-forms in transitive verbs. The other forms, except (69d), are formed out of bound roots, e.g. negak (69b) is formed out of tegak, where the bound root tegak never appears independently as a head predicate in a sentence (i.e. tegak is never a free form). The formation can be explicitly shown in (70):

(70) Root Morph. Process Free (surface) Form

<p>| | | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>i. Free:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. ulung 'fall'</td>
<td>zero prefix</td>
<td>ulung 'fall'</td>
</tr>
<tr>
<td>b. teka 'come'</td>
<td>zero prefix</td>
<td>teka 'come'</td>
</tr>
<tr>
<td>c. pules 'sleep'</td>
<td>maN- prefix</td>
<td>mamules 'pretend to sleep'</td>
</tr>
</tbody>
</table>

27 Ma- and maN- are pronounced as [mɔː] and [mɔːn] (i.e. with a schwa).

28 We know that the root of negak is -tegak (despite the fact that -tegak never appears as a free form) from the fact that when it gets a suffix it appears without the nasal prefix (i.e. in its OV forms); e.g. tegak-in 'OV.sit on something', tegak-ang 'OV. cause somebody to sit down'.
The bound roots such as *tegak* and *lincer*, which are common in Western Austro-Ne-

2.5.2 Semantically relevant properties for the intransitive markings

Ignoring the reduplication, intransitive markings in Balinese are expressed in four ways: *N*- , *ma*- , *maN*- and O. However, following Artawa (1994), I argue that *ma*- and *maN*- are AV markers signalling a mapping where an Actor-like argument is mapped onto GF-SUBJ. They contrast with O (i.e. OV marking) which signals the mapping of a non-Actor onto GF-SUBJ. The *N*-/ma/-maN- intransitives will be called *Unergatives* and the O- intransitives *Unergatives*. This leads to the view that there is split intransitivity in Balinese. In what follows, I will make explicit the properties contributing to the split, since they have not been properly addressed in previous studies (Artawa 1994; Artawa, Artini, & Blake 2001; Beratha 1992).

2.5.2.1 Controllability and volition

Control and volition have been observed as the properties of *Unergativity* (Foley & Van Valin 1984; Van Valin 1990; Zaenen 1993; among others). In Balinese, intransitive verbs expressing situations where the single arguments are volitionally doing something or in

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30 Reduplication can in fact be treated as affixation from a morpho-phonological point of view. However, I do not treat the reduplication as a voice marker in Balinese. The reason is that it reflects a repetitive meaning (or alternatively, pluralisation of the argument) applying to both AV and OV. For example, *makecog* 'jump once', *makecog-(ma)kecog* 'jump repeatedly', *mati-mati* 'dead (of plural thing)' (see also reduplication as evidence for a VP analysis in Balinese in §4.3.3.1.2).

31 Note that I use these terms to refer to two groups of intransitive verbs as reflected in the differences in verbal markings based on certain semantic properties discussed in this subsection. I do not want to imply that such distinctions are universal (i.e. consistently reflected across languages). There is evidence in a very restricted context where the sole argument of an unaccusative verb is a complement not SUBJ (see footnote 7, Chapter 8). Further research is needed, however, to reveal whether there are indeed further syntactic differences between these two groups of intransitive verbs in Balinese.

32 Clynes (1995) is perhaps the first comprehensive study on split intransitivity in Balinese. He basically deals with the same range of data and observes that the control/volitional property is relevant for the split. The other properties to which I shall allude, such as manner and motion, escaped his attention.
control over the situation are always marked either by N- as exemplified by (71), or (less frequently) by ma- as in (72):

(71) mendep, ‘keep silent’ nganggur ‘visit a girl/boyfriend’
      ngantre ‘form a queue’ ngayah ‘do a community service’
      ngetis ‘take shelter’ ngigel ‘dance’
      ngindeng ‘wander around’ nginep ‘spend a night at someone else’s house’
      nglangi ‘swim’ ngomong ‘talk’
      ngopi ‘drink coffee’ ngrungu ‘pay attention to/care about something’

(72) masuah ‘comb (hair)’
      madaar ‘eat, have meal’
      masuluh ‘look at oneself in the mirror’

Because of the semantics of these predicates, they require animate human participants who deliberately/consciously do the actions. In short, these verbs have typical A (Agent/Actor) arguments, hence are typical Unergatives.

Evidence that controllability and volition play a role in intransitive markings is demonstrated by the existence of pairs showing contrasts between controllable events (N- or maN- ) versus non-controllable events/states (Ø-forms). (73) shows the N- marking in contrast to Ø-forms. The Ø-forms in (73a-b) are states, whereas the corresponding N-forms are (volitional) events. Both N- and Ø-forms in (73c–d), however, represent events with the reduplicated Ø-forms being understood as repeated non-controllable events. It should be noted that not all uncontrollable states/events have pairs. This may due to lexical blocking; e.g. in contrast to mati ‘die’, there is a lexical item meaning ‘pretend to die’ (namely, nglengit). The form *ngmati or *mamati is not attested.

The list of verbs in (74) shows the marking contrast between maN- and Ø-forms.33 Note that the verbs on the left are affixed with maN-, not ma-, because the affixation shows a homorganic nasal assimilation, e.g. [b] of bongol ‘deaf’ in (74a) becomes [m], mamongol). The ma- affixation does not show this assimilation (e.g. [p] of -piteh does not assimilate, mapiteh ‘spin’, see (81b)) The intransitive verbs with maN- are very restricted in number (but see also (79)). All the N-/maN- forms (i.e. Unergatives) in the pairs require animate arguments which are understood to be in control over the events, hence Actors. By contrast, the (animate) arguments in the corresponding Ø-forms (i.e. Unaccusatives) are understood to be not in control over the events, hence non-Actors.

(73) N-forms Ø-forms
    a. ngejoh ‘make oneself far’ joh ‘far’
    b. nyakit ‘pretend to be ill/sick’ sakit ‘ill, sick’
    c. ngeceh ‘urinate’ enceh-enceh ‘urinate repeatedly (involuntary only)’
    d. ngutah ‘vomit’ utah-utah ‘vomit repeatedly (involuntary only)’
    e. meju ‘defecate’ (k)ejuju ‘defecate repeatedly (involuntary only)’

33 I am grateful to Adrian Clynes (p.c.) who pointed out to me that these verbs are not prefixed with ma-.
34 Chapter 2

(74) **man-forms**  

| a. mamongol | 'pretend to be deaf' | bongol | 'deaf' | (e.g. not to respond when asked) |
| b. mamules | 'pretend to sleep' | pules | 'sleep' |
| c. mamuduh | 'pretend to be mad' | buduh | 'mad' |
| d. mamunyah | 'deliberately make oneself drunk all the time' | punyah | 'drunk' |
| e. mamelog | 'pretend to look stupid' | belog | 'stupid' | (e.g. pretend not to know anything when interrogated by the police) |
| f. mamolos | 'pretend to be innocent' | polos | 'innocent' |

### 2.5.2.2 Body-positions

Body positions in Balinese are expressed either by *N-* as exemplified in (75), or by *ma-* as exemplified in (76). Because of their meanings, these verbs commonly need human participants understood as exercising some control over the assumed position; hence Unergatives rather than Unaccusatives. For example, masila requires the ability of the person to put his/her legs in a certain position.

(75)  

| nyongkok | 'squat' |
| negak | 'sit' |
| nyeleleg | 'lean on something' |
| nengkul | 'lie down with the body bending like a circle' |
| nungging | 'stand with bottom up and head down' |
| nengkayak | 'bend the body backwards with front-side up' |

(76)  

| masila | 'sit down cross-legged' |
| matimpuh | 'sit on folded legs' |
| matajuh | 'sit with straight legs forwards' |
| majujuk | 'stand up' (straight, not bending) |
| malingeb | 'lie face down' |

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34 It seems to me that some verbs in this group do not entail 'control' because they can appear with verbs representing uncontrolled events. For example, sentence (a) below shows that the argument of the verb malingeb in this context is understood as being an undergoer, who is not in control over the two events ('falling' and 'lying with his/her face down'). Note that verbs such as gelap 'deliberate' that entail 'control' cannot appear with undergoer verbs like ulung as shown by the unacceptability of sentence (b). For this reason, I classify verbs of body position as a separate sub-group.

a. Ia ulung ma-lingeb  
3 fall ma-face.down  
'(S)he fell off with his/her down'

b. *Ia ngelap ulung  
3s AV.deliberate fall  
'(S)he deliberately fell off'
2.5.2.3 Possession and the whole-part relation

Possession may be expressed by ma- intransitives in Balinese, as shown in (77). The noun roots express the things possessed by arguments. The possessors in (77a–c) might be understood to exercise a certain control over the thing possessed. However, it appears that these verbs do not entail control because the idea of control is only inferred from the context when they take animate arguments. The other possessive relations in (77d–e) also involve whole-part relations (e.g. X ma-batis ‘ma-leg’ = ‘X has a leg’ or ‘a leg is a part of X’). This whole-part (possessive) relation is certainly not characterised by volition/control. Nevertheless, since they are marked in the same way as other possessive relations (and verbs showing control/volition as described in §2.5.2.1), namely by maN-, it seems reasonable to group them together and analyse them as Unergatives.35 (The possible extension of the whole-part relation so that it is treated in the same way as possession may be language specific and culturally relative).

(77) a. ma-topong ‘have a hat on, use a hat’
   b. ma-song ‘have a hole’
   c. ma-umah ‘have a place to stay in’
   d. ma-batis ‘have a leg’
   e. ma-raab ‘have a roof’

Kin-relations, which are perhaps still (culturally) related to possessions are also expressed by ma-:

(78) a. bapa ‘father’ → X ma-bapa teken Y
   (i) ‘X has a father-relation with Y’
   (ii) ‘X calls Y bapa/father’

b. adi ‘younger sibling’ → X ma-adi teken Y
   (i) ‘X has a sibling-relation with Y’
   (ii) ‘X calls Y adi’

The ma-forms in (78) have two related meanings: meaning (ii) can be thought of as an extension of meaning (i). In Balinese, when X has a father-relation with Y as shown by (78a), X must address Y by using the relevant kin-term, bapa. It is a linguistic/cultural convention that one must not address an older person by his/her name as in English. Since addressing someone by name in Balinese is often avoided because it is considered impolite, the term mabapa is naturally extended to mean ‘calling someone by the term bapa’ without necessarily implying that there is a father-son relation between the caller and the person called. (To be felicitous, however, the age-difference between the speaker and the person addressed must be appropriate). At any rate, it is clear that the ma- verbs in (78) requires human participants that have the ability to speak; hence they are Unergatives in Balinese.

35 The idea that the possessor is an Actor-like argument is supported by the fact that when it appears with the root -gelah ‘have’, the possessor is linked to subject, the thing possessed is linked to complement and the derived verb is marked by N-:

Ia ngelah umah
3 AV have house
‘(S)he owns/has a house’

In terms of Lexical Conceptual Structure (Foley & Van Valin 1984; Van Valin & LaPolla 1999), this can be captured by having a possessive predicate ‘have’(x,y), where the possessor (x) is the first argument and more prominent than the second argument y (the possessed).
2.5.2.4 Inchoatives vs statives

MaN- may express inchoative meaning, giving rise to the pairs exemplified in (79).\[36\] The \(\emptyset\)-forms in the right column of (79) represent stative predicates whereas their maN-counterparts represent the corresponding inchoative events leading to the states expressed by the stems. Given the meaning and marking contrast of the pairs above, we can say inchoative meaning (with control and causation) is a semantic property that is relevant for the split in Balinese intransitives. Since inchoative predicates are marked in the same way as typical Unergatives, we can further claim that they are Unergatives giving rise to minimal pairs with stative predicates in \(\emptyset\)-forms (which are Unaccusatives).

(79) a. mamedih ‘become angry’ pedih ‘angry’
b. mameseh ‘become swollen’ beseh ‘swollen’ (i.e. start to cause pain, etc.)
c. mamanes ‘become troublesome/ become angry, start to cause problems’ panes ‘hot/angry’

2.5.2.5 Verbs of emission

It has been observed that verbs of emission are Unergatives (Levin & Rappaport Hovav 1996). In Balinese, verbs expressing the emission of sound or light are marked with N- or ma-, hence are Unergatives too:

(80) ngendih ‘light up, flare’ makrepet ‘produce cracking sounds’
ngering ‘ring (e.g. of telephone)’ makebyah ‘flash’,
nyenter ‘shine (of the sun)’ makudus ‘produce smoke’

2.5.2.6 Motion: directed motion vs manner of motion

Motion verbs are classified on the basis of behavioural differences, into verbs of manner of motion and verbs of directed motion. Verbs of manner of motion (e.g. swim, run, etc.) are known to be Unergative whereas verbs of directed motion (e.g. go, come, etc.) are known to be Unaccusative (Hoekstra 1984; Levin & Rappaport Hovav 1995, 1996; Levin 1988; Van Valin 1990). Balinese verbs of manner of motion are expressed by either N-(exemplified in (81a) or ma- (81b), hence are Unergatives:

(81) a. ngeliling ‘roll’ nyelongsor ‘slide’
numpak ‘gallop’ ngejer ‘tremble’

\[36\] Inchoative meaning (with comparative meaning of ‘X becomes [stateY]-er’) may also be expressed by N-ang as in (a) cenik ‘small’ → nenyikang ‘become smaller’ and (b) duweg ‘clever’ → nuwegang ‘become cleverer’. Note that these derived forms have -ang, the same as the causative AV transitive forms; e.g. nenyik-ang ‘AV small-CAUSE’. Thus, the alternations are similar to English middle: break (transitive) and break (intransitive). Since the intransitive N-ang formation involves not simply N-marking, it is better understood as involving a different process from what I discuss here as intransitive split marking of \(N/ma\)- versus \(\emptyset\). The precise account of the nature of the intransitive N-ang forms and their relations with transitive AV (causative) forms requires a separate study.
b. majalan 'walk'  
makecog 'jump'  
malincer 'spin'

Verbs of directed motion are bare intransitives in Balinese, hence Unaccusatives:

(82) a  
<table>
<thead>
<tr>
<th>teka</th>
<th>'come'</th>
<th>rawuh</th>
<th>'come' (h.r.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>medal</td>
<td>'go out' (h.r.)</td>
<td>luas</td>
<td>'leave (for someplace)'</td>
</tr>
<tr>
<td>budal</td>
<td>'go home' (h.r.)</td>
<td>mulih</td>
<td>'go home'</td>
</tr>
<tr>
<td>singgah</td>
<td>'drop by'</td>
<td>pesu</td>
<td>'go out'</td>
</tr>
</tbody>
</table>

b. ulung 'fall (down)'  
pungkat 'collapse'  
labuh | 'fall' |
| bah | 'collapse' |

The verbs in (82a) may take animate arguments (which can then be understood to exercise control over the event). The verbs of directed motion in (82b) denote uncontrollable events (irrespective of the animacy of the arguments). Given the cross-linguistic tendency and also the fact that these verbs are expressed by bare forms in Balinese, the verbs in (82) can be classified as Unaccusatives.

2.5.2.7 Telicity

Telicity (boundedness) has been observed to be an important aspect in determining Unaccusative classification (Dowty 1991; Tenny 1992, 1994; Van Valin 1990; Zaenen 1993; among others). Telic verbs are those that specify inherent deixis of motion such as come and go.

In Balinese, telicity does not appear to be relevant in split intransitivity even though it might be observed in some verbs of motion, particularly verbs of directed motion. Thus, teka 'come' and mai 'come (here)' are expressed by $\emptyset$-forms, i.e. Unaccusatives (see (82)). Also, the following verbs are bounded/telic and expressed by bare forms: bah 'collapse', engseb '(sun)set', endang '(sun)rise', bangun 'get up', rawuh 'arrive'.

On the other hand, the atelic verbs of manner of motion are Unergatives, expressed by $N$- or ma- forms (see (81)); e.g. malincer 'spin', majalan 'walk', and malaib 'run', ngecor 'water going/flowing down continuously' (from a big hole), ngecir 'water going/flowing down continuously' (from a small hole), and ngetor 'tremble'.

However, making these verbs of manner telic by adding a specified goal (expressed by a PP) does not change the verb classification/form, e.g. malaib ka paon 'run to the kitchen'.

It should be noted that being telic does not necessarily entail Unaccusativity. For example, makecog 'jump' is inherently bounded/telic but is a ma-form. Thus, manner of motion seems to be more relevant than telicity in this case. Also, the status of reduplicated forms (which may have no $N$- or ma- prefix) is unclear (i.e. whether Unergative or Unaccusative). For example, in addition to makecog 'jump' (by default once), we can have kecog-kecog 'jump repeatedly', in addition to makecog-kecog 'jump repeatedly'. My view is that reduplication itself is not a variant of either AV or OV (see also footnote 30 in this chapter) because it can appear with both. Reduplication in Balinese (and also other languages) semantically encodes plurality of arguments/states/events and thus gives rise to atelic properties.

Also, being atelic does not necessarily entail Unergativity. Recall the pairs in (73) ngutah 'vomit' vs utah-utah 'vomit repeatedly' (non-controllable). The $N$- forms represent
the controllable events whereas the reduplicated ones refer to the uncontrollable counterparts. Though the reduplicated forms are aspectually unbounded (atelic, a property of Unergative classification), their contrast with N-forms (controlled events) suggests that unboundedness is irrelevant here. It is controllability which seems to be important in this case.

2.5.2.8 Conclusion

I conclude this section with the following points. First, it is clear that the Unaccusatives in Balinese typically represent states which lack control/volition and manner, such as those listed in (83). They are expressed by Ø-forms. These can be called stative predicates or simply statives.

(83) pules ‘sleep’ joh ‘far’ bangka ‘dead’
     beseh ‘swollen’ seda ‘dead’ (h.r.) sakit ‘ill’
     mati ‘dead’ gelem ‘ill’ lung ‘broken’
     rengat ‘cracked’

Additionally, intransitive verbs expressing events (i.e. non-statives) can also be Unaccusatives, expressed in Ø-forms. They are restricted to verbs of directed motion (i.e. no manner implied), and they are generally aspectually bounded/telic (see the list in (82)).

Second, events involving typical Agents (i.e. volitional doers in control of the event) are always Unergatives, expressed in N-, maN- or ma- forms; e.g. ngigel ‘dance’, mamongol ‘pretend to be deaf’, madaar ‘have a meal, eat’, etc. However, there are a number of (other) semantic properties at work. We have observed that minimal pairs of intransitive forms may show a distinction between statives (unaccusatives) and non-statives (unergatives). This distinction reflects the absence/presence of: (i) volition/control, e.g. joh ‘far’ (stative) versus ngejoh ‘make oneself far = distance oneself’ (event), pules ‘sleep’ (stative) versus mamules ‘keep oneself sleeping’ (event); and (ii) inchoative, e.g. pedih ‘angry’ (stative) versus mamedih ‘become angry’ (event). In addition, we have observed that, for motion verbs, markings reflect a distinction between types of motion verbs: directed motion (Unaccusative) versus manner of motion (Unergatives). Other properties (without minimal pairs of forms) relevant for Unergatives in Balinese are possession (or a whole-part relation), body position, and emission (i.e. producing sound, light, etc.).

Third, given the first and second points above, the following pattern emerges. For simplicity, let us refer to the different semantics of intransitive verbs so far discussed by their sole arguments in terms of the macro-roles of Actor (A) and Undergoer (U) and assume that these constitute a continuum (Foley & Van Valin 1984:59); then the split can be represented as in (84). (84a–b) represent the semantic (macro) roles along the continuum. The two A and U ends, namely volitional doer (i.e. the left-most end) and argument of statives (i.e. the right-most end), are the two opposing ends in a hierarchy. The left-most one is understood as the top-end and the right-most end is the low-end. The hierarchy of the thematic roles shown in (84a–b) is determined by the lexical properties of the verbs, possibly modelled in terms of certain primitives such as CAUSE and GO (see Foley & Van Valin (1984), Jackendoff (1991) and Van Valin & LaPolla (1999), also
§5.2.3).\(^{37}\) (84c) shows intransitive properties so far discussed in this chapter. Following Van Valin and LaPolla (1999:127), I represent the emitter higher in the continuum than the possessor because verbs of emission represent events/activities whereas verbs of possession are more like states than events, in which case the possessor can be thought of as Locative (Foley & Van Valin 1984:53). (84d) shows that the two ends also reflect typical markings: low-end predicates (statives) are always marked by $\emptyset$-forms, in contrast to higher-ranked predicates with $N-/maN-/ma$.

(84) Split in Balinese intransitives:

(a) Actor (A) \hspace{2cm} Undergoer (U)

(b) Agent Effector Locative Theme Patient

(c) • volition • emission • possession • inchoative • manner of motion • directed motion • stative

(d) $N-/maN-/ma$-forms $\emptyset$-forms

To generalise, for Balinese intransitives, we can say that $N-/maN-/ma$- forms signal Actor-like (A) properties and $\emptyset$-forms signal typical Patient or Undergoer (U) properties. Then, the split in Balinese intransitive markings is rather skewed toward the bottom of the A-U continuum. That is, as shown in (84b–d), the split is around the Theme (manner vs directed motion).

2.5.3 Active organisation

Recall that there are two basic voice markings in Balinese: AV (Actor-Voice) (where an Actor is GF-SUBJ), and Objective Voice (OV) where a non-Actor/Undergoer (U) is GF-SUBJ. For a transitive verb, the contrast is systematically encoded by a homorganic nasal prefix ($N-$) versus a zero-prefix ($\emptyset$-). For an intransitive verb, there are two other prefixes ($maN-$ and $ma$-) used to encode a range of semantics including a less typical Actor (e.g. the argument of manner of motion shown in (79), which may be inanimate). I have argued that the split in Balinese intransitives is skewed toward the bottom of the A-U continuum.

I therefore adopt the view that $N-$, $maN-$ and $ma$- reflect Actorhood properties. In other words, $maN-$ and $ma$- are analysed as the AV markings (exclusively for intransitive verbs), in addition to $N-$, which is also used in transitive verbs. They should be treated as different morphemes whose semantic properties happen to overlap in intransitive verbs. Note that the distribution of these AV prefixes (i.e. which prefix goes with which verb root) is lexically determined.

Given the facts presented in this chapter, the pattern of morphological marking, and the syntactic realisations of arguments, specifically the function mapping of an argument onto

\(^{37}\) A slightly different hierarchy (with the Locative role being at the low-end) is proposed in the Lexical Mapping Theory (see §5.2.2).
GF-SUBJ, it appears that Balinese exhibits an active system, rather than an ergative system. In particular, it does not exhibit the ergative organisation where \( S = O \neq A \) (using Dixon's (1979, 1987, 1994) terminology, where \( S \) = intransitive subject, \( O \) = transitive Patient and \( A \) = transitive Agent). To repeat the point, given the relevant semantic properties of the morphological markings and the grammatical-function mapping onto GF-SUBJ, the basic organisation of Balinese is as shown in (85)–(88). (To make the patterns clearer, I mark the intransitive predicates as AV/OV as well). Note that the high and low registers exhibit the same pattern: (85) and (87) show high register transitive and intransitive predicates, whereas (86) and (88) show their low register counterparts.

(85) a. \([\text{Bawi-ne punika}]_{\text{SUBJ}} \ tumbas \ tiang \ (\text{h.r.}) \) pig-DEF that \( \text{OV.buy} 1 \) \( \text{OV: U = SUBJ} \)
   \( \text{ergative pattern} \)
   b. \([\text{Tiang}]_{\text{SUBJ}} \ \text{nuebas} \ bawi-ne \ punika \) AV.buy pig-DEF that \( \text{I bought the pig} \)

(86) a. \([\text{Celeng-e ento}]_{\text{SUBJ}} \ \text{beli} \ \text{cang} \) pig-DEF that \( \text{OV.buy} 1 \) \( \text{OV: U = SUBJ} \)
   \( \text{ergative pattern} \)
   b. \([\text{Cang}]_{\text{SUBJ}} \ \text{meli} \ \text{celeng-e ento} \) AV.buy pig-DEF that \( \text{I bought the pig} \)

(87) a. \( \text{Ida labuh} \) (h.r.) \( \text{OV: S}_U = \text{SUBJ} \)
   \( \text{(h.r.)} \)
   b. \( \text{Ida nangis} \) \( \text{3 AV.cry} \)
   \( \text{('S)he cried} \)

(88) a. \( \text{Ia ulung} \) \( \text{3 OV.fall} \)
   \( \text{('S)he fell down} \)
   b. \( \text{Ia ng-eling} \) \( \text{3 AV.cry} \)
   \( \text{('S)he cried} \)

I conclude that Balinese is an active language where \( N \)- (\( \text{maN-} / \text{ma-} \)) mark Actor-GF-SUBJ (here called AV-marking, reflecting an accusative pattern) and \( \emptyset \)-marks Undergoer-GF-SUBJ (here called OV-marking, reflecting an ergative pattern). In short, the active organisation shown by Balinese can be symbolised as (89a) (where, again for simplicity borrowing Dixon's terminology, the symbol \( O = U \) (i.e. a non-Actor core argument) and \( S \) = intransitive core argument), whereas a truly ergative system is that in (89b):

(89) a. \( (S_A = A) \neq (S_U = O) \) (Active language)
   b. \( S = O \neq A \) (Ergative language)
   c. \( S = A \neq O \) (Accusative language)
Note that (89b) shows what Dixon calls the S/O pivot pattern (truly ergative). Artawa (1994:210–221) basically argues for this pattern for Balinese. My view, on the other hand, is in line with Clynes' (1995) in that Balinese (at least from its verbal morphology) has the pattern captured by (89a): Su/O and Su/A (active). In Chapter 5, I will formulate the mapping more precisely.

2.6 Conclusion

The study in this chapter demonstrates the following properties of the syntactic/grammatical subject (GF-SUBJ) in Balinese: (a) The GF-SUBJ is canonically in preverbal position in an unmarked sentence, (b) only the GF-SUBJ can relativise, (c) only the GF-SUBJ can raise, (d) only the GF-SUBJ can be controlled, (e) only the GF-SUBJ can be questioned by a fronted QW, and (f) of term arguments, only the GF-SUBJ can readily appear in a non-canonical position (i.e. extraposed to the left, sentence-initially (with the FOC particle anak) or to the right, sentence-finally or before an adverb).

The syntactic realisations of core arguments and the AV and OV basic voice markings in Balinese suggest that Balinese has an active organisation. The AV-form (marked by homorganic nasal N-) signals Actor-GF-SUBJ mapping. The OV-form (O-prefix) signals Undergoer-GF-SUBJ mapping. A close examination of intransitive markings suggests that maN- and ma- also function as the AV-marking. Balinese intransitive predicates show a split skewed towards the low-end of the Actor/non-Actor continuum.

38 Although Artawa (1994:94) also mentions that Balinese makes a distinction between Unergative and Unaccusative intransitives (or AV and OV intransitives in our terminology here), he does not make any claim about Balinese being an active language. I must say that his argumentation (his Chapter 8, p.199ff) is skewed toward the 'ergative side' of Balinese grammatical organisation.

39 One might find this as unconvincing, however, since the 'active' typological alignment is generally decided on the basis of argument marking rather than the verbal marking. I believe that a good analysis should consider both argument and head/verbal markings. A more detailed study of split intransitivity in Balinese is discussed in Arka (forthcoming).

40 That is, I will show that the split is a merely morphological split in mapping, the encodings of Actor and non-actor onto GF-SUBJ. Syntactically, however, the sole arguments of intransitives in either marking are always a-subject and GF-SUBJ.
Termhood and complements

3.1 Introduction

In this chapter I show that the grammar of Balinese accommodates an explicitly definable distinction between 'terms' and 'non-terms'. 'Term' is a natural class which encompasses subjects and objects, and which is characterised by the following properties:

- the ability to launch quantifier float (§3.2.1);
- the ability to provide an antecedent for a resumptive pronoun (§3.2.2);
- the ability to control depictive predicates, with some qualifications perhaps related to discourse-level constraints (§3.2.3); and
- the ability to be the understood (Actor) argument of imperatives (§3.2.4).

I further show that both the Actor and Patient/Theme arguments of OV and AV constructions are terms, i.e. that OV is not passive and AV is not antipassive (§3.2.5). I also show that both subjects of ditransitive verbs are terms (§3.2.6), exhibiting a property I call 'symmetricality'. I conclude with some discussion of the different status of prepositions as head predicates or as pure case markers.

3.2 Term properties

'Terms' are core arguments which include what are traditionally called SUBJ and OBJ. An OBL is not a term. Hence, in what follows, I look at (syntactic) properties characterising SUBJ and OBJ, but excluding OBL. OBJs and OBLs are also referred to as 'complement' functions (Bresnan 2001:98). The classification of (simple) syntactic functions is therefore as in (1). Traditionally, an OBJ is semantically defined: it is typically an affected entity (Anderson 1984), semantically understood as a (Proto-)Patient/Undergoer (i.e. a non-Actor). In the Balinese OV construction (and ergative constructions in other languages), it is the non-Actor argument which appears as SUBJ. The Actor argument appears as another grammatical function. In Balinese, I will argue that this other grammatical function is in fact what is technically an OBJ (evidence will be given shortly in this chapter). Thus, I claim, Balinese allows an Agent to be OBJ (see Kroeger 1993). Because this fact may be surprising, and to avoid terminological confusion, I will use the more general term 'complement', or to be precise 'term-complement' (TCOMP) to refer to OBJ. However, when there is little risk of confusion, I

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1 The question as to whether a complex argument (i.e. an argument that contains a predicate and its own arguments) is a term or non-term will be dealt with in §§5.2.4.4–5.2.4.4.5.
will still use the term OBJ in the conventional way. (Thus, I use the terms TCOMP and OBJ interchangeably).

(1) COMPLEMENTS

<table>
<thead>
<tr>
<th></th>
<th>OBJ</th>
<th>OBL</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUBJ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TERMS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2.1 Quantifier float

By quantifier float (QF) is meant the occurrence of a quantifier (Q) outside the NP it modifies, and indeed possibly far away from the head of the NP. QF has been claimed to be a test for subjecthood in Tagalog (Kroeger 1993; Schachter 1977). Artawa (1994) uses QF as a subjecthood test in Balinese and claims that it is a property of the subject only. I will claim, however, that in Balinese it is a test for termhood. Special attention must be given to the ‘definiteness’ of a non-subject NP. Re-examination of the data reveals that a term-complement can take QF when it is definite. Before coming to QF, however, I will look at the types of quantifiers in Balinese, because this is important for quantifier modification of certain types of nominals.

3.2.1.1 Simple versus complex quantifiers

The quantifier generally used in the QF test is ‘all’. In Balinese, there are two ways of expressing this: using simple or complex quantifiers. The choice is constrained by the animacy of the nominal head. The simple quantifiers are makejang or onya (low register), and sami (high register). The phrasal (or complex) quantifiers are formed by preposing ajak (low register) and sareng (high register) ‘(lit.) accompany, with’. So, we get ajak makejang or ajak onya (low register) and sareng sami (high register). The simple ones are used for all nouns, whereas the complex ones are for animate nouns only (generally, human). Consider the contrast between (2) and (3). Both simple and complex quantifiers are possible in (2) because the noun head ‘women’ is animate. In (3), on the other hand, only the simple quantifiers are possible because the noun head ‘coconut’ is inanimate.

(2) a. Luh-luh-e
    female-female-DEF
    (ajak) makejang
    Q come
    (l.r.)
    "All of the women came"

b. Istri-istri-ne
    female-female-DEF
    (sareng) sami
    Q rawuh
    (h.r.)
    ‘All of the women came’

(3) a. Nyuh-e
    coconut-DEF
    (*ajak) makejang
    Q ilang
    (l.r.)
    ‘All of the coconuts have gone’

b. Klapa-ne
    coconut-DEF
    (*sareng) sami
    Q ical
    (h.r.)
    ‘All of the coconuts have gone’
3.2.1.2 Simple quantifiers

Consider the following:

(4) a. Ibi [nasi-ne makejang] ṣ [pasil] {no QF}
   ‘Yesterday all the rice was spoiled’
   
   b. Ibi nasi-ne pasil makejang {QF}
   
   c. Makejang .ibi nasi-ne pasil {QF}

In (4), the preverbal NP nasi-ne ‘the rice’ is SUBJ because the predicate pasil ‘spoiled’ is an intransitive predicate. Observe the occurrences of the quantifier makejang ‘all’. It appears in several positions: next to the head of its NP (4a), sentence-finally (4b) and sentence-initially (4c). Nevertheless, it is still understood to modify the head nasi-ne ‘the rice’.

Now consider (5). The transitive verb jemak ‘take’ is in the OV form, so the preverbal Theme nasi-ne ‘the rice’ is SUBJ:

(5) a. [Nasi-ne makejang] ṣ jemak cai ibi {no QF}
   rice-DEF all OV.take 2 yesterday
   ‘You took all the rice yesterday’
   
   b. Nasi-ne jemak cai ibi makejang {QF}
   rice-DEF OV.take 2 yesterday all
   (i)  ‘You took all the rice yesterday’
   (ii) * ‘You all took the rice yesterday’

The quantifier appears within its NP in (5a) and away from it in (5b). Yet it still modifies the noun head nasi-ne ‘the rice’. In both (4) and (5), nasi-ne is SUBJ. The parallelism of (4) and (5) is expected.

Note that the simple quantifier makejang ‘all’ in (5) cannot modify the postverbal Actor argument cai ‘you’. Reading (ii) is not possible. As I will show later, a complex quantifier can do so. This is another difference between simple and complex quantifiers (in addition to the animacy constraint). However, one should not hasten to claim that a simple quantifier cannot take a non-subject argument. I will show in the next sub-section (§3.2.1.2) that, under certain circumstances, it can.

Consider more examples below, from Artawa (1994:21) (the glosses are mine). The verb is in AV, the Actor cerik-cerik-e ‘the children’ is SUBJ. (6a) shows the quantifier within its NP, whereas (6b) and (6c) show QF.

(6) a. [Cerik-cerik-e onya] meli jaja {no QF}
   child-child-DEF all AV.buy cake
   ‘All the children bought cake’
   
   b. Onya cerik-cerik-e meli jaja {QF}
   all child-child-DEF AV.buy cake
   ‘All the children bought cake’
c. Cerik-cerik-e meli jaja onya  
child-child-DEF AV.buy cake all  
(i) ‘All the children bought cake’  
(ii) ‘The children bought all the cake’  

Also note that in (6c), onya does not modify the closest complement argument jaja ‘cake’. This is because jaja ‘cake’ in (6c) is indefinite, a crucial factor in QF, to which I now turn.

3.2.1.3 QF and definiteness

Definiteness and QF interact in interesting ways in Balinese syntax. First, onya and makejang require a definite noun, as shown by the following contrast:

(7) a. ?*[Jaja makejang] jemak=a 
cake all OV.take=3  
?(S)he took all cake’  
b. Jaja-ne makejang jemak=a 
cake-DEF all OV.take=3  
‘(S)he took all the cake’  

Note that sentence (7a) is bad because makejang co-occurs with an indefinite noun jaja.

Second, definiteness of the complement argument can block QF associated with SUBJ. For example, if the term-complement jaja ‘cake’ in (6) is made definite, as in (8), the result is that the sentence-final quantifier can modify it, and interestingly, that the quantifier’s position next to the complement head makes it very difficult to get a reading where it modifies SUBJ. Consider the reading contrast between (6c) and (8):

(8) Cerik-cerik-e meli jaja-ne onya  
child-child-DEF AV.buy cake-DEF all  
(i) ?*‘All the children bought cake’  
(ii) ‘The children bought all of the cake’  

Note that, in (8), nothing intervenes between the quantifier onya ‘all’ and the complement (head) noun jaja-ne ‘the cake’. In this situation, an attempt to force a QF reading

---

2 Note also that, in the OV verb, the postverbal Agent-noun (not the pronoun) must be indefinite (see example (16)).

3 Qs in English seem to need a definite or ‘kind’ (generic) noun or a mass N (Wechsler p.c.) but not an indefinite:

1. All (of) the children were singing.
   The children were all singing.

2. All children are mischievous.
   Children are all mischievous.

3. All furniture is expensive.
   (?) Furniture is all expensive.

4. *All of some children were singing. (unstressed ‘some’ [sm]: indef)
   ?*Some children were all singing.

4 Though the SUBJ-modification reading may be possible given sufficient contextualisation.
associated with SUBJ fails (or perhaps succeeds only with great difficulty). In short, QF is blocked, and the quantifier is understood within scope of the object NP.

Now, if QF is really a term property subject to a constraint on definiteness, and if both term arguments are definite, then we would expect the scope of a quantifier to be ambiguous, at least when not directly adjacent to one of the terms. To test this, we can place an adverbial before the quantifier:

(9) Cerik-cerik-e meli jaja-ne i bi onya
child-child-DEF AV.buy cake-DEF yesterday all
(i) ‘The children bought all of the cake’
(ii) ‘All the children bought cake’

The expectation is borne out. However, the proximity between the quantifier and the modified head seems also to be important: reading (i) is stronger than (ii). Again, this is not to say that reading (ii) is impossible.

For ditransitive verbs, the two postverbal NPs are terms/OBJs. As expected, both can launch QF. Sentence (10a) shows QF associated with the first OBJ anak-e punika ‘the person’. The quantifier sami cannot modify the second OBJ somah because of the definiteness constraint. Sentence (10b), by contrast, shows QF with the second OBJ:

(10) a. I Nyoman ngereh-ang [anak-e punika ] [somah] sami
name AV.search-APPL person-DEF that spouse all
‘I Nyoman searched for wives for all of them’

b. Cang nyemak-ang [I Wayan] [panak-ne] dugese ento makejang
I AV.take-APPL name child-3POSS time that all
‘I took all of I Wayan’s children for him at that time’

Sentence (11) illustrates QF with the ditransitive verb maang ‘AV.give’. As expected, all arguments allow QF and three readings are possible:

(11) Cerik-cerik-e maang timpal-ne jajan-ne5 ibi onya
child-child-DEF AV.give friend-3POSS cake-3POSS yesterday all
(i) ‘The children all gave their friends their cake yesterday’
(ii) ‘The children gave all their friends cake yesterday’
(iii) ‘The children gave their friends all their cake yesterday’

It should be noted again that among the readings, those associating the quantifier with one of the term-complements (i.e. readings (i) and (ii)) are easier to get than that associating the quantifier with SUBJ (reading (i)), because of the proximity to the quantifier.

In the following examples, we have a Goal oblique marked by teken ‘to’. Sentence (12b) has an adverbial (ibi ‘yesterday’) intervening, which is absent in (12a). As a result, the two sentences have different possible readings:

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5 Note that, when a noun stem is vowel-final, the the third person possessive -ne ‘3POSS’ is distinguished from the definite suffix -ne by gemination of n for the possessive, in which case the added n is treated as part of the stem’s last syllable. For example, from jaja ‘cake’ we can have jajan-ne ‘cake-3POSS = his/her cake’ versus jaja-ne ‘cake-DEF = the rice’. 

---
(12) a. Anggur-e dumang=a teken okan-okan-ne makejang (TLS:91)
grape-DEF OV.divide=3 to child-child-3POSS all
(i) ‘She distributed the grapes to all her children’
(ii) ‘She distributed all the grapes to her children’

b. Anggur-e dumang=a teken okan-okan-ne ibi makejang
grape-DEF OV.divide=3 to child-child-3POSS yesterday all
(i) ‘She distributed the grapes to all her children yesterday’
(ii) ‘She distributed all the grapes to her children yesterday’

In (12a), the quantifier makejang ‘all’ is adjacent to the oblique, and can be understood as having scope over it, giving rise to reading (i). But, since QF is a property of terms, not of obliques, the oblique in (12a) cannot block QF from the SUBJ-term (as an OBJ would do, cf. (8)). Thus, (12a) can also be understood as having QF associated with the subject anggur-e ‘the grapes’ (reading (ii)). However, when the adverbial ibi ‘yesterday’ intervenes between the quantifier and the oblique (12b), reading (i) is impossible. This suggests that an oblique cannot take QF.

3.2.1.4 Complex quantifiers

Complex quantifiers can also float if they are associated with terms. Consider the following, involving a one-place predicate. (13a) shows no QF whereas (13b) shows the complex quantifier ajak makejang floating to sentence-final position:

(13) a. Th, [cening ajak makejang]Np, jani cening suba truna (SBB)
Hey kid Q now kid already grow.up
‘Hey kids, you are all now already grown up’

b. Th, cening, jani cening suba truna ajak makejang
Hey kid now kid already grow.up Q
‘Hey kids, you are all now already grown up’

In (14), we have a transitive verb ‘buy’ in AV-form. (The two sentences differ in their registers). QF is possible in both sentences:

(14) a. Tiang numbas buku-ne punika sareng sami (h.r.)
1 AV.buy book-DEF that Q

b. Icang meli bukune ento ajak makejang
1 AV.buy book-DEF that Q
(i) ‘We all bought the book(s) yesterday’
(ii) ‘I bought all the books’

(Recall that a complex quantifier is constrained by animacy: it is used with an animate, generally human, noun. Reading (ii) in the above sentences is excluded for this reason.)

Now, consider (15), the OV counterpart of (14). We place an intervening adverbial between the quantifier and any nominal that it might modify, in order to force QF. It turns out that we get the same result as in (14): QF is possible, and reading (ii) is excluded. These facts confirm two things: (i) QF is a test of termhood, and (ii) the AV/OV voice-marking alternation does not change the termhood status of the Actor tiang/cang.
I have shown that QF is constrained by animacy (for complex quantifiers), and definiteness: Balinese dislikes the quantified NP being indefinite (cf. ex. (17)). However, another factor restricts the range of data that can be brought to bear the question of QF with non-SUBJ term arguments. It is this: in the OV constructions, the term-complement Actor NP cannot be definite/specific if it is non-pronominal.\(^6\)

Now, since QF requires a definite nominal, it follows that we cannot have a termhood test with QF unless the OV term-complement is a pronoun, since full definite nouns are excluded from this position for independent reasons. Hence, sentence (17) can only mean (i), not (ii), despite the fact that the Agent term-complement anak alit ‘child’ is animate (and so can potentially take a complex quantifier) and it is adjacent to the quantifier (i.e. there is no intervening material):

\[(17) \text{Ipun belog-belog anak alit sareng sami (h.r.)} \]
\[3 \text{ OV.fool-fool person small Q} \]
\[(i) \text{‘They were all fooled by children/a child’} \]
\[(ii) \text{‘He was fooled by all the children’} \]

Fortunately for present purposes, however, an OV term-complement can be a pronoun. And since a pronoun is definite, there is no definiteness conflict and we do have QF, as observed in (15).

Now, if the arguments of a transitive OV verb are both pronominals (hence, definite) and animate, we expect that all arguments can launch QF. This is confirmed by the two readings for (18a). However, the two arguments cannot simultaneously launch QF (18b):

\[(18) \text{a. Ia tepukin cang ibi ajak makejang} \]
\[3 \text{ OV.see 1 yesterday Q} \]
\[(i) \text{‘We all saw him yesterday’} \]
\[(ii) \text{‘I saw them all yesterday’} \]

---

\(^6\) One way of analysing the definiteness restriction here is to treat it as being incorporated into the verb (Clynes 1995). While this has some advantages, it falls short in explaining other properties of the OV Agent-complement, such as the syntactic elaboration involving coordination (discussed later in §4.3.4).
c. *Ia tepukin cang ibi ajak makejang ajak makejang
   3 OV.see l yesterday Q Q
   ‘We all saw them all yesterday’

The following is an example with a ditransitive verb ‘give’. As expected, given that both complements of the ditransitive predicate are terms, all arguments can launch QF:

(19) Panak-ne baang tiang ia ibi ajak makejang
child-3POSS OV.give 1 3 yesterday Q

(i) ‘We all gave him/her his/her child yesterday’
(ii) ‘I gave all of them their children yesterday’
(iii) ‘I gave him/her all of his/her children yesterday’

Finally, a complex quantifier cannot float when it modifies an oblique. Consider (20). In (20a), two readings are possible: (a) QF associated with the subject (reading (i)), and (b) quantifier modification within the oblique NP (reading (ii)). In (20b), on the other hand, the oblique is fronted giving rise to a QF effect (and the structure is pragmatically marked). As a result, only one reading is possible, namely the QF reading associated with the subject. This is expected because the (fronted) oblique cannot take QF. When a term-complement is fronted, QF is possible (20c):

(20) a. Tiang mataken sig ipune sareng sami (h.r.)
   I ask to 3 Q
   (i) ‘We all asked him questions’
   (ii) ‘I asked them all questions’

b. Sig ipune, tiang matakon sareng sami
   to 3 1 ask Q
   (i) ‘It is to him/her that we all asked questions’
   (ii) ‘It is to all of them that I asked questions’

c. Cerik-cerik-e ento Nyoman ng-runguang (ajak) makejang
   child-child-DEF that name AV-care Q
   ‘As for the children, Nyoman takes care of all of them’

To conclude, Balinese QF tests show that QF is not exclusively associated with SUBJ. A term-complement, but not an oblique, can also launch QF. Table 3.1 summarises the QF associated with simple and complex quantifiers in Balinese. (Hereafter, the semantic roles are abbreviated (Agt = Agent, Go = Goal, Ben = Benefactive, Th = Theme, Pt = Patient) and the numbers inside the cells are the numbers of the relevant examples).

<table>
<thead>
<tr>
<th>QF with...</th>
<th>SUBJ</th>
<th>TCOMP (Agt)</th>
<th>TCOMP (Go/Ben)</th>
<th>TCOMP (Th/Pt)</th>
<th>OBL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple Q</td>
<td>✓ (4,6)</td>
<td>✓ (5b)</td>
<td>✓ (11)</td>
<td>✓ (9,10,11)</td>
<td>* (12)</td>
</tr>
<tr>
<td>Complex Q</td>
<td>✓ (13)</td>
<td>✓ (15,18)</td>
<td>✓ (19)</td>
<td>✓ (14)</td>
<td>* (20)</td>
</tr>
</tbody>
</table>
3.2.2 Pronominal copy

3.2.2.1 Topicalisation of a possessor phrase

In Balinese, a possessor phrase can be topicalised, in which case a pronominal copy must appear in its position. The topicalisation of the possessor is a property of termhood.

Consider the subject NP in (21a) (marked with square brackets) with its possessor I Ketut. The possessor appears within the NP and the whole NP has a definite suffix -e:

(21) a. Ibi [panak I Ketut-e]SUBJ gugut cicing
   Yesterday child name-DEF OV.bite dog
   ‘Yesterday a dog bit I Ketut’s child’

   b. I Ketut ibi panak-ne gugut cicing
       name yesterday child-3POSS OV.bite dog
       ‘As for I Ketut, a dog bit his child yesterday’

   c. *I Ketut ibi panak-e gugut cicing
       name yesterday child -DEF OV.bite dog

The possessor can be topicalised and fronted to sentence-initial position (21b). But note that, instead of the definite suffix -e, a pronominal copy -ne ‘3 POSS’ must be used. An attempt to retain the definite suffix -e (21c) yields an unacceptable sentence.

The NP associated with the topicalised possessor must be definite. (22a) shows an acceptable sentence with an indefinite SUBJ. (22b) shows a failed attempt to topicalise the possessor of the indefinite SUBJ:

(22) a. Ibi [panak turis]SUBJ tulungin=a
   yesterday child tourist OV.help=3
   ‘(S)he helped a tourist’s child yesterday’

   b. *Turis ibi panak tulungin=a
       tourist yesterday child OV.help=3

The possessor of a term-complement can also be topicalised, as shown by (23). The NP pianak I Ketut-e ‘Ketut’s child’ is a term-complement (23a). The possessor I Ketut can be topicalised to appear sentence-initially (23b):

(23) a. Dibi tiang nulunin [pianak I Ketut-e] (h.r.)
   yesterday 1 AV.help child name-DEF
   ‘I helped I Ketut’s child yesterday’

   b. I Ketut dibi tiang nulunin pianak-ne (h.r.)
       name yesterday 1 AV.help child -3POSS
       ‘As for I Ketut, I helped his child yesterday’

If possessor topicalisation is really a property of termhood, we would expect to see it associated with both complements of a ditransitive verb. This is borne out in (24). The

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7 Similar cases are observed in Tagalog (Kroeger 1993).
8 Because of the definiteness constraint, we cannot have possessor topicalisation associated with an OV’s NP Agent (i.e. the Agent term-complement): a non-pronominal AV Agent must be indefinite whereas the topicalisation requires it to be definite.
fronted possessor *I Ketut* is associated with the first object in (24a) and with the second object in (24b):

(24) a. *I Ketut, ci maang [adin-ne] jam*
    
    name 2 AV.give sibling-3POSS watch
    
    ‘As for I Ketut, you gave his younger sibling a watch’

b. *I Ketut, ci maang cang [jam-ne]*
    
    name 2 AV.give 1 watch-3POSS
    
    ‘As for I Ketut, you gave me his watch’

We would also expect an oblique to preclude possessor topicalisation. This is confirmed in (25). (25b) shows a failed attempt to topicalise the possessor *I Ketut* which is associated with the locative oblique marked by the square brackets in (25a):

(25) a. *Ibi cai ngejang nasi [di bodag I Ketut-e]OBL*

    yesterday 2 AV.put rice in basket name-DEF
    
    ‘You put rice in I Ketut’s basket yesterday’

b. ?*I Ketut ibi cai ngejang nasi di bodag-ne*

    name yesterday 2 AV.put rice in basket-3POSS
    
    ‘As for I Ketut, you put rice in his basket yesterday’

To conclude, possessor topicalisation is a property of terms in Balinese. Evidence comes from the fact that both subject and term-complements, but not obliques, allow it. This is summarised in Table 3.2. Note that this test is not applicable to the OV Agent which requires an indefinite NP (see (16)). This requirement is in conflict with possessor topicalisation, which generally gives rise to a definite (OV Agent) NP.9

<table>
<thead>
<tr>
<th>Topicalisation of possessor phrase</th>
<th>SUBJ</th>
<th>TCOMP (Agt)</th>
<th>TCOMP (Go/Ben)</th>
<th>TCOMP (Th)</th>
<th>OBL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(21b)</td>
<td>✓</td>
<td>n.a.</td>
<td>✓</td>
<td>✓</td>
<td>*</td>
</tr>
<tr>
<td>(24a)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(23, 24b)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(25)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9 An indefinite NP with a definite possessor NP, e.g. as in (English) *a branch of the tree*, is hard to get in Balinese. Without a definite suffix, the possessive construction *carang punyan nangka* as in (i) below is certainly understood as an indefinite NP with an indefinite possessor. With the right pronunciation (e.g. a slight break after the noun *carang*, indicated by a slash /* in (ii)) we could get the intended reading of an indefinite NP with a definite possessor, as the translation shows. However, when this definite possessor is topicalised as in (iii), it leaves a definite pronoun possessor -ne after *carang*, which renders the NP definite and makes the OV structure unacceptable.

(i) Cang tepen *carang punyan nangka*

    1 OV.strike.down branch tree jackfruit
    
    ‘I was struck down by a branch of a jackfruit tree’

(ii) ? Cang tepen *carang /punyan nangka-ne*

    1 OV.strike.down branch tree jackfruit-DEF
    
    ‘I was struck down by a branch of the jackfruit tree’

(iii) *Punyan nangka-ne, cang tepen carang-ne*

    tree jackfruit 1 strike.down branch-3POSS
    
    ‘As for the jackfruit, I was struck down by a branch of it’
3.2.2.2 Resumptive pronoun

A similar process of pronominal copy, unrelated to possession, is likewise observed to single out terms in Balinese. It also involves topicalisation of a noun: the noun is put sentence-initially and a pronominal copy (or, resumptive pronoun) must be used in its original position.

For example, consider the sentence in (26a) where the NP anak-e ento ‘that person’ is SUBJ. It is not topicalised. In (26b), it is fronted and a resumptive pronoun ia ‘3’ appears in its (subject) position (i.e. preverbally). However, this pronominal copy, unlike the pronominal copy in the possessor topicalisation, is optional (26c):

(26) a. Ibi [anak-e ento]SUBJ tomplok montor yesterday person-DEF that car
   ‘The person was hit by a car yesterday’

   b. Anak-e ento ibi ia tomplok montor person-DEF that yesterday 3 car
   ‘As for the person, he was hit by a car yesterday’

   c. Anak-e ento // ibi ___ tomplok montor person-DEF that yesterday car
   ‘As for the person, he was hit by a car yesterday’

Now consider the ditransitive OV verb alihang ‘look for, seek’ in (27). The pronominal copy ia consistently picks up the SUBJ: it refers to the SUBJ I Nyoman in (27a) and to anak luh ento (27b):

(27) a. [I Nyoman] alihang [cang] [anak luh ento] ia
   ART name OV.search.for 1 person female that 3
   ‘I sought the girl for Nyoman’

   b. [Anak luh ento] alihang [cang] [I Nyoman] ia
   person female that OV.search.for 1 ART name 3
   ‘I sought Nyoman for the girl’

   (ia = I Nyoman)

However, a pronominal copy refers back to a topic (TOP) which is not necessarily the SUBJ. Recall that in (27) the subject NP is the only preverbal NP; it is also understood as pragmatically the most prominent item, the TOP. Now consider (28):

(28) a. Tiang ng-alih [anak-e luh ento]COMP ditu 1 AV-search person-DEF female that there
   ‘I sought the girl there’

   b. Anak-e luh ento, tiang ng-alih ia ditu person female that 1 AV-search 3 there
   ‘As for the girl, I sought her there’

---

10 If the pronominal copy is absent, a noticeable break/pause (marked by //) is necessary after the initial NP in (26c) in order to produce the same pragmatic effect as that in (26b). Otherwise no topicalisation may have been implied (=26a).

11 Note that in a sense this pronominal copy appears to be ‘anaphorically bound’ by the subject because it cannot refer to another third person referent outside the sentence.
Sentence (28a) has no pronominal copy, and the SUBJ tiang and the term-complement anak-e luh ento ‘the girl’ appear in their canonical positions. In (28b), tiang (the immediately preverbal NP) remains the SUBJ. In this sentence, however, the complement is fronted and a pronominal copy ia appears in the complement position. In short, the resumptive ia takes the fronted complement, which is the TOP but not the SUBJ, as antecedent.

Now, consider (29), where the two NPs before the verb are potential antecedents. (29a) has a monotransitive verb and (29b) has a ditransitive verb:

(29) a. 1 Nyoman, 1 Wayan ng-ateh ipun drika dibi (h.r.)
    ART name ART name AV-take 3 there yesterday
    ‘As for 1 Nyoman, I Wayan took him there yesterday’

b. 1 Nyoman, 1 Bapa meliang [ia] baju
    ART name ART father AV.buy 3 shirt
    ‘As for 1 Nyoman, Father bought him a shirt’

As the gloss suggests, the pronominal object ipun (29a) cannot refer to the preverbal noun 1 Wayan even though it is a potential antecedent. It must be interpreted as coreferential with 1 Nyoman, the topicalised NP. The same pattern is observed for the resumptive pronoun ia in (29b).

An interesting case involves ditransitive verbs, where more than one complement can be fronted. The pronominal copy consistently picks up the topicalised/fronted item. But it seems also to be associated with the semantically more prominent of the two candidates. First of all, consider (30a): the verb is the applicative counterpart of (28). This is an unmarked structure without a resumptive pronoun. The verb is in OV with the Actor cang ‘1’ functioning as a term-complement. Since both non-Actor term-arguments (1 Nyoman and anak luh ento ‘the girl’) are animate, it is equally possible for them to be interpreted as bearing a Benefactive role. And since the verb is in OV, either non-Actor term can be SUBJ. Therefore we expect two readings to be possible. This is confirmed:

(30) a. [1 Nyoman]$_{SUBJ}$ alih-ang cang anak luh ento
    ART name OV.search-APPL 1 person female that
    (i) ‘I sought the girl for 1 Nyoman’
    (ii) ‘I sought 1 Nyoman for the girl’

b. [Anak luh ento], [1 Nyoman]$_{SUBJ}$ alih-ang cang ia
    person female that ART name OV.search-APPL 1 3
    (i) ‘As for the girl, I sought 1 Nyoman for her’
    (ii) ‘As for the girl, I sought her for 1 Nyoman’

c. [1 Nyoman], [anak luh ento]$_{SUBJ}$ alih-ang cang ia
    ART name person female that OV.search-APPL 1 3
    (i) ‘As for 1 Nyoman, I sought the girl for him’
    (ii) ‘As for 1 Nyoman, I sought him for the girl’
However, consider (30b) and (30c). There are two NPs before the verbs in these sentences. The SUBJs are the NPs immediately before the verbs, namely I Nyoman\(^{12}\) (b) and anak luh ento 'the girl' (c). The sentence-initial NPs are fronted terms. Two things should be observed. First, the resumptive pronoun consistently picks up the fronted (i.e. topicalised) term, not the subject (i.e. reading (i) in both sentences). Second, unlike in (30a) where either term can be Benefactive or Theme (i.e. there are two possible readings), only one reading is possible in the topicalisation (b–c). Crucially, the topicalised NP that is picked up as the antecedent by the resumptive pronoun must be the Benefactive, not the Theme. (Reading (ii) is not possible in either sentence, but I currently have no explanation for this).

The third-person pronominal clitic =a of the OV verb can also serve as a resumptive pronoun. Example (31a) shows it appearing with a monotransitive verb, and (31b) with its applicative counterpart (i.e. ditransitive):

(31) a. I meme, apa jakan=a di paon?
   ART mother what OV.cook=3 at kitchen
   ‘As for Mother, what is she cooking in the kitchen’

   b. I meme, nyen jakan-ang=a nasi kuning?
   ART mother who OV.cook-APPL=a rice yellow
   ‘As for Mother, whom is she cooking the yellow rice for?’

This suggests that the enclitic =a is grammatically a term-complement. The reason is that an oblique cannot take a resumptive pronoun. Consider (32). In (32a), anak-e ento ‘the person’ is an oblique marked by teken ‘to’. Attempts to topicalise it and have a resumptive pronoun ia ‘3’ in the oblique position give rise to bad sentences (32b,c):

(32) a. Tiang matak on [teken anak-e ento] OBL
   I ask to person-DEF that

   b. *Teken anak-e ento tiang matak on ia
   to person-DEF that 1 ask 3

   c. ?*Anak-e ento, tiang matak on teken ia
   person-DEF that 1 ask to 3
   ‘I asked the person (something)’

Likewise, an attempt to have a resumptive pronoun associated with the Agent oblique of a passive construction also fails:

\(^{12}\) The evidence for subjecthood comes from the relativisation test (recall that only the grammatical subject can be relativised, §2.4.3). For example, in contrast to (30c), we can get (i) in which the immediately preverbal NP 'the girl' is relativised, but not (ii):

(i) I Nyoman anak luh ento ane alih-ang cang ia
   ART name person female that REL OV.search-APPL 1 3
   ‘Nyoman, for whom I searched for the girl’

(ii) * I Nyoman ane anak luh ento alih-ang cang ia
   ART name REL person female that OV.search-APPL 1 3
   ‘Nyoman is the one for whom I searched for the girl’

But see fronted QW (§2.4.6).
(33) a. Buku-buku-ne sane tebel-tebel sane patut (h.r.)
book-book-DEF REL thick-thick REL appropriate
ka-urukin [antuk siswa-siswa punika]\ OBL
PASS-learn [by student-student that
'The thick books are the ones that should be learned by the students'

b. ?*Siswa-siswa punika, buku-buku-ne sane tebel-tebel
student-student that book-book-DEF REL thick-thick
sane patut ka-urukin [antuk ipun]\ OBL
REL appropriate PASS-learn by 3
'As for the students, the thick books are the ones that should be learned by them'

To conclude, topicalisation with a resumptive pronoun selects term items in Balinese,
as shown by Table 3.3.

<table>
<thead>
<tr>
<th></th>
<th>SUBJ</th>
<th>TCOMP (agt)</th>
<th>TCOMP (go/ben)</th>
<th>TCOMP (th)</th>
<th>OBL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topicalisation with resumptive pronoun</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>(26,27)</td>
<td>31</td>
<td>(29b)</td>
<td>(28,29)</td>
<td>(33)</td>
</tr>
</tbody>
</table>

3.2.3 Depictive predicates

Depictive predicates such as 'drunk', 'naked' and 'raw' can appear away from the
SUBJ they modify. Consider the following sentences:

(34) a. Tiang manggang sate uyenguyengan / punyah
1 AV.grill satay dizzy drunk
'I grilled the satay dizzy/drunk' (i.e. I was dizzy/drunk)

b. Sate-ne tanding tiang matah
satay-DEF OV. serve 1 raw
'I served the satay raw'

c. #Sate-ne tanding tiang uyenguyengan / punyah
satay-DEF OV. serve 1 dizzy drunk
'I served the satay dizzy/drunk'

The predicates uyenguyengan/punyah 'dizzy/drunk' (34a) and matah 'raw' (34b) modify
the SUBJs tiang 'I' and sate-ne 'the satay' respectively. Uyenguyengan/punyah (34c)
'dizzy/drunk' cannot modify the OV Actor tiang 'I' despite its structural closeness to the
Agent. The sentence is bad because the predicate uyeng-uyengan/punyah is semantically
incompatible with the inanimate/non-human SUBJ sate-ne 'the satay'.

Given the data in (34), one might assume that the depictive predicate in Balinese is a
test for subjecthood. However, further observation reveals that this is not really correct.
In fact, the depictive predicate can be associated with a term-complement (object).
Sentence (35a) is the AV counterpart of (34b). Sentence (35b) shows that the depictive
The predicate 'raw' can still modify the complement 'satay' despite adverbial intervention by *ibi* 'yesterday'. This suggests that it is not positional proximity that matters:

(35) a. Tiang nanding sate-ne *matah-matah*
1 AV.serve satay-DEF raw-raw
'I served the satay raw'

b. Tiang nanding sate-ne *ibi* *matah-matah*
1 AV.serve satay-DEF yesterday raw-raw
'I served the satay raw yesterday'

In the ditransitive construction, the depictive predicate can modify the first object as in (36a),¹ or the second object as in (36b):

(36) a. Ia *naar-ang* panak-ne nasi pules-pules
3 AV.eat-CAUS child-3POSS rice sleep-sleep
'(S)he forced his/her child to eat (i.e. fed him/her) while the child was asleep'

b. Ia *makpak-ang* anak cenik-e ento *ibi* *matah-matah*
3 AV.chew-APPL person small-DEF that banana-3POSS yesterday raw-raw
'He chewed the bananas (i.e. the child’s) for the child yesterday and the bananas were not yet ripe'

Further evidence that the term-complement, in addition to the subject, can be modified by a depictive predicate comes from the fact that there may be ambiguity if the predicate is semantically compatible with either term. Consider the following examples with a monotransitive verb (37) and a ditransitive verb (38). The predicate *malalung* can modify all the term arguments (i.e. the possible readings = the number of arguments):

(37) Tiang nguber I Nyoman *(ibi)* *malalung*
1 AV.chase name (yesterday) naked
(i) 'I chased I Nyoman (yesterday) and I was naked'
(ii) 'I chased I Nyoman (yesterday) and he was naked'

(38) Tiang maang I Nyoman anak cenik-ne *(ibi)* *malalung*
3 AV.give name person small-3POSS yesterday naked
(i) 'I gave I Nyoman his child (yesterday) and I was naked'
(ii) 'I gave I Nyoman his child (yesterday) and I Nyoman was naked'
(iii) 'I gave I Nyoman his child (yesterday) and the child was naked'

However, when sentence (37) is switched to OV, as shown by (39), it becomes unambiguous (even though the intervening adverbial is omitted):

---

¹ The reading where 'sleep' modifies SUBJ (i.e. the feeder, *ia*) is excluded by the common sense constraint that it is unlikely that someone who is asleep can (actively) feed his/her child. (Note *naarang* is not understood to mean ‘breast-feeding’).
Likewise, sentence (40), the OV version of (38), excludes reading (i) (i.e. the one in which the depictive predicate is associated with the Actor of baang ‘give’ (tiang ‘1’)):

(40) I Nyoman baang tiang anak cenik-ne malalung name OV.give 1 person small-3POSS naked
(i) *‘I gave I Nyoman his child (yesterday) and I was naked’
(ii) ‘I gave I Nyoman his child (yesterday) and I Nyoman was naked’
(iii) ‘I gave I Nyoman his child (yesterday) and the child was naked’

At this stage, it is not quite clear to me why the OV Actor cannot take a depictive predicate. It might be the case of discourse non-prominence of the Actor. Nevertheless, we cannot claim that the ability to take a depictive predicate is only a property of SUBJ, because non-subject terms, as examples (38)-(40) show, can take it. Therefore take the view that the ability to take a depictive predicate could well be a property of terms, rather than of subjechthood. And, unlike the subject of which there is only one, term-complements form a group consisting of more than one member. The behaviour of its members may not be completely homogeneous. (There are in fact structural/configurational differences between the various V + complement structures (see §4.3.3.1)).

That the ability to take a depictive predicate is a test for termhood is supported by the fact that an oblique cannot take it:

(41) la matakon [teken anak-e ento]OBL (ibi) punyah 3 ask.question to person-DEF that yesterday drunk
(i) ‘(S)he asked the person questions (yesterday) and (s)he was drunk’
(ii) ‘(S)he asked the person questions (yesterday) and (s)he was drunk’

(41) shows that the oblique marked by teken ‘to’ cannot take the depictive predicate punyah ‘drunk’ (i.e. reading (ii) is not possible), even when there is no adverbial intervention.

The active-passive pair in (42) show a contrast which gives more support to the argument that an oblique cannot take a depictive predicate. That is, the Agent Nyoman can only take the depictive predicate when it is the SUBJ of the active sentence:

(39) I Nyoman usher tiang malalung
ART name OV.chase 1 naked
(i) *‘I chased I Nyoman and I was naked’
(ii) ‘I chased I Nyoman and he was naked’

(39) shows that the oblique marked by usher ‘to’ cannot take the depictive predicate malalung (i.e. reading (i) is not possible), even when there is no adverbial intervention.

The active-passive pair in (42) show a contrast which gives more support to the argument that an oblique cannot take a depictive predicate. That is, the Agent Nyoman can only take the depictive predicate when it is the SUBJ of the active sentence:

(42) I Nyoman baang tiang anak cenik-ne malalung name OV.give 1 person small-3POSS naked
(i) ‘I gave I Nyoman his child (yesterday) and he was naked’
(ii) ‘I gave I Nyoman his child (yesterday) and I was naked’
(iii) *‘I gave I Nyoman his child (yesterday) and the child was naked’

(42) shows that the oblique marked by baang ‘to’ cannot take the depictive predicate tiang ‘1’ (i.e. reading (iii) is not possible), even when there is no adverbial intervention.
(42) a. Nyoman manggang sate uyenguyengan / punyah
ame AV.grill satay dizzy drunk
Nyoman grilled the satay dizzy/drunk (i.e. Nyoman was dizzy/drunk)
b. *Sate-ne panggang-a teken Nyoman uyenguyengan / punyah
satay-DEF grill-PASS by name dizzy drunk
'The satay was grilled by Nyoman and Nyoman was dizzy/drunk)

Table 3.4 shows that depictive predicates seem not to single out SUBJ:

<table>
<thead>
<tr>
<th>Depictive predicate</th>
<th>TCOMP (agt)</th>
<th>TCOMP (go/ben)</th>
<th>TCOMP (th)</th>
<th>OBL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(34a,35a,)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

3.2.4 Imperatives

It has been pointed out that the deletion of the imperative Agent is not a property of
subjecthood, but rather a property of Actorhood (Kroeger 1993). Now, in Balinese an
Actor can be either term or non-term, depending on the voice marking. It is a term in OV
and AV. It is an oblique in the passive. Crucially, Balinese imperatives must be either in
AV or OV, but not in the passive. The real passive in Balinese is marked by ka-.
Sentences (43a) and (43b) are OV imperatives. The
ka-
passive counterpart is not
acceptable (43c):

(43) a. Jemak-ang teh manis malu (NK: 94)
OV.take-APPL tea sweet first
b. Ambil-ang teh manis dumun (h.r.)
OV.take-APPL tea sweet first
c. *Ka-ambil-ang teh manis dumun (h.r.)
PASS.take-APPL tea sweet first
'Take sweet tea (for him) first'

The following is an AV imperative:

(44) Nyemak teh manis malu
AV.take tea sweet first
'Take sweet tea first'

The distinction between the AV and OV imperatives has to do with a definiteness
constraint on the non-Actor argument. The AV imperative requires its non-Actor

15 Specificity does not seem to be a factor here. An indefinite NP can be specific or non-specific (i.e. a
snake can mean 'a particular snake (specific)' or 'any snake (non-specific)'). While sentence (44) can
have a non-specific indefinite NP, the following sentence can have a specific indefinite NP. Crucially, in
this context, an AV imperative must still be used:

a. Nyoman, ma nyemak tiuk sik!
name go.there AV.take knife one
Nyoman, please go and take a knife'
argument to be indefinite, e.g. *teh manis ‘sweet’ tea in (44). Making the complement
definite yields an ungrammatical sentence, as in (45). The OV imperative, on the other
hand, can have its non-Actor indefinite as in (43a) and (43b) above, or definite as in (46)
below:

(45) *Nyemak teh manis-e malu
          AV. take tea sweet-DEF first
   ‘Take the sweet tea first’

(46) a. Jemak-ang bapa ubad(-e) (KA: 114)
          OV. take-APPL father medicine-DEF
   ‘Take (the) medicine for me (Father)’

   b. Breokang yeh anget-e kema
          OV. pour water hot-DEF there
   ‘Throw the hot water there’

The relevant point to mention here is that the deleted Agent can be either subject (for
AV imperative) or term-complement (for the OV imperative). The fact that the passive
imperative is not allowed in Balinese (example (43c)) suggests that the imperative
construction does not allow its (deleted) Actor to be an oblique. Thus, the imperative in
Balinese is a test for termhood.

The impossibility of a passive imperative in Balinese is perhaps a language-specific
property. Other languages are known to have passive imperatives. Indonesian (Bahasa
Indonesia) is such a language. Consider (47). The passive is marked by *di-\(^\text{16}\) (a) and the
non-passive expressed by the bare verb, glossed here as OV (b):

(47) Indonesian

   a. Di-baca saja terus
          PASS-read just continuously

   b. Baca saja terus
          OV.read just continuously
   ‘Just keep on reading’

The context of this sentence is, for example, a situation where a father asks his son to take a specific knife
at (their) home.

\(^{16}\) In Arka and Manning (1998), it is argued that while all uses of *di-
license the Patient to be the surface
subject, some are passive (in the sense that the Agent becomes an oblique and transitivity is decreased by
one) while others are ergative (in the sense that the Agent remains a core/term argument and transitivity
is unchanged, i.e. equivalent to the OV construction in Balinese). Specifically, we propose that *di-
is a
marker for linking the Patient to surface subject with the linking of the Agent being unspecified, hence it
can be either subject or oblique. In particular, we argue that the examples with pronominal clitic -*nya are
ergative not passive, and hence we get, for example, very different behaviour with reflexives: the clitic
*-nya can act as antecedent for a reflexive, while an oblique PP expression of an Agent cannot:

(i) Dirinya tidak di-perhatikan-nya
          self.3 NEG di-care-3
   ‘(S)he didn’t take care of self’

(ii) *Dirinya di-serahkan ke Polisi oleh Amir
          self.3 di-surrender to police by Amir
   ‘Self was surrendered to the Police by Amir’
A passive imperative in Indonesian (with the prefix di-) is generally used to give an indirect, polite recommendation, or a more impersonal instruction than its non-passive imperatives. Hence (47a) is more polite than (47b).\textsuperscript{17}

Now, the crucial test of the syntactic status of the (zero) Actor in these Indonesian examples must come from binding. The idea is that an item can only bind another item if it is more prominent in the argument structure (\textit{a-str}) than the item it binds (see Chapters 6 and 7). Even though the use of passive morphology looks fine, the actual grammatical status of the imperative Agent needs to be determined grammatically. Now, if the passive imperative is really grammatically passive, the Agent must be an oblique. If it is an oblique, we expect to find a problem with reflexive imperatives. In theory (because grammatical prominence is relevant in Indonesian), the passive Agent should not be able to bind a reflexive term, while in a non-passive imperative, binding should be fine. This is exactly what we see in Indonesian, as shown by the following contrast: bare imperative (48a) and passive imperative (48b).\textsuperscript{18}

\begin{exe}
\begin{exe}
\item Indonesian
\begin{exe}
\item \begin{tabular}{ll}
\text{a.} & Salah-kan dirimu \\
\text{wrong-CAUS refl.2}
\end{tabular}
\item \begin{tabular}{ll}
\text{b.} & *Di-salah-kan dirimu \\
\text{PASS-wrong-CAUS refl.2}
\end{tabular}
\end{exe}
\begin{exe}
\item ‘Blame yourself’
\end{exe}
\end{exe}

In contrast to the binding by the understood Agent in the bare imperative (48a), binding in the passive imperative (48b) is not possible. This means that the use of passive morphology is indeed accompanied by a passive syntax where the underlying (deleted) Agent is not a term. The use of passive in the imperative is pragmatically motivated by an avoidance strategy, whereby the Agent-addressee is impersonalised and backgrounded/demoted to oblique status. If no reflexive is involved, such a use of passive in imperative poses no problem (example (47a)). But when binding by a term Agent is required (example (48b)), then we have a problem. The passive can no longer be used because the (Agent) binder is an oblique, syntactically less prominent than the term bindee.

To conclude this section, two points have been established. First, in Balinese, an imperative requires the Actor to be a term. Grammatically, it can be SUBJ (AV

\begin{exe}
\item Both imperatives in (47) would be translated into Balinese OV. The difference in politeness would be expressed through different means, namely an (elaborate) use of the system of speech levels (see Chapter 8 in Arka 1998)
\item Imperatives in Indonesian are generally verb-initial, as example (47) shows and also as shown by the following:
\item a. Ambil anak itu \\
\text{take child that}
\begin{exe}
\item ‘Take the child’
\end{exe}
\item The reverse order is a bit unusual (b). It is accepted in a very marked reading where the initial NP is understood as a cleft/topicalised NP. A clear break after this NP is necessary, otherwise the sentence is odd:
\item b. Anak itu // ambil \\
\text{child that take}
\begin{exe}
\item ‘That child, take him’
\end{exe}
\end{exe}

\textsuperscript{17} Both imperatives in (47) would be translated into Balinese OV. The difference in politeness would be expressed through different means, namely an (elaborate) use of the system of speech levels (see Chapter 8 in Arka 1998).

\textsuperscript{18} Imperatives in Indonesian are generally verb-initial, as example (47) shows and also as shown by the following:
imperative) or complement (OV imperative). The Actor cannot be an oblique, therefore a passive imperative construction is not allowed in Balinese. Second, a passive imperative may be allowed in other languages. There may be syntactic restrictions on such passive imperatives (e.g. reflexive binding), perhaps depending on a language-specific constraint as to whether the syntactic prominence of termhood plays a role in the language. In short, unlike in Tagalog (Kroeger 1993) where the imperative is a test of Actorhood, in Balinese it is a test of termhood, as shown by Table 3.5.19

**Table 3.5: Termhood and imperative**

<table>
<thead>
<tr>
<th>TCOMP</th>
<th>SUBJ</th>
<th>TCOMP</th>
<th>TCOMP</th>
<th>OBL</th>
</tr>
</thead>
<tbody>
<tr>
<td>agt</td>
<td>✓</td>
<td>✓</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

3.2.5 The Actor term revisited

Following Bresnan and Kanerva (1989), Alsina and Mchombo (1993), and others, I assume that alternations such as passive, antipassive, causative, and applicative result from morpholexical operations on argument structure (a-str). (For causativisation and applicativisation, there may be semantic structure operations as well). However, voice alternations in Balinese (OV/AV) result from applying two different subject selection rules (or mapping principles) to the same argument structure and semantic structure (to be discussed in Chapter 5 in detail).

Let us see how the Balinese AV/OV voice markings differ from typical argument-structure changing rules such as passive and antipassive. Consider Table 3.6 (1)-(5) are the points discussed in the foregoing subsections (i.e. Tables 3.1-3.5). Relevant for the determination of the syntactic status of the Agent/Actor are columns 1, 2 and 5. For this reason, they are shaded and only the Agent role is shown.

**OV is not passive.** The analysis that OV is passive is untenable, as the OV has none of the properties typical of passives (apart from the subject being a non-Actor). Consider the properties in Column 2 and 5, Table 3.6. Passive and OV Agents share only the property that they cannot take a depictive predicate (point 4). Also, the OV Agent partly resembles the passive Agent with respect to QF (i.e. in not allowing it with a simple quantifier (1a)).

---

19 It should be noted that one might use the term passive in a very broad way, to include cases such as what I call OV throughout this book. For example, Woollams (1996:207) has what he calls a passive imperative in Karo Batak:

a. Bunuh bam! (PASS).kill to.you
   ‘Drop dead!’

b. ...ula pekpeki bam don’t (PASS).hit.ITER to.you
   ‘Don’t keep hitting yourself’

The verbs *bunuh* and *pekpeki* here are bare verbs (i.e. having no prefix or proclitics), equivalent to the Indonesian *salahkan* ‘blame’ (48) or Balinese OV *breokang* ‘pour’ (46). Further investigation is needed to establish the status (i.e. termhood and surface grammatical relation) of the item glossed as ‘to.you’ in the data, but probably these sentences are better treated as parallel with Balinese OV.
However, the passive Agent and the OV Agent are different with respect to the other properties: the ability to take QF with a complex quantifier (1b), the ability to appear as a resumptive pronoun (3), and the ability to act as an imperative zero argument (5).

Crucially, evidence from binding (6 in Table 3.6) shows that the OV Agent is like the AV Agent and is different from the passive Agent. Consider the OV imperative (49a), where the understood Agent is ‘you’. The understood Agent can bind the Theme reflexive awake ‘self’. Note that a passive Agent as in (49b) cannot bind the term reflexive raganne. In short, an OV Agent is syntactically different from a passive Agent. (A more detailed discussion on binding and passivisation will be given in Chapter 7).

### Table 3.6: Termhood: summary

<table>
<thead>
<tr>
<th>QF with…</th>
<th>1 SUBJ Agt (AV)</th>
<th>2 TCOMP Agt (OV)</th>
<th>3 TCOMP Go/Ben</th>
<th>4 TCOMP Th</th>
<th>5 OBL Agt (PASS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.a QF with simple Qs</td>
<td>✓</td>
<td>*</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>b QF with complex Qs</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>*</td>
</tr>
<tr>
<td>2 Topicalisation of possessor phrase</td>
<td>✓</td>
<td>n.a.</td>
<td>✓</td>
<td>✓</td>
<td>*</td>
</tr>
<tr>
<td>3 Topicalisation of with resumptive pronoun</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>*</td>
</tr>
<tr>
<td>4 Depictive predicate</td>
<td>✓</td>
<td>*</td>
<td>✓</td>
<td>✓</td>
<td>*</td>
</tr>
<tr>
<td>5 Imperative Actor (= zero)</td>
<td>✓</td>
<td>✓</td>
<td>n.a.</td>
<td>n.a.</td>
<td>*</td>
</tr>
<tr>
<td>6 Binding: binder of a term</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>7 marking of the verb</td>
<td>N-</td>
<td>Ø-</td>
<td></td>
<td></td>
<td>ka-</td>
</tr>
<tr>
<td>8 Categorial Marking</td>
<td>never PP</td>
<td>never PP</td>
<td>never PP</td>
<td>never PP</td>
<td>PP</td>
</tr>
<tr>
<td>9 Obligatory?</td>
<td>Yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

(49) a. Edengin la awake
    OV.show 3 self.2
    ‘Show him yourself’

    b. Anak-e punika i ka-edengin raganne i*/j
        person-DEF that PASS-show self.3
        ring poterkan-e antuk ida j
        at mirror-DEF by 3
        ‘The personi was shown himself i*/j in the mirror by him j’

Finally, as far as codings/markings are concerned, OV and passive constructions are also different (rows (7)–(9) in Table 3.6). There is no passive verb morphology: OV is morphologically ‘unmarked’. Instead, it is the AV which is morphologically marked.

---

20 In fact, I analyse it as having a zero prefix, hence as ‘marked’. Table 3.6 clearly shows that there is no Agent demotion involved in AV/OV alternation (columns 1 and 2) in contrast to the passive (column 5), see also §7.4.4).
The categorial realisation of the OV Agent is more like other terms, namely as NP (never as PP). In Balinese, which lacks morphological case, obliques are generally expressed as PPs. A passive Agent is expressed by PP, and is also optional (and often analysed as an adjunct: Grimshaw 1990). The OV Agent is crucially obligatory.21

To sum up, the OV Agent is a direct complement of the verb, not an oblique. The OV verb is therefore not passive.

AV is not antipassive. Could the AV construction be analysed as an antipassive? Antipassivisation demotes the Theme argument to an oblique, which has the effect in a syntactically ergative system of making the Agent a subject (or an absolutive, in an ergative case system). But there is no evidence that the Theme in a Balinese AV clause is oblique. The Theme of an AV verb is syntactically a term-complement (OBJ) whose properties are shown in column 5 of Table 3.6. As can be clearly seen, the AV Theme is not an oblique (e.g. it is an NP, not a PP, it can launch quantifiers, it passes other termhood tests such as possessor topicalisation and topicalisation with resumptive pronoun, etc.).

On the other hand, the intransitive verbs with ma- do seem to exhibit antipassivisation: a transitive/intransitive alternation with the non-Agent argument (i.e. O in Dixon’s term) becoming an oblique (Pastika 1997). For example, A ngenenh O ‘A want O’ → A ma-keneh teken O ‘A has a feeling toward O’. However, I argue in (§7.4.5) that this alternation is better not treated as an antipassivisation, for independent morpho-lexical reasons.

I conclude this section by claiming that the Actor argument of OV and AV is a term. The AV Actor canonically (in pragmatically unmarked structures) comes preverbally and is the subject. The OV Actor, on the other hand, comes postverbally and is a term-complement (i.e. not an oblique). Alternation of OV to AV (or vice versa) does not cause the other argument to become an oblique. Therefore, the OV/AV voice alternation is not a passive or antipassive alternation.

3.2.6 Double term-complements

3.2.6.1 PP-NP alternations

The verb typically associated with double term-complements is ‘give’, in Balinese, baang.22 It is a non-derived ditransitive verb. Like other Balinese verbs, it can appear in OV or AV marking:

(50) a. Abesik mula baang tiang beli Man (TLS:108)
    One really OV.give 1 brother name

21 Clynes (1995) argues that the OV Agent in Balinese is an oblique, not a core argument. His argument is based on the idea that core arguments in Balinese (subject in particular, but also object) must be definite/specific. Since the OV Agent cannot be definite, he concludes that it cannot be a core argument. However, I take the view that grammatical relations and the issue of core/term versus oblique must be syntactically determined. Definiteness is in my view not a correct criterion to determine the grammatical status of an argument. If used, it may lead to a mistaken analysis where the third argument of a ditransitive, which is generally indefinite, is taken to be an oblique. This is certainly incorrect. See §8.4.

22 This is low register. The corresponding high-register form can be morphologically complex atur-ang or simple icen. The choice depends on the social status of the giver and the recipient (discussed in detail in Chapter 8, Arka 1998).
3.2.6.2 Symmetricality

The two postverbal NPs of ditransitive verbs are term-complements, irrespective of the voice markings. The evidence that each of the NPs is a term comes from a number of the termhood tests summarised in Tables 3.1–3.6. (I do not repeat them again, but see below). I have claimed that Balinese is a symmetrical language.23 The symmetricality can be observed in a number of properties:

**SUBJs of OV verbs.** For a ditransitive verb in the OV marking, either non-Actor can be SUBJ. For example, for ‘give’, (50a) illustrates the OV Theme as SUBJ, and the Goal beli Man is an object. The following illustrates the OV Goal (beli Man) as SUBJ coming preverbally and the Theme abesik as an object:

(53) Beli Man mula baang tiang abesik
brother name really OV.give 1 one
‘I really gave you (Brother Man) one’

**SUBJs of passives.** The symmetricality is also observed when a ditransitive verb is passivised. (54a) shows the AV construction, (54b) the passive construction with the Theme as SUBJ, and (54c) the passive construction with Goal as SUBJ:

(54) a. Ida tan ng-icen tiang napi (h.r.)
3 NEG AV-grant 1 anything
‘(S)he did not grant me anything’

---

23 Other Austronesian languages known to be symmetrical are Madurese (Wechsler & Arka 1998) and Bajau (Donohue 1996).
b. Napi tan ka-icen tiang
Anything NEG PASS-grant 1
‘Nothing was granted (to) me’

c. Tiang tan ka-icen napi
1 NEG PASS-grant anything
‘I was not granted anything’

Simultaneous tests of termhood. In the same sentence, termhood tests such as QF, resumptive pronouns, etc., may apply to both term-complements. For example, sentence (55a) shows an AV verb with the TOP NP I Nyoman understood to be the antecedent for the resumptive pronoun ia (the Goal TCOMP), as well as the possessor -ne ‘3POSS’ in panak-ne, the second (Theme) TCOMP. Sentence (55b) and (55c) show the OV counterparts, in which the anaphoric reference does not change:

(55) a. I Nyoman, cang ng-enjuhin ia panak-[nej]
    name 1 AV-passAPPL 3 child-3POSS
    ‘As for I Nyoman, I passed him his child’

b. I Nyoman, panak-[nej] enjuhin cang ia
    name child-3POSS OV.passAPPL 1 3
    ‘As for I Nyoman, it was his child that I passed him’

c. I Nyoman, ia enjuhin cang panak-[nej]
    name 3 OV.passAPPL 1 child-3POSS
    ‘I Nyoman, to whom I passed his child’

Now, consider (56). Sentence (56a) shows the Benefactive TCOMP Anak Agung in topicalised position. The resumptive pronoun ida takes the topicalised NP as its antecedent. In the same sentence, the depictive predicate matab-matab is associated with the second (Theme) TCOMP. Again, the OV counterpart (56b) does not alter the anaphoric relation of the resumptive pronoun ida, or the depictive predication. Thus, AV/OV alternation does not change the termhood status of the arguments:

(56) a. Anak Agung, tiang nyagiang ida sate busan matab-matab
    name 1 AV. serve 3 satay just now raw-raw
    ‘As for Anak Agung, I served him satays just now and they are raw’

b. Anak Agung, sate ento sagiang tiang ida busan matab-matab
    name satay that OV. serve 1 3 just know raw-raw
    ‘As for Anak Agung, it is the satays that I served him raw just now’

Here is another pair of examples:

(57) a. I Ketut, anak-e ento tanjenin=a pipi-s-ne
    name person-DEF that OV.offer=3 money-3POSS
    ibi makejiang
    yesterday all
    (i) ‘As for I Ketut, it’s to all of the persons that he offered his
        money yesterday’
    (ii) ‘As for I Ketut, it is to the person that he offered all his money yesterday’
The sentences differ only in the voice markings, OV in (57a) and AV in (57b) (for simplicity, only one possibility of the OV version is shown). However, the termhood tests (QF and pronominal copy) apply (simultaneously) to the same arguments irrespective of the voice markings. The QF (with makejang 'all') may be associated with either the Benefactive term anak-e ento 'the persons' (reading i) or the Theme term pipis-ne 'his money' (reading ii). The Agent pronominal realised as a clitic =a in (57a), the free pronoun ia in (57b), as well as the possessor -ne in the Theme complement pipis-ne, pick up the TOP NP I Ketut as the antecedent.

To conclude, evidence shown by examples in (53)–(57) show that all the three arguments in ditransitive verbs (the postverbal NPs in particular) are terms, irrespective of the voice markings.

### 3.3 Prepositional obliques

In this last subsection, I discuss briefly some important aspects of oblique markings in Balinese. (More discussion on the syntactic aspects of obliques will be given in relation to morpholexical processes such as binding and passivisation, in Chapter 7). Syntactic units marked by prepositions fall into two grammatical classes: obliques and adjuncts. The status of adjunct is a big topic, deserving a separate study. I will leave it for future research.

#### 3.3.1 Prepositions in Balinese: an overview

The prepositions commonly used in contemporary Balinese are given in (58). The list in (58) demonstrates the following points. First, synonymous prepositions may be differentiated by social distribution (i.e. the register constraint): e.g. the Locative preposition di (a) versus ring (f), the Agentive prepositions teken (c), ba(a)n (g) versus antuk (h). Other synonymous prepositions may be of the same register: antuk (h) and oliah (i). They differ in their distribution with respect to medium: antuk is common both in spoken and written (formal) Balinese whereas oliah is generally encountered only in written formal Balinese. And even other apparently synonymous prepositions such as the Agentive teken (c) and ban/baan (g) may in fact have subtle semantic differences.

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24 Obliques and adjuncts are not always easily differentiated in their surface realisations because they may use the same prepositional markings. Attempts to sort out their properties may be pursued by looking at their differences with respect to participation in other domains of structure, such as argument structure and semantic structure.

25 An account of Balinese adjuncts (adverbials) can be found in Artawa (1994).
Second, the same preposition may be used to encode a range of different meanings. The meanings may be related, such as the use of *di* (58a) to encode points of location ‘at, in, on’. The exact meaning is then dependent upon the context. In contrast, a preposition can encode a range of meanings that seem to be unrelated. *Ring* (58f) is a case in point. It can express Locative (hence equivalent to *di*) but it can also express Agentive (equivalent to *teken*). Again, the appropriate meanings do not seem to be a problem because the context generally gives a clue for the right interpretation. For example, given the occurrences of *ring* (glossed simply with P) in (59), one can get the Locative meaning (59a) (because the object NP *sekolahan-ne* ‘the school’ is a place), Goal (59b) (because the head verb is the AV *nyerahang* ‘give’), Stimulus (59c) (because the head predicate *seneng* ‘happy’ expresses a state), and Agent (59d) (because the head predicate is passive).

(58)  
- **a. di**  
  ‘in, on, at (places)’
- **b. sig**  
  ‘at, in, to (persons)’
- **c. teken**  
  ‘by (Agent), with/by (instrument, person), about, to (person)’
- **d. ka**  
  ‘to (places), into (containers)’
- **e. aji**  
  ‘with (instrument)’
- **f. ring**  
  (i)  
  ‘in, on, at’ (the equivalent of low register *di*)
  (ii)  
  ‘to’ (equivalent of the low register *sig/ka*)
  (iii)  
  ‘with’ (equivalent of the low register *teken*)
  (iv)  
  ‘by’ (equivalent of the low register *teken, ban/baan*)
- **g. baan/ban/ben**  
  ‘by (Agent, instrument)’
- **h. antuk**  
  ‘by (Agent), with (instrument)’
- **i. oilih**  
  ‘by (Agent)’
- **j. uli**  
  ‘from/since’
- **k. saking**  
  ‘from/since’

(59)  
- **a. ring sekolahan-ne**  
P school-DEF  
  ‘at/to school’
- **b. nyerahang dewek ring Ida Sang Hyang Widhi Wasa**  
  AV give self P God  
  ‘give oneself to God’
- **c. seneng ring dewek**  
happy P self  
  ‘happy with oneself’
- **d. ka-duka-in ring I Guru**  
  PASS-angry-APPL P ART teacher  
  ‘(be) reprimanded by the teacher’

---

26 It can also function as a conjunction meaning ‘and’.
27 It is also used as a conjunction meaning ‘because’.
28 It can also be used as a conjunction meaning ‘because’.
3.3.2 Prepositions as Ppred and Pcase

Some of the prepositions mentioned in (58) can be head predicates and some cannot. As head predicates, they are not dependent on other verbs. As non-predicates, prepositions are dependent on other (head) verbs and they express certain (semantic) relations that their object NPs bear with respect to the head verb. For simplicity, following Bresnan (1982), Kaplan and Bresnan (1982) and Andrews (1991), let us call the P in the latter case ‘Pcase’. As for the P acting as head predicate, I will dub it ‘Ppred’. Here are examples of Ppreds:

(60) a. Cening nu di belingan meme-ne (KA:117)
   kid still at womb mother-DEF
   ‘Kid, you were still in your mother’s womb’

b. Ia sig I Nyoman-e ibi
   3 at name-DEF yesterday
   ‘(S)he (went) to I Nyoman’s place yesterday’

c. Ada ane ka warung dagang kopi-ne (TLS:101)
   exist REL to cafe trader coffee-DEF
   ‘There are (people) who went to the cafe’

d. Lakar-ne aji gerang, taluh lan jukut dogen (TLS:96)
   ingredient-DEF from/of dry-fish egg and vegetable only
   ‘The ingredients are dry fish, egg and vegetable only’

e. Nika napi surat-ne ring duur bofet-e (TLS:107)
   that what letter-3POSS at on shelf-DEF
   ‘That is his letter which is on the shelf’

f. Nah, anak titah, Ning, sing dadi olih I raga (LS:6)
   Well, PART bless, name not may by ART 1
   ‘Well, kid, it’s God’s will/blessing, it is not because of us’

g. Ketut Kenes: “Anak uli Karangasem?”
   name person from name (of place)
   ‘Ketut Kenes: “Is the person from Karangasem?”’

h. Oh niki barang-e saking Bandung (TLS:107)
   Oh this thing-DEF from Bandung
   ‘Oh this stuff is from Bandung’

Those capable of being Ppreds appear to be ‘transitive’ in nature: they can have their own SUBJs and complement NPs. Like other verbal predicates, they may be preceded by auxiliaries, etc. (e.g. (60f) above). They can also occur as adjuncts (e.g. ka in (60c) is the head predicate of the embedded relative clause modifying a zero pronoun translated as ‘people’). Unlike verbal transitive predicates, however, Ppreds do not participate in the transitive AV/OV voice marking and therefore have no function alternations.

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29 One could also call it Phead. However, in the case of Pcase, the preposition is also a categorial head. The issue of headedness involves categorial as well as semantic/functional considerations (Simpson 1991; Arka 1993). Since the distinguishing property of a preposition as a head predicate is its semantic/functional headedness as a predicate, I prefer the term Ppred rather to Phead.
The prepositions that cannot appear by themselves (i.e. Pcase) generally mark certain relations which their complements NPs bear with respect to head verbs. The following prepositions belong to this category: baan/ban, antuk, and teken. These Pcase items mark the semantic role of Agent but, in other cases, other roles too. Consider:

(61) a. Ane terang gati ia suba ka-temah ban Widi (KA:127)
REL clear very 3 already PASS-curse by God
‘What is clear is that he has been cursed by God’

b. Buku-buku-ne sane tebel-tebel sane
book-book-DEF REL thick-thick REL
patut ka-urukin antuk siswa-siswa punika (ITN:16)
appropriate PASS-learn by student-student that
‘The thick books are the appropriate books to be learned by the students’

c. Ento anak suba itungang-a teken bapan cening-e (KNK:22)
that PART already think.of-PASS by father kid-DEF
‘That has been already thought of by your father’

The prepositions ban (61a), antuk (61b) and teken (61c) signal the Agent role relation that their complement NPs bear with respect to the head predicate in the respective sentences. Widi ‘God’ (59a), for instance, is the Agent of the (passive) head verb katemah ‘curse’. Its prepositional head ban cannot take a SUBJ NP, as can other head predicates, even though it is semantically plausible:

(62) ??Tatemahan-e ento ban Widi
curse-DEF that by God
‘The curse is by God’

Membership of P in the two categories Ppred and Pcase is not mutually exclusive. Some of prepositions categorised as Ppred may appear as Pcase as well. This depends on the head verb in which the P appears. For example, the P di ‘at/in’ may be thought of as a Pred when it appears with the verb madaar ‘eat’, but as a Pcase with the verb jaang ‘put’.

(For discussion of Pcase, see Bresnan 1982, Kaplan & Bresnan 1982, and Andrews 1991).

3.4 Conclusion

This chapter has discussed terms and complements in Balinese. I have shown that the tests associated with Quantifier Float (QF), pronominal copy, depictive predicates and imperatives pick up term arguments in Balinese. Some of these tests such as QF have been claimed to be subjecthood tests in other languages. However, it might be the case that QF really singles out terms rather than subjects if the specificity/definiteness of an argument is properly controlled in the data.

I have argued that the OV Agent is a term and is different from the passive Agent (which is an OBL). I have shown evidence that the two postverbal NP arguments of ditransitive verbs are terms, irrespective of the voice markings. The symmetricality of the ditransitive complements is shown by the ability of either of them to be SUBJ in OV and passive verbs. The symmetricality is further confirmed by the fact that simultaneous termhood tests are applicable to them in the same sentences.
4 Phrase structure

4.1 Introduction

In this chapter I deal with the phrase structural properties of Balinese syntax. I show that Balinese is a configurational language with relatively rigid word order (§4.2.3), that a variety of categories as well as V can function as head predicate of a sentence (§4.3.2), and that there is evidence for maximal projections VP, NP, PP and AdvP at least (§4.3.3). Of these, only VP and PP include an NP argument (i.e. the structural complement), the argument of AP being outside the maximal projection (§4.3.3.4). Adverbs do not appear to take complements at all. There is a curious asymmetry amongst VP arguments, with the indefinite complement of monotransitive verb being within the maximal projection (§4.3.3.1).

I further show that Balinese has projections of I (inflection) (§4.3.4.1) and D (determiner) (§4.3.4.3), but appears to lack a category of C (complementiser). Balinese is uniformly head-initial with respect to lexical categories (§4.3.5.1). Variations on the canonical word order can be achieved through extraposition either leftwards or rightwards, subject to a definiteness constraint (§4.3.5.2, §4.3.5.3).

4.2 Phrase structure: theoretical background

4.2.1 Constituency and phrase structure

Phrase structure or constituent structure is the hierarchical structure of syntactic units. Constituency relations can be represented in the form of context-free rules such as those in (1). These rules yield a constituency tree which looks like (2). (1)–(2) show that a sentence (S) consists of an NP followed by a VP, and that the VP itself consists of a verb and an NP.

(1)  
  a. S → NP VP  
  b. VP → V NP

(2)  
  \[ \text{S} \rightarrow \text{NP} \rightarrow \text{VP} \rightarrow \text{V} \rightarrow \text{NP} \]
A language having this kind of structure (i.e. with a VP) is generally said to be a configurational language. English is an example of this type. Other languages may have no VP at all, yielding a flat structure for S, as in (3). A language of this type (e.g. Warlpiri (Simpson 1991) and other Australian languages (Austin & Bresnan 1996)) is called a non-configurational language.

(3) 
```
    S
   / \ 
  N(P) V N(P)
```

4.2.2 The significance of structural configurationality

The grammatical significance of an item's structural position is well summarised by Givón (1995):

(4) Observable components of grammatical structure:
   a. Linear order
   b. Nested hierarchic structure
   c. Grammatical morphology
   d. Rhythmics: intonation and pause

(4) shows that linguistic expressions are encoded in sequential, possibly hierarchical, possibly morphologically marked, units with certain prosodic features. Certain items can(not) appear in certain places. The possible occurrences of items and their combinations with other items in a sequence are not random, but rule-governed. Appearance in a certain slot may require an item to bear a certain (grammatical) morphological marker. Also, a change of position to a different slot may yield a certain pragmatic implication (which may be surprisingly similar across languages).

Importantly, discovering the systematic structural constraints of language leads us to explanations and predictions with respect to a range of linguistic phenomena. My approach in this work is lexical. I adopt the view that a phrasal unit (such as a VP in Balinese) embodies a surface ordering of linguistic expressions. Its existence has to be assessed by observable criteria or tests, such as adjacency and joint extraction or 'movement'.

1 A finite sentence (traditionally S) is now conventionally analysed as a projection of category I (i.e. IP) (see the discussion of Balinese IP later in §4.3.4.1). S is still used, however, to mean a non-projective exocentric category (Bresnan 2001:110; also see §4.2.3.1 below). In this case, S means a "(small) sentence" which is not projected from a particular category; that is, a flat structure as shown in (3).

2 Some proponents of transformational grammar believe in an underlying structural level called 'deep-structure' (d-structure), represented in terms of phrase structure configurations. Crucially, the d-structure is thought of as universal: all languages have basically the same 'underlying' phrase structure. Thus, all languages have an underlying VP, even when there is no apparent (surface) phrasal unit. In the following Mohawk example from Baker (1988; 1996), the surface verb-plus-nominal compound word in (b) is assumed to have (virtually) the same underlying d-structure (i.e. with a VP) as the corresponding phrase in (a):
4.2.3 Phrase-structure constraints

4.2.3.1 Endocentricity and lexocentricity

According to Bresnan (2001), universal grammar makes available two distinct modes of organising categorial structures: endocentricity and lexocentricity. Phrasal endocentricity is associated with hierarchical/configurational constituent structures (e.g. in English) whereas lexocentricity is typically associated with flat structure (e.g. in Warlpiri). The two modes of categorial expression correlate, though not strictly, with order constraints. A language of the endocentric type generally has rigid word order because structural configurality is the means of expressing grammatical relations. In this type, for example, subject and object are structurally different: object is within VP and subject is outside it. Languages of the lexocentric type generally specify grammatical relations by morpholexical means (e.g. case and agreement). Word order is therefore less likely to be rigid because it does not serve the same functions it does in the endocentric type. Many languages are a mixture of both types, however.

Balinese is not a case-marking language. Grammatical relations are basically captured by a combination of word order and verbal voice marking. Word order is relatively rigid, with some variation depending on pragmatic factors such as topicality and definiteness. Before considering Balinese endocentric organisation in detail, I now briefly review the X-bar theory which embodies the endocentricity principles.

4.2.3.2 Endocentric structure-function association principles

The association between grammatical information (e.g. SUBJ, OBJ etc.) and structural position is not random, but rather subject to certain universal constraints. Based on cross-linguistic examination of data, Bresnan (2001:102) suggests the following as universal principles of endocentric structure-function association:

Mohawk:

a. Wa’-k-hninu-’ ne ka-nakt-a’
   FACT-sS-buy-PUNC NE NsS-bed-NSF
   ‘I bought the/a bed’
   (Baker 1996:279)

b. Wa’-ke-nakt-a-hninu-’
   FACT-lsS-bed-0-buy-PUNC
   ‘I bought the/a bed’

The lexical approach pursued here excludes such analyses on principle.

3 Even in the VP-internal subject hypothesis (Guilfoyle, Hung, & Travis 1992; Speas 1990), there is still a structural difference between subject and object.

4 The principles given in (5) are somewhat simplified; see Chapter 4 in Bresnan (2001) for further details.

5 X-bar and Balinese structures are discussed in §4.3 but a brief note is needed for the terminology used in (5). First, a standard X-bar theory generally assumes a two-level projection: X (a zero level category) is projected to X’ (an intermediate level), and XP (a maximal level). The sister of X’ which is dominated by XP is called Specifier; the sister of X which is dominated by X’ is called Complement. Thus, the expansion/projection of X forms a phrasal unit (i.e. X’ or XP). Second, a phrasal unit can also be formed by an adjunction, which strictly speaking does not conform the X-bar principle because it does not give rise to a higher-level category; e.g. a unit XP is adjoined to an X’ would form another X’ (see footnote 10 in this chapter). Third, there are two kinds of head in (5a): c-structure and f-structure heads. The c-structure head is the constituent head of the phrase, e.g. V is the c-str head of VP and P is the c-structure
(5) a. C-structure heads are f-structure heads.
   b. Specifiers of functional categories are the grammaticalized discourse functions.
   c. Complements of functional categories are f-structure co-heads.
   d. Complements of lexical categories are the non-discourse argument functions.
   e. Constituents adjoined to phrasal projections are non-argument functions.

Principle (5a) imposes the following association. Suppose we have a VP whose c-str head is a V; then the V itself is associated with the f-structure head. This means that the principle assigns the annotation $\uparrow=\downarrow$ to the V, not to the complement NP, in the phrase-structure tree shown in (6). This in effect spreads the V's information to VP. Hence, we get the association (represented by an arrow from c-str to f-str) in which the information of the head V is shared by the VP.

Principle (5c) says that complements of functional categories are f-structure co-heads. This means that, if the head is a functional category, the $\uparrow=\downarrow$ equation is assigned to both the head and its complement unit. For example, an I (Inflection) is a functional head; it may take a VP as complement. According to this principle, I and VP are therefore functional co-heads. Both get the $\uparrow=\downarrow$ equation. Suppose, I is the English future auxiliary will, then, by principle (5c) (also, by the previous principle (5a)), we can have the following phrase-structure tree and the associated f-str. The f-structure head is a category whose f-structure information is identified with that of its mother node. This is formally indicated in the c-structure annotation by a $\uparrow=\downarrow$. For example, a VP which is a complement of I (i.e. not a c-structure head) is an f-structure (co-)head (see (7)). This allows the f-structure information it carries to be passed up to I'/IP. In this way, we capture the idea that a verb is projected to VP (in terms of c-structure information) but it is actually the f-structure head of the sentence.

---

6 This includes C (complementiser), I (Inflection) and D (Determiner) (section §4.3.4).
7 This is a simplification because the auxiliary will may also express modality (ignored in this representation).
The second principle (5b) regulates the association of the specifier position. It says that specifiers of functional categories are grammaticalized discourse functions. Functions are classified as either (grammaticalised) discourse functions, abbreviated as \(d\)-fns in (11), or as \(nond\)-fns Bresnan (2001:98).^8

(8) Function classification:

\[
\begin{array}{cccccccc}
\text{TOP} & \text{FOC} & \text{SUBJ} & \text{OBJ} & \text{OBJ}_0 & \text{OBL}_0 & \text{COMPL} & \text{ADJUNCT} \\
\hline
\text{d-fns} & & & & & & & \\
\text{non-d-fns} & & & & & & & \\
\end{array}
\]

Supposing the subject is \textit{John}, the English phrase-structure association in (7) can be elaborated to become (9):

(9) Function classification:

\[
\begin{array}{cccccccc}
\text{TOP} & \text{FOC} & \text{SUBJ} & \text{OBJ} & \text{OBJ}_0 & \text{OBL}_0 & \text{COMPL} & \text{ADJUNCT} \\
\hline
\text{c-str} & & & & & & & \\
\text{f-str} & & & & & & & \\
\end{array}
\]

---

^8 In addition, functions are also classified as argument functions \(a\)-fns or \(non-a\)-fns (see (11) below).
As seen in (9), the SUBJ is in [Spec, IP]. It is the specifier of a functional category and, as predicted, it is one of the d-fns. (The information associated with IP is by virtue of principles (a) and (c)).

Principle (5d) states that 'complements of lexical categories are the non-discourse argument functions'. Recall the classification of functions into discourse functions and non-discourse functions in (8). This principle requires the sisters of V in the VP to be complement functions (CF) (e.g. OBJ or OBL) whose values are not shared with discourse-functions such as TOP. This licences the a structure shown in (10):

(10) \[ \text{c-str} \quad \begin{array}{c} \uparrow\downarrow \text{V} \\ \text{XP} \end{array} \quad \text{f-str} \quad \begin{array}{c} \text{PRED} \\ \text{OBJ} \end{array} \]

Finally, principle (5e) relates to adjuncts. It states: 'constituents adjoined to phrasal projections are non-argument functions'. An adjunct is a non-argument function as shown in (11):

(11) Function classification \((a-fns = \text{argument functions})\) (Bresnan 2001:97)

\[
\begin{align*}
\text{a-fns} & \quad \text{TOP FOC SUBJ OBJ OBJ OBL COMPL} \\
\text{non-a-fns} & \quad \text{ADJUNCT}
\end{align*}
\]

This means that, an adjunct can be adjoined to a maximal projection. However, an adjoined item is not necessarily an adjunct, since non-a-fns may be discourse functions which are not adjuncts. For example, the TOP item Ann in the following example (Bresnan 2001:67) is adjoined to IP but is understood as the object of the embedded clause.

(12) \[ \text{[[Ann]}_{\text{TOP}} [\text{I think he likes}]_{\text{IP}}]_{\text{IP}} \]

9 Specifically, a sister to V cannot be SUBJ, TOP or FOC. (ADJUNCT is also excluded from this position because it is not an argument function, see (11)). It should be noted that the discourse functions (TOP and FOC) construed here are a structurally marked TOP and FOC in a slightly narrower sense than the notion of TOP-FOCUS/GIVEN-NEW adopted in the literature. For example, in a broader sense of FOCUS (Choi 1996; Foley 1994, among others), a complement function can be thought of as also bearing a discourse function of a COMPLETIVE FOC. Since this clearly violates principle (d), it is obvious that the sense of FOCUS to which these principles refer is a narrower one.

10 Note that this allows recursive patterns, e.g. to capture multiple adjuncts, where an adjunct YP can be adjoined to a maximal projection XP as in (i) or an intermediate projection X' as in (ii):

(i) \[ \text{XP} \rightarrow \text{YP} \quad \text{XP} \]

(ii) \[ \text{X'} \rightarrow \text{YP} \quad \text{X'} \]

These rules allow recursive patterns because the daughter of \(X'/XP\) will possibly be another \(X'/XP\).
4.2.3.3 Optionality and economy of expression

The constituency structure tree (c-str) in LFG reflects surface linguistic expression, in which strict X-bar principles can be ignored or relaxed. According to Bresnan (2001:91), the X-bar principles are subject to a principle of economy of expression, (13):

(13) Economy of expression:
All syntactic phrase-structure nodes are optional and are not used unless required by independent principles (completeness, coherence, semantic expressivity).\(^{11}\)

For example, economy of expression makes it possible for a maximal projection to lack its head, giving rise to permissible trees such as (14a), where VP consists of just an NP because its head verb is not present. (The verb may appear somewhere else in a larger phrase-structure tree). Likewise, a nominal phrase (Determiner Phrase, DP) can appear without its determiner head D present, (14b):

(14) (a) S (b) DP
   NP    VP    NP
       |       |
       NP    N
       |       |
       N

4.3 Endocentricity in Balinese and X-bar structures

4.3.1 X-bar theory

X-bar theory captures cross-categorial generalisations amongst phrase-structure properties in natural languages by abstracting the structure common to the different categories. There are a number of versions of X-bar theory, differing in the conditions associated with headedness, directionality, and complementation (Baltin & Kroch 1989; Jackendoff 1977; Kornai & Pullum 1990; Webelhuth 1995; among others). In what follows, I take up some points of X-bar theory which are relevant for the study of Balinese phrase structure. The version of X-bar theory assumed here draws from the work on phrase structure which has been adopted in LFG (Bresnan 2001; King 1995; Kroeger 1993).

The general X-bar schema is (15), where the comma indicates no order constraint between the categories it separates. X, Y and Z represent an unspecified category. It may

\(^{11}\) Completeness requires that every function (e.g. SUBJ, OBJ, etc) designated by a head predicate (PRED) must be present in the f-structure of the PRED. Coherence requires that every argument function in an f-str must be designated by the head PRED. Thus, an f-structure associated with a two-place verb with SUBJ and OBJ functions specified by the verb is incomplete if the OBJ is missing and incoherent if there is an OBL present in addition to SUBJ and OBJ. Semantic expressivity essentially requires that every syntactic node in c-str must add new information to the f-str. Thus, a node that provides redundant information must be omitted.
be a major lexical category (i.e. V, P, N, or A) or a minor/functional category such as C (complementiser). Thus for X = V, the X-bar schema will be (16).

\[
\begin{align*}
(15) & a. \ XP & \rightarrow & \ YP , \ X' \\
& b. \ X' & \rightarrow & \ ZP , \ X^0 \\
(16) & a. \ VP & \rightarrow & \ NP , \ V' \\
& b. \ V' & \rightarrow & \ NP , \ V^0 \\
\end{align*}
\]

A zero-level category (e.g. \(X^0\) or \(V^0\)) is a categorial head. The higher levels (\(X'\), \(V'\) and \(XP\) or \(VP\)) are projections of the head. \(XP\) (e.g. \(VP\)) is a maximal projection. Thus, the principle of endocentricity ensures that the head and its phrasal projection are of the same category but differ in level of structural complexity. The sister of a lexical head is the complement (i.e. NP in (16b)) and the sister of an \(X'\) is the specifier (Spec, i.e. NP in (16a)).

4.3.2 Simple sentences: head predicates

The head predicate in Balinese is not always a verb. In addition to a verbal head predicate (17a), Balinese allows different categories to be head predicates: a preposition (17b), an adjective (17c), an adverb (17d), a noun (17e), and even a numeral (17f).

\[
\begin{align*}
(17) & a. \ Ia & \ meli & \ potlot & \ (head:V) \\
& & 3 & \ buy & \ pencil \\
& & & \ 'he bought a pencil' \\
& b. \ Ia & \ di & \ paon & \ (head:P) \\
& & 3 & \ at & \ kitchen \\
& & & \ 'he was in the kitchen' \\
& c. \ Ia & \ pedih & \ teken & \ adin-ne & \ (head:A) \\
& & 3 & \ angry & \ to \ younger.sibling-3POSS \\
& & & \ 'he was angry with his/her younger brother' \\
& d. \ Panak-ne & \ diitu & \ busan & \ (head:ADV) \\
& & child-DEF & \ there & \ just.now \\
& & & \ 'his/her child was there just now' \\
& e. \ I Nyoman & \ kelian & \ desa-ne & \ (head:N) \\
& & name & \ chief & \ village-DEF \\
& & & \ 'I Nyoman is the village chief' \\
& f. \ Bebek-e & \ sia & \ ukud & \ (head: NUM) \\
& & duck-DEF & \ seven \ CLASS \\
& & & \ 'the ducks are seven' \\
\end{align*}
\]

The data above suggest the simplest sentence structures we can have in Balinese (ignoring the auxiliaries). The top-level phrase-structure rules look like this:\(^\text{12}\)

\[
(18) \ S \rightarrow \ NP \ XP
\]

\(^\text{12}\) For the time being, the sentence is labelled as S, though a finite sentence in Balinese is better thought of as IP. I come back to the point in \(\S\)4.3.4.1.
I need to establish that there really are phrasal projections (XPs) in Balinese. Assuming that they exist, the next task is to tease out their internal structure to see if it conforms to the X-bar schema. I begin by considering tests for the existence of VP.

### 4.3.3 Lexical categories

#### 4.3.3.1 VP

##### 4.3.3.1.1 Joint fronting and material intervention tests

It turns out that the success of tests for phrasal unity of a verb and its non-subject arguments (i.e. VP) is correlated with the voice marking on the verb and the definiteness of the non-subject argument.

With an OV verb, the Actor term-complement must follow the verb. It cannot be fronted, nor can any material come before it. In the following sentences, attempts to move the pronominal Actor complement from its position (19b) and to insert an adverbial before it (19c) fail:

\[(19)\]

a. Ooh, enggih, niki, kopi-ne tunas \textit{tiang} (TLS:100)
   ‘Oh yes this coffee-DEF take 1
   Ooh, enggih, niki, kopi-ne tunas \textit{tiang} (TLS:100)
   ‘Oh well, this, the coffee,.. I have it’

b. *Ooh, enggih, \textit{tiang} niki kopi-ne tunas
   \textit{oh yes 1 this coffee-DEF OV.take}
   ‘Oh well...this coffee. I take it quickly’

A non-pronominal OV actor, which must be indefinite (see §2.3, §3.2.1.3–3.2.1.4), shows the same pattern:

\[(20)\]

a. ia \textit{uber cicing} / *cicing-e
   3 OV.chase dog dog-DEF
   ‘A/*the dog chased him/her’

b. *\textit{Cicing}, ia \textit{uber}
   dog 3 OV.chase
   (no fronting)

c. *\textit{ia uber busan cicing}
   just.now dog 3 OV.chase
   (no intervention)

The AV verb, in contrast, can have its complement preposed, especially if it is definite (yielding a marked topicalised NP). For example, the AV construction corresponding to (19a) is (21a). \textit{Kopi-ne 'coffee-DEF} is now a term-complement in (21a). Unlike the OV term-complement, the AV term-complement can be fronted (21b).

\[(21)\]

a. Tiang nunas kopi-ne niki (h.r.)
   1 AV.take coffee-DEF this
   ‘I took this coffee’
An indefinite/generic AV complement cannot generally be preposed, as shown by the contrast in (22a–b), unless it is given a contrastive focus (22c):

(22) a. Sampi ng-amah padang
    cow-DEF AV-eat grass
    'A cow eats grass'

b. *Padang, sampi ng-amah __
    grass cow AV-eat

c. Be, cang musti meli __ sakewala
    meat 1 must AV.buy but
    nasi, cang maan ng-idih __
    rice 1 AV.succeed AV-get.for.free
    'I had to buy MEAT but managed to get RICE for free'

The adverbial-insertion test also suggests a similar pattern. (23) shows the adverbial dibi 'yesterday' intervening before the definite complement 'his/her motor-bike' and the sentence is fine, whereas (23b) shows the resistance to such intervention when the AV complement is indefinite:

(23) a. Tiang sane sampun numbas dibi montor ipun-e
    1 REL already AV-buy yesterday motor-bike 3-DEF
    'It is me who bought his/her motor-bike yesterday'

b. *Tiang sane sampun numbas dibi montor
    1 REL already AV-buy yesterday motor-bike
    'It is me who bought a motor-bike yesterday'

Unlike its OV pronominal Actor-complement (examples (19)–(20)), the AV pronominal Theme-complement can be fronted:

(24) a. Cang ng-runguang ia ditu
    1 AV-care 3 there

b. Ia, cang ng-runguang __ ditu
    3 1 AV-care there
    'I cared for him/her there'

Also, it can be preceded by a sentence adverb (which generally appears with the Agent-subject being given pragmatic prominence) as in (25a), but the appearance of the sentence adverb in sentence-final position is often preferred (25b):

(25) a. Cang ane ng-runguang ibi ia ditu
    1 REL AV-care yesterday 3 there

b. Cang ane ng-runguang ia ditu ibi
    1 REL AV-care 3 there yesterday
    'It's me who took care of him yesterday there'
The facts so far presented suggest that complements of monotransitive verbs show the following patterns. First, an OV Actor complement, irrespective of its nominal type (pronominal or non-pronominal), must be adjacent to its head verb and no fronting or sentence-adverb insertion is possible. Second, an AV (Patient/Theme) complement behaves differently depending on its definiteness. An indefinite non-pronominal AV complement behaves like an OV (Agent) complement in not allowing fronting or sentence-adverb intervention. A definite AV complement (pronominal or non-pronominal) can be fronted and preceded by a sentence adverb. These observations suggest that there are at least two NP positions: one is next to the head V and the other is not. I argue that the one next to the head V is the complement NP within VP, and the other one is outside VP.

Possible expressions of the passive Actor suggest that an Actor can occupy two different positions, confirming that there is an NP position immediately after the verb. Consider the following examples from real texts:

(26) a. Yan saja *ka-temah Widi, ngenken nu masliweran
   If really PASS-curse God why still wandering
   di gumi-ne tenenan (KA:115)
   in world-DEF this
   ‘If he has been really cursed by God, why is he still wandering around here?’

   b. Ane terang gati ia suba ka-temah ban Widi (KA:127)
   REL clear very 3 already PASS-curse by God
   ‘What is very clear is that he has been cursed by God’

The passive Actor Widi ‘god’ can appear as an NP in (26a) or as a PP (26b). The point I want to emphasise is that it is not the case that the preposition is optional in (26a), rather the Actor is an NP occupying a position different from that of PP in (26b), as suggested by the following contrast of possible adverbial insertion:

(27) a. *Ia pasti suba ka-temah pidan Widi
   3 certain already PASS-curse ago god

   b. Ia pasti suba ka-temah pidan ban Widi
   3 certain already PASS-curse ago by god
   ‘(S)he was certainly already cursed by God before’

To conclude, there appears to be an NP position next to the verb, hence within VP, and another position (i.e. for NP/PP) structurally not adjacent to the V, hence outside VP.

So far, I have dealt with monotransitive examples. Further crucial evidence comes from: (i) structural properties of double complements (ditransitive verbs), and (ii) tests for [Spec, VP].

Structural properties of double complements. The question is: is there any structural difference between the two term-complements in relation to the voice marking and definiteness of the arguments of the ditransitive verb? It turns out that there are four important structural properties to note.

First, a general definiteness constraint to note about ditransitive verbs (in Balinese) is that the second complement of a ditransitive verb (i.e. a Theme/Patient) can be either definite or indefinite, but the first complement immediately following the verb (i.e. a Benefactive/Goal in AV verb or an Agent in OV) is almost always definite:
(28) a. Tiang maang [Nyoman / ia / ?*anak] baju (ento)
   1 AV.give name 3 person shirt that
   ‘I gave Nyoman/him/her/*?a person (the/a) shirt’

The Benefactive/Goal NP must precede the Theme NP:

   b. ?*Tiang maang baju (ento) [Nyoman / ia]
      1 AV.give shirt that name 3
      ‘I gave Nyoman/him/her/*?a person (the/a) shirt’

This order constraint, attributed to the animacy of the arguments, will be formulated in (125).

Second, in the OV construction, Actor complements behave the same with either mono- or ditransitive verbs: they structurally form units with the head verbs. For example, sentence (29a) is a double-complement construction where tiang ‘1’ is the Actor term-complement. As with its monotransitive counterpart (e.g. in (19a)), it must immediately follow the verb. Also, it cannot be fronted (29b), it cannot be preceded by any material (29c), and it cannot swap positions with the other complement beli Man (29d):

(29) a. Abesik mula baang tiang beli Man (TLS:108)
    one really OV.give 1 brother name
    ‘I gave you (brother Man) only one (of them)’

   b. *Tiang abesik mula baang beli Man
      1 one really OV.give brother name

   c. *Abesik mula baang ibi tiang beli Man
      one really OV.give yesterday 1 brother name
      ‘I gave you (brother Man) only one (of them) yesterday’

   d. *Abesik mula baang beli Man tiang
      one really OV.give brother name 1
      ‘I gave you (brother Man) only one (of them)’

Third, in the AV construction, each of the ditransitive verb’s complements can be preposed, irrespective of the definiteness of the second (Theme) complement. Consider (30a): the Theme complement kamben ‘cloth’ appears in its normal position following the Benefactive complement. In (30b), we have the first complement preposed and, in (30c), the second complement preposed. Both sentences are acceptable:

(30) a. 1a lakar ng-aba-ang . tiang kamben (KA:118)
    3 FUT AV-bring-APPL 1 cloth
    ‘(S)he will bring me cloth’

   b. Tiang ia lakar ng-aba-ang kamben
      1 3 FUT AV-bring-APPL cloth
      ‘As for me, (s)he will bring me cloth’

13 Unfortunately, we cannot have a full NP actor complement in the OV (ditransitive) verb for further demonstration. There is a conflict of definiteness constraints here: the actor complement NP of the OV verb cannot be definite (see example (7) in §2.3) while the OV verb requires its first complement definite (see the first point above).
c. *Kamben* ia lakar ng-aba-ang tiang
cloth 3 FUT AV-bring-APPL 1
‘(S)he will bring me CLOTH (not something else)’

An adverbial can intervene before either of the AV complements:

(31) a. Wayan maang *ibi* ia pipis(-ne)
   name AV.give yesterday 3 money-3POSS
   ‘Wayan gave him (his) money yesterday’

b. Wayan maang *ibi* pipis(-ne)
   name AV.give 3 yesterday money-3POSS
   ‘Wayan gave him (his) money yesterday’

In short, fronting and adverbial-insertion tests lead to the idea that the ditransitive AV verb does not form a structural unit with its (term) complements. This is essentially consistent with the structural pattern of the monotransitive AV counterpart when the complement is definite.

Recall that an indefinite (Theme) complement of a monotransitive does not generally allow fronting and material insertion (examples (22)–(23)), hence it is like the OV Agent complement, structurally next to the V and within VP. Given the data in (30)–(31), it should be clear now that an AV Theme of a ditransitive verb (which is always the second complement) is structurally different from its monotransitive counterpart, namely it is outside VP, irrespective of its definiteness.\textsuperscript{14}

Fourth, the other non-Actor (i.e. either the Goal/Benefactive or the Theme) term-complement of the OV ditransitive verb, e.g. *sate punika* ‘the satay’ in (32a), appears to be not structurally a unit with the verb: it can be fronted (32b) and preceded by a sentence adverbial (32c):

(32) a. I Wayan tumbas-ang tiang *sate* (*punika*) (h.r.)
   ART name OV.buy-APPL 1 satay that
   ‘I bought I Wayan (the) satays’

b. *Sate* *punika* I Wayan tumbas-ang tiang
   satay that ART name OV.buy-APPL 1
   ‘As for the satay, I bought them for I Wayan’

c. I Wayan tumbasang tiang *dibi* sate (*punika*)
   ART name OV.buy-APPL 1 yesterday satay that
   ‘I bought (the) satays for I Wayan yesterday’

These examples further confirm the pattern that the second complement of a ditransitive verb does not form a phrasal unit with its head verb.

So far the evidence suggests that the constituents that form structural units with the head verbs are: (a) the Actor term-complement of an OV verb (either monotransitive or ditransitive), (b) the indefinite (Theme/Patient) argument NP of a monotransitive AV verb, and (c) the Actor NP of a passive verb (which is also generally indefinite). The constituents that show no evidence of forming a unit with the head verb are: (a) the

\textsuperscript{14} Given the fact shown in (22c), that an indefinite Theme of a montransitive AV verb can be fronted in very special circumstances, it appears that this might be made possible by the two positions available for this Theme NP in Balinese phrase-structure.
definite term-complement of an AV verb (monotransitive or ditransitive), (b) the second term-complement of a ditransitive verb, even if it is indefinite, and (c) the non-term (Agent) complement (e.g. the Agent oblique of a passive verb).

The VP adjunct test. If a verb and its complement form a structural unit (i.e. VP), it should be possible for this unit to take an adverb. We need a VP adverb, not a sentence adverb. A sentence adverb (e.g. *ibi ‘yesterday’) makes an unsatisfactory test because it generally modifies the whole sentence. What we need is a VP adverb such as *pesan ‘very (much) = well’, which unlike a sentence adverb, modifies the VP alone. Now, consider *pesan ‘very/much’ in the OV construction (33). It must appear after the verb, as in (33a). It cannot be moved around (33b). The adverb *benjang ‘tomorrow’ cannot intervene, but it can appear sentence finally (33c):

\[ (33) \text{a. [Ingetang *pesan]} \text{vp niki, enggih, beli Man (TLS-97)} \]
\[ \text{OV.remember very this yes brother name (h.r.)} \]
\[ \text{‘(Lit.) remember this very much, right, brother Man’} \]
\[ \text{‘DO remember this well, brother Man’} \]

\[ (33) \text{b. (*Pesan) ingetang niki (*pesan)} \]
\[ \text{very OV.remember this very} \]
\[ \text{‘DO remember this well’} \]

\[ (33) \text{c. [Ingetang (*benjang) *pesan]} \text{vp niki (benjang)} \]
\[ \text{OV.remember tomorrow very this tomorrow} \]
\[ \text{‘DO remember this well tomorrow’} \]

The AV counterpart (34a) shows a similar pattern: no moving around (34b) and no intervention (34c):

\[ (34) \text{a. Ipun [ninggetang pesan]} \text{vp niki} \]
\[ 3 \text{AV.remember very this} \]
\[ \text{‘(S)he remembers it well’} \]

\[ (34) \text{b. (*pesan) ipun nging etang niki (*pesan)} \]
\[ \text{very 3 AV.remember this very} \]
\[ \text{‘(S)he remembers it well’} \]

\[ (34) \text{c. Ipun [ninggetang (*benjang) pesan]} \text{vp (benjang) niki (benjang)} \]
\[ 3 \text{AV.remember tomorrow very tomorrow this tomorrow} \]
\[ \text{‘(S)he remembers it well/(s)he will remember it well tomorrow’} \]

Given the pattern so far, the contrast of adverb insertion in (35) is expected:

\[ (35) \text{a. Ia nyemak enggal-enggal tiuk-e ento} \]
\[ 3 \text{AV.take quick-quick knife-DEF that} \]
\[ \text{‘(S)he took the knife quickly’} \]

\[ (35) \text{b. *Ia nyemak enggal-enggal tiuk} \]
\[ 3 \text{AV.take quick-quick knife} \]
\[ \text{‘(S)he took a knife quickly’} \]

\[ (35) \text{c. Ia nyemak tiuk enggal-enggal} \]
\[ 3 \text{AV.take knife quick-quick} \]
\[ \text{‘(S)he took a knife quickly’} \]
The adverb can intervene between the verb and the complement only when the complement is definite as in (35a), otherwise the sentence is unacceptable (35b). Sentence (35c) shows the acceptable version of (35b), where the adverb follows the indefinite term-complement.

The adjunct tests show the following two points. First, both OV and AV have a phrasal projection (VP) because the same constraints (no moving around and no intervention) apply. Second, the (definite) AV term-complement, e.g. niki ‘this’ in (34c), is outside VP because the adverb benjang can appear before it, whereas the AV indefinite term complement, e.g. tiuk ‘knife’ in (35), is within VP because the manner adverb enggal-enggal ‘quick-quick’ cannot precede it. Taking into account the points so far discussed, we have the following phrase-structure rules in Balinese:\(^{15}\)

\[(36)\]
\[a. \ S \rightarrow VP \ XP^* \quad (\text{where } XP = NP/PP)\]
\[b. \ VP \rightarrow V'\]
\[c. \ V' \rightarrow V' \ ADV \quad (V'-adjunction, see (5e))\]
\[d. \ V' \rightarrow V \ NP\]

\[(36)\] allows for two different configurations of VP, associated with the difference between OV and AV verbs and the definiteness of the complement:

\[(37)\]
\[a.\quad S \quad \begin{array}{c}
\text{VP} \\
\text{V'} \\
\text{V' NP(Agent)}
\end{array} \quad \begin{array}{c}
\text{ADV}
\end{array}
\]
\[b. \quad S \quad \begin{array}{c}
\text{VP} \\
\text{V'} \\
\text{V' ADV}
\end{array} \quad \begin{array}{c}
\text{NP(Definite Theme)} \\
\text{NP} \\
\text{NP (Indefinite Theme)}
\end{array}
\]

That is, we capture the fact that in Balinese a term-complement NP may appear within VP (e.g. the OV agent NP) as in (37a), or outside it (e.g. the definite AV Theme) as in (37b).

### 4.3.3.1.2 Against a complex X\(^{n}\) analysis

I have shown evidence for VP in Balinese having an NP as its complement and an ADJ within it. However, one might argue, e.g. Clynes (1995), that the sequence of OV-verb followed by N(Agent) constitutes a complex word, involving noun incorporation, perhaps similar to that observed in other languages (Baker 1988; Baker 1996; Mithun 1984; Mithun 1986; Sadock 1986). Likewise, although adverb incorporation is unusual, one might propose that the sequence of V followed by ADV (e.g. pesan ‘very/much’ in (33)–(34)) constitutes a complex verbal structure (V\(^{n}\)), but involving no ‘true’ incorporation,

\(^{15}\) [Spec,VP] in Balinese seems to be absent. It could be the case that the ADV, which is analysed as in adjunction position here, is in [Spec, VP]. While this is a possible analysis, for consistency, I treat all adjuncts in Balinese as in phrasal adjunction positions.
rather an adjunction in syntax, i.e. the adverb (Adjunct) is adjoined to the V°, not V', along the lines of work by Poser (1989) on Japanese periphrastic verbal nouns followed by suru. I show evidence that these analyses are not applicable for Balinese.

OV Actor: against noun incorporation

Real noun incorporation involves a construction where a noun is incorporated inside the head verb, leaving other material associated with it outside the verb, giving rise to discontinuous dependency. Consider:

(38) Mohawk (Postal 1962, as cited in Baker 1988:93–94)

a. Ka-nuhs-rakv [nehneh a-ak-ahninu?]  
   3N-house-white that INDEF-3F-buy  
   ‘The house that she would buy is white’

b. Ka-hus?yi [ne ka-hyaatuhs-r-ah? nehneh k-nuhwe?si]  
   3N-black PRE-book-SUF that Is S-like  
   ‘The book that I like is black’

(38a) shows noun incorporation, where the noun nuhs ‘house’ is inside the head predicate ka-nuhs-rakv, but the relative clause modifying it is not. A parallel sentence exists where a noun is not incorporated, appearing next to its relative clause (38b).

Ignoring for the moment the issue of how the complex verb is formed (e.g. whether it is a syntactic process via head-to-head movement as in Baker 1988), the central fact about noun incorporation is that the complex predicate containing an incorporated noun behaves like a single word, and other material modifying the noun appears outside the complex verb (i.e. is left ‘stranded’ in Baker’s account), as illustrated by the Mohawk examples in (38). The consequence of incorporation can be informally schematised as follows:

(39) a. V [N XP]NP (no incorporation)  
   b. [N V]V [ _ XP]NP (N is incorporated into V)

In short, noun incorporation leads to discontinuous dependency. This is empirically attested in many languages (e.g. Mohawk, Onondaga, Southern Tiwa, and Greenlandic Eskimo, see Mithun 1984, Sadock 1986, and Baker 1988, 1996).

We might expect another consequence of incorporation: if the NP in the non-incorporated structure (39a) can be ‘moved’ (e.g. clefted) in the language, incorporation in the language would yield not only discontinuous dependency as just discussed, but also possible fronting of the material left stranded (i.e. XP in (39b)). Baker (1996:323–324) provides the following examples of questions with/without incorporation from Mohawk:

(40) a. Ka nikáya wa-shé-kΛ-' ne eksá’a?  
   which FACT-2sS/FsO-see-PUNC NE child  
   ‘Which child did you see?’ (ex 86b, p.323)

b. Ka nikáya eksá’a wa-shé-kΛ-'?  
   which child FACT-2sS/FsO-see-PUNC  
   ‘Which child did you see?’ (ex 87b, p.324)

c. Ka nikáya t-Λ-hse-wir-a-hkw-e’?  
   which DUP-FUT-2sS-baby-Ø-pick.up-PUNC  
   ‘Which baby are you going to pick up?’ (ex 85c, p.323)
The first two show no incorporation, with the noun 'child' coming after the verb in (40a), and fronted (together with the question word 'which') in (40b), whereas sentence (40c) shows noun incorporation. Unfortunately, however, Baker (1996) does not provide examples showing the logical consequence of incorporation where the questioned element is a more complex NP such as 'which cute baby did you see?'. In this case, we would expect that the adjective 'cute' could possibly be involved in the (fronted) question in the incorporation structure. Arguably, as I show later, the Balinese OV verb and its Agent N do not involve noun incorporation because the supposedly 'stranded' material cannot be clefted, although a normal NP complement of an AV-verb can (see examples (46)–(51)).

A well-known consequence of incorporation is that it yields a complex X'O (i.e. [N V]v in (39b)). Since X'O is a 'word', the incorporated N is generally bare (i.e. its modifiers are not included in incorporation, but are left stranded), and it is generally structurally adjacent to the V. I show shortly that in Balinese, V followed by an indefinite N complement does not constitute a 'word', as the sequence does not show properties of wordhood (i.e. being X'). In particular, I show that the putatively incorporated N is not really 'bare' because it may get modifiers with it, and mere adjacency, as Poser (1989) points out, is not a truly diagnostic test for incorporation.

The property of being a 'word' must also be morphologically tested: I show that the sequence of OV and Agent nominal cannot be an input in the morphological process of reduplication, as other real words can, suggesting that it is not really a (complex) word (see examples (56)–(58)).

Now, let me discuss these points in detail. On the analysis of a complex 'word' (X'O) (which I dismiss), the structure of ejuk tiang/polisi in (41a), despite the orthography showing two separate words, might be thought of as (41b), where the mother node is a V, rather than as (41c), where the mother node is a V' dominated by VP (for simplicity I represent the mother node as its maximal projection, VP):17

(41) a. Maling-e sampun ejuk tiang/polisi
   thief-DEF already arrest 1/police
   'I have/ A policeman has arrested the thief'

   b. (i) V
       | N
       ejuk
       'arrest'
       tiang
       '1'

   (ii) V
       | N
       ejuk
       'arrest'
       polisi
       'police'

16 However, as Poser (1989) shows using Japanese data, these properties are arguably not properties of true incorporation (especially when the N and V appear to be separate, not really 'within' a word as in Mohawk (38a)).

17 Clynes (1995:190–191) says that the bare verb (i.e. our OV) 'carries a clitic Actor (pro)nominial, either a pronominal or noun phrase'. I am not quite sure whether he intends something like what I am calling an X'O analysis here when he also says that the cliticised Actor forms a single phonological word with the verb (p.191). He seems to assume that there is also a VP in Balinese (e.g. note 22 p.191) without however giving any phrase structure analysis. In short, throughout his dissertation, he strongly suggests that the nominal head of the OV complement gets incorporated into the verb, but he does not discuss any specific mechanism to achieve this.
There are at least two arguments in support of the complex X₀ analysis, but both, I will argue, are not convincing. First, resistance to any intervention. One could argue that, on the basis of lexical integrity, no material can intervene within a word, and therefore that the observed behaviour justifies the X₀ analysis. However, as we also know, the no-intervention test is also a justifiable test of phrasal integrity, and so this argument is not decisive.

The second argument is prosodic. Normally the sequence of OV and its Agent term-complement cannot be prosodically separated by pause/break. This is not convincing either because the corresponding sequence of AV and its term-complement(s), which on the basis of the constituency tests (movement and intervention) may (not) form a phrasal unit, do not normally allow a pause either, irrespective of definiteness. In other words, the prosodic evidence (belonging to phonetics/phonology) does not seem to be reliable enough as a constituency test in syntax, unsurprisingly in view of the fact that structural mismatches between phonology and syntax are widely attested. If we did accept the prosodic test as definitive syntactic evidence, we would be forced to claim one or the other of these two: (i) that the AV verb and its definite complement are within VP (as a structural unit) in the same way as the OV phrasal counterpart, or (ii) that the AV verb and its (in)definite complements form an X₀, in the same way as in the OV complex word analysis. Recall that both such claims are incorrect. There is evidence that the definite complement of the AV verb is not within VP, and secondly, that the AV/OV verb and its complements do not form a complex word, as I now discuss in detail.

There are good syntactic and morphological reasons (syntactic elaboration, movement resistance, gapping and coordination, reduplication) to reject the complex X₀ verb analysis (i.e. with noun incorporation):

**Syntactic elaboration.** The term-complement of the OV, just like that of the AV, can have syntactic elaboration. The basic idea is this. If the postverbal Agent is really a normal nominal unit under VP, then it must respect the structure of a normal NP in syntax (e.g. under PP or S): it must allow structural expansion in accordance with the nominal phrase-structure rules. For example, if it is an NP, then the following elaboration is expected to be possible:

```
(42) VP
    /\  V'
   /\  V
  /\  NP
 /\  N'
/\ PP
\ NP
```

There is evidence that the definite complement of the AV verb is not within VP, and secondly, that the AV/OV verb and its complements do not form a complex word, as I now discuss in detail.
This is confirmed:

(43) a. Ia alih dagang
   3 OV.look for trader
   ‘A trader looked for him/her’

b. Ia alih dagang celeng
   3 OV look for trader pig
   ‘A pig trader looked for him/her’

c. Ia alih dagang celeng uli Badung
   3 OV.look for trader pig from name
   ‘A pig trader from Badung looked for him/her’

The elaboration of the OV term-complement above is parallel to that of its AV counterpart below:

(44) a. Ia ng-alih dagang
   3 AV-look for trader
   ‘(S)he looked for a trader’

b. Ia ng-alih dagang celeng
   3 AV-look for trader pig
   ‘(S)he looked for a pig trader’

c. Ia ng-alih dagang celeng uli Badung
   3 AV-look for trader pig from name
   ‘(S)he looked for a pig trader from Badung’

The OV Agent term-complement can also take a relative clause (45a), in the same way as the AV term-complement (45b):

(45) a. Ia cotot [lalipi ane sing ma-upas]
   3 OV.bite [snake REL NEG ma-poison]
   ‘A non-poisonous snake bit him/her’
   (Lit. ‘A snake which does not have poison bit him’)

b. Ia ngalih [lalipi ane sing ma-upas]
   3 AV-look for snake REL NEG ma-poison
   ‘He was looking for a non-poisonous snake’

To conclude, the indefinite head-noun complements dagang ‘trader’ and lalipi ‘snake’ (in OV-verb or AV-verb) cannot be analysed as being ‘bare’ nouns incorporated into the Vs because they follow a normal phrase-structure expansion in syntax. They must remain within NP as shown in (42).

Resistance to being broken up. Now, if the units elaborating the noun are indeed within NP, then they are expected to resist being broken up (e.g. by fronting part of them or by inserting a sentence adverbial). Recall that incorporation gives rise to discontinuous dependency (39), repeated here:

(46) a. V [N XP]NP (no incorporation)

b. [N V]V [ _ XP]NP (N is incorporated into V)
For a language that allows (46a) and (46b) (e.g. Mohawk), the separation of the noun head and its modifier is expected. It can be overtly shown by the appearance of the head noun inside the verb, or by a possible extraposition of the stranded material (cf. (40), but not well-illustrated in this example), or perhaps by a sentence adverb positioned between the incorporated verb and the stranded material.

If a language only allows (46a) (i.e. not (46b)), a noun head and its modifier cannot generally be separated except in certain circumstances such as QF (which is licensed by an independent syntactic property), because the NP constitutes a phrasal unity. In what follows I show that the Balinese verb-complement sequence exhibits the properties associated with (46a) rather than (46b), hence it involves no incorporation.

First, a complex NP complement can be fronted as a whole (47a), but it cannot be broken up, either by fronting part of its material (47b) or by inserting a sentence adverbial *ibi ‘yesterday’ within the NP (48):

\[(47)\]
\[
\text{a. } [\text{Anak-e ane ulung ditu}]_{\text{NP}}, \text{ tiang nulunin } _{\text{REL}} \text{ fall there } _{1} \text{ AV.help}
\]
\[\text{‘The person who fell off there, I helped (him)’}\]
\[\text{b. } *\text{Ane ulung ditu, tiang nulunin } [\text{anak-e } _{\text{REL}} \text{ fall there } _{1} \text{ AV.help person-DEF}]\]

\[(48)\]
\[
\text{Tiang nulunin (ibi) } [\text{anak-e } (*ib) \text{ yesterday person-DEF yesterday}]
\]
\[\text{REL fall there yesterday}
\]
\[\text{‘I helped the person who fell of there yesterday’}\]

These examples demonstrate the expected sequence of structure (46a), where phrasal unity must be maintained.

Additionally, when the complex NP complement is indefinite, the whole NP cannot be fronted (49a). In contrast to (48), it also resists being preceded by a sentence adverbial (49b): *ibi ‘yesterday’ is possible before the definite NP complement in (48b), but is not possible before the indefinite NP complement in (49b)).

\[(49)\]
\[
\text{a. } ??[\text{lalipi ane sing ma-upas}]_{\text{NP}} ia ngalih \text{ snake REL NEG ma-poison 3 AV-look for}
\]
\[\text{‘He was looking for a non-poisonous snake’}\]
\[\text{b. } la \text{ ng-alih } (*ib) [\text{lalipi } (*ib) \text{ ane sing ma-upas}]_{\text{NP}} \text{ (ibi) yesterday}
\]
\[\text{REL fall there yesterday}
\]
\[\text{‘He was looking for a non-poisonous snake yesterday’}\]

Again, the inability of the whole NP to be fronted is more reasonably attributed to phrasal unity rather than to the idea that the indefinite noun head is incorporated, because incorporation generally produces discontinuous structures allowing relatively free order of the stranded material. And the resistance of adverbial insertion is also due to the phrasal-unity violation of the VP, rather than the complex V°. Note that the Agent-complement NPs of OV-verbs show a similar restriction with respect to material fronting:
(50) a. Ia alih [dagang celeng uli Badung]NP
   3 OV.seek trader pig from name
   ‘A pig trader from Badung sought him/her’

b. *dagang uli Badung ia alih ___
   trade from Badung 3 OV.seek

c. *uli Badung ia alih [dagang ___]NP
   from name 3 OV.seek trader

d. *[Ane sing ma-upas] ia cotot lalipi ___
   REL NEG ma-poison 3 OV.bite snake
   ‘A poisonous snake bit him’

Also, adverbial intervention is not possible within the complex Agent NP:

(51) Ia cotot lalipi (*ibi) ane sing ma-upas (ibi)
   3 OV.bite snake yesterday REL NEG ma-poison yesterday
   ‘A poisonous snake bit him yesterday’

To conclude, the inability of part of a complement NP or the whole NP to be fronted, and resistance to adverbial insertion, irrespective of the voice-marking, can be thought of as being attributable to a constraint of phrasal unity. The idea is that the (Agent/Patient) noun head and the other materials constitute an NP and therefore resist being broken up. This is not expected on the analysis that the head noun is incorporated, because the nominal can have a full syntactic expansion respecting the phrase-structure schema in Balinese, and crucially, there is no evidence for discontinuous dependency.

**Gapping.** Evidence from gapping in syntactic coordination also militates against an X\(^0\) analysis. On the XP analysis, gapping of the OV Agent should be possible because gapping operates in syntax. Parts of words (X\(^0\)), on the other hand, cannot be gapped, a consequence of the lexical integrity principle (Bresnan 1992; Simpson 1991). Hence, on the X\(^0\) analysis, the OV Actor must resist being gapped. The facts speak in favour of the XP analysis. Sentence (52a) shows gapping in AV and (52b) in the OV counterpart, whereas the genuine clitic \(=a\) in (53) resists being dropped. (In fact, the SUBJ in the second clause is gapped too, though not shown here by a dash (___).\(^{18}\)

(52) a. Tiang lakar ng-ejuk ___ tur ngadep celeng-e
   1 FUT AV-arrest ___ and AV.sell pig-DEF
   ‘I will catch and (then) sell the pig’

b. Celeng-e lakar ejuk ___ tur adep tiang
   pig-DEF FUT OV.arrest and OV.charge 1
   ‘I will catch and sell the pig’

---

\(^{18}\) The gapping is not obligatory but, if there is no gapping, the effect is repetitious. It seems to me that these examples could be analysed as gapping with clausal (S) coordination or perhaps V coordination, which in either case would still suggest no incorporation. The possibility of gapping with clausal coordination is suggested by the ability of each verb head to have different modifiers:

Celeng-e, suba ejuk ___ ibi sakewala ___ tonsen adep tiang
pig-DEF already OV.arrest yesterday but not yet OV.sell 1

‘As for the pig, I (already) caught it yesterday but (1) haven’t sold it yet’
(53) a. Tiang ejuk=a tur tilang=a
   1 OV.arrest=3 and charge=a
   ‘(S)he arrested and charged me’

b. ?*Tiang ejuk _ tur tilang=a
   1 OV.arrest=3 and charge=a
   ‘(S)he arrested and charged me’

However, when the OV Agent is a non-pronominal, we have the following contrast:

(54) a. ?Ia ejuk _ tur tilang polisi
   3 OV.arrest and OV.charge police
   ‘A policeman arrested and charged him/her’

b. Ia ejuk polisi tur tilang=a / *tilang_
   3 OV.arrest police and OV.charge
   ‘A policeman arrested and (s/he) charged him/her’

That (54a) does not seem to be good is perhaps due to a pragmatic rather than a structural constraint: a gap is understood to be ‘definite’ and its referent must precede it. To express the idea in (54a), sentence (54b) must be used. Again the clitic =a in (54b) cannot be dropped.

Coordination. The OV complement can have a coordinated structure (55b) which is parallel with the AV complement in (55a). This is not expected on the X⁰ analysis.

(55) a. Ia nyemak [nasi ajak jukut] ditu
   3 AV.take rice and vegetable there
   ‘(S)he took rice and vegetable there’

b. Ia ngipi [uber macan ajak lalipi gede]
   3 dream OV.chase tiger and snake big
   ‘He dreamt of being chased by a tiger and a big snake’

In short, the fact that the complement’s noun head can be syntactically elaborated and then behave in the same way with respect to constituency tests, irrespective of the voice marking (OV or AV), suggests that the OV Agent term-complement is really an NP. Thus, to repeat the point again, the sequence of OV verb followed by its Agent NP constitutes a phrasal unit, dominated by a VP; it is not a V⁰.

The same reasoning applies to reject an V⁰ analysis even when the putatively incorporated Agent is a pronominal. The Agent pronominals do not show clitic-like characteristics (as opposed to, say, the real clitic =(n)a). A pronoun clitic is generally unstressed and morphologically of shorter form than its corresponding full pronoun, commonly of one syllable, like the Balinese -(n)a clitic of the third-person pronoun ia. Contrary to these expectations, pronominals such as ida, ipun, ia (all meaning ‘3’) and titiang ‘1’ appear in the same forms irrespective of whether or not they are OV Agent complements. (They also appear in the same forms when they function as subjects). Crucially, even in the case when they appear in the OV Agent term-complement, they can be stressed, as they can elsewhere. Analysing these multi-syllabic forms as clitics only when they appear in the OV seems to be unwarranted. The only commonly adopted reason for the X⁰ analysis is that the pronoun cannot be separated; but we have rejected this as insufficient. I will therefore claim that the Balinese pronominals which appear in the same forms associated with different functions are not clitics and are never cliticised or
incorporated. Thus, the OV term-complement (ti)jang ‘I’ is a normal pronoun under a nominal projection (DP/NP).

Finally, reduplication supports an XP analysis. Given the idea that reduplication is a morphological process, where a word/stem (or part of it) is generally copied, we expect that, on the XP analysis, because the OV Agent nominal is not morphologically part of the V, it should not be included in the V reduplication (to express ‘repetition of an event’). This is borne out. Consider the AV-verb ‘touch’ in (56) and its OV counterpart in (57):

(56) a. Cang nundik-nundik Nyoman
   1 AV.touch-AV.touch name
   b. *Cang nundik Nyoman nundik Nyoman
      2 AV.touch name AV.touch name
      ‘I touched Nyoman repeatedly’

(57) a. Nyoman tundik-tundik cang
      name OV.touch-OV.touch 1
   b. *Nyoman tundik cang tundik cang
      name 1 OV.touch 1
      ‘I touched Nyoman repeatedly’

These examples show that the V reduplication copies the whole word (and takes place after the voice marker is attached: tundik → nundik → nundik-nundik,*nundik-tundik). Importantly, the process excludes the complement NPs (e.g. Nyoman in (56a) and cang in (57a)), irrespective of the verb-form. The same applies for the OV Agent which is an indefinite noun:

(58) a. Batis-ne gugut-gugut bikul
      foot-DEF OV.bite-OV.bite mouse
   b. *Batis-ne gugut bikul gugut bikul
      foot-DEF OV.bite mouse OV.bite mouse
      ‘His/her foot was repeatedly bitten by a mouse’

The observed reduplicative behaviour, where only the V is copied, is exactly what is expected on an XP analysis.

To sum up, both the constituency tests (movement, insertion, gapping and coordination) and the morphological properties of reduplication support the claim that we have a phrasal unit VP in Balinese. And, specifically in relation to the OV verb, there are good syntactic and morphological reasons to dismiss an X° analysis.

Against an X° adjunct

I have concluded that Balinese VP may take an adverb as an adjunct in its phrasal adjunction position, as shown by schema (36). However, one might propose an incorporation-like analysis for the [V ADV] sequence. That is, the V followed by ADV (e.g. pesan ‘very/much’ in (33)–(34)) would constitute a complex verbal structure (V°) involving no ‘true’ incorporation (i.e. would be treated as ‘periphrastic’ incorporation without any implication that the complex structure is lexically a ‘word’, similar to Poser’s
(1989) analysis of the Japanese periphrastic noun + suru construction) Before considering Balinese, let me briefly show the basic idea in Poser’s analysis.

Consider the following Japanese sentence, where the complex periphrastic verb *benkyoo site-iru* takes *eigo-o* as the (accusative) object:

\[(59) \text{Eigo-o benkyoo site-iru} \]
\[\text{English-A study doing-be} \]
\[\text{‘(He) is studying English’} \]

According to Poser, the (bare) verbal noun *benkyoo* and the verb *site-iru* in (59) constitute what has been traditionally analysed as incorporation, based on facts such as case-marking, scrambling, etc., which show that the sequence behaves like a single verb. However, he also points out that the sequence shows phrasal properties in terms of prosodic features (i.e. accentuation), morphological rules of reduplication (i.e. only the *suru* portion, not the entire sequence, is reduplicated), and nominalisation (i.e. it is impossible to make a nominalisation of the supposedly incorporated structure.) He concludes that the so-called ‘incorporated’ structures in Japanese are not incorporated at all because they remain analysable in syntax (and indeed in discourse structure). His proposal is to allow a V to dominate N V, where N is the verbal noun and V is *suru*:

\[(60) \begin{array}{c}
V \\
N & V \\
\end{array} \]

Essentially, he posits a phrasal rule schema (violating the X-bar principles) permitting the expansion of a zero-level category only into other zero-level categories. Note that this would also account for the adjacency requirement and case-marking facts (e.g. by saying that the upper V takes the accusative object *Eigo-o* as exemplified in (59)).

Turning to Balinese and adopting a similar analysis, the adverb *pesan* exemplified in (33)–(34) would be analysed as (61b) rather than (61a):^20^ 

\[(61) \begin{array}{ll}
\text{a. VP (V' adjunction) analysis} & \text{b. V^o adjunction analysis} \\
\begin{array}{c}
\text{VP/V'} \\
\text{V'} & \text{ADV} \\
\text{V} & \text{ADV} \\
\text{ingetang pesan} & \text{ingetang pesan} \\
\end{array} & \\
\end{array} \]

There is evidence to reject the V^o adjunction analysis (61b) in favour of the VP/V' analysis (61a). First, on the V^o adjunction analysis, the adverb is adjoined to a zero-level category only (i.e. V^o), but, as we have observed, Balinese *pesan* does not have this

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19. This is a form of *suru* 'to do'.

20. For simplicity, since [Spec,VP] seems to be absent in Balinese, a multiple V' representation in (61a) is abbreviated as VP/V' on the top node. It will be henceforth called a VP/V' analysis in contrast with a V^o adjunction analysis.
property. Specifically, it can appear with a phrasal unit [V NP(Agent)] as in the OV-verb construction (62a), which is actually a V’ as shown in (61a):

(62) a. Niki jagi [ingetang tiang pesan ]_vp
   this FUT OV.remember very
   ‘I will remember THIS very much’

b. *Niki jagi [ingetang pesan tiang ]_vp
   this FUT OV.remember very 1
   ‘I will remember THIS very much’

Indeed, an attempt to force the adverb to adjoin to the V° (62b) gives rise to a bad sentence. On the V° adjunction analysis, (62b) would be fine because it expands V° to V°. (Note that the badness of (62b) cannot be attributed to the idea that the pronominal Agent tiang is a clitic because I have shown that there is no good reason to treat free pronominals (ti)tiang, ipun, etc., in contrast to =(n)a, as clitics in Balinese).

Further evidence for a VP/V’ analysis comes from the adverb dogen ‘only’. Consider (63), where dogen possibly modifies a VP with coordinated OV Actors (italicised):

(63) Ia ngipi [uber [macan ajak lalipi gede] dogen]
   3 dream OV.chase tiger and snake big only
   ‘(S)he dreams of being only chased by a tiger and a big snake’ (i.e. if (s)he dreams, (s)he dreams of being chased by a tiger and a big snake)

The adverb dogen modifies the VP headed by uber ‘OV.chase’, and crucially, the OV Actors coming before the adverb constitute a complex NP (coordinated by ajak). Clearly, the OV Actor NP is not incorporated or cliticised to the OV verb uber. Thus, the X° adjunction analysis of the adverb is untenable because the adverb cannot be said to be adjoined to the V° head uber.

On the VP/V’ analysis, with dogen ‘only’ being in the VP, we expect that a definite AV term-complement cannot come before dogen because the definite term-complement is outside VP (see phrase structure schema (36)). This is confirmed. Consider:

(64) a. Tiang [ng-urut-ng-urut dogen]vp batis-ne
   1 AV-massage-AV-massage only leg-3POSS
   ‘I only massaged his legs (I did not do anything else)

b. Tiang [ng-urut-ng-urut]vp [batis-ne dogen]np
   1 AV-massage-AV-massage leg-3POSS only
   (i) ‘I massaged only his legs (not other parts of his body)
   (ii)*‘I only massaged his legs (I did not do anything else)

When dogen is in within VP projected from an AV verb, the AV complement batis-ne ‘his leg’ must come after dogen (64a), otherwise when dogen comes after the complement, it is understood as the modifier within NP of the complement (64b). Reading (ii), which is the same as that in (64a), is not possible.

An OV verb, on the other hand, must have its term-complement come before the adverb dogen, and crucially, although separated from the V, the adverb still modifies the head V because it is the adjunct of the VP, the projection of the V:
(65) Batis-ne [urut-urut tiang dogen] VP
foot-3POSS OV.massage-0V. massage 1 only
'I only massaged his/her feet'

In short, the fact that the adverbs dogen 'only' and pesan 'very/much' may or may not be adjacent to the head V is what is expected on the VP analysis, not on the X0 analysis.

Finally, consider the position of the adverb dogen with the following ditransitive OV-verb:

(66) a. Ia lakukan [baang cang dogen] VP nyuh-e
3 FUT OV.give 1 only coconut-DEF
' I will just give him the coconuts' (i.e. I won't prevent him from having them)

b. Ia lakukan [baang cang] VP nyuh-e dogen
3 FUT OV.give 1 coconut-DEF only
(i) *'I will just give him the coconuts'
(ii) 'I will give him just the coconuts'

(66a) has the adverb dogen coming after the Agent complement and is understood as being in adjunction position within VP. Thus, as in (65), it modifies the V(P). Now, given the Balinese phrase structure where the second term complement of a ditransitive verb is outside VP (see examples (30)-(32) and phrase-structure schema (36)), the position of the adverb dogen after the second complement nyuh-e in (66b) is predicted to be possible, but it is expected to be unable to modify the VP. This expectation is confirmed (i.e. reading (i) is impossible).

To sum up, V is structurally projected to VP, with adverbs dogen and pesan in adjunction position within VP. There is evidence against a periphrastic incorporation (i.e. X0) analysis similar to that for Japanese suru. The VP/V' analysis proposed here predicts the different positions of adverbs like dogen and their associated different scopes. This section gives support to the claim that only the OV Agent complement and the indefinite complement of a monotransitive AV/OV verb are within VP, and that the other complements are outside VP, daughters of S.

In the following three subsections, I show evidence for phrasal projections of the major lexical categories N, P, A, and ADV. I will not, however, delve into the internal structure of these projections in any great detail.

4.3.3.2 NP

There is evidence for an NP in Balinese as illustrated by (67).

name AV-search NOML-care cow from name
'Nyoman was looking for a cowboy from Badung'

b. *Pa-ngangon sampi Nyoman ng-alih uli Badung
NOML-care cow name AV-search from name

c. *Uli Badung Nyoman ng-alih pa-ngangon sampi
from name name AV-search NOML-care cow

d. Nyoman (ibi) ng-alih ibi
name yesterday AV-search yesterday
Nyoman was looking for a cowboy from Badung yesterday. The string in brackets shown in (67a) is an NP headed by a derived noun pa-ngangon ‘carer’, taking a complement sampi ‘cow’ and a PP adjunct uli Badung ‘from Badung’. The NP cannot be broken up by fronting its constituents parts (b–c) or by inserting the adverb ibi ‘yesterday’ (d). (The adverb can appear elsewhere, e.g. before or after the NP).

4.3.3.3 PP

The following examples illustrate Balinese PP. The P head uli ‘from’ takes an object complement Badung and an adverbial adjunct jeg ‘just’. Attempts to break up the PP by moving parts away yield bad structures (b–c). As expected, a sentence adverbial ibi ‘yesterday’ cannot intervene in the PP (d):

(68) a. [Jeg [uli Badung]PP ia majalan ibi] just from name 3 walk yesterday ‘Just from Badung (s)he walked yesterday’
b. *[Jeg [uli _]] ia majalan ibi] Badung just from 3 walk yesterday name
c. *[ _ [uli Badung]PP ia majalan ibi] jeg] just from name 3 walk yesterday just
d. [Jeg (*ibi [uli (*ibi) Badung]PP (ibi)] ia (ibi) majalan (ibi)] just yesterday from name 3 walk

4.3.3.4 AP

Consider the italicised structure in the following sentence which is headed by an adjective:

(69) a. Kajegegan-ne tan anut ring parisolah ipun-e (LS:3) beauty-3POSS NEG compatible with behaviour 3-DEF (h.r.) ‘Her beauty is not compatible with her behaviour’
b. Ring parisolah ipun-e, kajegegan-ne tan anut with behaviour 3-DEF beauty-3POSS NEG match ‘With her behaviour, her beauty is not compatible ’
c. Ia demen pidan teken tiang 3 like formerly with 1 ‘(S)he used to like me’

As shown by the possible fronting in (69b), the PP headed by ring acting as the OBL argument of the adjective does not constitute a phrasal unity with its head. In addition, a sentence adverb can intervene between the head and the PP (69c).

On the other hand, an adjunct modifying the adjective head (e.g. the intensifiers gati, pisan ‘very (much)’ must appear next to the head (70a), hence the badness of (70b):
But a sentence adverb busan ‘just now’ can appear before or after the OBL PP:

(71) a. Ia pedih gati busan teken Nyoman
   3 angry very just.now to name
   ‘He was very angry with Nyoman just now’

b. Ia pedih gati teken Nyoman busan
   3 angry very to name just.now
   ‘He was very angry with Nyoman just now’

The intensifier itself appears to form a strict structural unit with the adjective head. For example, it must be adjacent to the adjective head as shown by the contrast of pisan in (70). Also, gati in (71) cannot appear sentence-finally, as shown by (72a), and the sentence adverb busan ‘just now’ cannot come in between, as shown by (72b):

(72) a. *Ia pedih busan teken Nyoman gati
   3 angry just.now to name very
   ‘He was very angry with Nyoman just now’

b. *Ia pedih busan gati teken Nyoman
   3 angry just.now very to name
   ‘He was very angry with Nyoman just now’

This fact clearly suggests that we have an adjective phrase (AP) in Balinese, with intensifiers like gati ‘very’ and pisan ‘very’ functioning as adjuncts of the AP. However, the structural status of the PP (OBL) argument of the head seems to be less clear. The fact that it can be structurally preceded by a sentence adverb (e.g. busan ‘just now’) and/or by an AP adjunct (gati/pisan) (71a), and that it can be extraposed sentence-initially (69b), show that the PP (OBL) is not structurally as tight as the complement within an NP. The AP in Balinese apparently contains no complement PP; structurally, the oblique PP is outside the projection (AP), under S, as exemplified by the partial structure of sentence (71).21

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21 On an alternative analysis, the intensifier gati/pisan would be an X0 adjunct (and the PP complement would be within the AP). This would be in line with the X0 analysis of the verb, discussed at length in §4.3.3.1.2. Since I have dismissed an X0 analysis in the case of verbs, I will henceforth ignore the possibility in discussing projections of other categories.
This structure is consistent with the proposed phrase-structure rules in (18) and (36). Additionally, it becomes clear that an argument NP/PP can appear outside the maximal projection of its head predicate.

4.3.3.5 ADVP

An adverb can take a modifier and form a structural unit with it. For example, the adverb *kereng* ‘often’ can take a modifier *pesan* ‘quite, very’ (*pisan*, the h.r. equivalent). The sequence *kerengpesan* ‘quite often’ resists fronting (74b) and intervention (74c):

(74) a. Ada kone lutung jaruh *kereng pesan* ngusakasik (SBB:30)
   exist said monkey wild often very AV.disturb
   ‘It was said that there was a wild monkey which quite often
   disturbed (people)’

b. *Pesan* ada kone lutung jaruh *kereng* ngusakasik
   very exist said monkey wild often AV.disturb

c. *Ada kone lutung jaruh kereng* di desa *pesan* ngusakasik
   exist said monkey wild often at village very AV.disturb
   ‘It was said that there was a wild monkey which quite often disturbed
   (people) in a village’

Since the modifier *pesan* is grammatically a modifier/adjunct, I analyse it not as a complement of the adverb, but as an adjoined ADV to ADV’ within ADVP. I have not found any candidates for complements of adverbs. I therefore assume that the adverbs cannot take complements in Balinese.

4.3.4 Functional categories

The principle of endocentricity can be extended to functional (F) categories such as complementisers, finite auxiliaries and determiners (Abney 1987; Bresnan 2001, among others). For example, I (a category of temporal/aspectual particles or finite auxiliary verbs) is projected to IP; C (a category of complementisers) is projected to CP; and D (a category of determiners or pronouns) is projected to DP. We thus have the following inventory of X⁰ categories (Bresnan 2001:100):

(75) a. F⁰ : C⁰, I⁰, D⁰
   (‘functional’ categories)

b. L⁰ : N⁰, V⁰, A⁰, P⁰
   (‘lexical’ categories)

An interesting relationship between F and L is noted by Bresnan (2001:100). She says that functional categories are specialised subclasses of lexical categories. That is, I is a verbal category, D is a nominal category, and C may be verbal or nominal. This is based on the following observations. First, in many languages, the I and C positions are occupied by verbal elements (e.g. German second position verbs) while the D position is occupied by nominal elements. Second, just as VPs dominate verbal projections and NPs dominate nominal projections, so in general CPs dominate IPs and IPs dominate VPs, while DPs dominate NPs.

Now, I will take a detailed look at Balinese functional categories IP, CP and finally DP.
Phrases Structure

4.3.4.1 IP

It should be remembered that the label I (Infl) and its maximal projection IP are used here to denote a subclass of grammatical categories (i.e. F in contrast to L). I am not asserting that Balinese has an inflection system in the sense familiar from Indo-European languages, with (auxiliary) verbs inflected for tense, etc. Even though Balinese has no such system, finiteness can still be identified. A sentence itself can be identified as an IP, projection of I. Evidence comes from a contrast between finite and non-finite sentences (to be discussed below in § 4.3.4.1.1).

4.3.4.1.1 The complement of I: S or XP?

So far, I have not been explicit in the structural representation of a finite sentence. I have referred to a sentence as an S. Recall that a head predicate in Balinese can be any lexical category (see §4.3.2). I have also shown that an argument (NP/PP) of a head predicate appears outside the maximal projection of the head, except for the OV Agent NP. Now, given the conventionally accepted idea that a finite S is an IP (which is indeed the case in Balinese), and the SUBJ NP is in [Spec, IP] (which is a default TOP, to be discussed shortly in §4.3.4.1.2), the phrase structure for a (finite) simple sentence in Balinese can be represented as (76).

(76) (i) IP → XP22  I’
  (ii) I’ → I   S
  (iii) S → XP*

(76) says that IP dominates an S. The sister of I is S, not XP. (Note that I use the symbol S here to mean a kind of non-projective or ‘flat’ structure, which is different from an independent (configurational) IP; see Bresnan (2001:109–114) and Dalrymple (2001:64–67).23

There are a couple of reasons why the functional head I does not take XP as its complement in Balinese. First, we want to capture the fact that structurally complement NPs are outside VP, as discussed earlier (§4.3.3.1). This is achieved via (76iii), which together with the other rules, licenses phrase-structure trees such as (77). Note the NP sisters to VP:

(77) IP (= finite S)
    NP
    I’
    I
    S (=non-finite S)
    VP
    NP(non-Agent)  NP(non-Agent)

22 Subject is generally an NP, but it can be also another category such as a V(P) (see sub-sections on control and complex arguments, §§5.2.4.4–5.2.4.5). Therefore, I represent it as an XP rather than an NP.

23 Kroeger (1993) argues that Tagalog also has a flat S structure. While Balinese appears to show a VP structure within S, there seems to be no clear evidence for VP in Tagalog and in many other Austronesian languages of the Tagalog-type.
Second, given the inventory of IP, I’ and S, we can capture the distinction between finite clauses (=IP, the upper S in (77)) and non-finite clauses (= the lower S, the complement of I). Consider:

\((78)\) a. \([\text{lakar} [\text{meliang Nyoman nasi}]_S]_I]_P\)
   3 \text{FUT AV.buy name rice}
   ‘(S)he will buy Nyoman rice’

b. \(\text{Ia edot } [(*\text{lakar}) \text{meliang Nyoman nasi}]_S\)
   3 \text{want FUT AV.buy name rice}
   ‘(S)he wants to buy Nyoman rice’

\((78a)\) shows a finite sentence where the future auxiliary \text{lakar} (I) takes S (underlined), rather than VP, as its complement. In \((78b)\), on the other hand, the same (underlined) string/structure functions as a complement, but this time, a complement of the verb \text{edot}. Crucially, since \text{edot} takes a non-finite clause/sentence, only the lower S (i.e. excluding I \text{lakar}) is possible. An attempt to include \text{lakar} renders the sentence unacceptable (*lakar in \((78b)\)). Recall that, although the underlined string looks like a VP, there is no evidence that AV and its complements form a VP (as discussed in §4.3.3.1, schema (36) and also the third point below).

Third, more evidence for the analysis in which the string consisting of V and its non-Actor complement(s) are under S comes from the fronting of a phrasal verbal unit to form a pragmatically marked structure (e.g. in question or contrastive focus). Consider \((79)\):

\((79)\) a. \([\text{Nyoman } [\text{beli-ang cang}]_V\text{P nasi}]_S]_I]_P\)
   \text{name OV.buy-APPL 1 rice there}
   ‘I bought NYOMAN rice there’

b. \([\text{Cang } [\text{meli-ang Nyoman nasi}]_S]_I]_P\)
   \text{1 AV.buy-APPL name rice there}
   ‘I bought Nyoman rice there’

Both sentences logically mean the same, the difference being in the voice markings (OV in \((a)\) and AV in \((b)\)) and the associated pragmatic implications of the (preverbal) SUBJ arguments.

Importantly, the main structural difference between \((79a)\) and \((79b)\) concerns the status of the second complement: the OV Actor \text{cang} is within VP and the AV non-Actor \text{Nyoman} is not. We therefore expect them to behave differently when the verb is focussed by fronting it sentence-initially. This is confirmed. Consider:

\((80)\) a. \text{Beli-ang cang }//\text{ Nyoman nasi ditu OV.buy-APPL 1 name rice there}
   ‘I DID buy Nyoman rice there’

b. \(*\text{Beli-ang }//\text{ Nyoman cang nasi ditu OV.buy-APPL name 1 rice there}\)

\((81)\) a. \text{Meliang }//\text{ cang Nyoman nasi ditu AV.buy 1 name rice there}
   ‘I BOUGHT Nyoman rice (i.e. not TOOK it for free) there’

b. ?*\text{Meliang Nyoman }//\text{ cang nasi ditu AV.buy-APPL name 1 rice there}
Focussing by fronting the OV verb requires the (Actor) NP complement to be fronted as well (80a). Leaving it under S is not allowed (80b). Focussing the AV verb, on the other hand, allows the verb alone to be fronted, leaving the NP complement under S (81a). With a ditransitive verb, where there are two NP complements under S, fronting one of them together with the AV (and leaving the other under S) is not allowed (81b).

It is predicted that, for a monotransitive verb, the whole S can be fronted. Then, fronting AV together with its (only) term complement is allowed. In contrast to (81b), we can have (82a). Fronting with the corresponding OV is certainly possible (82b). (In either case, nothing is left stranded under S).

\[(82)\]
\[
\begin{array}{ll}
\text{a. } & \text{[Ngalih-ngalih } \text{ Nyoman]s \_ \_ cang \_ \_ ditu } \\
\text{AV.search-AV.search name 1 there} \\
\text{Searching for Nyoman (for a while) was what I did there'} \\
\text{b. } & \text{[Alih-alih cang]vp]s } \_ \_ Nyoman \_ \_ ditu } \\
\text{OV.search-OV.search 1 name there} \\
\text{I DID search for Nyoman (for a while) there'}
\end{array}
\]

\[4.3.4.1.2 \ [\text{Spec, IP}: \text{SUBJ and/or TOP}]

I am suggesting that the Spec of IP is the grammaticalised discourse-function SUBJ (Bresnan 2001). It is commonly assumed that the subject is also canonically the understood topic of a sentence. The question now is whether [Spec, IP] can be thought of as TOP too. There are two views: the strong view and the weak view.

The strong view is that [Spec, IP] is also the position of TOP. This means that the subject of a finite clause is also (always) a topic. This can be represented as follows:

\[(83)\]

The view that SUBJ-TOP is [Spec, IP] is also consistent with the view adopted in (Guilfoyle, Hung, & Travis 1992) for Austronesian languages.

The weak view is that [Spec, IP] is the SUBJ position, which is not necessarily a TOP position. In this view, SUBJ is an unmarked TOP.\(^{24}\) In contrast to (83), the annotation of [Spec, IP] would then be:

\[(84)\]

In a marked structure, TOP is adjoined to IP, and equated with some item other than SUBJ:

\(^{24}\) In other words, the default sharing would be SUBJ = TOP, unless indicated otherwise by the appearance of an item adjoined to IP.
I argue that, based on examination of Balinese data, the second view is the correct one. The evidence comes from the dissociation of SUBJ and TOP. This can be achieved by having an indefinite NP linked to SUBJ. The indefiniteness prevents it from being an eligible TOP. For example, anak len 'someone else' is a non-topic SUBJ in (86) (because it is indefinite). It is [Spec, IP] because it comes before the auxiliary lakar.

(86) [Anak len lakar [nyemak nyuh-e ento]s]IP
    person else will AV.take coconut-DEF that
    'Someone else will take the coconut'

The definite complement can be fronted giving rise to a marked structure:

(87) [[Nyuh-e ento]TOP // [anak len lakar nyemak]IP]
    coconut-DEF that person else will AV.take
    'As for the coconut, someone else will take it'

Unlike in (86), the complement nyuh-e ento in (87) is TOP, adjoined to IP. A break (represented by //) must follow the TOP. Like in (86), anak len in (87) remains SUBJ but it is a non-TOP subject. Thus, we have evidence that [Spec, IP] is the subject position without necessarily being understood as TOP.

Now, when the subject is definite, then by default it is also TOP, unless some other item is adjoined to IP as TOP. Hence, in the following example (88), the SUBJ ia is by default the TOP.

(88) [[Ia]SUBJ(TOP) suba meli montor]IP
    3 PERF AV-buy motor-bike
    '(S)he has bought a motor-bike'

Ia can also bear a contrastive FOC. One way to achieve this is to give it stress and follow it by a clear break (indicated by //), leaving the subject position empty:

    3 FUT AV-buy motor-bike
    'It is him/her who will buy a motor-bike'

Another way is to fill [Spec, IP] with a relative pronoun ane 'who':

(90) [[Ia]FOC [ane [lakar meli montor]]l]IP
    3 REL FUT AV-buy motor-bike
    'It is him/her who will buy a motor-bike'

Both TOP and FOC can appear to the left of the subject, as shown by the following very marked structure where two NPs are adjoined to IP:
To conclude, a marked discourse-function TOP or FOC can be adjoined to the left of IP. Unless otherwise structurally marked, the default TOP is the subject. The dissociation of SUBJ and TOP can be clearly seen when the subject is an indefinite nominal.

4.3.4.2 CP

The item that seems to act most like a complementiser (C) in Balinese is the question marker that is used to introduce a subordinate clause. For example, the following clause introduced by apa ‘if/whether’ (also napi (h.r.) ‘if/whether’) is a finite clause with a FUT auxiliary lakar:

(92) Wayan tusing nawang [apa [ia lakar meli montor anyar]IP]CP

name NEG know QW 3 FUT AV.buy motor-bike new

‘Wayan doesn’t know whether (s)he will buy a new motor bike’

Note the contrast between (86b) and (92): the verb edot ‘want’ requires a non-finite clause (lakar is not allowed) whereas nawang ‘know’ takes a finite clause (lakar is allowed).

The issue is whether the question word can be thought of as a C, possibly projected to CP. There is a tendency for the QW to act like a C in Balinese, but no clear evidence that it is a C. Let us look at some aspects of the occurrences of QWs in dependent and independent clauses.

First, Balinese lacks a pure complementiser like English that or if/whether. A clausal complement comes after the matrix verb without a complementiser (where that is always possible in English):

(93) a. Beli Made ngorahang [nelokin yeh ka carik-e] (KA:117)
brother name AV.say AV.visit water to rice-field-DEF

‘Brother Made said that he checked the water in the rice-field’

b. Nanging tiang masih percaya [beli Man ngerti] (TLS:104)

but I still believe brother name AV.understand

‘But I still believe that brother Man is understanding...’

Second, the QW apa (l.r.) or napi (h.r.) seems to act like a C, translatable into ‘if/whether’ (94), but there is no clear evidence that it is in a C position.

(94) Ia edot nawang [apa anak-e suba/lakar/sedeng macelep kema] 3 want know what people-DEF PERF/FUT/PROG enter there

‘(S)he wants to know whether the people have entered/will enter/are entering the place there’

The evidence for a distinct C position comes from auxiliary inversion in familiar languages like English, as in these examples from Radford (1989:298ff):

(95) a. ‘Will I get a degree?’ John wondered.
b. John wondered whether he would get a degree.
c. John wondered would he get a degree.
d. *John wondered whether would he get a degree.
The functional category C has verbal properties (Bresnan 2001), and the auxiliary will/would can appear in this position as in sentence (95a). In a subordinate clause, C may also be occupied by the auxiliary as in (95c). However, when it is occupied by the real C whether as in (95b), the auxiliary would must appear in its I position, otherwise the sentence is unacceptable (95d). Balinese, although it shows auxiliary inversion in interrogative structures with QW apa/napi ‘if/whether’, does not show evidence for C. Consider the non-subordinate counterpart of (94) below. (96a) shows apa without auxiliary inversion, (96b) shows apa with inversion, and (96c) shows inversion without apa. Note that only suba can be inverted, with or without apa (96b–c).

(96) a. Apa anak-e suba/lakar/sedeng macelep kema?
   What people-DEF PERF/FUT/PROG enter there
   ‘Have the people entered (the place) there/
   Will the people enter (the place) there/
   Are the people entering (the place) there?’

   b. Apa suba/?lakar/*sedeng anak-e macelep kema?
   What PERF/FUT/PROG people-DEF enter there
   ‘Is it the case that the people HAVE entered/
   ?will enter/* are entering (the place) there?’

   c. Suba/?lakar/*sedeng anak-e macelep kema?
   PERF/FUT/PROG people-DEF enter there
   ‘Is it the case that the people HAVE entered/
   ?will enter/* are entering (the place) there?’

Crucially, when the structure appears as a subordinate clause, the same restriction is observed. The following is the counterpart of (97) with inversion in the embedded structure, where only suba can be inverted.

(97) a. Ia edot nawang [suba/?lakar/*sedeng anak-e macelep kema]
   3 want know PERF/FUT/PROG people-DEF enter there
   ‘(S)he wants to know whether it is the case that the people HAVE entered/?will enter/*are entering (the place) there’

   b. Ia edot nawang [apa suba/?lakar/*sedeng anak e macelep kema]
   3 want know PERF/FUT/PROG people-DEF enter there
   ‘(S)he wants to know whether it is the case that the people HAVE entered/
   ?will enter/*are entering (the place) there’

There are at least three points to note. First, unlike English if/whether (95d), Balinese (97) apa can be followed by the inverted PERF auxiliary. This suggests that apa is not really in C. Second, the unacceptability of auxiliary inversion in Balinese has nothing to do with C position, because when there is no apa (if apa is a indeed C) the sentence is still unacceptable for the inverted lakar/sedeng ((96c) and (97a)). And third, as seen from the gloss, the pragmatic implication of being a FOC associated with apa is typical of a QW, hence it is better treated as occupying the FOC position rather than C position.

I therefore conclude that the functional category of C is absent in Balinese. This means that we do not have a CP in Balinese. A FOC (adjunct) unit is analysed as being adjoined
to IP. A clausal complement may either be an IP unit or an S, embedded under S, in the same way as other complement functions.25

4.3.4.3 DP

The determiner (D) ene ‘this’ or ento ‘that’ appears to take the NP as its complement. For example, the NP (which consists of a head noun and a complement) (98a) can be elaborated with a PP adjunct (98b). These NPs can be thought of as the complements of the Ds (98c, d):

(98) a. [dagang celeng]NP
    trader pig
    ‘a pig trader’

b. [dagang celeng [uli Badung]PP]NP
    trader pig from name
    ‘a pig trader from Badung’

c. [[dagang celeng]NP ento/ene]DP
    trader pig that/this
    ‘this/that pig trader’

d. [[dagang celeng uli Badung]NP ento/ene]DP
    trader pig from Badung that/this
    ‘that/this pig trader from Badung’

The question now is whether we should analyse the nominal structure as a DP, rather than as an NP with a D in [Spec, NP]. There are at least four reasons to adopt a DP analysis. First, the D which contributes definiteness to the whole structure occupies a structural position different from that of other elements of the NP that may also contribute definiteness/specificity. For instance, the definite suffix -e (99a) and/or the possessive phrase can co-occur with the D ene ‘this’ in the same nominal unit (99b). This means that D is a different category from the possessive unit.

(99) a. Celeng-e ene
    pig-DEF this
    ‘This pig’

b. Celeng tiang-e ene
    pig 1-DEF this
    ‘(Lit. This my pig)/this pig of mine’

Second, the DP analysis gets support from the fact that the D can stand alone as a nominal head, as in the following examples:

25 The relative (s)ane cannot be analysed as occupying a C position because it is restricted to SUBJ, hence [Spec, IP]. In Balinese, we therefore cannot have the same structural position as in English that:

(i) The man [that I saw] ....
This must be expressed in Balinese by an OV verb with Theme-REL-SUBJ:

(ii) Anak-e [ane tingalin tiang].
    person-DEF REL OV.see 1
A third reason for the DP analysis is the fact that there is another unit that appears to occupy [Spec, DP]. This is the unit that is filled in by a quantifier (onya, makejjang, or sami (h.r.) ‘all’). Evidence that the quantifier is in [Spec, DP] comes from the fact that it appears with the D alone, as in (101a). Also it appears at the outer/rightmost position of a nominal structure (101b) vs (101c):

(101) a. [Ento onya]DP
    that all
‘Those all’

b. Dagang celeng uli Badung ento onya
    trader pig from name that all
‘All of the pig traders from Badung’

c. *Dagang celeng uli Badung onya ento
    trader pig from name all that

Evidence involving quantifiers must be used with care, because under certain circumstances they can float away. Crucially, though, the ability to launch quantifier float (QF) is a property of terms, not obliques (see §3.2.1). We would therefore expect that the quantifier is guaranteeably in [Spec, DP] when the DP functions as an oblique. The contrast can be seen in the following examples, where (102) has the quantifier in a SUBJ DP, and (103) has it in an OBL DP:

(102) a. [Dagang celeng-e uli Badung ento onya]SUBJ teka
    trader pig-DEF from name that all come
‘The pig traders from Badung all came’

b. Onya dagang celeng-e uli Badung ento teka
    all trader pig-DEF from name that come
‘(S)he does not like all of the pig traders from Badung’

(103) a. Ia tusing demen
    3 NEG like

    [teken [dagang celeng-e uli Badung ento onya]]OBL
    with trader pig-DEF from name that all
‘(S)he does not like all of the pig traders from Badung’

b. *Onya ia tusing demen
    all 3 NEG like

    [teken [dagang celeng-e uli Badung ento ]]OBL
    with trader pig-DEF from name that
(i) *(S)he doesn’t like all of those pig traders from Badung’
(ii) They all don’t like those pig traders from Badung’
Onya in (102a) is part of the subject DP and fronting it (102b) is fine. Onya in (103a) is part of the Theme oblique DP and fronting it is not possible (reading (i) of (103b)). Note that the sentence is fine on reading (ii), where onya is taken as part of the SUBJ DP. In short, the possible fronting in (102) is not really an argument against the structural analysis of the quantifier as part of DP, because that is made possible by a specific termhood property.

To conclude, we have evidence that there is a DP in Balinese. The phrase structure of the DP associated with the oblique in (103) can be shown as follows:

\[\text{(104)}\]

\[
\begin{array}{c}
\text{P} \\
\mid \\
\text{PP} \\
\mid \\
\text{DP} \\
\mid \\
\text{D'} \\
\mid \\
\text{NP} \\
\mid \\
\text{teken} \\
\mid \\
\text{dagang celeng-e uli} \\
\mid \\
\text{Badung} \\
\mid \\
\text{ento} \\
\mid \\
\text{onya}
\end{array}
\]

with trader pig-DEF from Badung that all

\[
\begin{array}{c}
\text{Q} \\
\mid \\
\text{D}
\end{array}
\]

\[\]

4.3.5 Directionality

4.3.5.1 Balinese: head initial?

Based on the previous discussion, the phrase structures in Balinese are summarised below:

\[\text{(105)}\]

Head-initial:

a. VP \[V \text{ [complement NP/DP]} \text{ [adjunct ADVP]}\]
b. NP \[N \text{ [complement NP/DP]} \text{ [adjunct PP]}\]
c. PP \[P \text{ [complement NP/DP]} \text{ [adjunct ADVP]}\]
d. AP \[A \text{ [adjunct ADVP]}\]
e. ADVP \[ADV \text{ [adjunct ADVP]}\]

Not (really) head-initial:

f. IP \[\text{[subject DP]} \text{ [I [complement S]]}\]
g. DP \[\text{[subject NP]} D \text{ [adjunct quantifier]}\]

As seen in (105), Balinese is basically a head-initial language, at least with respect to lexical categories (a–e). The situation is less clear with the functional categories (f–g).

---

\[26\] In the subsequent discussion, for simplicity, I will use NP instead of DP, unless the nominal head D is present. Thus, the nominal phrase structure of (i) is simply referred to as (ii):

\[\text{(i) DP} \text{ (ii) NP} \]

\[\text{NP}\]
4.3.5.2 Antitopic or verb extraposing?

Normally, the subject comes before the verb (specifically in [Spec, IP]). However, in certain circumstances the subject can come after the verb, giving a slightly different meaning. As a result, we have a verb-initial construction, which however is better thought of as two different constructions.

In one construction, it is the verb that has been extraposed to sentence-initial position, giving the effect of contrastive focus:

\[(106)\]

a. Ia ngae surat
   3 AV.make letter
   '(S)he wrote a letter'

b. Ngae // ia surat
   AV.make 3 letter
   '(S)he DID write a letter'

This is entirely parallel with fronting a complement NP, giving it a contrastive FOC interpretation. Hence, I would argue that in Balinese, adjunction to IP, associated with an effect of contrastive focus, is not restricted to nominals. A verb can be adjoined to IP, and is subject to the same pragmatic interpretation of contrastive focus. Thus, sentence (106b), can be thought of as having the following structure:

\[(107)\]

This verb-initial construction is common in narrative discourse where a new activity or event is being focussed/contrasted rather than the participants in the event. Consider the following quotations:

\[(108)\]

a. *Ngambil* titiang sepeda, *ma-sepeda-an* titiang kangin
   AV.take 1 bike ma-bike-an 1 east
   kauh ring kota genah titiang-e ma-sekolah. (ITN:16)
   west at town place I-DEF ma-school
   'I TOOK my bike, (then) I RODE it around in the town where I pursued my education'

   Now PERF name rma-age about six year
   *Ajahin-a* ia ngulat bubu teken pekak-ne.
   teach-PASS 3 AV.plait bamboo.trap by grandfather-3POSS
Masih ajahin-a I Ubuh ma-sastra. (SB)
also teach-PASS ART name ma-literature

'Now, I Ubuh is already about six years old. He was TAUGHT plairting bamboo traps by his grandfather. He was also TAUGHT reading (literature).'

In (108a), the activity with respect to the bike, not the participant titiang ‘I’, is under focus: the speaker TOOK it and then RODE it. Likewise in (108b), what happened to I Ubuh is narrated: he was TAUGHT to do a number of things by his grandfather; hence the verb ajahina ‘(be) taught’ is given focus and fronted.

The other route to a verb-initial structure comes from extraposition of the subject to sentence-final position. For example, consider (109):

(109) a. Baju-ne jemak=a
    shiit-DEF OV.take=3
    '(S)he took the shirt'

b. Baju-ne // jemak=a
    shir-DEF OV.take=3
    '(As for) the shirt, (s)he took it'

c. Jemak=a // baju-ne
    OV.take=3 shir-DEF
    (i) '(S)he TOOK the shirt (i.e. (s)he DIDN’T LEA VB it)'
    (ii) '(S)he took it, the shirt/ the shirt, she took it'

Sentence (109a) is an unmarked structure (no clear break after the subject baju-ne ‘the shirt’). Sentence (109b), with a clear break (marked by //), has the noun baju-ne as a marked TOP. Sentence (109c) has the reverse order, with a clear break after the verb jemaka. The last sentence is ambiguous between two readings, suggested by the glosses: reading (i) is the contrastive FOC reading where the verb is fronted, whereas reading (ii) is the afterthought TOP or ANTI-TOP reading. The structural ambiguity of sentence (109c) can be captured by the phrase-structure contrast in (110):

(110) a. FOC reading               b. (ANTI-)TOP reading

\[
\begin{align*}
\text{(FOC)} & \quad \text{IP} & \quad \text{(TOP)} \\
\text{V} & \quad \text{IP} & \quad \text{IP} \\
\quad \text{S} & \quad \text{V} & \\
\quad \text{NP} & \quad \text{NP} & \\
\text{jemak=a} & \quad \text{baju-ne} & \quad \text{jemak=a} & \quad \text{baju-ne} \\
\text{OV.take=3} & \quad \text{shir-DEF} & \quad \text{OV.take=3} & \quad \text{shir-DEF}
\end{align*}
\]

Both have an adjoined extraposed unit: (110a) has the verb extraposed, which in effect gives rise to reading (109c.i), whereas (110b) has the NP extraposed, yielding the other
reading in (109c.ii). The intonation patterns of the two are different: the verb with the contrastive FOC reading has a rising intonation and a strong stress (generally accompanied by vowel lengthening) on the penultimate syllable whereas the verb with the ANTI-TOP reading has a rather flat intonation with no such a strong stress. Note that, in each case, the break/pause corresponds to the structural adjunction of the pragmatically marked item.

The evidence that the extraposed nominal is a TOP/ANTI-TOP comes from the fact that it must be definite. Thus, an attempt to make the (ANTI)TOP item indefinite fails, as shown by (111b). Sentence (111a) can, however, only have a contrastive FOC (not a TOP) reading.

(111) a. Baju // jemak=a
   shirt OV.take=3
   (i) ‘(S)he took a SHIRT’ (not something else)
   (ii) ‘??As for a shirt, (s)he took it’

b. *Jemak=a // baju
   OV.take=3 shirt
   *‘(S)he took it, a shirt’

Another example, with a more elaborate structure, is shown in (112). The NP Lemayur is a marked TOP, and a clear pause, indicated by //, must follow. The resumptive subject pronoun ia comes after the auxiliary suba ‘PERF’ (which is also understood here as pragmatically marked because canonically an auxiliary follows SUBJ):

(112) Lemayur // suba // ia tis. (MRH:12)
     name PERF 3 peaceful
     ‘As for Lemayur, he HAS been at peace’

Interestingly, in the following sentences, we have different orders but Lemayur continues to be thought of as a markedly topical item (i.e. (ANTI-)TOP):

(113) a. Suba ia tis // Lemayur
     PERF 3 peaceful name
     ‘He, Lemayur, HAS been in peace/
      (As for) Lemayur, he HAS been at peace’

b. Suba tis ia // Lemayur
     PERF peaceful 3 name
     ‘He, Lemayur, has been at peace’

Again, the sentences in (113) can be analysed as structurally having adjunction(s) to IP. The branching is now to the right, however. The phrase structure of the sentences in (113) can be shown in (114):
I analyse the subject ia in both (114a) and (114b) as being in [Spec, IP], the difference being in the branching. That is, (114b) shows that Balinese allows right branching of [Spec, IP] as well as left-branching. Another difference shown above is that I suba in (a) is fronted, adjoined to IP (as a FOE item), whereas in (b) it appears in its canonical position. 27

The ordering [Spec, IP] is therefore bi-directional with respect to its sister. Hence, we can revise the previous phrase-structure schema to become (115), where the comma separating two units indicate that there is no order constraint between them: 28

(115) Balinese phrase-structure rules (final version)

- a. IP → XP, P
- b. IP → XP, I’
- c. I’ → I
- d. S → XP*

It should be clear now that I do not account for the different orderings of items as ‘free ordering’ within S. Such an analysis cannot capture the fact that different orderings have different pragmatic implications of focus/(anti-)topicality. The analysis adopted here (captured by the phrase-structure schema in (115)) asserts that an item can be adjoined to IP, as a result of which it then carries a certain pragmatic implication and the structure is understood as pragmatically marked.

27 As already shown in examples (94, 96, 97), the auxiliaries do not behave uniformly with respect to fronting. It appears that suba ‘already’ can come postverbally whereas lakar and sedeng cannot:

Wayan meli buku suba/*/lakar/*sedeng
name AV.buy book PERF/*FUT/*PROG

The preferred sequence is that I precedes its complement (i.e. S). One way to capture this fact is to say that suba has a specific property of allowing a different order. Or alternatively, suba is analysed as being a (sentence) adverb (i.e. more-like already in English) rather than an auxiliary.

28 We still need to account for the distribution of sedeng and lakar. Presumably they are members of the verbal category I, specified somewhere (in their lexical entries perhaps) as necessarily preceding their complement.
4.3.5.3 Fixed S-V(-complement) order

Even though phrase-structure schema (115) allows for a bidirectional ordering of [Spec, IP], the order may, in certain circumstances, be strictly fixed yielding an S-V (-complement) order. This is the case when an argument is indefinite or generic:

(116) a. Api panes
    fire hot
    ‘Fire is hot’

   b. *Panes api
      hot fire

(117) a. Sampi ngamah padang
    cow AV.eat grass
    ‘A cow eats grass’

   b. *Ngamah padang sampi
      AV.eat grass cow

Here are examples with OV-verbs:

(118) a. Gula mula demenin semut
       sugar actually OV.like ants
       ‘Ants really like sugar’

   b. *Mula demenin semut gula
      actually OV.like ants -sugar

(119) a. Buku tumbas tiang (h.r.)
   book OV.buy 1
   (i) ‘I bought a book/books’
   (ii) ‘I bought A BOOK / BOOKS’ (not something else)
        (i.e. with stress on buku and a pause after it)

   b. *Tumbas tiang buku
      OV.buy 1 book

   c. Tumbas tiang buku-ne
      OV.buy 1 book-DEF
      ‘I bought the books’

Note the OV contrast between (119b) and (119c): the sentence is suddenly acceptable when the extraposed subject is made definite (119c). In short, the data suggest that Balinese allows right branching of [Spec, IP] subject to a constraint of definiteness, which can be semi-formalised as follows:
(120) Definiteness constraint on extraposed NPs (Balinese):

\[
*\quad \text{IP} \\
| \quad I' \quad \text{(SUBJ)} \\
| \quad \text{NP} \\
| \quad \text{(DEF = - )}
\]

The constraint says that the subject that comes after \( I' \) cannot be indefinite. Since \( I \) takes \( S \) which dominates \( V \), as schema (115) requires, the constraint in (120) also means that, in the absence of \( I \), the subject after \( S/V \) cannot be indefinite:

\[
*\quad \text{IP} \\
| \quad I' \quad \text{(SUBJ)} \\
| \quad \text{NP} \\
| \quad S \quad \text{(DEF = - )} \\
| \quad \text{VP} \\
| \quad V
\]

Thus, an indefinite subject must find its place in other positions; for example, in [Spec, IP] with left-branching (e.g. (119a) reading (i)), or adjoined to IP to the left (i.e. a pragmatically marked structure, as in (119a) reading (ii)). In this way, I account for the canonical order constraint that an indefinite subject must come before the \( V \) or \( I \) (i.e. canonical S-V(-complement) order).

An indefinite subject is not a legal (ANTI-)TOP. An indefinite nominal, however, is a possible subject in [Spec, IP], provided the branching goes to the left. The obvious question is why there should be any such asymmetry. Most likely, it has to do with the close connection between subjecthood, topicality and definiteness on the one hand, and word order on the other hand. That is, Balinese is basically an SV(O) language, meaning the SUBJ is canonically in [Spec, IP] with left-branching. In this position, the SUBJ is a default TOP. (The marked TOP would be an adjoined SUBJ NP to the IP). SUBJ cannot be postposed to the right unless there is a good reason to do so. The only possible reason is that SUBJ functions as an (ANTI)TOP, which presupposes definiteness. In short, the right-branching constraint in Balinese (120) is not an ad hoc stipulation because it is pragmatically motivated.

Now, there is an interesting contrast attributable to the definite-subject constraint. Applicativisation suddenly renders an unacceptable sentence acceptable. Consider (122):

(122) a. *Tumbas tiang \( \text{buku} \)
  \( \text{OV.buy} \quad 1 \quad \text{book} \)
  'I bought a book/books'

b. Tumbas-ang tiang \( \text{buku} \)
  \( \text{OV.buy-APPL} \quad 1 \quad \text{book} \)
  'I bought (him/her) books'
c. Pasti baang=a cening pipis (KNK:22)
certainly give=3 kid money
‘(S)he (will) certainly give you (kid) money’

Sentence (122a) shows a non-applicative verb tumbas ‘buy’ (unacceptable), while (122b) shows the corresponding applicative construction (tumbas-ang) (acceptable). Sentence (122c) with a ditransitive verb baang is likewise acceptable. Applicatvisation rescues sentence (122b) because the right-branching constraint is not violated.

To see this, consider the corresponding phrase-structure trees shown in (123). (123a) is the phrase structure of the unacceptable sentence in (122a), whereas (123b) is the phrase-structure tree of the acceptable applicative counterpart in (122b):

(123) a. * Tumbas tiang buku  
    b. Tumbas-ang tiang buku

Phrase structure (123a) shows the monotransitive OV verb tumbas ‘buy’ with its Agent as a complement. This means that the postverbal indefinite nominal buku can only be mapped onto SUBJ. Being indefinite and SUBJ, right branching violates the constraint stated in (120). (123b) on the other hand shows that the applicative structure allows an alternative function mapping where the applied Benefactive is the SUBJ (zero pronoun in (122b)). The indefinite buku can be linked to a complement function (under S), not SUBJ [Spec, IP]. In this way, it escapes from the definite-subject constraint. The sentence is therefore fine. The same accounts for the acceptability of (122c).

I turn now to double complements. We have found that the complement in Balinese follows the verb. In particular, the Agent complement of the OV verb must immediately follow the verb, forming a V’/VP with its head. When there is more than one complement, it turns out that it is the Agent-like complement which must immediately follow the verb. Consider the following contrast where the objects differ in animacy. The animate object must precede the inanimate object.

(124) a. Ia ngemaang I Nyoman baju  
    3 AV.give name shirt

b. ?*Ia ngemaang baju I Nyoman  
    3 AV.give shirt ART name

‘(S)he gave I Nyoman a shirt’
When both are animate, then the first one, the one immediately following the verb (*I Nyoman*), is the Benefactive, and the second one is the Theme. Thus the following sentence can have reading (i) only, not (ii):

c. 

\[\text{Ia ngedengin I Nyoman anak luh ento}\]

3 AV.show ART name person female that

(i) *(S)he showed I Nyoman the girl’

(ii) *‘(S)he showed the girl I Nyoman’

Taking this fact into account, we can retain the phrase structure schema (115), but subject it to a constraint on linear order of complements:

(125) Order constraint on double term-complements:

\[\text{A semantically more prominent complement NP comes before a less prominent one: } [\ldots \text{V NP[Ben]} < \text{NP[Th]}]\]

The constraint states that multiple term-complements have a fixed linear order, determined by the semantics: the Benefactive/Goal item (generally understood as animate) must precede the Theme.

4.4 Conclusion

The following points can be concluded from the study of surface constituency in Balinese. First, Balinese has relatively rigid word order with possible extraposition of items to the left, structurally adjoined to IP. Extraposition of an argument to the right is possible only for a definite SUBJ. Second, a head predicate can be any of V, P, A, N, ADV, or NUM. A finite sentence is an IP, where I takes an S complement rather than XP. Third, though lexical categories are maximally projected to XP (i.e. NP, PP, etc.), their internal structures are not uniform. NP, PP, and VP have both their complements and specifiers filled. AP, ADVP and NUMP have only specifiers, no complements. Functional categories I and D have phrasal projections IP and DP respectively. C(P) is absent in Balinese. Fourth, the Agent complement of an OV verb is within VP, other complements are outside it. There are good syntactic reasons (e.g. structural elaboration, gapping, etc.) to reject an incorporation analysis of the OV verb. Fifth, Balinese is basically a head-initial language (i.e. right branching). However, minor deviations occur in functional categories with left branching in [Spec, IP] (i.e. SUBJ position) and [Complement, D’]. Sixth, word-order variation is pragmatically and semantically motivated. A fixed S-V-Complement order results from a pragmatically-motivated definiteness constraint. The order of double term-complements is semantically determined: a complement NP (understood as Benefactive/Goal, commonly animate) that is semantically more prominent comes before a complement NP that is less prominent (understood as Theme, generally inanimate).

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29 One could also invoke the notion of primary object (OBJ1) versus secondary object (OBJ2), and say that the primary object precedes the secondary object. Even on this view, one could still argue that animacy/semantic prominence plays a role because, in ditransitive verbs, the primary object is generally an animate argument understood as a Benefactive or Goal, while the secondary object is a Theme.

30 The notion of relative semantic prominence is discussed further at §5.2.3 and §5.2.7. Tags such as Benefactive and Goal are shorthand for a richer semantic decomposition, discussed at §5.2.3.
5 Mapping

5.1 Introduction

This chapter deals with mapping or linking, i.e. the issue of how arguments are expressed syntactically. I show that mapping is driven by prominence matching involving three layers of structure: semantic structure \((\text{sem-str})\), argument structure \((\text{a-str})\) and grammatical function structure \((\text{gf-str})\). Using Balinese data, I motivate the utility of a syntactised \(\text{a-str}\) as an intermediate structure between semantic and surface syntax. It enables us to precisely account for the change in voice marking and the related change in grammatical function assignment for both simple and complex arguments. Crucially, it provides a natural account for change in grammatical function assignment to a controller in raising and control constructions.

The chapter starts with the idea of regularities in semantic-syntax relation. After showing the properties and significance of \(\text{a-str}\), I formulate the principles regulating an indirect mapping from semantics onto syntax via \(\text{a-str}\). These principles underlie the subsequent discussion of accusative, ergative and active/split properties found in Balinese.

5.2 Parallel structures and mapping theory

5.2.1 From lexical semantics to syntactic structure: mapping regularities

It has been commonly understood that some aspects of syntactic expressions are semantically predictable. There has been interest in discovering principled regularities in how the meaning of a predicate (lexical semantics) determines the syntactic expression of its argument(s). These principled regularities are called 'linking regularities' (Carter 1988) or simply 'linking' (Ostler 1979) or 'mapping' as in Lexical Mapping Theory—LMT (Bresnan & Kanerva 1989; Simpson 1991) and Function Mapping Theory (Alsina 1993, 1996). For example, in accusative languages (like English), an argument bearing the Agent role is (in an unmarked mapping) expressed as the grammatical function SUBJECT (i.e. GF-SUBJ or simply SUBJ), and an argument bearing the Patient role is expressed as an OBJ. Hence, to the extent that being an Agent is determined by the lexico-semantics of the predicate selecting it, the meaning of the predicate is crucial for the syntactic realisation of its argument.

Certain semantically coherent classes of verbs have also been reported to play a role in determining syntactic expression. For example, the semantic distinction between Unergative and Unaccusative verbs (Burzio 1981; Levin & Rappaport Hovav 1995; Perlmutter 1978; Pullum 1988) correlates with different syntactic expressions of the
arguments. The syntactically relevant meaning may include not simply the opposition of Actor and non-Actor, but also things such as the opposition between directed motion and manner of motion (see Levin (1988), Balinese data in §2.5, also later in §5.3.4.3).

Another aspect determined semantically is syntactic coding/marking (e.g. case marking, word order etc.). For example, in Balinese, we have observed that the linear order of term-complements is determined semantically (see §4.3.5.3). In Hindi, Mohanan (1990:90ff) reports that SUBJ marking in either NOM(inative) or ERG(ative) case is determined by aspectual properties of the verb: the SUBJ is ERG when the verb is morphologically PERFECTIVE, elsewhere it is NOM. (Hindi shows morphological ergativity, rather than syntactic ergativity).

Given the cross-linguistic facts just mentioned, it is commonly agreed that some aspects of semantics must be 'visible' to syntax. There have been different views, however, on the following points: (a) the extent to which syntax is predictable from semantics (fully predictable in terms of a very narrow view of semantics and syntax: transformational proponents (e.g. Chomsky 1986) versus not fully predictable in terms of a conceptual view of semantics (e.g. Jackendoff 1991)); (b) how syntactically relevant aspects of meaning can be represented; and (c), related to point (b), how mapping principles can be formulated to capture cross-linguistic generalisations (and variations). I will not give a comparative discussion of mapping theories. Instead, I briefly review LMT, and based on data from Balinese and drawing insights from LMT, I sketch a somewhat different proposal of mapping.

5.2.2 Parallel structures and Lexical Mapping Theory (LMT)

A grammar can be thought as having parallel structures with different organisations (Bresnan 1995, 1998, 2001; Jackendoff 1991; Mohanan 1990, 1997; Simpson 1991; inter alia). Three of the structures that concern us in mapping are gf-str, a-str and sem-str. Gf-str (grammatical function structure, also known as f-str) is the grammatical organisation of syntactic units such as SUBJ, OBJ, etc. A-str (argument-structure), in its simplest form, represents the number of the arguments associated with a head predicate. Sem-str (semantic structure) represents the lexico-semantics of a head predicate and its arguments.

LMT (Levin 1988; Bresnan & Kanerva 1989; Bresnan & Moshi 1990; Simpson 1991) has the following basic conceptions. First, the a-str consists of thematically structured arguments, expressed in terms of semantic role labels such as Agent, Benefactive, etc. in accordance with the universal thematic hierarchy of (1), e.g. 'hit' <agent, patient>, 'see' <experiencer, theme>.

(1) \( \text{ag} > \text{ben} > \text{rec/exp} > \text{inst} > \text{th/pt} > \text{loc} \)

Second, there is a decomposition of grammatical functions SUBJ, etc. into two features: [+/-r] (r = thematically restricted) and [+/-o] (o = object-like properties, those of complementing-taking transitive predicates (verbs or adpositions)).

Third, grammatical functions form natural classes as shown in Table 5.1:

---

(1) describes a descending hierarchy from ag(ent) (thematically the highest role) through beneficiary, recipient/experiencer, instrument, patient/theme, to location.
Chapter 5

Table 5.1: Function decomposition in terms of [+/-r] and [+/-o]

<table>
<thead>
<tr>
<th>Features</th>
<th>(1) [-r]</th>
<th>(2) [+r]</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) [-o] SUBJ</td>
<td>OBL&lt;sub&gt;0&lt;/sub&gt;</td>
<td></td>
</tr>
<tr>
<td>(b) [+o] OBJ</td>
<td>OBJ&lt;sub&gt;0&lt;/sub&gt;</td>
<td></td>
</tr>
</tbody>
</table>

Column 1 shows that SUBJ and OBJ form a natural class, [-r]. They are mappable onto a wide range of semantic roles, in contrast to OBL<sub>0</sub> and OBJ<sub>0</sub> (column 2). Row (a) shows that SUBJ and OBL form a natural class too in that they are associated with [-o] in contrast with OBJ and OBJ<sub>0</sub> (row (b)).

Fourth, function mapping and alternations between functions are characterised by underspecification. The principles include the intrinsic classification (IC) shown in (2) (Bresnan & Kanerva 1989):

(2) Intrinsic Classification (IC):

a. agent b. theme/patient c. locative


The IC captures the unmarked grammatical encoding of semantic roles in terms of the features shown in Table 5.1. The IC of Agent (2a) says that an Agent cannot be an OBJ. It allows the Agent to have a SUBJ/OBL alternation (see row (a) Table 5.1). The IC in (2b) allows a SUBJ/OBJ alternation of the Theme/Patient argument. The IC in (2c) specifies that a locative argument will be encoded as a non-objective function. Then, the default linking principles (3) and the well-formedness conditions (4) complete the mapping, giving rise to a specific gf-assignment.

(3) Default principles:

a. The highest semantic role is by default [-r].

b. The remaining role is by default [+r].

(4) i. Subject condition: Each (verbal) lexical form must have a subject.

ii. Function-argument biuniqueness: Every expressed argument must be associated with a unique function, and vice versa.

For example, given the Balinese transitive verb *adol* 'sell' which takes two arguments (the seller/Agent and the thing sold/Theme), the LMT predicts that the Agent can be mapped onto either SUBJ or OBL as illustrated by (5a–b):

(5) a. Ida ngadol bawi-ne (Ida = agt = SUBJ)

3 AV.sell pig-DEF

'(S)he sold the pig'

b. Bawi-ne ka-adol antuk ida (Ida = agt = OBL)

pig-DEF PASS-sell by 3

'The pig was sold by him/her'

The underspecified mapping showing possible alternations can be shown in (6a–b), with the bold and underlined functions showing the functions realised in (5a–b). In (6a), where

<sup>2</sup> Note the problem of (2c) with cognate objects: *climb the hill*, *swim the strait*, etc. (J. Simpson, p.c.).
the Agent participates in the mapping, it will get [-o] by IC and by default it gets [-r], making it SUBJ, not OBL. Mapping for sentence (5b) is shown in (6b). Passivisation is analysed as the ‘removal’ of the Agent from the highest position in the argument list, entailing that it does not get [-r] by virtue of (3a). It therefore cannot be SUBJ, and since it is intrinsically [-o], it can only be OBL. In this case, the Patient, being [-r], can be SUBJ (satisfying the subject condition (4i)).

(6) a. ‘sell’ <agt, pt>  b. ‘sell’ <agt, pt>
   IC [−o] [−r]  IC [−o] [−r]
   PASS ⊖  PASS ⊖
   S/OBL S/O  OBL S/O

Given the data from Balinese (and also other Austronesian languages), there is a need to address the following aspects of mapping not properly handled by LMT. First, the alternation of core functions associated with an Agent. We want to allow an Agent to have a SUBJ/OBJ (or term-complement) alternation (as demonstrated in Balinese AV/OV (Chapter 3) and in other Austronesian languages (Arka & Manning 1998)). That is, the pronominal Agent *ida* in (5) can appear as a term-complement, technically an object, as shown by (7a). Note that a full non-pronominal NP Agent functioning as a TCOMP/OBJ is also common (7b):

(7) a. Bawi-ne adol *ida*
   pig-DEF OV.sell 3
   ‘The pig, (s)he sold’

   b. Ia gugut [lalipi ma-upas]NP
   3 OV.bite snake ma-poison
   ‘A poisonous snake bit HIM/HER’

Recall that LMT imposes an IC of [−o], preventing an Agent from mapping onto OBJ. In short, we need to capture the fact that an Agent in Balinese can have three syntactic realisations: (i) SUBJ, (ii) OBL/TCOMP, and (iii) OBJ.

Second, LMT assumes a mapping between semantics and syntax (e.g. ‘pred’<agt, pt> (in a role-centred simple semantic representation) to ‘pred’<SUBJ,OBJ> (syntax, (g)f-str)) with the mediation of argument role classifications. However, there is a need to have a different intermediate structure between these two layers. This intermediate structure is the syntacticised *a-str* (Manning 1994, 1996a, 1996b). I will show in §5.2.4 that data from Balinese give support for such an intermediate structure, which allows a natural explanation for voice alternations for simple arguments and, more importantly, for control of complex arguments. Meanwhile, we can still adapt the insights of LMT, especially the role of underspecification in function mapping and alternation.

---

3 I use the term ‘term-complement’ (TCOMP) to mean what is traditionally called OBJECT (see §3.3). The term OBJ is traditionally associated with a non-Agent simple argument. Now, facts from Austronesian languages such as Balinese, Tagalog (Kroeger 1993) and Indonesian (Arka & Manning 1998) show that OBJ may also be associated with an Agent. Moreover, as I show in §5.2.4, a complex argument containing a controlled argument can also be thought of as syntactically a TCOMP/OBJ. TCOMP is therefore intended as an alternative term to encompass the traditional OBJ (associated with a non-Agent argument) as well as an ‘unusual’ OBJ associated with an Agent, because some linguists might find the use of OBJ to refer to an Agent as contributing to terminological chaos.
Third, in addition to the classification of SUBJ as \([-r,-o]\) ('semantically unrestricted, not object-like') and OBJ as \([-r,+o]\) ('semantically unrestricted, object-like'), there is also motivation to classify grammatical functions with respect to two purely syntactic features of pivothood and termhood, as shown in Table 5.2 (Alsina 1993, 1996; Foley 1998b):

**Table 5.2: Decomposition of functions in terms of [+/−pivot] and [+/−term]**

<table>
<thead>
<tr>
<th>Syntactic Features</th>
<th>(1) (+pivot)</th>
<th>(2) [−pivot]</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) [+term]</td>
<td>SUBJ</td>
<td>OBJ/TCOMP</td>
</tr>
<tr>
<td>(b) [−term]</td>
<td>−</td>
<td>OBL</td>
</tr>
</tbody>
</table>

The feature [+/−pivot] (Foley 1998b), or [+/−subject] in Alsina’s (1993, 1996) terminology is an abstraction of properties that classifies functions into two: SUBJ on one hand (column 1) and complements—OBJ and OBL (column 2)—on the other. For Balinese, the properties captured by [+pivot] are the *syntactic* properties of SUBJ associated with relativisation (2.4.3), raising and control (2.4.4–5), and clefted questions (2.4.6). Since the subject feature [+pivot] singles out only one function, as shown by cell (1a), a [+pivot] which is [−term] is impossible (in Balinese and many other languages). Hence, cell (1b) is represented as empty.4 (Whether this gap is universal is a question for further research). The feature [+−term] (or [+−obl] in Alsina’s terms) is an abstraction of termhood properties. It groups SUBJ and OBJ together (row a) in contrast to OBL (row b).5

The decomposition of functions shown in Table 5.2 also allows us to view function mappings and alternations by means of underspecification in the same spirit as that of LMT. (I come to the formulation shortly). Crucially, we can capture the function alternations of SUBJ/OBJ for Agent without completely dispensing with the LMT insight that an Agent is intrinsically [−o]. That is, an Agent that is [+term] is underspecified in the sense that it can appear either as SUBJ (if assigned [+pivot]) or as complement/OBJ (if assigned [−pivot]). Recall that the Agent encoding of LMT (2a) disallows this.

Note how the syntactic feature classification in Table 5.2 represents entailment. Since a [−term, +pivot] is absent (at least in Balinese), a [−term] argument is necessarily [−pivot], hence OBL (but not vice versa). Likewise, [+pivot] is necessarily [+term] (but not vice

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4 In principle, there is no reason why [+pivot, −term] is not possible. If there is a language that allows this, we expect that a pivot selection would not affect the [+term] status of the arguments of the (di)transitive verb. This would give rise to a symmetrical voice system, where voice alternations do not involve demotion of (underlying) term arguments. Thus, such a language would allow a ditransitive verb to have three [+term] arguments with another argument acting as [+pivot]. One structure that looks like this appears to be the Tagalog sentence below:

\[
\text{B<in>ilh-an ng lalake ng isda ng pera ang tindahan <PERF>buy-LF man fish money store}
\]

'The man bought fish in the store with money' (Foley & Van Valin 1984:135)

On the analysis that \(ng\) marks [+term] (Kroeger 1993:40ff), the above sentence shows three terms; and the locative ‘store’, which is the pivot (marked by \(ang\)), could be [−term]. However, the issue of grammatical relations in Tagalog (and Tagalog-like languages) is controversial and I will not discuss the issue of termhood status of the Tagalog pivot any further.

5 At this point [+−term] appears to duplicate the classificatory potential of [+−r]. This is addressed presently.
versa). Thus, an argument that, for some reason, cannot be assigned [+term] (hence 
[−term]), is incapable of being a SUBJ and so it necessarily appears as OBL (see 
passivisation, to be discussed in §7.4).

The [+−term] distinction corresponds roughly with the [+−r] (though in reverse 
fashion). But conceptions are slightly different. First, the [+−term] classification, as 
shown in Table 5.2, collapses OBJ0 and OBJ. Thus, the third argument of a ditransitiv 
verb is classified differently in the two systems, as being more similar to a regular object 
in the [+−term] system, but as being more similar to an oblique in the [+−r] system:

$$
\begin{array}{c c c c}
\text{SUBJ} & \text{OBJ} & \text{OBJ}_0 & \text{OBL} \\
\text{[+r]} & \text{[-r]} & \text{[+r]} & \text{[+r]} \\
\end{array}
$$

Second, while the [+−r] feature reflects semantic restrictedness of a function, rather than a 
structural notion, the [+−term] feature is a purely syntactic classification, forming a 
syntacticised $a$-str (to be formulated shortly in §5.2.4). Third, [+−term], unlike [+−r], is 
defined in terms of syntactic prominence: a [+term] argument outranks a [−term] 
argument. Fourth, in my conception, the mechanism driving the mapping from semantics 
to syntax is semantic-syntactic prominence matching (Carrier & Randall 1993; Ostler 
1979). The semantic unrestrictedness (i.e. [−r]) associated with the first two terms is not 
primitive, but a consequence of the mapping patterns, as I will detail at greater length in 
§5.3.

Note that the factorisation of functions into [+−r] and [+−o] (Table 5.1, repeated as 
(9a−b)) immediately defines natural classes of syntactic functions. The semantic 
unrestrictedness of SUBJ and OBJ ([−r]) is confirmed for Balinese (and other Western 
Austronesian languages). That is, SUBJ/OBJ can be of any role including Agent. [−o] 
classifies SUBJ and OBL together, allowing an Agent to appear either as SUBJ or OBL 
(see IC in (2a)), and [+r] classifies OBJ0 and OBL together (see the utility of this feature in 
the default linking principle, (3b)). However, as we have already seen (Chapter 3), a range 
of syntactic properties group together SUBJ and both OBJ and OBJ0 (i.e. [+term]), 
repeated as (9c), which crucially make the semantically-restricted function OBJ0 more 
similar to SUBJ and OBJ rather than to OBL.

$$
\begin{array}{c c c c c c}
\text{a. [−r]} & \text{SUBJ}, \text{OBJ} & \text{b. [+r]} & \text{OBJ}_0, \text{OBL} & \text{c. [+term]} & \text{SUBJ}, \text{OBJ}, \text{OBJ}_0 \\
\text{[−o]} & \text{SUBJ}, \text{OBJ}_0 & \text{[+o]} & \text{OBJ}, \text{OBJ}_0 & \text{[−term]} & \text{OBL}_0 \\
\end{array}
$$

The idea that an Agent can be an OBJ is unorthodox, and indeed prohibited by Bresnan 
and Kanerva’s Intrinsic Classification (2a). Nevertheless, Balinese and also other 
Austronesian languages such as Tagalog (Kroeger 1993) and Indonesian (Arka & Manning 
1998) allow an Agent to appear in what is technically an OBJ position. In Balinese, this is 
the OV Agent, as exemplified by (7). The question is therefore how the Intrinsic 
Classification of Agent encoding (2a) can be reconciled with these facts.

Crucially, according to Bresnan and Kanerva (1989:25), the Agent encoding states that 
‘the agent role cannot be encoded as an object function, but will alternate between subject 
and oblique’. The solution lies in the proposed level of (syntacticised) $a$-str. I assume that

6 Note that the SUBJ-OBL alternation is now regulated by the [+−term] feature (doing roughly the job of 
[+−r] in LMT). This is evident if the argument is an Agent. However, as (8) shows, the two features are 
not exactly parallel.
rather than being prohibited from appearing as a surface OBJ in the *gf-str* (because this is attested in the data), an Agent is actually prohibited from being mapped onto the *a-object* (in the *a-str*). In the conception of parallel structures adopted here, an Agent (or as I shall call it a logical subject, or *l-subject*) must, in an unmarked mapping, be mapped in the first instance onto the *a-subject* (i.e. the first [+term] ARG in the *a-str*), as shown in (10).

The next phase displays a typological difference: English and accusative languages do not allow the Agent-a-subject to be encoded as OBJ (10a), whereas Balinese and other western Austronesian languages (also ergative languages) do allow it (10b). Both types, however, allow the Agent to appear as an oblique, e.g. in passive (10c):

---

7 The idea of 'a-subject' was proposed by Manning (1996b).

8 As a set, the first two arguments in the various layers constitute different kinds of what have been lumped together as subjects and objects, which in our model of grammar can be labelled as follows:

<table>
<thead>
<tr>
<th>Layer</th>
<th>Most prominent</th>
<th>Second in prominence</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>gf-str</em></td>
<td>grammatical subject or (GF-)SUBJ</td>
<td>Grammatical object or OBJ</td>
</tr>
<tr>
<td><em>a-str</em></td>
<td>a-subject</td>
<td>a-object</td>
</tr>
<tr>
<td><em>sem-str</em></td>
<td>logical-subject or l-subject</td>
<td>logical object or l-object</td>
</tr>
</tbody>
</table>

These different conceptions of subjects prove to be crucial because the properties associated with them are of different kinds. In a typical Accusative type of language, the properties are hard to tease apart because they converge in one term-argument NP (e.g. appearing as SUBJ). Evidence from different languages, however, proves that the properties may diverge. In Balinese, an Agent argument may be a-subject (i.e. the first [+term] ARG) without being the surface GF-SUBJ (i.e. the OV Agent). Also, an l-subject may not be a subject (e.g. a passive Agent). Binding in Hindi (Mohanan 1990) is reported to be sensitive to the l-subject, that is, the binder must be the most prominent item in the *sem-str*. In our representation, the l-subject will be the top-most Agent, if there is more than one Agent in a complex *sem-str*. Thus, in Hindi, a passive Agent (which is in our terminology [-term], hence not an a-subject) must be the binder. Balinese, as we shall see, shows that an l-subject can be a binder, if there is no a-subject binder (see Chapter 7, §7.3.2.3).

It should be noted that the idea of a-subject and a-object is 'syntactic' in nature (i.e. defined on the basis of syntactised a-str prominence). Thus, a-subject and a-object are not exactly equivalent to the two macro-roles Actor and Undergoer in Role and Reference Grammar (Foley & Van Valin 1984; Van Valin & LaPolla 1999). The a-subject argument, for example, is not always an Actor; e.g. the a-subject of a passive verb shown in (10c) is an Undergoer (i.e. a Patient).

9 Alternatively, in an Optimality Theory (OT), one could argue that all languages inherit the constraint of not allowing the Agent to be mapped onto OBJ. The difference between English and western Austronesian languages would be captured by the difference of the ranking of the constraint. In English, the constraint of linking the Agent to OBJ is highly ranked such that its violation would be fatal (hence 'ungrammatical'). In Balinese and other western Austronesian languages, however, this is not the case so that its violation would still give rise to an optimal sentence (i.e. grammatical). See Sells (2001) for such a proposal.
The crossing lines in passive (10c) represent a mismatch of prominence: an Agent/Subject (i.e. semantically the most prominent argument) is demoted to a non-core/non-term status (represented by its linking to the second internal brackets). This is a marked mapping. Such demotion may be syntactically, semantically and pragmatically motivated (to be discussed in detail in Chapter 7).

Now, the Agent encoding in our representation can be thought of as a constraint whereby a transitive Agent (i.e. one associated with a verb having at least two term arguments) must be always mapped onto the a-subject, never onto the a-object. This means that, in a transitive structure, we always have an Agent term as the a-subject and more prominent than a Patient term, as shown in (11a), and not the other way round (11b):

\[(11)\]

\[\begin{array}{l}
\text{(a) } \ast \text{(b)} \\
\text{a-str: } <\text{a-subj, a-obj}> & <\text{a-subj, a-obj}> \\
\text{sem-str: } \text{Agt} & \text{Pt} \\
\end{array}\]

For example, in an English active sentence (i.e. unmarked mapping) as in *John killed Tom*, it is always the case that the a-subject/GF-SUBJ *John* is interpreted as the killer (Agent), and Tom as the victim (Patient), not the other way round. Likewise in Balinese transitive *tendang* 'kick', it is always the case that the Agent should be interpreted as the a-subject and the Patient as the second argument, namely the a-object, irrespective of the surface grammatical relations of these two terms. Hence in OV where the a-object must be GF-SUBJ, the OV GF-SUBJ must be understood as an (a-object) Patient, not an (a-object) Agent. This means that the GF-SUBJ *Nyoman* in (12a) must be understood as the Patient, reading (i) (illustrated by mapping (12bi)), not the Agent (reading (ii), illustrated by mapping (12bii)):

\[(12)\]

\[\begin{array}{l}
a. \text{Nyoman tendang cang} \\
\text{name OV.kick 1} \\
\text{(i) 'I kicked Nyoman'} \\
\text{(ii) *Nyoman kicked me'} \\
\end{array}\]
In fact, the prominence-based mapping principles adopted here rule out the cross-association in (12bi ii), on the basis of a general principle of prominence. That is, given that an Agent/I-subject outranks a Patient in the sem-str, then, if both are assigned [+term] features, they both become term arguments with the Agent-term outranking the Patient-term (as in (11a)), not vice versa (11b)).

To summarise, I will dispense with the traditional [+/-r] classification in favour of the [+/- term] classification.

5.2.3 Semantic structure

5.2.3.1 Semantic representation

Sem-str represents the semantic content of a linguistic form, specifically in this case a predicator/verb. For the purpose of our discussion here, the syntactically relevant component of meaning (enabling us to capture mapping regularities) is expressed in terms of lexical decomposition (Foley & Van Valin 1984; Jackendoff 1991). In this approach, sem-str consists of structured semantic units of different complexities. Consider the transitive causative matiang ‘die-cause’:

(13) mati-ang ‘dead-cause’

\[
\text{AFFECT ([X], [Y])} \\
\text{EVENT EFFECT [EVENT BECOME [Y], [STATE die ([Y])]}
\]

(13) represents the idea that the affector/causer (X) acts upon the affected/causee (Y) to the effect that the causee undergoes a change of state, i.e. becoming dead. Borrowing Jackendoff’s terminology, AFFECT (also REACT, see (17)) represents an action tier, namely the general idea of ‘force-dynamics’ in an action/event (i.e. who is the doer and who/what is affected). Another tier, called the thematic tier, represents the conceptual units corresponding to more specific semantic content such as change of state as in (13), or motion toward an end-place (i.e. a Goal) captured by GO as in (15) below.

The primitive AFFECT may represent: (i) semantic transitivity (i.e. the fact that something affects something else—Actor and Undergoer); (ii) the semantic nature of the single argument of an intransitive predicate: Unergative (having an Actor-like argument) versus Unaccusative (having an Undergoer-like argument); or (iii) an implicit/optional

---

10 For a different kind of decomposition, see Wierzbicka (1987).
11 This is a representation of a direct causation. Further elaborations of causation are discussed in §6.4.1.
12 The term ‘Actor’ in this Jackendoff’s style semantic representation is used in a slightly narrower sense than the term ‘Actor’ in Role and Reference Grammar (RRG) (Foley & Van Valin 1984; Van Valin & LaPolla 1999). The notion of ‘Actor’ in RRG would not be restricted to the first argument of ‘AFFECT’. The first argument of the primitive REACT (see 17b) would be certainly also an Actor in RRG.
argument. For example, the verb hit will have (14a), dance (14b), fall (14c), a middle verb, e.g. sell as in the book sells easily (14d), and eat (14e):

(14) a. [AFFECT ([X],[Y])]  (X= Actor, Y=Patient)
b. [AFFECT ([X], )]  (X = Actor only)
c. [AFFECT ( ,[Y])]  (Y = Patient only)
d. [AFFECT ([ ],[Y])]  (implicit Actor)
e. [AFFECT ([X],[ ])]  (implicit Patient)

A feature elaboration in the form of [+/-vol(itional)] may be used to capture the notion of willful agency. The different senses of roll (English) as in (15a) (Jackendoff 1991:129) can share the same thematic structure but be associated with different action tiers, as shown by (15b):

(15) a. Bill rolled down the hill
   b. (i) willful doer, (ii) non willful doer, (iii) undergoer
      
      [i. AFF+vol([BILL], )
      ii. AFF -vol([BILL], )
      iii. AFF ( ,[BILL])
      GO ([BILL],[DOWN[HILL]])

Also, a ‘positive’ or ‘negative’ superscript is used to capture the distinction between a Patient and a Beneficiary (Jackendoff 1991:258). Thus, a Patient is represented as the second argument of AFF and a Beneficiary as the second argument of AFF'. Except where it is necessary, however, I will represent semantic structure in the simplest form, usually by using the traditional semantic labels such as Agent, Patient, etc. It should be borne in mind that these roles are shorthand for certain positions in the semantic structures shown in (16)–(17) below.

A list of conceptual units for the thematic and action tiers (adapted from Jackendoff (1991)) is given below:13

(16) Thematic tier:

<table>
<thead>
<tr>
<th>Traditional sem-roles:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. [EVENT CAUSE([THING X] or [EVENT X]), [EVENT Y])]  (X=Causer, causing event, Y =Patient)</td>
</tr>
<tr>
<td>b. [EVENT GO([THING X], [PATH Y])]  (X = Theme)</td>
</tr>
<tr>
<td>c. [EVENT BECOME([THING X],[STATE Y])]  (X= Theme)</td>
</tr>
<tr>
<td>d. [STATE BE([THING X],[PLACE Y])]  (X= Theme, Y =Loc)</td>
</tr>
<tr>
<td>e. [PATH TO/FROM ([PLACE X])]  (X= Goal/Source)</td>
</tr>
<tr>
<td>e. [PLACE PLACE-FUNCTION([THING X])]  (X= Loc)</td>
</tr>
</tbody>
</table>

---

13 Research on lexical semantics to discover syntactically relevant semantic properties is still in progress. Therefore (16)–(17) do not represent an exhaustive list of semantic units. Some recognised properties, e.g. manner of motion, may be difficult to capture precisely in terms of semantic primitives (see §5.3.4.3).
Chapter 5

(17) Action tier:
   a. AFFECT ([THING X], [THING Y])  \( (X=\text{Affector, Agent}; Y=\text{Patient for AFF^*}) \)
   \( Y = \text{Benefactive for AFF^*} \)
   \( X=\text{Experiencer, Y=Stimulus} \)

The ideas expressed by the 'role-centred' representation adopted in earlier theories (e.g. in Fillmore's Case Grammar or LMT with roles such as Agent, Theme, etc.) can be explicitly captured as variables associated with certain conceptual primitives, as shown in the parentheses on the right in (16)-(17). Crucially, the semantic roles are not atomic; single roles are a conflation of a number of roles. For example, the wilful doer (Agent) of the English verb *roll* can be precisely represented as in (15.b), where the argument is a volitional doer (an affector) and also the thing that moves (i.e. an argument of GO, a Theme).

5.2.3.1 Semantic prominence

The level of semantic structure or *sem-str* defines relative prominence among variables/arguments, as formulated in (18). The properties listed in (18) have been discussed in the literature (Dowty 1991; Foley & Van Valin 1984; Jackendoff 1991; Mohanan 1990, among others) and need no further explanation. (It should be noted that, by convention, in *sem-str* a more prominent item is represented as being on the left and/or the top of a less prominent one).

(18) Sem-str prominence (Universal)

a. A causer/effector/instigator is more prominent than a non-causer or an affected thing, thus:
   (i) An Actor is more prominent than an Undergoer:
       \( X > Y \) in AFFECT ([X],[Y]) (where ‘>’ = 'more prominent than')
   (ii) An argument associated with the action tier is more prominent than one associated with the thematic tier. (The action tier represents the 'cause' and thematic tier represents something happening as a result of that).
   (iii) A sentient argument is more prominent than a non-sentient one (because it tends to be a causer/instigator/effector).

b. An argument in a matrix structure is more prominent than an argument in an embedded one, e.g. \( X > Y \) in [EVENT CAUSE ([X] [EVENT.Y...])]

b. An argument that undergoes a change is more prominent than one that does not, e.g. \( X > Y \) in [EVENT GO([X], [TOPLACE Y])]
5.2.4 Argument structure (a-str)

5.2.4.1 What is a syntacticised a-str?

Conceptions of argument structure vary across theories. The approach adopted here is that a-str represents an intermediate level between surface syntax and semantics, as described in Bresnan (1996, 2001) and Mohanan (1990). However, my conception of a-str also carries information about termhood, which in earlier LFG is conflated with the gf-str. Thus, I adopt a syntacticised a-str (see also Manning 1994, 1996b) whose specifications are listed in (19).

The conception of a-str adopted here turns out to be crucial for the account of variation in mapping and the related change in grammatical function assignment, as well as syntactic constraints on binding in Balinese (and also in other languages). I clarify the reasons motivating the syntacticised a-str shortly in §5.2.4.3–5.2.4.5.

(19) A-str:

a. It carries information about the syntactic valency of a predicate (i.e. number of arguments: one-place predicate, two-place predicate, etc.)
b. It carries information about termhood (i.e. whether an argument is a term or not; hence syntactic transitivity: intransitive, monotransitive, etc.)
c. It contains syntactic arguments having the following prominence:
   (i) terms outrank non-terms
   (ii) within sets of terms/non-terms, prominence reflects semantic prominence

5.2.4.2 A-str representation

The syntacticised a-str can be represented in Attribute Value Matrices (AVM) (see Manning 1994; 1996b), as exemplified by the monotransitive tingalin ‘see’ in (20). The a-str shows that it consists of an a-subject (which is a term) and another term argument (T-ARG). For simplicity, representation (20a) will be alternatively shown as (20b), where an argument is simply represented as a slot, with the leftmost being the most prominent item (i.e. the a-subject):

(20) a. tingalin ‘see’

   \[
   \text{\begin{array}{c}
   \text{see} \\
   \text{A-SUBJ} \\
   \text{a-str} \\
   \text{T-ARG} \\
   \end{array}} \]

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

b  a-str: ‘see’< __, __ >

---

14 In some theories, what is called 'argument-structure' contains information about the number of arguments and various other kinds of information such as: (i) grammatical function (subject, object, etc), as in Relational Grammar (Blake 1990); (ii) phrase structure information as in HPSG (Sag & Wasow 1999; Wechsler 1995); (iii) lexical-semantic information of some kind (Alsina 1993; Alsina 1996; Bresnan & Kanerva 1989; among others), or (iv) the distinction between external/internal arguments (Grimshaw 1990; Levin & Rappaport Hovav 1988; Zubizarreta 1987).
A non-term argument (NON-T-ARG) is syntactically a different class of argument, hence I label it differently. For example, the three-place verb *ngejang* 'put' has two terms (including its a-subject) and a non-term locative. The a-str can be represented as either the AVM in (21a), or simply using nested angle-brackets as in (21b), where items within the first internal brackets are terms and items within the second brackets are non-terms.¹⁵

(21) a. *ngejang* ‘put’

```
  put
  A-SUBJ ...
  TARG ...
  a-str NON-TARG ...
```

b. *a-str*: ‘put’ << __, __ > < __ >>

\((\text{Agt}) (\text{Pt}) (\text{Loc})\)

A complex argument can be either a term or a non-term in Balinese (to be discussed in §5.2.4.5). A non-term complex argument is likewise represented as being within a separate grouping in the a-str. For example, the intransitive *edot* ‘want’ has one term (a-subject) and another non-term which can be either a simple argument (oblique, marked by *teken*, as in (22a)), or a complex argument with or without control (22b–c):

(22) a. *ia edot* [teken poh]

3 want to mango

‘(S)he wants a mango’

b. *ia edot* [ _ ngelah umah luung]

3 want AV.own house good

‘(S)he wants to have a good house’

c. *ia edot* [(apang) ci mati]

3 want so that 2 dead

‘(S)he wants you to be dead’

The a-str of *edot* with a non-complex argument is therefore (23a). When the second argument is complex (i.e. it has its own predicate), there may be sharing. Thus, the a-str of sentence (22b) can be represented as (23b), with a connecting line representing the sharing. The evidence for the complex argument being a non-term comes from its inability to function as OF-SUBJ, as shown by (23c):

(23) a. a-str: ‘want’ << __ > < __ >>

b. a-str: ‘want’ << ‘3’ > < ‘own’ < __ , ‘house’ >>

c. *[ __ ngelah umah luung] edot=a

\(\text{AV.own house good want}=3\)

‘(S)he wants to own a good house’

¹⁵ This representation of internal bracketing was inspired by a lecture given by Avery Andrews at the Australian Linguistics Institute, Canberra, 1996.
Note that in the $a$-str representation, there is no need to specify an external argument. One purpose of such a notation is to ensure that an Agent will be mapped onto the subject NP (i.e. structurally external, outside of VP). However, the conception of a syntacticised $a$-str defined with regard to termhood, combined with the principle of prominence matching, ensure that, in an unmarked (accusative) mapping, the logical subject/Agent is mapped onto the a-subject, which is then mapped onto the GF-SUBJ. Its structural position in the $c$-str (i.e. outside the head predicate projection) is determined by the $c$-str $\leftrightarrow (g)f$-str correspondence, as discussed in Bresnan (2001:102) (see also Chapter 4).

Let me now offer more evidence in support of the need for a syntacticised $a$-str as an intermediate level between $sem$-str and $gf$-str.

5.2.4.3 Syntactic valency and termhood

Syntactic valency (e.g. whether a predicate is one-place or two-place) and termhood (i.e. whether the argument is a term or not) are two different syntactic properties. Crucially, it is not always the case that these syntactic properties are predictable from the semantics of the predicate. The evidence comes from the fact that the ‘same’ event may get expressed by (equivalent) verbs whose number and types of syntactic arguments vary from language to language. Take the verb ‘give’, which is perhaps universally a three-place predicate in the $sem$-str (i.e. with giver, givee, and gift). Languages vary in the syntactic realisations of these arguments. Balinese ‘give’ is ditransitive only, meaning all arguments are terms (no dative alternation); English has a dative alternation (meaning, it may be a ditransitive verb like in Balinese, or a montransitive verb with an oblique as the third argument); still other languages like Indonesian allow a ditransitive/montransitive alternation with certain (applicative) morphology, (see Purwo 1995). In short, this lexically specific kind of syntactic information must be registered in the $a$-str, not in the $sem$-str.

5.2.4.4 Syntactic arguments, not thematic roles: evidence from control of complex arguments

An argument in the $a$-str is a syntactic entity required by the predicate. The evidence comes from raising. Consider the verb $ngenah$ ‘seem, appear, be visible’, which is an intransitive verb, taking the whole proposition as its GF-SUBJ (24a). Evidence for it being the GF-SUBJ is shown by its ability to be relativised (24b). The $a$-str can be shown in (24c):

(24) a. [Ia mobog]SUBJ ngenah sajan
   3 lie seem very
   ‘That (s)he is lying is very apparent’

   b. [Ia mobog]SUBJ ane ngenah sajan
   3 lie REL seem very
   ‘That (s)he is lying is what is very apparent’

   c. ‘seem’ $\langle$ ‘lie’ $\langle3\rangle \rangle$
      (proposition)
Like English (25a), Balinese allows raising to SUBJ (26a). (Balinese, however, does not have an equivalent to the empty it of (25b)). Again, evidence for raising to GF-SUBJ in (26a) comes from the ability of the raised argument to be relativised, as in (26b), which gives rise to a pragmatically marked construction. An overt pronominal in the embedded subject position cannot appear simultaneously with the raised GF-SUBJ (26c).

(25) a. He seems to be lying
   b. It seems that he is lying

(26) a. Ia ngenah sajan mobog
    3 seem very lie
    ‘(S)he very much seems to be lying’
   b. Ia ane ngenah sajan mobog
    3 REL seem very lie
    ‘It is him/her who very much seems to be lying’
   c. *Ia (ane) ngenah sajan ia mobog
    3 REL seem very 3 lie

Like English ‘seem’, Balinese ngenah involves ‘functional control’ (Bresnan 1982), rather than ‘anaphoric control’. The SUBJ function of the controlled clause is identified with the matrix SUBJ. The absence of a SUBJ in the controlled clause cannot be understood as a zero pronominal with a generic referent (as in English Shaving oneself is a pain):

(27) a. *[nyombong-ang awak] ngenah
    A V. proud-APPL self seem
    One seems proud of oneself’
   b. *ngenah [nyombong-ang awak]

Thus, what distinguishes English ‘seem’ from Balinese ngenah is that English ‘seem’ is obligatorily a two-place intransitive verb in the a-str whose a-subject is a non-thematic term, satisfied either by raising of the lower term as in (25a), or by a dummy it (25b). Balinese shares the raising strategy as in (26a) but has no dummy it. Alternatively, Balinese allows the whole complex argument as the GF-SUBJ as shown by (24), which is not allowed in English (*[That he is lying]SUBJ seems). The a-strs of the sentences just discussed showing raising can be represented as in (28a), showing a dummy it as in (28b) and showing a complex GF-SUBJ as in (28c):

(28) a. SUBJ
    a-str : ‘seem’<< _ >, ‘lie’ < ‘3’ >>
    sem-str: ‘seem’(proposition)
    (English and Balinese)
   b. SUBJ
    a-str : ‘seem’<< it >, ‘lie’ < ‘3’ >>
    sem-str: ‘seem’(proposition)
    (English)
The point I want to make is that a semantically one-place verb like *seem* (English) or *ngenah* (Balinese) may syntactically appear to have two arguments. Such a mismatch can be accounted for by postulating an intermediate syntacticed *a-str* where there is a possibility of having an extra, thematically empty, position as an a-subject. This a-subject position corresponds to no position in the semantic structure. Typologically, languages differ in either having an empty pronominal to fill in this position (possible in English, not available in Balinese), or in allowing this empty position to be identified with a term argument from the embedded clause (possible in both English and Balinese). Alternatively, the whole complex argument can be a GF-SUBJ (possible in Balinese).

In short, an intransitive raising verb may have more than one *a-str*. The option of raising to a-subject may be pragmatically motivated. That is, to make the embedded a-subject pragmatically prominent (e.g. *ia* '3', the a-subject of *mobog* 'lie' in (26)), it needs to be raised to the matrix *a-str* position, which will be linked to the GF-SUBJ, which will in turn be linked to TOP/FOC. This is the only way for the embedded argument to be topicalised with *ane* and to appear in the TOP/FOC position at the left margin of the sentence.

Moreover, by having a syntactised *a-str*, we have a natural explanation for voice alternation and mapping in the control of complex arguments. Consider now the transitive raising verb *tawang* 'know' (29a), whose first argument is the knower (*cai* '2'), and whose second argument is a complex argument headed by *ngae* 'make'. The controller of *ngae* 'make' must be the matrix GF-SUBJ because the lower GF-SUBJ cannot have a generic reading.\(^{16}\)

\[(29)\quad \text{a. } a-str: \text{'know'} < \text{'2'}, \text{'make'}< , \text{'trap'}>>\]

(knower) (proposition)

b. Cai suba nawang [ngae bubu]?
   2 already AV.know AV.make fish-trap
   'Do you already know how you make a fish trap?'

c. [Ngae bubu] suba tawang cai?
   AV.make fish-trap already OV.know 2
   'Do you already know how you make a fish trap?'

Recall that Balinese has a voice alternation which causes changes in the linking of arguments: the Agentive Voice (AV) versus the Objective Voice (OV). With an AV-verb,

\(^{16}\) If a different lower SUBJ is intended, an explicit/overt nominal must be used, introduced by a question word:

Cai suba nawang [kenken anak-e ngai bubu]?
2 already AV.know how person-DEF AV.make fish-trap
'Do you already know how people make a fish trap?'
the Actor term links to the GF-SUBJ, whereas with an OV verb, a non-Actor term links to the GF-SUBJ. In either AV or OV, the verb remains transitive (see Chapter 3). In (29b) the (raising/matrix) verb is in AV; (29c) is its OV counterpart. Thus in (29a) the GF-SUBJ is the knower, and in (29c) it is the proposition. (29b) and (29c) share the a-str shown in (29a), where the embedded a-subject (i.e. the maker) is controlled by the matrix a-subject.

However, there is evidence that tawang ‘know’ allows another empty slot to be shared with the lower argument, but this can only be in the non-a-subject position (i.e. the second term position in the a-str of ‘know’), since the matrix a-subject (i.e. the first position) already exists with a thematic role (i.e. the knower) as shown by the a-str in (30):

\[
\text{(30) } \text{a-str: } \text{‘know’} \langle \_, \_, \text{‘pred’} \langle \_, \_ \ldots \rangle \rangle
\]

The choice of the lower argument to be raised to the (upper) second argument position depends on the voice marking of the lower verb. The question mark in (30) above indicates unspecified mapping, hence unspecified control/raising, pending the voice marking of the lower verb. If the lower verb is an AV verb, then the lower a-subject is the lower GF-SUBJ and this argument is raised. If the lower verb is an OV verb, then a lower non-a-subject term is raised. Also, which argument becomes the matrix GF-SUBJ depends on the voice marking of the matrix verb. In short, there may be a number of possibilities depending on the voice markings/mappings of the matrix and embedded verbs. One possibility is illustrated in (31a), where the embedded GF-SUBJ ia is raised and linked to the matrix GF-SUBJ. Evidence for its being GF-SUBJ comes from relativisation (31b).

The a-str is shown in (31c):

\[
\text{(31) a. } \text{Ia tawang Bapa [ \_ lakar ngalih ci]} \quad 3 \quad \text{OV.know father FUT AV.search 2}
\]

‘Of him it was known by me (Father) that (he) would look for you’

b. Ia ane tawang Bapa [ \_ lakar ngalih ci] \quad 3 \quad \text{REL OV.know father FUT AV.search 2}

c. \text{a-str: } \text{OV.know ‘father’, \_ , ‘AV.search’<’3’, ‘2’>}

As shown by (31c), the Agentive Voice on the embedded verb ngalih makes the embedded a-subject (ia ‘3’) map onto the embedded GF-SUBJ, in which position it can be controlled. (Recall that only GF-SUBJ can be controlled, Chapter 2). This argument is shared with the matrix non-a-subject term, which, because of the matrix OV marking, is mapped onto the matrix GF-SUBJ. Now, since Balinese is a symmetrical language (see §3.2.6.2), an OV verb with two non-a-subject terms can have either term linked to the GF-SUBJ. Given the a-str in (31c), we expect the alternation shown in (32a), with the complex argument being linked to the matrix GF-SUBJ. The corresponding parallel structures are shown in (32b):
The Balinese raising data just given provide support for postulation of an intermediate syntacticised a-str. By representing control within a syntacticised argument structure (a-str) as a sharing of an argument position in a complex argument with an argument in the higher a-str, we have an explanation for cases of ‘functional’ control in which a complex argument with a controlled argument is itself the grammatical subject (GF-SUBJ), and not an XCOMP. Note that, previous work in LFG (Bresnan 1982; Sells 1985; Simpson 1991; inter alia), concentrates on instances of obligatory control where the controlled clause was argued to bear a special grammatical function XCOMP. In a language like English it does not seem possible to have obligatory control of other subcategorising functions, say, SUBJ. Sentential subjects in English either have overt subjects (That John left was regretted by everyone) or pragmatically understood subjects (To leave now would be regrettable). In Balinese, however, it appears that there can be obligatory control of the SUBJ of a clause which is itself the SUBJ of a higher clause, as in (32).

One might adopt an earlier LFG analysis by applying equation (33a) to account for (31), but this will not work for (32). We certainly cannot use (33b). This is simply wrong because the complex argument itself is the GF-SUBJ of ‘OV.know’ in (32), and, furthermore, there is no XCOMP.

(33) a. OV.know <SUBJ, OBJ, XCOMP>  
   (\(\uparrow\)XCOMP SUBJ) = (\(\uparrow\)SUBJ)

b. OV.know <SUBJ, OBJ, XCOMP>  
   (\(\uparrow\)XCOMP SUBJ) = (\(\uparrow\)OBJ)

The syntacticised a-str approach solves the problem. It provides a natural explanation for the change of function assigned to a (functional) controller, as seen in the change between AV and OV demonstrated in (31)–(32). In addition, the analysis accounts for the systematic voice and function mapping alternations in Balinese in general, not only for complex arguments but also for simple ones. The general principle is this: a non-a-subject term can be mapped onto the GF-SUBJ.

5.2.4.5 On the syntactic status of a complex argument

The question of the syntactic status (e.g. termhood status) of a complex argument was partly answered by the discussion in the preceding subsections. That is, a complex argument is treated as a non-a-subject term (e.g. example (32)). Hence, it can be a GF-
SUBJ of an OV verb. However, a complex predicate can be also treated as a non-term. Let me now discuss the issue further.

It is generally accepted that the meanings of control and raising verbs are important in determining what gets controlled and what controls it (Foley & Van Valin 1984; Pollard & Sag 1994; Sag & Pollard 1991). It is also usually accepted that the controlled argument must be the grammatical subject (GF-SUBJ, see also Chapter 2). I have shown that control/raising is also motivated by pragmatic considerations such as topicalisation (example (26b)), in which an argument of the embedded clause is treated as the GF-SUBJ of the matrix clause, and is then linked to the TOP position (i.e. sentence-initially). Moreover, we have observed that, in a language such as Balinese, having no empty argument corresponding to English it, the need to have a GF-SUBJ in functional structure can be satisfied by raising an argument from the embedded clause, or by treating the only semantic argument (a proposition) as a complex GF-SUBJ (see (28)).

Now, what can be the controller? Or, to put it another way, what matrix argument can be shared with a lower argument? This depends on whether there is a matrix a-subject (i.e. the most prominent argument in the a-str) linked to a place in the lexical conceptual structure. This is relevant to the difference between raising and control verbs on the one hand, and control by the object or the subject on the other.

For raising verbs, a complex argument is treated as a term in (a) an intransitive verb, since this verb has no simple thematic argument acting as the a-subject, and (b) a transitive verb, where it is treated as a non-a-subject term. For example, Balinese intransitive ngenah ‘seem’ (24) allows the whole proposition to be expressed as a clause acting as a term, hence as GF-SUBJ. English seem does not allow this. However, since there is no thematic a-subject, ngenah (like its English counterpart seem) allows a raising option; the example is repeated in (34a) and its a-str is shown in (34b). Crucially, the complex argument now becomes an argument with control, and the matrix verb remains intransitive. Thus, in this alternative a-str, the complex argument is not a term, as shown by the impossibility of relativisation (34c). The same is true for keweh ‘difficult’ (35).

(34) a. Ia ngenah sajan [ _ mobog]
3 seem very lie
‘(S)he very much seems to be lying’

b. SUBJ
   a-str: ‘seem’<< _ >, <‘lie’ <‘3’ >>

c. ?*[ _ Mobog] ane ngenah sajan ia
   lie REL seem very 3

(35) a. Nyoman keweh [ _ ngalih gae]
   name difficult AV.search work
   ‘Nyoman found it difficult to get a job’

b. Nyoman ane keweh [ _ ngalih gae]
   name REL difficult AV.search work
   ‘It is Nyoman who found it difficult to get a job’

c. ?*[ _ ngalih gae] ane keweh Nyoman
   AV.search work REL difficult name
For control verbs, an intransitive control verb has a simple thematic a-subject argument and a complex argument treated as a non-term. Transitive control verbs have a simple thematic a-subject argument and a complex argument treated as a non-a-subject term. Let us take the intransitive edot ‘want’, whose a-subject is thematic (i.e. linked to the wanter) and the second argument is a proposition (i.e. what is wanted). The second complex argument is not a term. Evidence for its being a non-term comes from its inability to become GF-SUBJ, as shown by (36a) below. Applicativisation, however, makes the verb transitive. Importantly, the complex argument is promoted to term status. It is a non-a-subject argument term, however, because there is a thematic/Actor a-subject. Since it is a non-a-subject term, it can be the grammatical SUBJ in the Objective Voice (36b). So, the contrast in (36) is expected.

(36) a. *[_ ngelah umah luung] ane edot ia (no appl.)
   AV.own house good REL want 3
   ‘want’<’3’><‘AV.own’<_, ‘house’>]

b. [ _ ngelah umah luung] ane edot-in=a (with appl.)
   AV.own house good REL OV.want-APPL=3
   ‘Having a good house is what (s)he wants’
   __ SUBJ
   ‘want’<’3’, ‘AV.own’<_, ‘house’>]

Promotion to term status is pragmatically motivated. For example, applicativisation of edot generally appears in the OV form only where the complex argument is topicalised/focussed, allowing it to appear at the left margin of the sentence, as exemplified by (36b). When there is no such motivation, the applicative form is not generally used. Thus, the intransitive edot (37a) is preferred to the applicative verb in the AV form (37b), which is odd.

(37) a. Ia edot [ _ ngelah umah luung]
3 want AV.own house good

b. ??Ia ngedot-in [ _ ngelah umah luung]
3 AV.want-APPL AV.own house good
   ‘(S)he wants to have a good house’

A transitive verb (with control and raising) taking a complex argument treats the complex argument as a term. This has been exemplified by the raising verb tawang ‘know’ in (31)–(32). Recall that this verb allows an empty argument position as a non-term (i.e. the raised argument position). In this case, either the simple term or the complex argument term can be GF-SUBJ in the OV verb. Also, transitive (control) verbs with -ang (formed out of free roots) such as the control verb tegarang (from the bound root tegar), shown in (38), treat the complex argument as a non-a-subject term. Thus, from the a-str in (38a) we can have either an AV verb construction with the trier being the GF-SUBJ (38b) or an OV verb with the proposition being the GF-SUBJ (38c).17

17 Balinese tegarang ‘try’ is therefore different from English try: try in English is a two-place intransitive with the complex argument (XARG) being an XCOMP, whereas Balinese tegarang is syntactically transitive with the complex argument being a term, functionally a possible SUBJ or OBJ.
The same is true for the three-place transitive verb *orahin* 'ask' whose *a-str* is shown in (39a). It is predicted then that, with its OV form, either the askee (39b) or the complex argument (i.e. the proposition) can be the GF-SUBJ (39c):

(39)  
\[
\begin{align*}
\text{(a-str : orahin 'ask' <_,_,_, 'pred'<_,_,_>>)} \\
\text{b. [Tiang]SUBJ negarang[_ naar ubad ento]} \\
&\quad \text{1 AV.try AV.eat medicine that} \\
&\quad \text{I tried to take the medicine’} \\
\text{c. [ _ naar ubad ento]SUBJ tegarang tiang} \\
&\quad \text{AV.eat medicine that OV.try 1} \\
&\quad \text{‘Taking the medicine was tried by me’}
\end{align*}
\]

To conclude, a complex argument can be either a term or a non-term. Like a simple non-term argument, applicativisation promotes a non-term to a term, which can be mapped onto the GF-SUBJ of the OV verb. Balinese data suggest therefore that a complex argument with obligatory control (let us call it XARG, following Manning 1994, 1996b) can be, on the surface syntax, a GF-SUBJ or a COMPLEMENT FUNCTION. Note that a complement function is a general term covering OBJ, OBL and COMPL (Bresnan 2001:98), where OBJ and OBL are generally understood as simple arguments.

The next question concerns the surface grammatical status of a complex argument, if it is not SUBJ: can it be an OBJ, OBL or (X)COMP? Also, is it the case that any complex argument with a 'missing' SUBJ in surface syntax should be understood as an XARG? Or, to put the second question differently, can we differentiate between what is called XCOMP (an open complex function with functional or obligatory control) and COMP (a closed complex argument with anaphoric control)?

---

**18** XCOMP is an ‘open’ function because the subject (X) is ‘missing’ and must be identified with (i.e. controlled by) another function of a higher clause. Whereas COMP is a ‘closed’ function because it is self-contained, in the sense that the subject is present (analysed as having ‘pro’). This ‘pro’ is then anaphorically controlled. Consider the following examples from Bresnan (1982):

a. At the moment, the goal of the police is to try to prevent a riot

b. At the moment, the goal is to try to prevent a riot

The unexpressed subject of *try* is a ‘pro’ and is anaphorically controlled by *the police* in (a) but is arbitrarily controlled in (b). The clause headed by *try* which contains the ‘pro’ subject argument is therefore a closed function (i.e. COMP). The verb *try* itself takes an embedded clause headed by *prevent*. The unexpressed subject of *prevent* cannot be interpreted as having an arbitrary control or ‘pro’, but must be indentified with a function in the matrix clause. This embedded clause is therefore an XCOMP.
A complex argument not linked to SUBJ is certainly a COMPLEMENT function of some kind. For an intransitive verb, a non-SUBJ complex argument is certainly not OBJ. It cannot be OBL either, because OBL in Balinese is generally marked by a preposition (40a). A complex complement function, in contrast, cannot commonly be marked that way, as shown by the contrast in (41).

(40) Ia edot teken poh
3 want with mango
'(S)he wants a mango'

(41) a. Ia edot [naar poh]
3 want AV.eat mango
'(S)he wants to eat a mango'

b. ?*Ia edot teken [naar poh]
3 want with AV.eat mango
'(S)he wants to eat a mango'

If the complex argument with a missing SUBJ in (41a) is not OBJ and not OBL, it must be either XCOMP (X being obligatorily controlled, hence an ‘open’ complex function) or simply COMP (with an understood ‘pro’ SUBJ in the embedded clause, this ‘pro’ anaphorically controlled by the matrix argument). To decide this issue, we need to test the situation when the missing SUBJ must be identified with a matrix argument and cannot be of generic reference or refer to something other than the controller. If this is the case, then we have an XCOMP, otherwise we have a COMP.

It turns out that the meaning of the verb (i.e. edot ‘want’) is crucial. There are two senses of edot when it takes a complex argument.

In the first sense the thing wanted is a proposition expressing a state or an event not totally in the control of the wanter (i.e. where there are other external factors causing the event expressed by the embedded verb). In this sense, the embedded clause may be introduced by apang ‘so that’ and there is generally no obligatory control. If the subject is missing, it is generally understood as the wanter (42a), but it can appear overtly as a pronominal, e.g. ia (42b). This pronominal can, however, refer to someone else (i.e. index i or j). When the embedded subject is overt, apang can be omitted as in (42c). Unlike (42b), however, the overt pronominal in (42c) is more generally understood to refer to someone else.19 When neither apang nor the pronominal are present, the SUBJ of the embedded predicate sugih ‘rich’ must be understood as the matrix argument Nyoman in (42d):

19 However, the coreferent reading may still be possible with the matrix subject in (42c). There is disagreement among native speakers of Balinese in this case. I personally cannot get the coreferent reading in an unmarked reading. Disagreement may stem from speakers’ judgement that in a marked reading both NYOMAN and the verb edot ‘want’ are ‘fronted’ and given prominence, in which case a clear break (shown by //) must be given after each of them:

Nyoman [[name]] [3] [edot] [want] [sugih] [rich]
'As for Nyoman, he DOES want to be rich'

Note that this is a marked structure where ia ‘3’ is a pronominal copy in the matrix subject position referring to the TOP NP (see Chapter 3, §3.2.2).
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(42) a. Nyoman edot [apang _ sugih]
   name want so that rich
   ‘Nyoman wants to be rich’

b. Nyoman edot [apang ia\j sugih]
   name want so that 3 rich
   ‘Nyoman wants him to be rich/Nyoman wants to be rich’

c. Nyoman edot [ia\j?i sugih]
   name want 3 rich
   ‘Nyoman wants him to be rich/?Nyoman wants to be rich’

d. Nyoman edot [ _ sugih]
   name want rich
   (i) ‘Nyoman wants to be rich/
   (ii) *Nyoman wants someone/anyone to be rich’

In the presence of apang, with or without overt embedded SUBJ (42a,b), we clearly have a closed complex COMP function, not an XCOMP. That is, the apang clause has SUBJ containing either an overt pronoun or a phonologically null ‘pro’, which is then anaphorically controlled by the matrix SUBJ. This control relation is optional, however, since it can refer to a referent different from the SUBJ (i.e. index j in (42b)).

In the absence of apang as in (42c), where SUBJ of the embedded clause is overtly expressed, we certainly have a CaMP. Notice that the overt pronominal ia in the embedded clause cannot generally appear on a coreferent reading (index i), which means that we have a CaMP without anaphoric control.

The situation is less clear in (42d) (i.e. without apang and without an overt pronoun). However, given the fact that (a) the ‘missing SUBJ’ must be identified with the matrix SUBJ and (b) an overt pronoun (e.g. ia as in (42c)) is generally not anaphorically controlled, it is very likely that we have a different construction in (42d), namely an XCOMP (i.e. with obligatory/functional control). This makes it more like edot in its second sense, to which I now turn.

In the second sense of edot ‘want’, the thing wanted is an action where the wanter is supposed to be in control over the action. In this sense, the embedded clause cannot be introduced by apang when the lower SUBJ is missing. Thus, in contrast to (42a), sentence (43a) is bad. I argue that the controlled clause in this case is an XCOMP, rather than COMP. Other verbs of the same type, such as demen ‘like’, also resist having apang in this use, as shown by the contrast between (43b) and (43c):

(43) a.* Ia edot [apang _ naar poh]
   3 want so that AV.eat mango
   (S)he wants to eat a mango’

b. Ketut demen [ _ nyopir]
   name like AV.drive
   ‘Ketut likes driving (a car)’

c. ?*Ketut demen [apang _ nyopir]
   name like so that AV.drive
Things become a bit complicated, however, because the lower verb can have an overt (pro)nominal. Importantly, the overt (pro)nominal must be different from the wanter or the liker, with *apang* being optionally present. Consider (44):

(44) a. Nyoman\textsubscript{i} edot [(apang) ia\textsubscript{p} *i naar poh]  
name want so that 3 AV.eat mango  
(i) ‘Nyoman wanted him/her to eat mangoes’ (without *apang*)  
(ii) ‘Nyoman wants the event of his/her eating mangoes to take place’ (with *apang*)  

b. Nyoman\textsubscript{i} demen [(apang) ia\textsubscript{p} *i nyopir]  
name like so that 3 AV.drive  
(i) ‘Nyoman likes him/her to drive (a car)’ (without *apang*)  
(ii) ‘Nyoman likes the idea that he drives’ (with *apang*)  

The differences in meaning due to the presence/absence of *apang* are hard to distinguish, though the variant glosses above are meant to suggest the relevant nuance. The presence of *apang* (e.g. with *edot*) generally implies that the experiencer (the wanter) simply wants the idea expressed by the embedded predicate without having any clear capability/intent to enforce it. Thus, it is generally used as an indirect request. Without *apang*, the sentence is understood as more direct than if it were present.

In short, the data suggest that we may have two kinds of control, as shown by the contrast between (45) (‘anaphoric’ control) and (46) (‘functional’ control). (45) represents anaphoric control, wherein *apang* is allowed and the embedded pronominal SUBJ can, but need not, refer to the matrix argument. (46) in contrast represents functional control, where the SUBJ of the embedded verb is obligatorily controlled (i.e. ‘deleted’). If overt, the pronominal SUBJ cannot be identified with the matrix argument. *Apang* is not allowed. The contrasts shown above show that we have a closed complex complement function in (45) but an open one (i.e. XCOMP) in (46). It should be noted that, in either kind of control structure, the controlled argument must be a GF-SUBJ. *Edot* ‘want’ is, therefore, a two-place intransitive taking an a-subject (the wanter), which is a term, and the thing wanted, which is a non-term, as shown by the *a-str* in (47a). The thing wanted has three options, as shown in (47b).

(45) a. Nyoman\textsubscript{i} edot [apang ia\textsubscript{p} sugih]  
name want so that 3 rich  
Nyoman wants to be rich  

b. Nyoman\textsubscript{i} edot [apang –i sugih]  
name want so that rich  

(46) a. ??Nyoman\textsubscript{i} edot [apang ia\textsubscript{p} naar poh]  
name want so that 3 AV.eat mango  

b. ??Nyoman\textsubscript{i} edot [apang –i naar poh]  
name want so that AV.eat mango  

c. Nyoman edot [ _ naar poh]  
name want AV.eat mango  
Nyoman wanted to eat mangoes’
The choice of type of the non-term argument for *edot* depends on meaning. First, if the thing wanted is a thing, it is expressed as a simple argument appearing as an OBL marked by *teken*. Second, if what is wanted is a proposition expressing a state or an event where the wanter is *not* (totally) in control over it, or the participant/Actor of the state/event is different from the wanter, then the non-term is a closed complex argument, functionally a COMP, having its own understood pronominal SUBJ if the SUBJ is not overt (i.e. having anaphoric control). Third, if the wanter is also the Actor in control over the embedded event (or in the case that the embedded predicate is a state, the wanter is perhaps responsible for the realisation of the state, as in (42d)), the non-term is an open complex argument (XARG) with obligatorily control (i.e. functional control), syntactically expressed as an XCOMP in the *gf-str*.

Note that two structures involving control which look similar such as *Nyoman edot sugih ‘Nyoman wants to be rich’* (42d) and *Nyoman edot naar poh ‘Nyoman wants to eat mangoes’* (41a) differ as to whether *apang* clauses are possible (due to the different senses of *edot*). (42d) and (41a) may syntactically have the same structure (i.e. with an XCOMP), in which case the sense of *edot* involved is that the embedded predicate expresses a state or an event in control by the wanter. (42d) differs from (41a) however, in that the embedded predicate expressing a state (i.e. *sugih ‘rich’*) generally allows for another sense of *edot*—the wanter is not in control over the state/event. This sense is not allowed in (41a), where *edot* takes the embedded verb *naar ‘eat’*. Hence, we have the contrast between (45) and (46).

It becomes clear now that there is no one-to-one correlation between a proposition (*sem-str*), a complex argument at the level of a syntactically `<a-str>`, and a complex function at the level of *gf-str*. For example, an XARG is not always expressed as an XCOMP. Consider again the applicativisation of *edot* (intransitive) to become *edot-in* (transitive), example (36b) repeated here as (48a). As (48b) shows, the XARG is treated as a term and becomes the matrix GF-SUBJ in the Objective Voice:

(48) a. [ _ ngelah umah luung] ane edot-in=a AV.own house good REL OV.want-APPL=3

‘Having a good house is what she wants’
A closed COMP tends to be a non-term and resists being linked to SUBJ. This again is related to the verb’s meaning. The transitive verb *orahin* ‘ask’, for example, can be thought of as semantically a three-place predicate consisting of an asker, an askee, and the proposition being asked. It turns out that the proposition can appear as a closed COMP (optional, anaphoric control) as in (49a). Alternatively, it can be an XCOMP (obligatory, functional control) as in (49b) where neither *apang* nor an overt pronominal SUBJ can appear in the embedded clause (49c):

(49) a. Nyomani orahin tiang [apang (iaiij i) teka mai prajani] name OV.ask 1 so that come here immediately
   ‘I asked (something of) Nyomani (so that he was obliged)
   to come here immediately’

b. Nyoman orahin tiang [ _ teka mai prajani] name OV.ask 1 come here immediately
   ‘I asked Nyoman to come’

c. ?*Nyoman orahin tiang [ia teka mai prajani] name OV.ask 1 3 come here immediately
   ‘I asked Nyoman to come’

Crucially, only the structure with functional control (XARG), namely (49b)/(50b) not (49a)/(50a), is treated as a term, and hence is a possible GF-SUBJ in the Objective Voice:

(50) a. ?*[apang (iaiij i) teka mai prajani] _ ane orahin tiang
   so that 3 come here immediately REL OV.ask 1
   Nyomani name

b. [ _ teka mai prajani] _ ane orahin tiang Nyoman come here immediately REL OV.ask 1 name
   ‘Coming here immediately is what I asked Nyoman to do’

Note that the difference in the syntactic status of the complex predicate correlates with the difference in meaning: sentence (49a) represents a situation where the asker does not really give the askee a direct order or request, but rather asks/tells the askee something else which is then intended by the asker to make the askee come. Sentence (49b) has a direct request/order interpretation, as the gloss shows. So, *orahin* ‘ask’ can be thought to have two possible *a-strs*, depending on the nature of the obligation/request:

(51) (i)  a-str: ‘ask’ <<__ , _ > <pred<__ , ... >> (not a direct request)
   (asker)(askee)(proposition)

   XARG

(ii)  a-str: ‘ask’ < __ , _ , ‘pred’<__ , ... >> (direct request)
   (asker)(askee)(proposition)
While a closed complex argument in a transitive verb resists being treated as a term, that does not mean that it can never be a term. It can, in certain circumstances, be treated as a term, particularly with predicates like *keweh* 'difficult', where the whole proposition is semantically the only argument of the predicate, as in (52). Note that the verb allows raising (53):

(52) a. [__ ngalihang awak gae jani] keweh  
    AV.search self work now difficult

b. keweh [__ ngalihang awak gae jani]  
    difficult AV.search self work now  
    'It is difficult to find oneself a job now'

(53) a. Ia keweh [__ ngalihang awake\(^{20}\) gae jani]  
    3 difficult AV.search self.3 work now  
    '(S)he finds it difficult to find himself/herself a job now'

b. *Ia keweh [i a ngalihang awakne gae jani]  
    3 difficult 3 AV.search self.3 work now  
    '(S)he finds it difficult to find himself/herself a job now'

c. __ keweh [__ ngalihang awakne gae jani]  
    difficult AV.search self.3 work now  
    '(S)He finds it difficult to find himself/herself a job now'

The reflexive *awak* in (52) is bound by the zero/generic pronominal, just as in the English translation. This does not exclude the possibility that there is raising as in (53a), where the embedded clause is an XCOMP. Evidence for its being an XCOMP comes from the impossibility of a pronominal (i.e. *ia* '3') appearing in the lower SUBJ position (53b)). Also, it seems possible to have a situation as in (53c), where the subject of *keweh* is zero and is the controller (i.e. the zero pronominal is not a generic pronominal, rather someone that has been mentioned earlier in the text).

Again, the possibility of XARG (i.e. raising) with intransitives like *keweh* 'difficult' or *aluh* 'easy' is related to meaning (i.e. different senses involved, as in *edot* 'want'). When the proposition expressing a state or event has a participant that might affect the whole affair (i.e. the easiness or difficulty), then raising is not only possible but preferred, especially if the Actor is not a generic one (as in (53) above, also example (54) below). However, if the participant does not contribute to the state/event, the whole proposition appears to be the subject, with *apang* being generally present (55a). And, if *apang* is present, raising is not possible (55b). Consider the difference in meaning and possible raising: (55) does not have the meaning expressed in (54).

(54) a. [Ia pules] aluh  
    3 sleep easy

\(^{20}\)Throughout this book, a morphologically complex reflexive such as *awakne* is not further segmented into *awak-ne* but simply glossed as 'self.3', because the suffix -ne simply contributes a third-person feature. Although originally it came from the third-person possessive -ne, its appearance in the complex reflexive has lost its 'possessive' meaning (i.e. *awakne* in its reflexive use means 'himself/herself', not literally 'his/her self/body', see Chapter 6).
b. Ia aluh [__ pules]
   3 easy sleep
   ‘It is easy for him to sleep/(S) he can sleep easily’
   (i.e. (s) he is healthy and has no sleeping disorder)

(55) a. [Apang ia pules] aluh
   so that 3 sleep easy
   ‘To have him/her asleep is easy’
   (this cannot mean ‘(s) he sleeps easily / it is easy for her/him to sleep’)

b. ?*Ia aluh [apang __ pules]
   3 easy so that sleep

Finally, I need to address one more question, namely the status of XARG with transitive AV verbs, e.g. tegarang ‘try’ or rambang ‘consider’:

(56) a. Tiang negarang [__ madagang]
   1 AV.try trade
   ‘I tried to do trading’

b. [__ Madagang] (ane) tegarang tiang
   trade REL OV. try 1
   ‘Doing trading is what I tried’

(57) a. Ipun sampun ngrambang [__ ngwangun pondok] (h.r.)
   3 already AV. consider AV. build house
   ‘(S) he has considered building a house’

b. [Ngwangun pondok] (sane) sampun rambang ipun
   AV. build house REL already OV. consider 3
   ‘Building a house is what (s) he has considered’

The voice alternations shown in (56)–(57) clearly suggest that the complex arguments are terms, but are treated as non-a-subjects. With the OV verbs tegarang (56b) and rambang (57b), the complex arguments are the grammatical SUBJs (given the evidence of relativisation, see §2.4.3). But what is their surface grammatical status in the AV verbs in (56a) and (57a)? They are not OBLs (because OBLs are not terms), and they are not XCOMPs (because XCOMPs are not terms either, understood as ‘restricted’ (Sells 1985), and cannot alternate to become SUBJs; see also Balinese XCOMPs appearing with intransitive verbs, example (36a)). Clearly, their grammatical function is term-complement (TCOMP)/OBJ, because they are syntactically terms and participate in the usual SUBJ/OBJ function alternations associated with Balinese AV and OV markings (see §2.2.2 and §3.2.5–3.2.6).

Likewise, a closed complex argument can be SUBJ or TCOMP. Consider the transitive verb orahang ‘say’ in AV form (58a) and OV form (58b). Its a-str is shown in (58c).

However, the verb also has a raising version (59). For simplicity, only the OV form is given, showing two possible SUBJ mappings (59a–b). The corresponding a-str is shown in (59c):

(58) a. Cai ngorahang [ia suba mulih]
   2 AV. say 3 already go.home
   ‘You said that (s) he had gone home’
b. [Ia suba mulih] orahang cai 3 already go.home OV.say 2
   ‘That (s)he had gone home is what you said’
   (SUBJ) __ (SUBJ) __

c. ‘say’ <‘2’, ‘go.home’<‘3’>
   (sayer) (proposition)

(59) a. Ia orahang cai [ _ suba mulih]
   3 OV.say 2 already go.home
   ‘(S)he was said by you to have gone home’

b. [ _ suba mulih] orahang cai ia 3
   already go.home OV.say 2 3
   ‘That (s)he had gone home was what you said about him/her’
   (SUBJ) __ (SUBJ) __

c. ‘OV. say’ <‘2’, ‘3’, ‘go.home’<>}

In short, a complex argument (with or without control—hence (X)ARG) of a transitive verb can be treated as a non-a-subject term argument, and therefore, like other, simple, non-a-subject term arguments, it can appear as the GF-SUBJ with the OV verb, or as OBJ/TCOMP with the AV verb. It is clear now that what I call TCOMP covers a range of term-complements which may be either simple, i.e. having no predicate of their own (e.g. OBJagent. OBJtheme/patient), or complex, i.e. having a predicate of their own (e.g. the OBJ that corresponds to an XARG).

5.2.4.6 A-str: Conclusion

I have demonstrated how raising and control constructions motivate the idea of a syntacticised a-str as an intermediate level between semantic and surface syntax. It provides a natural account for change in the surface grammatical function assignment of a controller in connection with change in voice marking. Recall that the alternation follows the general mapping and marking principles applicable to simple arguments (i.e. AV versus OV). The only difference between control/raising verbs and other verbs is that the former have complex arguments with sharing, subject to certain syntactic and semantic constraints. The analysis presented here correctly predicts that there may be a number of alternative syntactic expressions of such arguments. The sentences may share the same logical meaning, but because of different markings/mappings, they differ in the relative pragmatic emphasis of the arguments that are expressed as GF-SUBJ, because these arguments are foregrounded sentence-initially.

Using ARG to mean an argument in the a-str (either simple or complex but ‘closed’), and XARG to mean specifically a complex argument with an obligatory control (i.e. ‘open’), then either ARG or XARG can be expressed by different surface grammatical relations in Balinese. This is summarised in (60), which makes it clear that there is no one-to-one correspondence between a-str and gf-str.


5.2.5 Grammatical function structure (gf-str)

The gf-str (or f-str) is a representation of (surface)\textsuperscript{21} grammatical relations. For the present purpose of discussing mapping, gf-str examples will be simplified by ignoring features such as TENSE (TNS), etc. In the parallel structure representation, only the grammatical functions relevant for the mapping are shown. For example, the two-place intransitive sentence in (61a) has the (g)f-str shown in the AVM (see also §5.2.4.2) version shown in (61b), or the simplified parallel structures shown in (61c):

(61) a. Ia percaya teken kesaktian bungkung-ne (TLA:113)
3 believe to magic.power ring-3POSS
‘He believes in the magic power of his ring’

b. 
\[
\begin{array}{l}
\text{SUBJ} \quad \text{‘3’} \\
\text{PRED} \quad \text{‘believe’} \leftarrow \longrightarrow \\
\text{OBL} \quad \text{‘magic power’}
\end{array}
\]

c. 
\[
\begin{array}{c|c}
\text{c-str} & Ia \text{ percaya teken kesaktian bungkung-ne} \\
& 3 \text{ believe to magic.power ring-3POSS} \\
\hline
\text{gf-str} & \text{PRED } < \text{ SUBJ, OBL }> \\
\hline
\text{a-str} & \text{‘believe’ } < \langle \_\_, \_\_ \rangle >
\end{array}
\]

5.2.6 Gf-str versus a-str: the syntactic side of a-str

The information cross-classifying an argument shown in Table 5.2 can be captured in the gf-str and a-str shown in (62). This representation shows an a-str and gf-str correspondence where two terms and one non-term argument are classified differently in the a-str and gf-str. The second term ARG is grouped together with the a-subject as TERMS in the a-str but is grouped together with the third ARG as COMPLEMENT-

\textsuperscript{21} The term ‘surface’ here does not entail overt presence with morpho-phonological substance. A zero nominal is represented as being present in the (gf)-str representation.
FUNCTIONS\textsuperscript{22} in the $gf$-str. (Note that, to be specific about the complement functions, I distinguish a range of complement types as shown in (60)).

\begin{equation}
\begin{array}{c|c}
\text{gf-str} & \text{SUBJ COMPLEMENTS} \\
\hline
\text{a-str} & \langle \text{a-subj}, \_ \rangle < \langle \_ \rangle > \\
\end{array}
\end{equation}

In the preceding subsections, I discussed the reasons motivating the idea of distinguishing $a$-str and $gf$-str, as captured by (62) above. I will now give some more supporting arguments. First, $gf$-str and $a$-str impose different kinds of restrictions. For example, $gf$-str imposes constraints associated with surface grammatical relations. One case relevant here is the opposition between SUBJ and non-SUBJ properties: relativisation, control, etc. (see §2.4). The inability of OBJ/TCOMP and OBL to participate in the processes associated with these properties should be attributed to $gf$-str, not $a$-str.

Second, (surface) linear order. This constraint, which is a property of $c$-str, is enforced through a $gf$-str $\leftrightarrow$ $c$-str association where SUBJ is in [Spec, IP], and other argument functions are sisters of V, coming after V (i.e. right branching). The $a$-str, in contrast, imposes termhood properties related to quantifier float, resumptive pronouns, etc. (see §3.2). The inability of OBL to participate in these processes must be attributed to its being a non-term (in the $a$-str) rather than its being a complement (in the $gf$-str).

Third, issues in binding (where prominence is paramount) motivate the distinction between $a$-str and $gf$-str. Consider the effect of a prominence mismatch, as shown in (63) and exemplified in (64). The explanation goes as follows: what appears to be a complement function (and is therefore less prominent than SUBJ in the $gf$-str) can still be more prominent than SUBJ in the $a$-str. Since binding (in Balinese) is sensitive to $a$-str prominence (more correctly, to both $a$-str and $sem$-str prominence, see Chapter 6 and 7), the complement can therefore bind SUBJ.

\begin{equation}
\begin{array}{c|c}
\text{gf-str} & \underline{\text{SUBJ COMPLEMENTS}} \\
\hline
\text{a-str} & \langle \_ , \_ \rangle > \langle \_ \rangle \\
\end{array}
\end{equation}

(64) a. Ia tusing ngrunguang awakne
3 NEG AV.care self.3
'(S)he didn’t take care of himself/herself'

b. Awakne tusing runguang=a
self.3 NEG OV.care=3
'(S)he didn’t take care of HIMSELF/HERSELF'

\textsuperscript{22} According to Bresnan (2001:98), in contrast to SUBJ (which is uniquely both an argument function and a grammaticalized discourse function), non-discourse argument functions are complement functions, and non-discourse non-argument functions are adjuncts (see also §4.2.3.2).
Fourth, there is a need to allow an Agent to appear as an OBJ, specifically the OV Agent. Recall that an Agent is classified as [-o] according to the intrinsic classification shown in (2) (Bresnan & Kanerva 1989). By separating \textit{gf-str} from \textit{a-str}, we can account for the fact that an Agent can have three syntactic realisations: SUBJ, TCOMP/OBJ, and OBL. At the same time, we can maintain the idea associated with Bresnan's cross-linguistic observation of the Agent's intrinsic classification (IC) shown in (2a). I differ with Bresnan in assuming that the IC forbids an Agent being an a-object, not a GF-OBJ (see §5.2.2).

5.2.7 \textbf{A-str versus sem-str: the semantic side of a-str}

\textit{A-str}, as an interface between syntax and semantics, has syntactic as well as semantic properties. The syntactic organisation of the \textit{a-str} has just been discussed in the foregoing subsection. I have captured its internal syntactic organisation in regard to termhood by using internal nested bracketing. The idea that terms are more prominent than non-terms is captured in the conventional way in the \textit{a-str} representation, by putting the term group to the left of the non-term group.

There is evidence from Balinese binding that each group in the \textit{a-str} is further internally organised in terms of semantic prominence. That is, with a transitive verb, the two terms are ranked by their lexico-semantic prominence. For example, the \textit{a-str} in (65a) could be the \textit{a-str} of an active verb as in (65b) where the Agent is by default the a-subject and more prominent than the second argument, the ThemelPatient. (The traditional thematic role labels of Agent and Patient are used here as short-hand labels for \textit{sem-str} configurations as shown in (16)-(17)). On the other hand, it could be a passive of a ditransitive verb (65c), where the Goal term outranks the Theme term. The Agent is then the most prominent item in the non-term group of the passive \textit{a-str} and is therefore represented on the leftmost side within this group. The dots in (65) represents any other non-term arguments.

\begin{equation}
(65) \begin{array}{ll}
a. \text{a-str:} & \langle\langle \_ , \_ >, <\ldots> \rangle \\
b. \text{a-str:} & \langle\langle \_ , \_ >, <\ldots> \rangle \\
& (\text{Agt})(\text{Pt}) \\
c. \text{a-str} & \langle\langle \_ , \_ >, <\_ , \ldots> \rangle \\
& (\text{Go})(\text{Pt}) (\text{Agt})
\end{array}
\end{equation}

Now, to be more explicit about the semantic properties of the \textit{a-str} just mentioned, one might argue that the mismatch in (63), repeated as (66a), is actually not a mismatch between \textit{gf-str} and \textit{a-str}, but rather between \textit{gf-str} and \textit{sem-str} as shown in (66b), because the prominence in the \textit{a-str} mirrors the semantic prominence in \textit{sem-str}, due to the \textit{a-str} configuration whose arguments are equally terms:
The view in (66b), however, while it is partly true, must be rejected because it is too simplistic. (66b) implies that an argument linked to a complement function can be more prominent than GF-SUBJ, simply by being the most prominent item in the sem-str. But, there is evidence that such a view is untenable, at least for Balinese, as shown by the following reflexive binding:

(67) a. I Bapa_j ka-edengin raganne_j/*i ring potreka-ne antuk ida_i
    Art father PASS-show self.3 at picture-DEF by 3
    'Fatherj was shown himselfj/*i in the picture by himi

b. gf-str : SUB OBJ OBL
    a-str : 'PASS-show' < 'father'j, 'self.3'j/*i > < '3'i >
    sem-str : (Goal) (Stimulus) (Agent)

Sentence (67a), whose a-str is shown in (67b), clearly suggests that the reflexive raganne is bound by an argument that outranks it in the a-str (i.e. by the Goal term argument, which is also semantically more prominent than the reflexive Stimulus/Theme). The Agent ida '3' is not a possible binder. In short, Balinese binding data, as shown above, prove that merely being the thematically most prominent item (i.e. being an Agent) cannot in itself guarantee that that item will be a binder of a non-Agent (see also §7.4.3.3).

5.3 Mapping

5.3.1 Two kinds of mapping

Given the model of grammar adopted here, the mapping of sem-str to gf-str is not direct, but indirect. The first mapping is between sem-str and a-str. The second mapping is between a-str and gf-str. Let us call them a-mapping and f-mapping respectively:

(68) Two kinds of mapping

\[
\begin{align*}
gf-str & : \text{SUBJ} \ldots \\
f\text{-mapping} & : \emptyset \\
a\text{-mapping} & : \langle \langle \ldots \rangle \rangle \\
a-str & : \langle \langle \ldots \rangle \rangle \\
sem-str & : \text{AFFECT}([X],[Y])
\end{align*}
\]
Before discussing the actual mapping processes, I need to specify the information supplied in a lexical entry. This is the topic of the next subsection. I return to \( \text{a-mapping} \) in §5.3.3 and \( \text{f-mapping} \) in §5.3.4.

### 5.3.2 Lexical entries

I am here concerned with the lexical entry of an argument-taking predicate (or a predicate that potentially takes an argument, e.g. a preposition). A lexical entry basically represents information about the individual items that is not predictable from morpho-lexical/syntactic processes. The specified information is understood to be (morpho-)syntactically relevant. This includes: (i) the form-meaning association, (ii) categorial information, and (iii) the transitivity/valence information.

**Form-meaning association.** This essentially reflects Saussure's notion of arbitrary pairing of linguistic form (morpho-phonological form or graph) with its semantic content (69):

(69) Form:  
\[ \text{a. } /\text{matiang}/ \]  
\[ \text{b. } /\text{teka}/ \]  
Content:  
\[ \text{‘kill’ <killer, killee>} \]  
\[ \text{‘come’ <comer>} \]  

However, I will adopt a lexical decomposition approach to represent the content side (70):

(70) Form:  
\[ \text{a. } /\text{matiang}/ \]  
\[ \text{b. } /\text{teka}/ \]  
Content:  
\[ \text{[EVENT \{ \text{AFFECT}([X], [Y]) \} \{ \text{EFFECT}([\text{BECOME}([Y], [\text{DEAD}(Y)])]) \} \}} \]  
\[ \text{[EVENT \{ \text{GO}([X], [\text{PATH}(Y)]) \} \}} \]  

This is because the semantic representation in (69) falls short of explanatory potential. For example, it does not explain why certain verb-classes have the same or similar syntactic behaviour within the same language or across languages. (I shall discuss a clear case of such behaviour in mapping patterns and split/active organisation in §5.3.3–5.3.5). Semantic decomposition, as exemplified in (70), on the other hand, allows us to capture certain semantic properties that are syntactically relevant, shared by verbs of a certain class in a language or across languages. For this reason, I henceforth adopt the richer representation (70).

**Categorial information.** The minimal categorial information (N, V, etc.\(^{23} \)) is important in regulating the possible (linear) combinations of linguistic forms with other forms of the

---

\(^{23}\) There are languages (e.g. Tagalog and Tongan) which show the so-called 'pre-categorial' properties (Foley 1998a; Verhaar 1984a, 1984b). Pre-categorial status reflects a lack of clear categorial membership in the absence of attached formatives (e.g. a prefix, a suffix or reduplication). Such forms may also have no clear meaning, without saying that they are totally devoid of meaning. For example, Indonesian \( \text{ajar} \) may mean 'something associated with education' because we have \( \text{belajar} \) 'study/learn', \( \text{mengajar} \) 'teach', \( \text{pelajaran} \) 'lesson', \( \text{pelajar} \) 'student', \( \text{pengajar} \) 'teacher', \( \text{terpelajar} \) 'literate/well-educated', etc. Certain forms (but not all) in Balinese (and also Indonesian) are arguably precategorials. They include form such as \( \text{tegak} \) (meaning perhaps something vertical), from which can have \( \text{negak} \) 'sit', \( \text{tegakang} \) 'sit on something' or 'make something sit down'. Other forms are clearly not bound forms and therefore not precategorial; e.g. \( \text{daar} \) 'eat' (transitive), \( \text{jemak} \) 'take', etc. See Clynes (1998) who argues against the idea of precategoriality in Malay and Balinese.
same or different categories. Since the possible linear combinations of forms are predictable (i.e. regulated by phrase-structure rules), the phrasal information itself need not be included in a lexical entry. For simplicity, the categorial information can be represented by means of traditional categories such as N, V, P etc. With the categorial information specified, the entries in (70) can now be represented as follows:

(71)  

<table>
<thead>
<tr>
<th>Form</th>
<th>Category</th>
<th>Content:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. /matiang/</td>
<td>V</td>
<td>(\text{CAUSE}([X],[Y])) (\text{EVENT} \text{ EFFECT} ([\text{BECOME}([Y],[\text{DEAD}(Y)])]))</td>
</tr>
<tr>
<td>b. /teka/</td>
<td>V</td>
<td>(\text{EVENT} [\text{GO}([X],[\text{PATH}(Y)])])</td>
</tr>
</tbody>
</table>

Valency and transitivity. Information about valency (i.e. number of arguments) and syntactic transitivity (one term=intransitive, two terms=transitive) is not totally semantically predictable (see §5.2.4.1). This is not to say, however, that the transitivity is completely unpredictable either. The arguments of a predicate in most cases correspond to the participants of an event/state associated with the predicate. Hence, because of the nature of the world, the number of participants involved in an event is severely constrained, and tends to be similar across languages. Nevertheless, as discussed in §5.2.4.3, the syntactic encoding of such an event is not totally predictable. For example, the syntactic valence of the verb ‘give’ across languages is not the same. It is not semantically predictable why Balinese allows only a ditransitive ‘give’ whereas English allows a ditransitive ‘give’ with a possible dative alternation and Indonesian allows an alternation with applicativisation. This syntactic property must therefore be specified individually for the verb in each language. The valency/transitivity can be represented as being separate from the categorial information, as shown below:

(72)  

<table>
<thead>
<tr>
<th>Forms</th>
<th>Category</th>
<th>Valency/Transitivity</th>
<th>Content:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. /kill/</td>
<td>V</td>
<td>strictly mon- transitive</td>
<td>(\text{CAUSE}([X],[Y])) (\text{EVENT} \text{ EFFECT} ([\text{BECOME}([Y],[\text{DEAD}(Y)])]))</td>
</tr>
<tr>
<td>b. /teka/</td>
<td>V</td>
<td>two-place intrans</td>
<td>(\text{EVENT} [\text{GO}([X],[\text{PATH}(Y)])])</td>
</tr>
</tbody>
</table>

The valency/transitivity information specified in the entry determines the \(a-str\) associated with the predicate, in accordance with a set of constraints such as (73). For clarity, I give examples from Balinese.

(73) needs some explanation. First, to be explicit, the fact that a non-term ARG is absent in the \(a-str\) is represented by empty brackets (\(\langle \rangle\)). For example, a strictly intransitive class (73a), specifies that its \(a-str\) must have one term and no non-term ARG. Likewise, the monotransitive (73d) has no non-term ARG, just two term ARGs.

\(^{24}\) One could however decompose the categories into categorial features such as \([+/N]\) and \([+/V]\) (Chomsky 1965) or \([+/predicative]\) and \([+/transitive]\) (Bresnan 2001:100,120).

\(^{25}\) For other grammatical categories such as P and N, we may want to have a similar constraint associated with valency information to show that they may be optionally argument-taking predicates. For example, a P can have an optional \(a-str\) of \(\langle \_ \_ \_ \rangle\) (like the transitive \(a-str\)), an N can have an optional \(\langle \_ \_ \_ \_ \_ \_ \rangle\), etc. However, further constraints (not discussed here) must ensure that processes such as passivisation do not apply to the P when it acts as a predicate, for instance.

\(^{26}\) However, a morpholexical operation (e.g. passivisation) may license a non-term.
Transitivity and valency constraints (universal)

The verb-classes in (1) must have the a-strs in (2):

(1) verb-classes:

a. strictly intransitive:
   b. two-place intransitive:
   c. three-place intransitive:
   d. strictly monotransitive:
   e. three-place transitive:
   f. ditransitive:

(2) a-str:

a. <<_,_>> x ngeling ‘x cries’
   b. <<_,_>>, x demen teken y
   c. <<_,_,_>> x matakon teken y unduk z
   d. <<_,_,_>>, x nyemak y
   e. <<_,_,_>>, x ngejang y di z
   f. <<_,_,_>>, x maang y z

Second, since a predicate generally has at least one term, and may have no non-term at all, we can simplify the notation by not showing the empty brackets. Therefore representation (73a) for a strictly intransitive verb can be henceforth simplified to <<_>> (with the outer brackets being also deleted).

As a further notational variant, we can be even more explicit about termhood properties of the argumentss and use a representation involving the [+I-term] feature. Thus, the representations in (74ii) are notational variants of (74i), previously shown in (73).

(74)

(i) a. <<_,_>> or <[+term],[−term]> (two-place intransitive)
   b. <<_,_>> or <[+term],[+term]> (strictly mono-transitive)

5.3.3 A-mapping

5.3.3.1 A-mapping principles

In what follows, I sketch the principles of a-mapping, the mapping from sem-str to a-str. The mapping is driven by prominence matching. It has been observed across languages that the most prominent item in the sem-str (typically an Agent) is normally linked to the syntactically most prominent item in the a-str. Hence, given the syntactic prominence of the [+term] ARG in the a-str which outranks [−term] ARG, the default a-mapping can be formulated as follows:

---

27 Weather verbs such as ujan ‘rain’, panes ‘hot’ etc. generally appear without any clear arguments. However, they may take NPs denoting a general place or time, e.g. gumi-ne panes ‘the world is hot’, or sasih-e panes ‘the season is hot’.

28 The same effect can be achieved by applying the LMT principles (Bresnan & Kanerva 1989), with the proviso that the Agent IC must be understood as forbidding an Agent being mapped onto the a-object, not the GF-OBJ (see §5.2.2).
Default a-mapping principle (preliminary):29

Map the most prominent item in \textit{sem-str} onto the [+term] ARG in the \textit{a-str}.

With a highly transitive verb, (75) assigns [+term] to the Agent, making it link to to an ARG in the \textit{a-str}. Crucially, the Agent-ARG is also the most prominent item in the \textit{a-str}, that is, the a-subject.

With intransitive predicates, however, the a-mapping in (75) will map whatever is the most prominent item in the \textit{sem-str} onto the only [+term] ARG. Consequently, the only [+term] in this instance (hence, the a-subject) may be semantically an Actor or non-Actor. For example, given the specifications of Balinese intransitive 'run' and 'fall' in (76), we get the a-mapping in (77).

(76) a. /malaib/ intrans. \[
\begin{array}{c}
\text{EVENT} \\
\text{AFFECT ([X],[ ])}
\end{array}
\]
\[
\text{EFFECT [GO([X],[PATH])]} \]

b. /ulung/ intrans. \[
\begin{array}{c}
\text{EVENT} \\
\text{AFFECT ([],[X])}
\end{array}
\]
\[
\text{EFFECT [GO([X],[PATH])]} \]

(77) a. malaib
   \begin{align*}
   \text{a-str:} & \quad \text{‘run’ <[+term]>} \\
   \text{sem-str:} & \quad \begin{array}{c}
   \text{EVENT} \\
   \text{AFFECT ([X],[ ])}
   \end{array}
   \begin{array}{c}
   \text{EFFECT [GO([X],[PATH])]} \]
   \end{align*}

b. ulung
   \begin{align*}
   \text{a-str:} & \quad \text{‘fall’ <[+term]>} \\
   \text{sem-str:} & \quad \begin{array}{c}
   \text{EVENT} \\
   \text{AFFECT ([],[X])}
   \end{array}
   \begin{array}{c}
   \text{EFFECT [GO([X],[PATH])]} \]
   \end{align*}

(76a) shows that X of ‘run’ is the first argument of AFFECT, representing an Actor. The a-mapping principle in (75) links it to the only [+term] ARG, as shown in (77a). The most prominent item in ‘fall’ (76b), on the other hand, is a Theme/Patient (the second argument of AFFECT). The a-mapping principle, as shown in (77b), also links it to the only [+term] ARG.

For transitive predicates, where we have two term ARGs (monotransitives) or three term ARGs (ditransitives), the a-mapping principle in (75) obviously needs revision because it regulates only the first argument’s mapping onto the a-subject. The basic idea is that, if the predicate allows only two [+term]s (i.e. it is monotransitive), the first is assigned to the most prominent item in the \textit{a-str} (as regulated in (75)) and the second is assigned to the second most prominent item. If there are three [+term]s to assign, the third goes to the next item in the \textit{sem-str} that is less prominent than the first two. To take two examples, first consider the following monotransitive verbs:

(78) a. matiang ‘die-cause=kill’
   \begin{align*}
   \text{‘kill’ < [+term] , [+term] >} \\
   \begin{array}{c}
   \text{EVENT} \\
   \text{AFFECT ([X],[Y])}
   \end{array}
   \begin{array}{c}
   \text{EFFECT [BECOME ([Y],[DEAD([Y])])]} \]
   \end{align*}

b. ningalin ‘see’
   \begin{align*}
   \text{‘see’ < [+term] , [+term] >} \\
   \begin{array}{c}
   \text{EVENT REACT([X],[Y])}
   \end{array}
   \begin{array}{c}
   \text{EFFECT [BECOME ([Y],[DEAD([Y])])]} \]
   \end{align*}

29 By a ‘default a-mapping’, I mean the most general/unmarked principle regulating the a-mapping. There may be deviation from the a-mapping as specified here and later in the revised version in (80). This is a specific case and marked by certain morphological marking. A backgrounding passive is a good example where the Agent cannot be mapped onto the a-subject for semantic reasons (see §7.4.3.3).
The predicate ‘kill’ (78a) exhibits a typical matching of *sem-str* and *a-str*: *X* (the Effector/Causer/Agent) is the most prominent item in *sem-str* and is assigned [+term]. And since there is another [+term] in the *a-str*, then the second most prominent item in the *sem-str*, namely *Y* (the Patient/Theme), is also assigned [+term]. Likewise, ‘see’ (78b) has two [+term] ARGs and therefore the (first) two arguments in its *sem-str*, namely *X* (the Experiencer) and *Y* (the Stimulus), get [+term]. Crucially, since the a-mapping simply specifies that the two items of the *sem-str* are now linked to two term positions in *a-str*, without any specification that affects prominence, semantic prominence is preserved. In this way, we account for the fact that the relative prominence of items within term groups (and non-term groups) reflects their lexico-semantic prominence (see also Manning 1994, 1996b).

As already seen, Balinese allows ditransitive verbs (i.e. with three term ARGs). The third term argument is lexico-semantically the least prominent item among the three [+term] ARGs. Consider the derived applicative ditransitive *beli-ang* ‘buy-APPL’ (79a). The embedded (i.e. the stem) predicate *beli* ‘buy’, abbreviated in (79a) (associated with the primitive BY30), corresponds to the structure shown in (79b). (I simply represent buying as involving ‘transfer of possession’).

(79) a. *beli-ang*

<table>
<thead>
<tr>
<th><em>beli-ang</em></th>
<th>‘buy-APPL’</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>a-str</em></td>
<td>'buy.for' &lt;[+term],[+term],[+term]&gt;</td>
</tr>
</tbody>
</table>
| *sem-str* | \[
|         | \[
|         | AFFECT(\[X\],\[Y\]) |
|         | BY \(\{buy\ (\[X\],\[Z\])\}\) |
|         | EVENT EFFECT(\{BECOME \([Z]\,\{owns\ ([X],\{Z\})\}\)\}) |
|         | \]

(X = donor/giver/buyer, Y = person for whom the thing is bought Z = thing that is bought/given).

b. *beli* ‘buy’

<table>
<thead>
<tr>
<th><em>beli</em> ‘buy’</th>
</tr>
</thead>
</table>
| *sem-str* | \[
|         | \[
|         | AFFECT (\[X\],\[Z\]) |
|         | EVENT EFFECT (\{TRANSFER OF POSSESSION\}) |
|         | \]

(X = buyer, Z = thing bought)

(79a) shows that the Benefactive (identified as \[Y\]) is an applied argument that is not present in the stem’s *sem-str* for ‘buy’. It is introduced by the -ang applicativisation. In

---

30 The primitive BY represents means (see Davis 1996), by which an effect is achieved. Thus, the *sem-str* *beli-ang* ‘buy-APPL’ represents the idea that *X* (the donor) affects *Y* in a positive way (AFF+, to be precise, see §5.2.3) by buying *Z* for *Y* (i.e. ultimately *Y* owns *Z*).
the derived verb, it is more prominent than the base’s Theme/thing bought (i.e [Z]) due to the embedding. Thus, the Theme becomes the least prominent, low-end [+term] ARG. Evidence for this comes from binding (see §6.4.2.4).31

The a-mapping principles can now be revised as (80):

(80) Default/unmarked a-mapping principles (revised version):

a. The number of [+term]s assigned by a predicate is determined by its syntactic transitivity: one [+term] for an intransitive, two [+term]s for a monotransitive, and three [+term]s for ditransitive.

b. Assignment priority by prominence: if one [+term] assigned, it must go to the most prominent item in the sem-str; if two, the second must go to the second most prominent; if three, the third must be lexico-semantically less prominent than the first two.

The principle in (80a) regulating the number of [+term]s is straightforward. Likewise, (80b) needs no further comment. The basic idea is that the third [+term] is generally assigned to the third most prominent argument in the sem-str, as in the sem-str of the applicative shown in (79).

5.3.4 F-mapping

5.3.4.1 F-mapping principles

F-mapping is the mapping between a-str and gf-str. An important aspect of f-mapping is the subject selection principle. Recall that with intransitive verbs, the only argument (either a simple term or a complex argument) is the grammatical SUBJ:

(81) a. [Nyoman]SUBJ gelem
    name ill
    ‘Nyoman is ill’

b. [Ngalih gae]SUBJ keweh jani
    AV.search work difficult now
    ‘Getting a job is difficult nowadays’

Also, the Actor term (i.e. the a-subject) of the AV verb in Balinese must appear as the GF-SUBJ:

(82) [Tiang]SUBJ maang Bli Man abesik
    1 AV.give brother name one
    ‘I gave you (brother Man) one’

31 That the applied argument is more prominent than the stem’s ‘object’ is generally true for many languages. It is particularly evident in an asymmetrical language like Indonesian where only the applied argument can alternate to become SUBJ. The base’s object, which becomes the second object in a derived verb, cannot be the subject of passives. However, this is apparently not the case in a language called Kittaya (W.A. Foley, p.c.). However, I do not have the relevant data on binding and related mapping alternations in this language.
On the other hand, the GF-SUBJ of a mono- or ditransitive OV verb is any term argument except the a-subject (i.e. the Actor-term). Thus, a ditransitive OV verb has two linking possibilities (this is a language-specific property). The OV counterparts of (82) are shown in (83). (83a) shows the Theme SUBJ and (83b) the Benefactive SUBJ:

(83) a. \([\text{Abesik}_\text{SUBJ} \text{ mula baang tiang beli } \text{ Man}] \quad \text{(TLS:108)}\)
   one really OV.give 1 brother name
   ‘I really gave you (brother Man) only one’

   b. \([\text{Bli Na}_\text{SUBJ} \text{ mula baang tiang abesik}] \quad \text{(TLS:108)}\)
   brother name really OV.give 1 one
   ‘You (brother Man) are really the person that I gave one’

In addition to the fact that the two non-Actor terms can appear preverbally, as in (83), the evidence that they are SUBJs comes from the fact that they can be relativised. Below is a quotation from a text where a Theme term of \(\text{baang}\) comes preverbally with relativisation:

(84) a. \([\text{Mula } \text{ anggo-anggo-an-ne Nyoman Santosa } \text{ ane}] \quad \text{(TLS:105)}\)
   really use-use-NOMLZ-3POSS name REL
   \(\text{baang}=\text{a Made Arini}\)
   OV.give=3 name
   ‘What Nyoman Santosa actually used (e.g. a ring etc.) she gave to Made Arini’

We have also observed that a complex XARG of a transitive verb is treated as a non-a-subject term in Balinese. Hence, it can also be GF-SUBJ in the OV verb. Example (57) is repeated here to illustrate the voice alternation and change in the GF-SUBJ selection:

(85) a. \([\text{Ipun}_\text{SUBJ} \text{ sampun ng-rambang } [\_ \text{ ng-wangun pondok}] \quad \text{(h.r.)}\)
   3 already AV.consider AV.build house
   ‘(S)he has considered building a house’

   b. \([\_ \text{ Ng-wangun pondok}_\text{SUBJ} \text{ sampun rambang ipun}] \quad \text{(h.r.)}\)
   AV.build house REL already OV.consider 3
   ‘Building a house is what (s)he has considered’

The universal\(^{32}\) mapping principles formulated in (86) account for this. The principles make crucial use of underspecification, so I give both the feature assignment and the

---

\(^{32}\) One might find the idea presented here too strong because not all languages appear to show clear evidence for subjecthood/pivothood, e.g. Taba (Bowden 2001) and other languages of Eastern Indonesia. Other frameworks such as Role and Reference Grammar (Foley & Van Valin 1984, Van Valin & LaPolla 1999) and (Radical) Construction Grammar (Croft, 2001) reject the universality of the notions of grammatical relations such as subject and object. There is certainly controversy for the interpretation of what is meant by ‘universal’ across frameworks. In LFG, universality of grammatical relations/functions does not mean that grammatical relations are expressed uniformly across languages. On the analysis that grammatical functions are composed of primitive features (see Tables 5.1 and 5.2), the features can be thought of as part of universal stock of primitives whose realisations may vary across languages giving rise to slightly different sub-classifications of functions. For example, it may be the case that the opposition of [+/-pivot] is neutralised in a particular language, in the same way as how the opposition of [+/-voiced] might be collapsed in the phonology of a language. In other words, the principles outlined in (86) should not be interpreted as ‘absolute universals’ (i.e. they always get expressed across languages). Rather, they are part of universal stock of principles, whereby when a language shows the opposition of
effective function mapping that results (in parentheses). For example, assuming syntactic decomposition where [+term, +pivot] = SUBJ (see Table 5.2, §5.2.2), the principle in (86-I.a) in effect adds a [+pivot] specification to an underspecified ARG carrying [+term]. This makes it SUBJ in surface syntax.

The principles in (86) represent general f-mappings. Language-specific constraints may additionally require certain (head or dependent) marking associated with particular mappings. Also, the ergative mapping (86-Ibii) is subject to parameterisation. There may be variation in that, unlike Balinese, a language may allow only one non-a-subject term to be mapped onto GF-SUBJ. Such a language is asymmetrical in the sense of ‘symmetry’ discussed in §3.2.6.2. In such a language, it is generally the more prominent of the two non-a-subject terms (i.e. the second most prominent term in the a-str) that gets mapped onto GF-SUBJ. Recall that Balinese is symmetrical but it should be nonetheless noted that it is generally easier to map the second most prominent term onto the GF-SUBJ rather than the low-end term (i.e. the third term). There must be some factor of pragmatic prominence (e.g. topicalisation or contrastive focus) to motivate the mapping of non-a-subject term onto GF-SUBJ, as demonstrated in 5.2.4.4–5.2.4.5.

(86)  F mapping: subject and complement mapping (universal):

I.  SUBJ(ect) function
    a.  Intransitives:
        Assign [+pivot] to the only [+term] ARG
            (i.e. Map the only term onto SUBJ)
    b.  Transitives:
        (i)  Accusative mapping:
            Assign [+pivot] to the first [+term] ARG
                (i.e. Map the a-subject onto SUBJ)
        (ii) Ergative mapping:
            Assign [+pivot] to some [+term] ARG, except the first
                (i.e. Map a non-a-subject term onto SUBJ)

II.  COMP(lement) functions.
    a.  Map any remaining [+term] ARG(s)
        onto TCOMP(s)/OBJ(s)
    b.  Map [-term] ARG(s) (if any) onto OBL(s) for simple argument(s) or (X)COMP for complex arguments

The type of a complex argument and its possible mapping onto either TCOMP, COMP or XCOMP (86-II) is determined by the meaning of the head predicate (as discussed in §5.2.4.5). Thus, it is subject to lexically-specific restriction (which may vary from language to language). For example, Balinese tegarang ‘try’ and its English equivalent try both have an open complex argument (XARG). This argument is a term in Balinese and is therefore subject to principle (86-IIa) (i.e. the XARG = TCOMP/OBJ) but is a non-term in English and subject to principle (86-IIb) (i.e. the XARG = XCOMP) (see example (38) and footnote 17 in this chapter).

[+/-pivot], then the possibilities are not random but predicted to be within the ones shown in (86). I do not discuss this controversy any further in this book.
5.3.4.2 Transitive f-mappings: accusative and ergative

I now consider the transitive predicate mapping (86-Ib). There are two kinds of transitive f-mapping, accusative mapping and ergative mapping. The respective parallel structures can be contrasted in (87). (For clarity, I include the sem-str). The accusative mapping (87a) has an ‘ideal’ prominence matching, in that the most prominent item (the a-subject, Agent) is mapped onto GF-SUBJ, the most prominent item in the gf-str. And then, by the COMP-function mapping (86-IIa), the second term (Patient) is mapped onto TCOMP/OBJ and a non-term item, if any, is mapped onto OBL (not shown above). Many languages (including Balinese and English) exhibit this mapping.

(87) Transitive f-mapping

(a) Accusative

<table>
<thead>
<tr>
<th>gf-str</th>
<th>SUBJ</th>
<th>TCOMP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[+pivot]</td>
<td>[+pivot]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>a-str</th>
<th>'pred' &lt; [+term], [+term]&gt;</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>sem-str</th>
<th>AFFECT([X],[Y])</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Ag) (Pt)</td>
</tr>
</tbody>
</table>

(b) Ergative

<table>
<thead>
<tr>
<th>SUBJ</th>
<th>TCOMP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[+pivot]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>'pred' &lt; [+term], [+term]&gt;</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>sem-str</th>
<th>AFFECT([X],[Y])</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Ag) (Pt)</td>
</tr>
</tbody>
</table>

In contrast, the ergative mapping (87b) involves a prominence mismatch, as shown by the crossing f-mapping lines. The a-subject, which is still the most prominent item (i.e. the leftmost) in the a-str, is not mapped onto GF-SUBJ. The GF-SUBJ is a non-Actor term. A well known example of a language exhibiting ergative mapping is Dyirbal (Dixon 1972). As for Balinese, it also exhibits ergative mapping (to be discussed and formulated shortly).

Languages vary with respect to the types of mapping allowed (and the alternatives in derived structures—passives and antipassives). A language may have only one type of mapping. For instance, an accusative language such as English has accusative mapping. An ergative language such as Dyirbal has ergative mapping. Some languages may have both. Balinese is an example: the accusative mapping is marked by a nasal prefix (i.e. the AV verb) and the ergative mapping by zero-marking (i.e. the OV verb):

(88) F-mappings and voice markings in Balinese:

(i) AV verb (homorganic nasal prefix + V)

Map the a-subject (i.e. first [+term] ARG) onto SUBJ

(ii) OV verb (zero prefix + V)

Map a term, except the a-subject, onto SUBJ

The f-mapping above respects the universal mapping principles outlined in (87), but it is language-specific in relation to the actual morphological marking used in Balinese.

I will not discuss the precise morphological processes involved in the AV/OV alternation in any detail: it suffices to note that the affixation to form an AV verb must have the parallel structures shown in (89)–(90) below. The homorganic nasal prefix (abbreviated as N-) in (89) is a verbal formative giving rise to a word (zero-level V). (89) shows that the AV verb takes the stem’s a-str, sem-str and morpheme string, and then assigns the accusative f-mapping: the a-subject is mapped onto GF-SUBJ. The morphology and parallel structure of the OV verb shown in (90) will have exactly the
same stem specification as that in (89), but differ in the f-mapping. (90) shows one possible f-mapping, where the second argument is mapped onto GF-SUBJ.33

(89) The morphology and the parallel structures of AV verb:

<table>
<thead>
<tr>
<th>morph-string</th>
<th>[N-[X]]v^o</th>
</tr>
</thead>
<tbody>
<tr>
<td>gf-str</td>
<td>SUBJ</td>
</tr>
<tr>
<td>STEM</td>
<td></td>
</tr>
<tr>
<td>morph-string</td>
<td>X</td>
</tr>
<tr>
<td>a-str</td>
<td>'pred'&lt;_ <em>, (</em>, _)&gt;</td>
</tr>
<tr>
<td>sem-str</td>
<td>AFFECT([X],[Y])</td>
</tr>
</tbody>
</table>

(90) The morphology and parallel structures of the OV verb:

<table>
<thead>
<tr>
<th>morph-string</th>
<th>[O-[X]]v^o</th>
</tr>
</thead>
<tbody>
<tr>
<td>gf-str</td>
<td>SUBJ</td>
</tr>
<tr>
<td>STEM</td>
<td></td>
</tr>
<tr>
<td>morph-string</td>
<td>X</td>
</tr>
<tr>
<td>a-str</td>
<td>'pred'&lt;_ <em>, (</em>, _)&gt;</td>
</tr>
<tr>
<td>sem-str</td>
<td>AFFECT([X],[Y])</td>
</tr>
</tbody>
</table>

In short, the parallel structures explicitly capture the idea of alternative f-mappings, where AV and OV verbs of the same stem have exactly the same sem-str and a-str but differ in gf-str. Thus, we express the idea that neither AV nor OV is derived from the other.35

33 Another possibility (not shown here) is that the third term of ditransitive verb is mapped onto SUBJ.
34 Morph-string stands for morpheme string. This is equivalent to c-str in syntax. Mohanan (1990) calls it word string.
35 Clynes (1995) argues for the idea of Undergoer-primacy in Balinese, meaning that OV is more basic than AV. He quotes Beratha’s finding (Beratha 1992) that the frequency of OV is higher than that of AV in narrative texts. Artawa, Artini and Blake (2001) also make a similar claim saying that the O-construction (i.e. the OV construction) is ‘prominent’ (p.39) although the statistics given (p.39–40) clearly show that the N-construction is more dominant than the O-construction. However, Pastika (1996, 1999) reports that in the texts he studied the percentage of AVs is higher than the corresponding OVs. (My own observation in a limited corpus confirms Pastika’s finding). My view is that such frequency counting is very much dependent on text types and cannot be a reliable criterion for determining the basicness of OV in contrast to AV. There is much more to consider than mere surface morphology and frequency counts: connection with the information structure (i.e. what appears text-initially and the pressure to maintain the Topic) is certainly more important. The study of Balinese syntax throughout this book leads me to believe that neither of AV or OV is derived from the other.
5.3.4.3 Intransitive mapping and marking

Subject selection for intransitive verbs (86-Ia) is straightforward: the only term is mapped onto GF-SUBJ. This shows that the sem-str is irrelevant for the f-mapping (i.e. the a-str $\leftrightarrow$ gf-str mapping). However, the properties associated with sem-str are not totally irrelevant in the overall mapping or syntactic coding/marking. It has been observed that in some languages the single term of an intransitive may be marked differently depending on the lexico-semantics of the intransitive verb concerned. One such case is the semantic distinction between Unergatives and Unaccusatives. The relevant properties may be Actorhood as in Acehnese (Durie 1985), or other aspects such as manner (as in Balinese).

This split may not be apparent in surface syntax because the intransitive term is the SUBJ and appears in the SUBJ position in any case (i.e. so-called ‘deep unaccusativity’, Bresnan & Zaenen 1990). Or else, the split may structurally appear in surface syntax (i.e. ‘surface unaccusativity’) where, for example, the Patient-like term of an intransitive verb shows up in an object position, exactly as if it were a transitive object, e.g. Italian (Burzio 1981), Chichewa (Bresnan & Kanerva 1992). As for Balinese, it appears that the split is simply a matter of morphological marking, not syntax, because whatever the marking is, the sole term argument is the a-subject (in the a-str) and the GF-SUBJ (in the gf-str), and canonically appears in preverbal position (in the c-str).\(^\text{36}\) It behaves like the GF-SUBJ of a transitive verbs (whether AV or OV).

Recall that intransitive marking in Balinese is split not two ways (as in the corresponding transitive: N- and $\emptyset$-), but rather, as discussed in §2.5, multiple ways: N-, ma-, maN- (AV marking) and $\emptyset$- (OV marking). The AV prefixes are different morphemes with overlapping semantic aspects. For clarity, I summarise the semantically relevant aspects responsible for the markings below:

(91) I. Intransitive verbs expressing the following meanings are expressed in N-, ma- or maN-:

a. **Under control**: requiring Agents (i.e. volitional doers):
   e.g. \textit{ngigel} ‘dance’, \textit{madaar} ‘have a meal/eat’
   minimal pairs, e.g. \textit{ngutah} ‘vomit (controllable)’
   vs \textit{utah-utah} ‘vomit (uncontrollable)’, \textit{mamules}
   ‘keep oneself sleeping/pretend to sleep’ vs \textit{pules} ‘sleep’

b. **Inchoative**:
   minimal pairs, e.g. \textit{mamedih} ‘get angry’
   vs \textit{pedih} ‘angry’

c. **Possession/whole-part**
   e.g. \textit{maumah} ‘have a house’, \textit{macarang} ‘have a branch’
   extension: \textit{mabapa} ‘have a father relation, or address someone as bapa’

\(^\text{36}\) It remains to be seen, however, whether the split shows up in other syntactic properties. I leave this for future research.
d. **Manner:**
   (i) associated with body position (generally under control)
   e.g. negak 'sit down', majujuk 'stand up',
        nengkul 'be in a circled-like body position'
   (ii) associated with motion (control is not relevant)
   e.g. ngliling 'roll', malincer 'spin'

e. **Emission:**
   e.g. ngendih 'flare' (i.e. produce light/fire), makudus 
        'produce smoke'

II. The following intransitive verbs are expressed in Ø-forms:

a. Events expressing motion: **no manner & telic**:
   e.g. rawuh 'come'

b. Events expressing motion: **no control & no manner & telic**:
   e.g. ulung 'fall', pungkat 'collapse'

c. Statives: **no control & no manner & stative**:
   e.g. pules 'sleep', mati 'die'

The generalisations which can be drawn from (91) are as follows.

First, intransitive verb markings are determined by more than one semantic property: control and inchoative (as suggested by the minimal pairs in (91-Ia) and (91-Ib), where the presence of the control property is marked by an AV prefix, N-, ma-, or maN-), manner, possession and emission (as suggested by their markings being the same as the presence of control, namely N-/ma-). These can be thought of as Actor-like properties.37 On the other hand, predicates expressing the absence of the properties just mentioned, generally also characterised by their aspectual properties being telic (i.e. bounded), or by being semantically stative, are expressed by Ø-forms (91-II). The sole arguments of these verbs are typical Patients/Undergoers.

Second, given the generalisation just mentioned, the split in Balinese intransitive markings is, as I pointed out in §2.5.3, skewed such that only a typical Patient is marked by the Ø-form.

The pattern can be represented as (92):

(92) a. Unergative

\[
[N{-}ma{-}X]V \\
\quad \text{SUBJ} \\
\quad 'pred' <_>_ \\
\quad \text{Actor-like} \\
\quad [\text{in control}]/[\text{possessor}] \\
\quad [\text{manner}] \\
\quad [\text{producing/emitting}] \\
\quad [\text{inchoative}] \\
\]

b. Unaccusative

\[
[Ø{-}X]V \\
\quad \text{SUBJ} \\
\quad 'pred' <_>_ \\
\quad \text{Typical Patient} \\
\quad [\text{no control} &] \\
\quad [\text{no manner} & \text{telic}] \\
\quad [\text{stative}] \\
\]

---

37 The idea that these properties are Actor-like is captured in terms of their positions along the Actor-Undergoer continuum, see representation (84) in §2.5.2.8.
The Unergative type (92a) is characterised by the presence of Actor-like properties, whereas the Unaccusative type (92b) is characterised by the typical absence of all relevant properties, and/or is typically stative. (The absence of more than one relevant property is captured by a '∧' in (92b)).

Thus, by ‘having Actor-like properties’ in Balinese, I mean that an argument has one or more of the properties shown in (92a). Apart from control, possessor and inchoative which can be captured by AFFECT, HAVE and BECOME, the idea of ‘Actor-like’ in (92a) certainly represents meanings such as manner not easily captured in terms of the semantic decomposition approach adopted here. (I will not, however, attempt to formulate a better approach here). But, for the purpose of highlighting the pattern of grammatical organisation and marking in Balinese, it is enough to use terminology such as ‘Actor-like’, ‘Patient-like’ or ‘typical Patient’ in the sem-str as shorthand labels (bearing in mind that they imply certain properties as listed in (92)).

5.3.4.4 Conclusion: active organisation

Given the Balinese intransitive markings/mappings (Unergative versus Unaccusative) shown in (92), and Transitive markings/mappings (Accusative versus Ergative) shown in (87), repeated below as (93), the Active organisation of Balinese now emerges. For clarity, only connecting lines showing GF-SUBJ selections are shown.

(93) Transitive mapping and marking

(a) Accusative
\[
\begin{array}{c|c}
\text{c-str} & [N-V]v \\
\hline
\text{gf-str} & \text{SUBJ} \\
\hline
\text{a-str} & 'pred'<__,__>' \\
\hline
\text{sem-str} & \text{Actor} \\
\end{array}
\]

(b) Ergative
\[
\begin{array}{c|c}
\text{c-str} & [O-V]v \\
\hline
\text{gf-str} & \text{SUBJ} \\
\hline
\text{a-str} & 'pred'<__,__>' \\
\hline
\text{sem-str} & \text{non-Actor} \\
\end{array}
\]

The Active organisation can be shown in (94):

(94) Active/Split organisation of mapping and marking:

(a) Accusative
\[
\begin{array}{c|c}
\text{c-str} & \text{AV verb} \\
\hline
\text{gf-str} & \text{SUBJ} \\
\hline
\text{a-str} & 'pred'<__,...> \\
\hline
\text{sem-str} & \text{Actor(-like)} \\
\end{array}
\]

(b) Ergative
\[
\begin{array}{c|c}
\text{c-str} & \text{OV verb} \\
\hline
\text{gf-str} & \text{SUBJ} \\
\hline
\text{a-str} & 'pred'<(__,__)> \\
\hline
\text{sem-str} & \text{(Typical) Non-Actor} \\
\end{array}
\]
(94a) shows that for transitive predicates the opposition will be between Actor and non-Actor arguments. For intransitive predicates, the opposition will be between Actor and typical non-Actor (sole) arguments. In any case, the a-subject that has Actor(-like) properties is mapped onto GF-SUBJ in AV marking. (94b) is intended to convey the idea that the OV marking signals the mapping of a ('typical') non-Actor argument onto GF-SUBJ. The first [+term] ARG in (94b) is put within parentheses to represent the idea that the 'typical' non-Actor argument can be an a-object (for transitives; in the presence of an Actor-like argument) or an intransitive a-subject (in the absence of an Actor-like argument). (Note that, to highlight the pattern, I ignore the OV marking in ditransitive verbs).

5.4 Summary

This chapter has dealt with two kinds of mapping: the sem-str $\Leftrightarrow$ a-str mapping (i.e. a-mapping) and the a-str $\Leftrightarrow$ gf-str mapping (i.e. f-mapping). The a-mapping is driven by semantic prominence and syntactic transitivity, whereby the Agent (also known as I-subject, logical subject) and the Patient (I-object or logical object) are by default assigned [+term] in transitive verbs, mapping them onto the a-subject and the a-object respectively. I have shown that f-mapping is regulated by underspecification with respect to [+/-pivot]. The f-mapping principles assign [+/-pivot] to the underspecified [+/-term] ARGs: the [+term] ARG that gets [+pivot] becomes SUBJ.

I have demonstrated the following points: (a) Balinese AV/OV markings are instantiations of the universal Accusative/Ergative mappings, and the mapping principles account for change in grammatical function assignment in relation to change in voice markings; (b) Balinese is a 'symmetrical' language (where (i) either a-subject or non-a-subject term of a (di)transitive verb can be GF-SUBJ, or, (ii) either non-a-subject term of a ditransitive verb can be GF-SUBJ); (c) an intermediate syntacticised a-str is well motivated by marking and mapping alternations and the concomitant changes in the control of complex arguments; (d) a complex argument (i.e (X)ARG) may be syntactically a term (hence a possible GF-SUBJ in a transitive OV verb): this gives further support to the symmetricality of Balinese; (e) raising and control of complex arguments is motivated by lexical meaning and considerations of pragmatic prominence such as topicalisation; and (f) the Active organisation of Balinese can be captured in terms of explicit parallel structures.
6 Binding and morpholexical processes I

6.1 Introduction

This chapter is the first of two that deal with the operation of binding in Balinese, and its consequences for the analysis of morpholexical processes such as the formation of causatives and passives.

I show first that Balinese possesses true reflexives. Though all but one are homonymous with common nouns meaning 'body' (and are historically derived from them), I supply evidence that a reflexive reading is either allowed or disallowed in precisely specifiable syntactic contexts. These contexts are summarised in the form of three Binding Principles that make crucial use of a notion of 'a-command', formulated in terms of prominence within the syntactically a-structure introduced and defended in Chapter 5. The principles also make reference to the elaborated semantic structures likewise introduced in the previous chapter.

These principles in turn shed light on the analysis of complex predicate-fusing morpholexical operations. In this chapter I focus on causatives and applicatives (passives are dealt with in the following chapter). I show that causatives and applicatives are formed using the same (or homonymous) morphemes, the principal difference being the Actorhood of the fused argument. There are two different morphemes (or pairs of homonymous morphemes), which differ in the termhood status of the third argument of the derived verb.

6.2 Data

6.2.1 Does Balinese have reflexives?

I claim that Balinese has reflexives. In form they are either morphologically simple (iba, awak, dewek and raga) or morphologically complex ibane, awakne, dewekne and ragane.¹ They differ in their social information (see Arka 1998, Chapter 8).

First, evidence comes from binding in simple clauses. Consider the contrast between (1) and (2):

¹ They differ in their social information (see Arka 1998, Chapter 8).
(1) a. Iai\textsubscript{i} ajum teken ia\textsubscript{i}  
3 proud with 3  
* `If he \textsubscript{i} is proud of her/him \textsubscript{i}`

b. Cicing-\textsubscript{i} ngugut cicing-\textsubscript{i}  
dog-DEF AV.bite dog-DEF  
* `The dog \textsubscript{i} bit the dog`\textsubscript{i}`

(2) a. Iai\textsubscript{i} ajum teken awaki  
3 proud with self  
* `If he \textsubscript{i} is proud of himself/herself`\textsubscript{i}`

b. Cicing-\textsubscript{i} ngugut ibai  
dog-DEF AV.bite self  
* `The dog \textsubscript{i} bit itself`\textsubscript{i}`

The sentences in (1) are bad on the given reading because the pronominal ia \textsubscript{3} (1a) and the non-pronominal cicing `dog` (1b) are taken to be bound. That is, they are taken to be referentially identical with another nominal in (the syntactic domain of) the same clause. (Identical reference is shown by the same subscript indices). To make the sentences acceptable in the bound reading, as shown in (2), reflexive forms must be used instead.

Second, clear evidence comes from binding of simple reflexives in complex clauses:

(3) a. Wayani ngorahang [anak-e ento]\textsubscript{ij} nebek awak\textsubscript{ij/k}  
name AV.say person-DEF that AV.stab self\textsubscript{3}  
* `Wayani said that the person \textsubscript{ij} stabbed himself/\textsubscript{自身}`\textsubscript{3/k}`

b. Wayani ngorahang [anak-e ento]\textsubscript{ij} nebek ia\textsubscript{ij/k}  
W AV.say person-DEF that AV.stab self\textsubscript{3}  
* `Wayani said that the person \textsubscript{ij} stabbed himself/\textsubscript{自身}`\textsubscript{3/k}`

The lower object awak (3a) must refer to (i.e. be bound by) anak-e ento `the person`, which is the SUBJ of the lower verb nebek `stab`, of which awak is an argument. Binding by the matrix SUBJ Wayan is not possible. Sentence (3b), with the pronominal object ia \textsubscript{3} instead of awak, exemplifies the reverse situation (as shown by the indices). The point is this: the syntactic constraint of referential dependency on awak (in contrast to ia) demonstrated in (1)–(3) is what is expected on the analysis that awak is a bound pronominal/reflexive, in contrast to ia (a free pronoun). This constraint is not unique to Balinese, but applies to reflexives across languages.\footnote{However, different forms of reflexives may have slightly different (domain) constraints. The difference between simple and complex reflexives in Balinese will be formulated in §7.3.2.5.}

Third, although the reflexive forms are identical to common nouns (awak, raga, etc) meaning ‘body’, the reflexives have evolved into homonymous but syntactically distinct items, with different distribution. The form awak\textsubscript{ne}, for example, is morphologically indistinguishable between a complex reflexive, let us call it awak\textsubscript{nej} \textsubscript{self.3 = himself or herself} and a normal noun with a possessive -\textsubscript{ne} ‘3POSS’, let us call it awak-\textsubscript{nej} ‘body-3POSS’. Awak-\textsubscript{ne2} is then parallel with other nouns with a possessive pronominal such as batis-\textsubscript{ne} ‘leg-3POSS=his leg’, potlot-\textsubscript{ne} ‘his pencil’, etc. That the two are syntactically different is illustrated by the contrasts in (4): coordinate structures (4a–b) and a subordinate structure (4c).
(4) a. ?*Nyoman_i kema lantas polisi-ne ng-ejuk awakne_i name go.there then police-DEF AV-arrest self.3 ‘Nyoman_i went there and then the police arrested him_i’
   b. Nyoman_i kema lantas cang mulas awak-ne_i name go.there then I AV.paint body-3POSS ‘Nyoman went there and then I painted his body’
   c. Nyoman nawang polisi-ne lakar ng-ejuk awakne name AV.know police-DEF FUT AV-arrest self.3 ‘Nyomani knew that the police would arrest him_i’

In sentence (4a), a reflexive reading for awakne is enforced because the verb ‘arrest’ requires that the arrestee be the (whole) person rather than simply his/her body. But, the reflexive awakne (i.e. awakne_i) must respect the syntactic constraint that it be bound by an argument that is more prominent in its a-str (to be formulated precisely later). Nyoman is not an argument in the same a-str as awakne, but rather an argument in a separate conjunct clause. Awak-ne in (4b), on the other hand, renders the sentence acceptable. But this is a different awak-ne, a noun with a possessive suffix (i.e. awak-ne_2). We enforce the ‘body-3POSS’ reading by using the predicate mulas ‘AV paint’. Since this is a normal noun with the 3POSS -ne, there is no syntactic constraint on binding. Therefore, -ne can refer to Nyoman. Sentence (4c) is also a complex sentence. Unlike (4a) and (4b), however, it is a complex sentence with subordination. It has a complex a-str where the matrix verb nawang ‘know’ takes the lower predicate’s a-str as a part of its a-str. Thus, in contrast to (4a), the matrix subject Nyoman can bind the reflexive awakne in (4c).³

6.2.2 Free personal pronouns vs Reflexive pronouns

The analysis of reflexives in Balinese is complicated by the fact that the forms involved such as awak or raga can also be used as a personal pronoun to mean ‘I/we’ or ‘you’ (depending on the context). Therefore, their referent is contextually/pragmatically dependent. In this subsection, I explore briefly a variety of forms used as free pronouns and/or reflexives in Balinese.

6.2.2.1 Free pronouns only

Table 6.1 shows ‘real’ personal pronouns in Balinese. That is, they are forms that are never used as reflexives or non-pronominals. As observed, Balinese has quite elaborate forms for the first and third persons (distinguishing the social aspects of the referent and/or the addressee) but only a couple of second-person pronouns distinguishing gender.⁴ The high-register gap in the second person is filled in by the use of a ‘body’ noun (e.g. raga). This is an avoidance strategy to show politeness, which has perhaps motivated it to

³ Note that, like (3b), the pronominal ia can be the object of the embedded verb ‘arrest’ in (4c). And it can anaphorically refer back to the matrix subject because it is free in its own nucleus. However, ia may refer back to the matrix subject as in (3b) (i.e. anaphoric reference, not binding). The reflexive awakne in (4c) must, however, be bound by its a-commanding argument, in this case the matrix subject. (The embedded subject is excluded for a semantic reason).

⁴ In the dialect of Singaraja nani is also found for second person, gender neutral.
develop as a second-person pronominal in contemporary Balinese. In most cases, if the speaker knows the addressee’s social status, the vocative use of his/her caste title is preferred.

### Table 6.1: Balinese personal pronouns

<table>
<thead>
<tr>
<th>PERS. CAT.</th>
<th>FORMS</th>
<th>SOCIAL CONSTRAINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>titiang</td>
<td>very polite (high register)</td>
</tr>
<tr>
<td></td>
<td>tiang</td>
<td>polite (high register)</td>
</tr>
<tr>
<td></td>
<td>iang</td>
<td>neutral</td>
</tr>
<tr>
<td></td>
<td>icang</td>
<td>low register</td>
</tr>
<tr>
<td></td>
<td>kai</td>
<td>low register, used by animals in literary texts</td>
</tr>
<tr>
<td>Second</td>
<td>cai</td>
<td>male, low register</td>
</tr>
<tr>
<td></td>
<td>nyai</td>
<td>female, low register</td>
</tr>
<tr>
<td>Third</td>
<td>ida</td>
<td>referent = high caste and respected</td>
</tr>
<tr>
<td></td>
<td>dane</td>
<td>referent = middle caste and respected</td>
</tr>
<tr>
<td></td>
<td>ipun</td>
<td>referent = low caste</td>
</tr>
<tr>
<td></td>
<td>ia</td>
<td>referent = low caste</td>
</tr>
</tbody>
</table>

#### 6.2.2.2 Awak, awake and awakne

### a. Awak

As a free pronoun, the form *awak* (low register) is used as the first or second person—glossed as 1/2. Its use as a free pronoun is generally observed in the SUBJ or a-subject function as in (5). (5a) shows that it can mean ‘you’ (generally in an imperative) and (5b) shows that it can mean ‘I’ (declarative):

(5) a. Da keto, awak ngancan kelih, melah-ang mapineh (LS:5)  
NEG that 1/2 AV.get mature AV.good-CAUS AV.think  
‘Don’t be like that, you are getting mature, think more carefully’

b. Awak wang tani, kangguang ja dadi  
1/2 person farmer accept PART become  
kutun pundukan (TLS:8)  
louse rice-field.border  
‘(Because) I am a farmer, I am happy to be a louse in the rice-field’  
(i.e. happy to work in the rice-field)

As a reflexive pronoun, *awak* can take an antecedent of any person. It appears as a complement or a lower argument in the *a-str* (where it has a binder argument):

(6) a. Atiban tengah tiang_i nyiksik awak\(i^n\) (TLS:105)  
one.year half 1 AV.search self/ *2  
(i) ‘For one and a half years, I searched myself’  
(i.e. contemplated myself)  
(ii) ‘For one and a half years, I thought of you’
b. Nyoman_i bas matilesang awak_j pesan (TLS:115)
   name too humble self/*1/2 very
   (i) ‘Nyoman humbled himself too much’
   (ii) *‘Nyoman humbled me/you too much’

Note the complementary use of awak as a personal pronoun and a reflexive, as shown by (5) and (6): awak in (5) cannot be a reflexive and awak in (6) cannot be a pronoun. That is, reading (ii) in (6) is not possible even though awak can (in other circumstances) mean ‘you’, as in (5a). (It will turn out that when awak is in an a-commanded position, it is interpreted as a reflexive).

b. Awake

Awake, like awak, can be used as either a free pronoun or a reflexive. In its free pronominal function awake is used for either first or second person, but not for third person. It can appear as SUBJ (7a–b) or complement (7c). Unlike awak (6), however, the morphologically complex form awake shown in (7c) can be used as a free pronoun even when it is an AV complement (i.e. a-commanded by a possible binder). As expected, in such a case, awake ‘1/2’ must not be bound and it must mean ‘1’, because the AV SUBJ is cai ‘2’. (The disjoint reading is enforced mainly by the context/semantics of the verb and the restriction of reflexive awake to the imperative, see (8) below).

(7) a. Nang Kepod: “Sing, sing awake sing ngelah pipis!” (NK:107)
    name NEG NEG 1/2 NEG AV.have money
    ‘Nang Kepod: “No, no, I don’t have money”’

b. Awake lakar teka kema?
   1/2 FUT go there
   ‘Are you/we going there?’

c. Pipis-e ene ciri cai maan nulungin awake (SB)
   money-DEF this sign 2 already/once AV.help 1/2
   ‘This coin is a sign that you once helped me/?*yourself’

The reflexive awake, in contrast to its use as a free pronominal awake ‘1/2’, is very restricted: it is used in the imperative and can therefore only mean ‘self.2 = yourself’ as in (8):

(8) Nah ning mai te malu paek-ang awake (LS:4)
    Well kid come PART first OV.close-CAUS self.2
    (i) ‘Well kid come here first, make yourself close’
    (ii) ‘Well kid come here first, you make me close’

As a Benefactive, awake in a declarative sentence (9a) can only be interpreted as a free pronominal, hence with disjoint reading (i.e. reading (i)); the same applies for awake in the interrogative sentence (10a). In such cases, a complex reflexive with an explicit second-person feature, awak-cai-ne ‘self-2-DEF’, must be used instead, as in (9b) and (10b):

---

5 See (44) for the definition of ‘a-command’. 
Chapter 6

(9) a. Kaden cang cai nunas-ang awake tirta
    think 1 2 AV.beg-APPL 1/2/*self.2 holy.water
    (i) ‘I thought that you asked holy water for me’
    (ii) *‘I thought that you asked holy water for yourself’

    b. Kaden cang cai nunas-ang awakcaine tirta
    think 1 2 AV.beg-APPL self.2 holy.water
    ‘I thought that you asked holy water for yourself’

(10) a. Apa cai ningalin awake?
    QW 2 AV.see 1/2
    (i) ‘Did you see me?’
    (ii) *‘Did you see yourself?’

    b. Apa cai ningalin awakcaine?
    QW 2 AV.see self.2
    ‘Did you see yourself?’

Out of context, as expected, awake can be ambiguous in the imperative:

(11) a. Alih-ang awake kuren an abesik
    search-APPL 1/2/self spouse one
    ‘Find a wife/husband for me/yourself/* myself’

    b. a-str: ‘find-for’< ‘2’, ‘1/2’, ‘wife’>
       (Agt) (Ben) (Th)

As shown by the a-str in (11b), the Agent/a-subject of the imperative sentence is ‘you’. Therefore, the Benefactive awake ‘1/2’ can mean either ‘1’ (i.e. free pronoun ‘me’) or ‘2’ (hence, bound reading, ‘yourself’), but not ‘myself’.

c. Awakne

The form awakne is used as a third person reflexive only, ‘self.3’, as in (12a) and (12b). It cannot be used as a free pronoun (even in a context where one is pointing to the person mentioned) as in (12c) or (12d). (In such cases, a normal pronominal, e.g. ia ‘3’, must be used instead).

(12) a. Ia gedeg teken awakne
    3 angry with self.3
    ‘(S)he was angry with himself/herself’

    b. Lucu ia ngenehang awakne (TLS:103)
    funny 3 AV.think self.3
    ‘(S)he considered himself/herself FUNNY’

---

6 However, I have observed one instance of awakne which looks like a ‘free’ pronoun. In fact, it can be thought of as an emphatic reflexive ‘he himself’:

(i) Nyoman Santosa makenyem sawireh Opeer-e tusing
    name smile because security-DEF NEG
    nagarunguang awakne liwat (TLS:117)
    AV.care self.3 pass
    ‘Nyoman Santosa smiled because the security didn’t care that he himself passed’
A summary of *awak, awake, and awakne* is given in Table 6.2.

**Table 6.2: The properties of awak(-e/-ne)**

<table>
<thead>
<tr>
<th>FORMS</th>
<th>FREE PRON.</th>
<th>REFL. PRON.</th>
<th>SOCIAL REST.</th>
</tr>
</thead>
<tbody>
<tr>
<td>awak</td>
<td>1 (declarative)</td>
<td>any person (self.1, self.2, self.3)</td>
<td>low register</td>
</tr>
<tr>
<td></td>
<td>2 (imperative)</td>
<td>generally a-subject, not a-commanded</td>
<td></td>
</tr>
<tr>
<td>awake</td>
<td>1/2 (SUBJ or COMPLEMENT)</td>
<td>self.2 (imperative only)</td>
<td></td>
</tr>
<tr>
<td>awakcaine</td>
<td>–</td>
<td>self.2 (non-imperatives)</td>
<td></td>
</tr>
<tr>
<td>awakne</td>
<td>–</td>
<td>self.3</td>
<td></td>
</tr>
</tbody>
</table>

6.2.2.3 Raga, ragane and raganne

**a. Raga**

*Raga*, the polite/high register equivalent of *awak*, can be used as either a reflexive or a free pronoun. As a reflexive, it can take any nominal antecedent:

(13) Tiang / Ratu / ida jagi nguruang *raga*  
1 caste.title 3 FUT AV.care self  
‘I/(you) (Ratu)/(s)he will take care of myself/yourself/himself/herself’

As a free pronominal, it generally appears with an article *I,* and is used for first person only:

(14) a. Kaden=a ngoyong dogen *I raga* jumpah (KA:123)  
think=3 AV.stay only 1 at.home  
‘(S)he thinks that we/I/*you only stay at home’

b. Marep teken timpal patut *I raga* ng-idih pangampura  
face with friend appropriate 1 AV-beg forgiveness  
‘It is fine for us to beg a friend’s forgiveness’ (TTB:12)

The form with the article *I raga* is used strictly as a free pronominal: it cannot be bound:

---

I call *I* an ‘article’ because it functions like an article, roughly like the definite article *the* in English. The article *I* contributes specificity to a noun, e.g. *I meme* ‘the mother = a specific mother, namely our mother or your mother’. This article may appear with an adjective just like *the rich* (English). However, the Balinese counterpart *I sugih* ‘ART rich’ has specific (singular) reference ‘the rich person = a specific person who is rich’, not generic reference ‘rich people’. In any case, nothing in the following discussion hinges on the categorial classification of *I.*
To convey the bound reading, the article must be dropped making it a simple reflexive, as in (13).

Dropping the article *I* renders the free pronominal *raga* indistinguishable, as far as morphology is concerned, from its reflexive counterpart. Nevertheless, its syntactic distribution is not the same. The pronominal *raga* (without the article *I*), like its low-register counterpart *awak*, tends to appear as the a-subject (i.e. not in a lower position in the *a-str*). In an a-commanded position, *raga* is most likely to be interpreted as a reflexive:

(16) a. Ni Luh Sari nyelsel *raga* 
   (TLS94)
   ‘Ni Luh Sari regretted herself/*me/*us’

b. Gusti Ayu Jinar ane suba lemet tan eling ring
   name REL PERF powerless NEG aware at
   *raga* (TLS:95)
   ‘Gusti Ayu Jinar, who was already powerless and unconscious of herself/*me/*us’

A disjoint reading is very hard to get in (16). Nevertheless, in other situations, the semantics of the predicate or the context may exclude the reflexive use, making a free pronominal/disjoint reading possible for *raga*:

(17) Polisi-ne dot ng-ejuk *raga*
   police-DEF want AV-arrest 1
   ‘The police want to arrest me/us/?*themselves’

b. Ragane

*Ragane* is the high/polite equivalent of *awake*. It can be used as a free pronoun and a reflexive. As a free pronoun, unlike *awake*, *ragane* is used for second person only, as the high register counterpart of *(c*a)i ’2M’/ny(a)ji ’2F’.9

(18) a. *Ragane* nyumbang, dados (TAPE:12A)
   2 AV.donate allow
   ‘(If) you/*we donate, you/*we are allowed to’

b. Ten wajib *ragane* teka (TAPE:12A)
   NEG obligatory 2 come
   ‘It is not compulsory for you/*me/*us to come’

---

8 In the *Badung* dialect, especially in spoken form, it is reduced to *raga*-e. In speech, *ragane* is often indistinguishable from *raganne* ‘3’ (see sub-section (c) below).

9 These low pronouns are generally avoided because the speaker generally does not want to be regarded as being rude/impolite. However, in certain cases where the speaker is socially superior to the addressee, their use may not give rise to an impolite implication.
As a reflexive pronoun, *ragane* is used for second person only, i.e. 'yourself'. Like *awake*, *ragane* is restricted to the imperative (19a). In other sentence types such as interrogative, either simple *raga* or an explicit form of address with *raga* is used (19b):

(19) a. Mriki-ang *ragane* sami come-CAUS self.2 all 'Make yourself all closer here'

b. Napi Ratu mresideyang ngruguang raga/ragan-ratu-ne/*?* ragane QW caste.title AV.able AV.care self/self-ratu-DEF/ self.2 'Can you (Ratu) take care of yourself?'

c. *Raganne*

*Raganne* (for third person only) is the polite counterpart of *awakne*. Unlike *awakne* which is mainly used as reflexive, *raganne* can be used as a free pronoun as well as a reflexive. The following sentences illustrate its free pronoun use, where it can be an a-subject:

(20) a. Nglantas buin *raganne* malaib ka sisi (TLS:94) AV.continue again 3 AV.run to beach 'Again he ran to the beach'

b. *Raganne* ngambil jinah-e (h.r.) 3 AV.take money-DEF 'S)he took the money'

The following show that, out of context, *raganne* is ambiguous, as shown by the two possible indices:

(21) a. Ida*$_{i}$* tan ng-runguang *raganne*$_{ij}$ 3 NEG AV-care self.3/3 '(S)he did not take care of himself/herself/him/her'

b. Ida*$_{i}$* terus ngortaang *raganne*$_{ij}$ 3 keep AV.talk self.3/3 '(S)he kept talking about himself/herself/him/her'

<table>
<thead>
<tr>
<th>FORMS</th>
<th>FREE PRON.</th>
<th>REFL. PRON.</th>
<th>SOCIAL REST.</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>raga</em></td>
<td>1 (with the article <em>I: I raga</em> generally the a-subject)</td>
<td>any person (self.1, self.2, self.3)</td>
<td>high register</td>
</tr>
<tr>
<td><em>ragane</em></td>
<td>2</td>
<td>self.2</td>
<td>(imperative only)</td>
</tr>
<tr>
<td><em>raganne</em></td>
<td>3</td>
<td>self.3</td>
<td></td>
</tr>
</tbody>
</table>
6.2.2.4 Iba and ibane

a. Iba

Iba is a real second-person pronoun (i.e. it never means 'body'). As a free pronoun, it is the gender-neutral counterpart of cai '2M'/nyai '2F', hence a low-register form. It is generally used in stories with animal characters, where no impoliteness is implicated. (It may be used with a human addressee, but only in a very intimate situation, otherwise the speaker is taken as being rude/impolite). In the following examples from (children's) stories, no impoliteness is implied:

(22) a. Jani tawang kai iba ane ng-amah isin bubun kai-ne (SB)
   now OV.know 1 2 REL AV-eat content trap 1-DEF
   'Now I know it is you who has eaten the contents of my fishing-trap'

b. Ubuh, kai ng-idih olas teken iba (SB)
   name 1 AV-beg favour to 2
   'Ubuh, I ask you a favour'

c. Awake nyangiang iba (KA:123)
   1/2 AV.serve 2
   'I (will) serve you'

As a reflexive, iba can take a binder of any person (23a). More examples are given in (23b–c):

(23) a. Cang/cai/ia mesti ng-itungang iba jani
   1 2 3 must AV-think refl now
   '/you(s)he must think of myself/yourself/himself/herself now'

b. Buktin-ne liu pesan anak-e nebek iba (KA:115)
   evidence-DEF many very person-DEF AV.stab refl
   'The evidence is that many persons have stabbed themselves'

c. Ane terang gati ia suba ka-temah
   REL clear very 3 PERF PASS-curse
   ban Widi. Ngadep iba. (KA:127)
   by God AV.sell self
   'What is clear is that she has been cursed by God. (She) sold herself.'

b. Ibane

Ibane is used as a reflexive for any person as shown in (24), but it is not attested as a free pronoun (25).

   get.up-CAUS self kid
   '(Make yourself) Get up, kid'

---

10 For example, consider the contrast:

Awak-ne/*iba-ne bek misi tato
body-3POSS full contain tattoo
'His/her body is covered in tattoos'
b. Sing aden an uli jani kenehang ibane (KA:125)
NEG prefer from now OV.think self
‘Isn’t it better that from now on we think of ourselves’

c. Tepukin=a ibane di yehe
see=3 self at water
‘It saw itself in the water’

(25) a. *Apa ibane lakar kema
QW pron FUT go.there
‘Are we/you/they going there?’

b. *I raga nepukin ibane ditu
1 AV.see pron there
‘I saw you/him/her/them there’

The use of iba and iba(ne) is summarised in Table 6.4.

Table 6.4: The properties of iba(-ne)

<table>
<thead>
<tr>
<th>FORMS</th>
<th>FREE PRON.</th>
<th>REFL. PRON.</th>
<th>SOCIAL REST.</th>
</tr>
</thead>
<tbody>
<tr>
<td>iba</td>
<td>2 (gender neutral)</td>
<td>any person (self.1, self.2, self.3)</td>
<td>low register (generally for animal, possibly for human)</td>
</tr>
<tr>
<td>ibane</td>
<td>-</td>
<td>any person</td>
<td></td>
</tr>
</tbody>
</table>

6.2.2.5 Dewek, deweke, and dewekne

The forms dewek, deweke and dewekne are used as free pronouns and reflexives. They are generally used in literary contexts (stories and novels) and drama plays. Dewek(-ef-ne) differs from awak (l.r.) and raga (h.r.) in that it is traditionally called alus sor (Warna 1993). This roughly means ‘high-low’ (i.e. between awak and raga). (In stories, the addressee/reader is generally assumed to be socially non-low).

a. Dewek

As a free pronoun, dewek, like raga, generally appears with the article I: I dewek ‘I/we’ (i.e. used as a first person only). The article can, however, be dropped.

(26) a. Yan tawang=a I dewek majug jag magerengan (KA:127)
if OV.kow=3 ART 1 AV.struggle AV.quarrel
‘If (s)he knew that we quarrelled (furiously)…’

b. I dewek jele kene (NK:105)
ART 1 bad this
‘I am bad like this’

As a reflexive, the simple form dewek can take a referent of any person:

(27) a. Mangkin titiang nyesel pisan ring dewek (ITN:20)
now 1 AV.regret very at self
‘Now I regret myself very much’
b. Yen anake engsap teken dewek (KA:116)
   If person forget at self
   ‘If one forgets **himself/herself**’

c. Ng-itungang iba padidian dogen... ng-alih kalegan ...
   AV-think self alone only AV-search happiness
   sing madalem dewek (KA:127)
   NEG AV.sorry self
   ‘(You) only think of yourself...in search of happiness sacrificing **yourself**’

b. Deweke

The complex form *deweke* can be used as a pronoun or reflexive for first or second person only.11 (28a) shows its use as a free pronoun ‘1’ and (28b) as ‘2’:

(28) a. Melah ya yan *deweke* sibareng nganten! (NK:107)
   good PART if 1/2 same.time AV.marry
   ‘It is good if we get married at the same time’

b. *Deweke* bajang, anak luh anake itunga ng! (NK:95)
   1/2 bachelor person female PART OV.think
   ‘You are young, think of a girlfriend (not something else)’

As a reflexive, *deweke* is used as a second-person reflexive, generally in imperative and interrogative sentences (29a–b). For a first-person reflexive, either the simple form *dewek* (example (27a) above) or *dewektiange* (i.e. explicitly with *tiange* ‘1’) can be used (29):

   OV.envy-CAUS self.2
   ‘Make yourself envious’

b. Dadi keto-ang *deweke*? (KA:120)
   become that-CAUS self.2
   ‘(Why) have you made yourself like that?’

c. Titiang nyerahang *dewek* (**tiitange**) ring Hyang Widi Wasa
   1 AV.surrender self (1) to God (ITN:19)
   ‘I surrender myself to God’

c. Dewekne

*Dewekne* is mainly used as a third person reflexive as shown in (30a,b), but its use as a free pronoun is attested (30c,d):

(30) a. Made Rawi ngomong satmaka teken *dewekne* (NK:94)
   name AV.talk as if to self.3
   ‘Made Rawi talked as if to himself’

b. Tur engsap teken *dewekne* ane tiwas nektek
   And forget with self.3 REL poor very
   ‘And (she) forgets herself, who is very poor’

---
11 For the third person, *dewekne* is used, see subsection (c).
c. Made Arini nyemak kopi-ne baang=a Nyoman Santosa name AV.take coffee-DEF OV.give=3 name a-cangkir, tur dewekne ng-inem a-cangkir (TLS:106) one-cup (and)then 3 AV-drink one-cup ‘Made Arini took the coffee, gave one cup to Nyoman Santosa and then she drank one cup (too)’

d. Sujatinne, memen-ne kaliwat tresna teken dewekne (TLS:9) actually mother-3POSS very love with 3 ‘Actually, her mother loved her very much’

To sum up, the uses of dewek(-e/-ne) can be shown in Table 6.5.

Table 6.5: The properties of dewek(-e/-ne)

<table>
<thead>
<tr>
<th>FORMS</th>
<th>FREE PRON.</th>
<th>REFL. PRON.</th>
<th>GENERAL REST.</th>
</tr>
</thead>
<tbody>
<tr>
<td>dewek</td>
<td>1 (with article: I dewek)</td>
<td>any person (self.1, self.2, self.3)</td>
<td>‘middle’ register (the addressee assumed to be non-low)</td>
</tr>
<tr>
<td>deweke</td>
<td>1/2</td>
<td>self.2 (imperative and interrogative)</td>
<td></td>
</tr>
<tr>
<td>dewekne</td>
<td>3</td>
<td>self.3</td>
<td></td>
</tr>
</tbody>
</table>

6.2.2.6 Summary

The data on the Balinese pronominal system shows that contemporary Balinese does have reflexives that respect the syntactic constraints of binding. The following points emerge from the study of the Balinese pronominal system.

First, Balinese has real pronouns, shown in Table 6.1, or column 2 in the summarising table below. Additionally, there are other pronominals (reflexive and free) which historically come from nouns meaning ‘body’ (columns 3 and 4 in Table 6.6). The only reflexive not so derived (i.e. not from a ‘body’ noun) is iba (low register, no person constraint).

Second, simple reflexive forms (awak, raga, dewek and iba) have no constraint on person whereas the morphologically complex forms have different person restrictions: forms ending in -ne (originally from 3POSS) have third-person reference and forms ending in -e/(n)e (originally the DEF suffix) may have second or first person reference.

Third, the forms may be morphologically indistinguishable as between the free pronominal and reflexive usages, except those with the article I (as in I raga and I dewek), which are unambiguously first-person pronouns.
Table 6.6: Balinese pronominal system: summary

<table>
<thead>
<tr>
<th>PERSON</th>
<th>FREE</th>
<th>PRON.</th>
<th>REFL.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>First</td>
<td>titiang (high)</td>
<td>I raga (high)</td>
<td>raga (high)</td>
</tr>
<tr>
<td></td>
<td>tiang (high)</td>
<td>I dewek (mid.)</td>
<td>dewek (mid.)</td>
</tr>
<tr>
<td></td>
<td>iang (neutral)</td>
<td>awake (low)</td>
<td>awak (low)</td>
</tr>
<tr>
<td></td>
<td>iicang (low)</td>
<td>iba(ne) (low)</td>
<td>iba(ne) (low)</td>
</tr>
<tr>
<td>Second</td>
<td>cai (low)</td>
<td>ragane (high)</td>
<td>ragane (high)</td>
</tr>
<tr>
<td></td>
<td>nyai (low)</td>
<td>dewek(e) (mid.)</td>
<td>dewek(e) (mid.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>awak(e) (low)</td>
<td>awak(e) (low)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iba (low)</td>
<td>iba(ne) (low)</td>
</tr>
<tr>
<td>Third</td>
<td>ida (high)</td>
<td>raganne (high)</td>
<td>raganne (high)</td>
</tr>
<tr>
<td></td>
<td>dane (mid.)</td>
<td>dewekne (mid)</td>
<td>dewekne (mid)</td>
</tr>
<tr>
<td></td>
<td>iipun (high)</td>
<td></td>
<td>awakne (low)</td>
</tr>
<tr>
<td></td>
<td>ia (low)</td>
<td></td>
<td>ibane (low)</td>
</tr>
</tbody>
</table>

Fourth, their reflexive uses respect the syntactic constraints on binding (examples (1)–(4)). The reflexive use of awakne, for instance, does not syntactically have the same distribution as a (normal) noun with a possessor ‘his body’.

Fifth, among the morphologically complex forms available, awakne and ibane are the forms that are not used as free pronouns. These forms are therefore particularly good candidates for binding tests in Balinese. With other reflexive forms, one needs to be careful because they may be ambiguous between, say, raganne ‘3’ and raganne ‘self.3’.

6.3 Parallel structures and binding theory

Binding is the syntactically-constrained referential dependency of a nominal, namely a reflexive or reciprocal nominal, on another nominal (the binder). The exact formulation of the syntactic constraints on binding depends on one’s theory of grammar. In what follows, I discuss the role of relations of prominence in Balinese binding.

6.3.1 Prominence and variation

There are three kinds of prominence crucial for binding. Languages vary with respect to which types they are sensitive to. They are: (i) syntactic prominence of surface grammatical relations (e.g. SUBJ vs OBJ, etc.); (ii) syntactic prominence with respect to termhood (terms vs non-terms); and (iii) semantic prominence with respect to thematic/lexico-semantic properties (e.g. organised as a thematic hierarchy).

It is well known from the literature that SUBJ is the most prominent grammatical relation, outranking other grammatical functions (Bresnan 1982 and Bresnan ed. 1982; Keenan & Comrie 1977; among others). This, as well as a more detailed prominence-
ranking of other grammatical functions, is shown in (31i). (31i) summarises the same information, but focussing instead on the relative prominence of terms versus non-terms:

(31) Syntactic prominence
   (i) Surface-gf-prominence SUBJ > OBJ1 > OBJ2 > OBL > ... 
   (ii) Termhood prominence TERMS > NON-TERMS

(31) shows one way of ranking arguments: terms are ranked according to their surface grammatical relations, with SUBJ being the most prominent item followed by OBJECT1 and OBJECT2. Non-terms, i.e. OBL and other complements, come lower in the syntactic ranking. Binding in familiar languages such as English is known to be sensitive to the syntactic ranking shown above.

However, there are languages whose binding properties are reported to be semantically constrained. In these, an Agent is always a possible binder irrespective of its surface grammatical relation, e.g. Marathi (Dalrymple 1993:13ff). Given a semantic ranking represented traditionally in terms of the thematic hierarchy (32) (Bresnan & Kanerva 1989 and references therein, and cf. the Actorhood-Undergoer hierarchy in Foley & Van Valin 1984, Van Valin 1993, [+A]>[-A] in Foley 1998b), the Agent will always be the most prominent item and can therefore bind the other items (irrespective of its surface grammatical relation):

(32) Semantic prominence
   Agent > Beneficiary > Goal > Instrument > Patient/Theme > Locative

(Note that I have already captured semantic prominence precisely in terms of the sem-str configurations in §5.2.3).

Balinese, I argue, has regard to both syntactic and semantic prominence, as captured by (33). This shows that termhood prominence (33i) is primary, with a secondary ranking in terms of semantic prominence taking place within each grouping,\(^\text{13}\) as observed by Manning (1994, 1996b):

(33) Syntactic and Semantic Prominence
   (i) termhood prominence TERMS > NON TERMS
   (ii) Semantic prominence \[\text{Agt} > ... \text{Pt/Th} \quad \text{Agt} > ... \text{loc}\]

The prominence organisation shown above gives primacy to syntactic over semantic prominence (i.e. a non-Actor term outranks an Actor which is not a term). This is stated explicitly in (34):

(34) termhood prominence > semantic prominence

In the following sections (see also §7.3.2.3), I will present Balinese data on binding to support these claims.

\(^{13}\) (33ii) is intended to represent the semantic prominence of (32) with the dots abbreviating the intermediate roles. Recall, though, that these are shorthand labels. By 'Agent', for example, I mean X in AFFECT ([X],[Y]) of the sem-str. See §5.2.3 for extensive discussion.
6.3.2 Binding of SUBJ

SUBJ can be bound by a complement term. The contrast in (35a–b) shows that the grammatical function alternation of the reflexive (SUBJ versus term-complement) does not affect grammaticality. (35a) and (35b) have the same logical meaning, but differ in voice marking (and information organisation). In both cases, the reflexive *awakne* must be used; the free pronoun *ia* is not possible. Crucially, in (35b), the reflexive is SUBJ and can be still bound by the clitic =a. That is, the clitic is more prominent in the *a-str* and *sem-str*, as shown in the parallel structure in (35c).

(35) a. *ia i ngenehang awakne / *ia i \\
3 AV.think self.3 / 3 \\
'(S)he thought of herself/himself'

b. Awakne / *ia i kenehang=a \\
self.3 / 3 OV.think=3 \\
'(S)he thought of HERSELF/HIMSELF'

c. The parallel structure of (35b):

\[
\begin{array}{ccc}
| s-ctr | Awakne kenehang =a | \\
<table>
<thead>
<tr>
<th>self.3</th>
<th>OV.think</th>
<th>3</th>
</tr>
</thead>
</table>
| gf-str | SUBJ TCOMP | \\
| a-str | think | \\
| sem-str | REACT([X],[Y]) |
\end{array}
\]

Here is another contrast in the high register:

(36) a. *Idai tan nganggoang ragannei \\
3 NEG AV.accept self.3 (h.r.) \\
'(S)he did not accept himself/herself'

b. Ragannei tan kanggoang idai \\
self.3 NEG OV.accept 3 \\
'(S)he did not accept HERSELF/HIMSELF'

A bound (matrix) subject is commonly found in imperative constructions with the OV verb, as in the following sentences:

(37) a. Paek-ang awake (LS:4) \\
OV.close-CAUS self \\
'Make yourself closer'

---

The evidence that *awakne* is SUBJ in (35) comes from the fact that it comes preverbally and it can take a relative pronoun as in: *awakne ane kenehanga* '(s)he thought of HIMSELF/HERSELF, not someone else'. Note that forcing a sentence-initial reflexive functioning as an object by switching the verb into AV is not possible: *awakne ane ia ngenehang* 'It is herself/himself that (s)he was thinking of'.

---
b. Gedi-ang  
\textit{ibane} (KA:121)
\text{OV.go-CAUS} self
\textit{Move yourself away}

The OV Agent (understood as 'you') is zero and syntactically is not SUBJ. The reflexives are the SUBJs even though they come after the verb$^{15}$ (Recall that in OV, the non-Actor argument is SUBJ, see §2.2.2 and §3.2.5).

6.3.3 A purely semantic binding account?

An Actor in Balinese cannot always bind a non-Actor, suggesting that binding (in this language) is not determined purely by semantic prominence.$^{16}$ Consider:

\begin{align*}
\text{(38) a. } & \text{Idai} \text{ ngedengin I Bapai} \text{ raganne} \text{ ring potrekan-e} \\
& \text{3 AV.show ART father self.3 at picture-DEF} \\
& \text{‘He showed Father himself in the picture’} \\
\text{b. } & \text{I Bapai} \text{ ka-edengin raganne} \text{ ring potrekan-e antuk idai} \\
& \text{ART father PASS-show self.3 at picture-DEF by 3} \\
& \text{‘Father was shown himself in the picture by him’}
\end{align*}

Sentence (38a) is an active ditransitive sentence (‘AV.show’) where the reflexive \textit{raganne} is the Theme (third argument). It can be bound, as expected, by either the Actor-subject \textit{ida} or the Experiencer/Goal complement I Bapa ‘father’. The binders are terms and (lexico-) semantically more prominent than the reflexive itself. Sentence (38b) is the passive counterpart, where the semantically most prominent argument \textit{ida} is now an oblique. Importantly, unlike in (38a), it can no longer bind the reflexive \textit{raganne}. (This cannot be because of word-order constraints, because similar backwards binding is possible in (35)–(36)). Thus, an oblique cannot bind a term reflexive, irrespective of semantic prominence (i.e. semantic prominence is overridden by syntactic prominence (see (34)).

Sentence (39) also shows how semantic prominence is overridden by syntactic prominence: binding of a Theme reflexive by a Goal is not possible:

---

$^{15}$ Imperative sentences generally have verb-initial structures in Balinese. When the imperative SUBJ comes sentence-initially, it is understood as a pragmatically marked FOC. For example, if the reflexive \textit{in (37a)} comes preverbally, the sentence would mean something like: ‘Yourself, not something or someone else, should be made closer (by you)’.

$^{16}$ That the syntactic distinction of term vs oblique, not a purely thematic prominence, accounts for binding has been noted in Hellan (1988:164), Dalrymple (1993:172ff), and Manning (1994, 1996b). The relevant examples from English are the following (though there is variation in judgements, Postal (1971:126), Pollard & Sag (1994:276)):

\begin{align*}
\text{(i) a. Mary showed the twins each other} \\
& \text{<ag, goi, thi>} \\
\text{b. Mary showed the twins to each other} \\
& \text{<ag, thi, goi>}
\end{align*}

\begin{align*}
\text{(ii) a. I sold the slave to himself} \\
& \text{<ag, goi, thi>} \\
\text{b. I sold the slave to himself} \\
& \text{<ag, thi, goi>}
\end{align*}

The alternations shown above cannot be accounted for in terms of thematic prominence since a Theme can bind a Goal in the (b) sentences.
(39) Nyomanik nakonang awakne v*j teken iaj
name AV.ask self.3 to 3
‘Nyoman asked him/her himself/herself’

The third-person ia is an oblique Goal (marked by teken) and the reflexive awakne is a Theme term. ia is therefore syntactically outranked by the reflexive and hence binding from the oblique is not possible (index *j). If binding were purely a matter of semantic prominence, the oblique Goal would be a possible binder.

If a Goal and a Theme argument are both syntactically obliques, we expect that the Goal can bind the Theme (due to the thematic prominence requirement). This is confirmed. In contrast to the transitive nakonang (39), consider (40) below, whose verb is a three-place intransitive matakon. (40a) and (40b) have the same a-str with the reflexive awakne being the third Theme argument (marked by unduk). But they differ in linear order. In both cases, binding of Theme-OBL (unduk) awakne by Goal-OBL (teken) ‘the person’ is fine. (The subject tiang is not a possible binder due to a person feature clash). Note that (40a–b) show that surface linear order does not affect the reflexive binding. Sentence (40c), where the Theme oblique binds the Goal oblique, is not acceptable:

(40) a. Tiang matakon teken anake entoi unduk awaknei
1 AV.ask to person that about self.3
‘I asked the person (about) himself/herself’

b. Tiang matakon unduk awaknei teken anake entoi
1 AV.ask about self.3 to person that
‘I asked the person (about) himself/herself’

c. *Tiang matakon teken awakne unduk anake entoi
1 AV.ask to self.3 about person that
‘I asked himself/herself about the person’

6.3.4 Binding conditions formulated

6.3.4.1 Components of binding theory

The components of binding across theories basically consist of: (a) prominence, (b) types of nominal, and (c) domains.

Prominence. The prominence aspect is multi-dimensional: gf-str prominence, a-str prominence and sem-str prominence.17 There may be a prominence mismatch between structures, and languages vary with respect to which type of prominence they are sensitive to. As for Balinese, I show that it is mainly sensitive to a-str (and sem-str) prominence. (However, I will show in §7.3 that gf-prominence is also important for simple reflexives).

Nominal types. Nominals are classified into three important types: (i) common nouns/names (i.e. goat, girl, John, Wayan, etc.), (ii) pronominals (i.e. free pronouns such

---

17 Prominence can be captured in terms of pure phrase-structure relations (i.e. c-command) as in GB (Chomsky 1981; Sells 1985) or HPSG’s obliqueness prominence (o-command) (Pollard & Sag 1994), which is roughly equivalent to the a-str prominence adopted here.
as English I and you or the Balinese counterparts tiang and cai), and (iii) anaphors (i.e. referentially bound forms), which include reflexives (e.g. myself (English), awakne 'himself/herself' (Balinese)) and reciprocals (e.g. 'each other' (English)). The nominal types can be captured using features [+/-pro] and [+/-ana] (Chomsky 1981; Sells 1985):¹⁸

\[
\begin{align*}
\text{a. ana(phor)} & : [\text{pro} - \text{ana} + ] \\
\text{b. pro(nominal)} & : [\text{pro} + \text{ana} - ] \\
\text{c. non-pronominal} & : [\text{pro} - \text{ana} - ]
\end{align*}
\]

Nominals bearing a particular feature are subject to the binding constraints that refer to that feature (to be discussed shortly). For example, Balinese third-person reflexive awakne can be thought of as having the specification shown in (42), where anaphor abbreviates the features [−pro, +ana] shown in (41a). In addition, its semantic content specification says that its referent (i.e. index) is constrained to refer to third person.

\[
\begin{array}{ccc}
\text{Form:} & \text{Category:} & \text{Content:} \\
\text{/awakne/} & \text{anaphor} & \begin{array}{c}
\text{PRED} \ 'pro' \\
\text{PERS} \ 3
\end{array}
\end{array}
\]

**Domain.** The domain of binding is generally associated with the head predicate: local versus non-local/long-distance binding. In the LFG model of grammar I adopt here, the domain is not defined in terms of phrasal projections (as in GB), but rather in terms of a predicate nucleus (Dalrymple 1993). A (predicate) nucleus is a unit consisting of the syntactic predicate and its arguments (excluding adjuncts). As I will show in §7.3.2.5, simple and complex reflexives in Balinese differ in their binding domains.

### 6.3.4.2 Binding principles

The a-str-based binding conditions can be formulated as follows:¹⁹

\[
\begin{align*}
\text{Principle A:} & \quad \text{An a-commanded anaphor must be a-bound} \\
\text{Principle B:} & \quad \text{A personal pronoun must be a-free in its nucleus} \\
\text{Principle C:} & \quad \text{A non-pronominal must be a-free}
\end{align*}
\]

\[
\begin{align*}
\text{(44) Definitions:} \\
\text{a. Nucleus} & = \quad \text{a syntactic predicate and its arguments; e.g. ‘pred < x, y, ..>’} \\
\text{b. In the a-str of ‘pred’ < x, y, ..>, where x is more prominent than y,} \\
\text{ \quad x is said to a-command y} \\
\text{c. x a-binds y} & = \quad x \text{ a-commands y or} \\
\text{ \quad x a-commands z dominating y, x and y are co-indexed} \\
\text{d. x is a-free} & = \quad x \text{ is not a-bound}
\end{align*}
\]

The idea of a ‘nucleus’ does the work of ‘locality’ in other theories. Principle A in (43) has no nucleus specification, allowing variation where an a-commanded anaphor need not

---

¹⁸ The types can also be sorted into hierarchical types (Pollard & Sag 1994).

¹⁹ See also a-str based conditions in Manning and Sag (1999) or analogous principles in terms of phrase-structure in the GB literature (Chomsky 1981; Sells 1985), or in terms of o(bliqueness)-command in HPSG (Pollard & Sag 1999).
be 'locally' bound (e.g. when there is no possible local binder). It may take a binder in a higher predicate: the binder is outside its nucleus but it must be its a-commander. (In (§7.3), I will be more precise about the nucleus constraint associated with simple and complex reflexives in Balinese). Note that Principle A requires that an anaphor be bound by an a-commander (if any), otherwise it is free (or 'exempt' from the binding constraint) (Manning & Sag 1999; Pollard & Sag 1994, see §7.3.2.3).

The principles can be illustrated by the following sentences:

(45) a. *Wayan_i ningalin Wayan_i *‘see’<Wayan_i, nonpron_i>
   name AV.see name
   ‘Wayan saw Wayan’

   b. *Wayan_i ningalin ia_i *‘see’<Wayan_i, pron_i>
   name AV.see 3
   ‘Wayan i saw him/her i’

   c. Wayan_i ningalin awakne_i *‘see’<Wayan_i, self.3_i>
   name AV.see self.3
   ‘Wayan saw himself/herself’

Sentences (45a) and (45b) are bad because they violate principles C and B respectively. Sentence (45c) is fine because it respects Principle A. More examples are given using control and raising structures below.

6.3.4.3 Binding in control and raising

Consider the sentence with a control relation in (46a), whose a-str is shown in (46b):

(46) a. Wayan_i nunden Ketut_j ngalih-ang awakne_i/*j/*k nasi
   name AV.ask name AV.search-APPL self.3 rice
   ‘Wayan i asked Ketut j to search for rice for himself i’

   b. ‘ask’<Wayan_i, Ketut_j, ‘search.for’<_, pron.3_i/*j/*k, rice>>

The use of the reflexive awakne in (46a) is ambiguous: it can be bound by either Ketut or the matrix subject Wayan. The verb nunden is a control verb as explicitly shown by its a-str (46b). The two binding possibilities are expected because both Ketut and Wayan count as a-commanders (i.e. Principle A is respected).20

Now, consider (47a). This sentence has the same structure as (46a), except that the embedded Benefactive argument is a pronominal ia ‘3’ instead of a reflexive. The contrast between the two sentences is shown by their a-strs, (46b) versus (47b):

(47) a. Wayan_i nunden Ketut_j ngalihang ia_i/*j/*k nasi
   name AV.ask name AV.search-APPL 3 rice
   ‘Wayan asked Ketut to search for rice for him’

   b. ‘ask’<Wayan_i, Ketut_j, ‘search.for’<_, pron.3_i/*j/*k, rice>>

20 In this chapter, binding in Balinese is illustrated mainly by using morphologically complex reflexives such as awakne, ragane, etc. They are not constrained by the ‘nucleus’ restriction. See §7.3 for the contrast between simple and complex reflexives and §7.3.2.5 for a precise reformulation of Principle A.
Observe that the lower Benefactive pronoun *ia* cannot be identified with Ketut (*j*) but, just as in (46), it can be identified with Wayan (index *i*). Unlike in (46), however, the Benefactive in (47) can be someone else (index *k*). The difference between (46) and (47) is predicted given the binding conditions formulated in (43). Principle B requires that the pronominal *ia* ‘3’ must be free in its nucleus (i.e. the verb ‘search.for’). Hence, it cannot be co-indexed with the embedded a-subject/SUBJ which, due to the control relation constraint, must be identical with the askee, Ketut. On the other hand it is not prohibited from referring back to the matrix a-subject Wayan (i.e. this not a violation of Principle B because *ia* is still free in its own nucleus). Also, it can refer to someone else altogether (index *k*).

Given the a-str of a raising verb such as *kaden* ‘think’ as in (48) (see also §S. 2.5), we have an interesting case. Consider (49b), whose a-str is shown in (48b). In this sentence, the reflexive *awakne* is the raised argument (the embedded SUBJ) and is mapped onto the matrix SUBJ, but is bound by the embedded clitic =*a*.

(48) 

<table>
<thead>
<tr>
<th>SUBJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>'think'&lt; &lt; _, _ , 'pred'&lt; _, _, ..., &gt;&gt;</td>
</tr>
</tbody>
</table>

(49) a. *Awakne /*ia i kaden tiang [baang=a i pipis paling liu-ne ]*

| self.3 | 3 | OV.think | 1 | OV.give=3 | money | most | lot-DEF |

'I thought that he gave HIMSELF the largest amount of money'

b. | SUBJ |

| 'OV.think' < < '1', _ , 'OV.give' < '3i', 'sefl.3i', 'money'>> |

What happens here is that the reflexive *awakne* is a-commanded in the lower a-str by the lower Agent (i.e. the giver) argument, but the reflexive in turn a-commands the giver because it is raised to the matrix second argument. The acceptability of sentence (48b) suggests that the notion of a-command is interpreted 'existentially' (as discussed in Wechsler and Arka (1998) and Wechsler (1999)). That is, a reflexive is a-bound by its antecedent in some a-str. Thus, we can say that *awakne* in the sentence above is a-bound in the lower a-str, satisfying principle A. Note that the matrix a-subject ‘1’ is not a possible binder, even though it is an a-commander. It is also predicted here that the use of personal pronoun *ia* (instead of the reflexive) is not possible (on the binding reading) because it violates Principle B (i.e. *ia* must be free in any a-str).

Principle A (43) does not require that binding be local (i.e. within its nucleus). Thus, we can have (50a), where the a-subject binds a lower predicate. Binding is explicitly shown in its a-str (50b). (A normal pronoun would be possible but a reflexive is preferred for identical reference).

---

21 A parameterisation of Principle A to allow non-local binding (i.e. not clause bounded) which is achieved by not specifying 'locally a-bound' or 'bound in its nucleus' as in my formulation of Principle A in (43) is dubbed 'Principle Z' (Manning & Sag 1998; Xue, Pollard, & Sag 1994):

**Principle Z.** A locally a-commanded long-distance anaphor must be a-bound.
(50) a. Tiang kaden=awaknei plplS paling liu-ne
\(L\) OV.think=3 AV.give self.3 money most lot-DEF
‘(S)he thought that I gave him/her the largest amount of money’
b. SUBJ SUBJ
‘OV.think’ < ‘3 i’, ‘AV.give’ < ‘1’, ‘sefl.3’ , ‘money’>

6.4 Morpholexical operations

Since binding is sensitive to \textit{a-str} prominence, we would expect interesting results from morpholexical operations that change the \textit{a-str} prominence of a base predicate. I discuss causativisation in §6.4.1 and applicativisation in §6.4.2. (Passivisation will be discussed in Chapter 7).

6.4.1 Causativisation

6.4.1.1 Balinese causatives: semantic constraints

Morphological causatives in Balinese are formed by the \textit{-ang/-in} suffix.\(^{22}\) (51) shows causativisation of intransitive verbs of the Unaccusative type:

\((51)\)

\begin{center}
\begin{tabular}{ll}
\textbf{Intransitive verb:} & \textbf{Derived causative verbs:} \\
\text{a. ulung} & \text{ulung-ang} \\
\text{b. teka} & \text{teka-ang} \\
\text{c. pungkat} & \text{pungkat-ang} \\
\text{d. pesu} & \text{pesu-ang} \\
\end{tabular}
\end{center}

As seen from (51), the single argument of the OV intransitive (i.e. \textit{x}) becomes the causee (affected) in the causative forms, with a new causer/Agent introduced (i.e. \textit{y}).

Whether a predicate can be causativised, at least for Balinese (and also I suspect for other languages such as Indonesian), is determined by two semantic aspects.

First, predicates associated with Unaccusativity properties (uncontrollability and directed motion) can predictably be causativised as in (51). However, uncontrollability itself does not seem to be the only determining factor, as shown by the following contrast:

\((52)\)

\begin{center}
\begin{tabular}{ll}
\textbf{a. Unergative (AV.verb) Derived -ang form: applicative only} \\
\text{ng-utah} & \text{ngutah-ang (AV)/utah-ang (OV)} \\
\text{‘vomit(x)’ (controllable)} & (i) ?* ‘y make x vomit’ \\
& (ii) ‘x vomit y’ \\
\end{tabular}
\end{center}

\(^{22}\) The circumfix \textit{pa-...-in/-ang} also expresses causative. I will not discuss it here because it is very restricted. If the base is a one-place predicate, it can take only certain gradable predicates e.g. \textit{gede} \rightarrow \textit{pa-geden-in} ‘make it bigger’, but not: *\textit{pa-gelem-in} ‘make ill’. As for the transitive base, it appears with a couple of predicates: \textit{tandu} ‘cultivate’ \rightarrow \textit{pa-tandu-ang} ‘let someone cultivate’, \textit{silih} ‘borrow’ \rightarrow \textit{pa-silih-ang} ‘let someone borrow’ (see Artawa 1994, also footnote (25) below).
b. Unaccusative (OV.verb) Derived -ang form: applicative only

\begin{align*}
\text{utah-utah} & \quad \text{ngutah-ngutah-ang (AV)/utah-utah-ang (OV)} \\
\text{‘vomit uncontrollably(x)’} & \quad \text{(i) ‘y make x vomit repeatedly’} \\
\hline
\end{align*}

(52) shows a contrast between Unergative (a) and Unaccusative (b) due to the controllability aspect, yet neither allows causativisation. The same is true for the roots meju ‘AV.defecate’ and juju ‘OV.defecate uncontrollably’, as well as ngenceh ‘AV.urinate’ and enceh-enceh ‘OV.urinate uncontrollably’. The -ang forms meju-ang and ngenceh-ang tend to have an applicative reading (‘defecate something’, ‘urinate something’) rather than the causative reading (‘make defecate’, ‘make urinate’). The causative reading is only possible if the semantic causative constraint is met (‘manipulation through some kind of contact’, see the second point below): e.g. the causer makes the causee vomit by sticking his/her finger down the causee’s throat.\footnote{Or, as observed by Clynes (1995), the causer helps a child causee to urinate. Note that even in these situations, not all people agree that they get the intended reading.}

Second, when the base argument/causee exercises some control, then what is crucial for the possibility of causativisation is the nature of an imaginable event in which the causer/Agent may affect/control the causee by a kind of ‘contact’ manipulation of some kind. Thus, in theory, Unergative verbs can be causativised. (53) shows Unergative intransitives where the intransitive argument (becoming the causee in the derived verbs) may have some control of various degrees over the event expressed by the base:

(53) Intransitive predicates Derived Transitive causative predicates

\begin{itemize}
\item[a.] n-(d)eket ‘stick (x)’ deket-ang ‘y make x stick to something’
\item[b.] ny-(j)onkok ‘squat(x)’ jonkokang ‘y make x squat’
\item[c.] n-(t)egak ‘sit_down (x)’ tegak-ang ‘y make y sit down’
\item[d.] ma-jujuk ‘stand_up(x)’ jujuk-ang ‘y make x stand up’
\item[e.] ma-kaad ‘leave (x)’ kaad-ang ‘y make x leave’
\item[f.] ma-jalan ‘walk(x)’ jalan-ang ‘y help x walk’
\end{itemize}

Essentially, it is the causer’s force that leads to the resultant event expressed by the base: the causee is understood to be either unable to resist the causer’s force (e.g. (53e)), or to need the causer’s force (e.g. (53f)). Thus, what seems to be crucial is the lexico-semantics associated with the base predicate allowing a construable event where the causer may perform certain force-dynamics (generally through some kind of contact) in order to produce the resulting event. When this semantic requirement is not met, causativisation fails, as exemplified in (54). Then the derived form is understood as an applicative form, rather than a causative one:

(54) ng-eling ‘cry(x)’ (ng)eling-ang

\begin{itemize}
\item[(i)] ‘x make y cry’
\item[(ii)] ‘y cry for/because of x’
\end{itemize}

‘Cry’ is something that is totally under the control of the crier, not someone else: a causer may do various kinds of things (e.g. punching him, hitting him, etc.) but cannot directly cause the cry, if the crier does not want to.\footnote{Note that this restriction applies to the morphological causative in Balinese. The periphrastic causative (not discussed here) meaning ‘X makes Y cry’ is fine. Other languages, however, may not have this}
In short, an important semantic constraint on the morphological causative in Balinese concerns the *causer's* control of the event expressed by the base, rather than the *causee's* control over the event. Events such as 'cry' and 'vomit' are basically not controllable by the causer (the person other than the crier or the person who vomits). Given the semantic constraint just mentioned, it is expected that a transitive base can take the morphological causative suffix when the lexico-semantic constraint is met. This is confirmed. Some of the transitive verbs that allow causativisation are listed below:

\[
\begin{align*}
\text{(55) a. } & \text{nomplok} & \text{ 'x hits y'} & \rightarrow & \text{nomplok-ang} & \text{'z makes x hit y'} \\
\text{b. } & \text{ngugut} & \text{ 'x bites y'} & \rightarrow & \text{ngugut-ang} & \text{'z makes x bite y'} \\
\text{c. } & \text{niman} & \text{ 'x kisses y'} & \rightarrow & \text{niman-ang} & \text{'z makes x kiss y'} \\
\text{d. } & \text{nyotot} & \text{ 'x snaps y'} & \rightarrow & \text{nyotot-ang} & \text{'z makes x snap y'} \\
\end{align*}
\]

Note that these derived causatives have a very specific causation: the causer forces the causee (perhaps by contact) to the effect that the resulting event (expressed by the base) takes place. For example, \(z\) *nimanang x sig y* (55c) means 'the causer (\(z\)) forces the causee (x) to kiss someone (y) (e.g. by holding x's head to force the act of kissing) or \(z\) helps x to kiss y (e.g. a child/baby is made close enough to the person kissed). The -ang verbs in (55) must be considered causative verbs, not applicative verbs, just like the -ang verbs formed from intransitive base in (51) and (53). Recall that the new argument introduced by the causative -ang (i.e. the causer) in (55) is not the 'doer' of the event expressed by the base or the affected participant of the base. For example, in *ulung-ang 'fall-cause' or tegak-ang 'sit-cause', the causer is not the person who falls or sits; likewise, in *niman-ang 'kiss-cause' the causer is not the person who does the kissing.

6.4.1.2 A-str alternations

Causativisation is a process where a new causative predicate is introduced to the effect that, as far as the *a-str* of the base predicate is concerned, a causer argument is added. (I come to a precise formulation in the parallel structure shortly). The resulting *a-str* varies depending on the *a-str* of the base and the causative suffix. For an intransitive base, the derived causative is invariably transitive (i.e. with two term arguments). For the transitive base, the derived verb may be three-place transitive (i.e. two term arguments and one non-term argument) or ditransitive (i.e. three term arguments).

For example, adding the causative morpheme -ang to the one-place predicate *sakit* 'ill' (56a), yields a transitive verb *sakit-ang* 'hurt'. As with any transitive, the subject selection depends on the voice marker. Thus, alongside (56b), we can also have the AV form in (56c):

\[
\begin{align*}
\text{(56) a. } & \text{Adin} & \text{cai-ne sakit} \\
& \text{younger-sibling} & \text{2-DEF ill} \\
& \text{ 'Your younger sibling is ill'} \\
\text{b. } & \text{Adin} & \text{cai-ne sakit-ang cai} \\
& \text{younger-sibling} & \text{2-DEF OV.ill-CAUS 2}
\end{align*}
\]

Restriction. Hence, a morphological causative taking 'cry' as its stem might be acceptable in such languages.
c. Cai nyakit-ang adin cai-ne
   2 AV-ill-CAUS younger-sibling 2-DEF
   'You hurt your younger sibling'

Adding the -ang causative to a transitive verb results in a three-place transitive predicate as shown in (57). (57a) shows that the Actor of the base (ia) is the AV SUBJ. (57b) shows a causative verb where the causer argument tiang is the most prominent argument, the AV SUBJ. The Actor of the base (ia) becomes the second argument, the AV TCOMP, and the non-Actor of the base (i.e. adinne) becomes an oblique, marked by sig 'at, to':

(57) a. la niman adin-ne
   3 AV.kiss little.sibling-3POSS
   '(S)he kissed his/her little brother/sister'

b. Tiang niman-ang ia sig adin-ne
   1 AV.kiss-CAUS 3 P-case little.sibling-3POSS
   'I made him/her kiss his/her little brother/sister'

Adding the -in causative to a transitive predicate results in a ditransitive verb:

(58) a. la nyuun banten
   3 AV.carry.on.head offerings
   'She carried offerings (on her head)'

b. Nyoman nyuun-in ia banten name AV.carry.on.head-CAUS 3 offerings
   'Nyoman made her carry offerings on her head'
   (i.e. Nyoman put the offerings on her head so that she was able to carry them)

The following are from Sid hakarya (1995:54) (glossing is slightly modified):

(59) a. I Ketut negen biu
   name AV.carry.on.the.shoulder banana
   'I Ketut carried bananas on his shoulder'

b. I Ketut negen-in adin-ne biu
   name AV.carry.on.the.shoulder-CAUS younger.sibling banana
   'I Ketut made his younger sibling carry bananas (on his/her shoulder)'

Table 6.7 shows a summary of the a-str alternations involved in causativivivisation in Balinese:

<table>
<thead>
<tr>
<th>Base</th>
<th>Suff.</th>
<th>derived a-strs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intransitive</td>
<td>-ang / -in</td>
<td>Transitive (i.e. two terms)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt; [causer], [base argument]&gt;</td>
</tr>
<tr>
<td>Monotransitive</td>
<td>-ang</td>
<td>three-place transitive (i.e. two terms and one non-term):</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;&lt; [causer], [causee=base.actor]&gt;&gt;, &lt;&lt;[base.non.actor]&gt; &gt;</td>
</tr>
<tr>
<td></td>
<td>-in</td>
<td>ditransitive (i.e. three terms):</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;&lt;[causer], [causee=base.actor], [base.non.actor]&gt; &gt;</td>
</tr>
</tbody>
</table>
Chapter 6

The pattern that emerges in Table 6.7 is that the a-subject of the base (i.e. the single argument of an intransitive base or the Actor of a transitive base) becomes the causee (second argument in the a-str).\(^{25}\) I will now be more explicit as to how the a-str alternation in causativisation can be captured.

6.4.1.3 The parallel structures of causatives

Semantically, a causative predicate can be thought of as either a two-place predicate (Foley & Van Valin 1984; Jackendoff 1991; Mohanan 1988, 1990) or a three-place predicate (Mohanan 1988; Alsina 1992; Austin 1997; among others). An indirect causation (where the causer is not directly in contact with the causee in order to bring about the resultant event/state) can be thought of as semantically having the two-place structure shown in (60a). In Balinese, this can be expressed by the causative verb \textit{baan},\(^{26}\) as in (60b). The \textit{sem-str} of (60b) is shown in abbreviated form in (60c). This causative sentence implies that the causer (\textit{tiang}) has done something (unspecified) which, as a result, has led to the death of the pig. The causation may be accidental.

(60) a. [CAUSE([event X], [event/state Y])]

\hspace{1cm} result

b. [Celeng-e mati] baan tiang
   pig-DEF die OV.cause 1
   ‘The pig becoming dead was what I caused = I made the pig dead’

c. [CAUSE([event I DID SOMETHING], [event/state THE PIG BECAME DEAD])]

Balinese periphrastic causatives expressed by the verb \textit{gae} ‘make’ may or may not imply direct causation. For example, the causer in (61a) may have done something (not necessarily acting physically upon Nyoman) which eventually causes Nyoman to cry. The causer in (61b) (from Pastika 1997), on the other hand, is generally understood to physically act upon the wall (e.g. painting it):

\(^{25}\) The a-str alternation of the restricted \textit{pa-...-ang/in} causative follows the same pattern, except that the transitive base a-subject becomes the derived oblique. This example is from Artawa (1994:63) (the glossing is mine):

\[ I a \ \ \ \text{ma-tandu-ang} \ \ \text{tanah-ne} \ \ \text{teken} \ \ \text{tiang} \]

\[ 3 \ \ \ \text{AV.p}-\text{cultivate-ang} \ \ \text{soil-3POSS} \ \ to \ \ 1 \]

‘(S)he let me cultivate his/her land’

At this stage, I have no clear explanation for the difference between \textit{pa-... -ang} and -ang. Perhaps they are just two different causatives with their own a-str specifications.

\(^{26}\) This causative verb \textit{baan} appears in the OV only, apparently highlighting the resultant state. Also, it takes the whole clause as the complement (i.e. it is not a three-place predicate) because the causee cannot be separated from its lower predicate:

\[ *\text{Celeng-e} \ \ \text{baan} \ \ \text{tiang} \ \ \text{mati} \]

\[ \text{pig-DEF} \ \ \text{OV.cause} \ \ 1 \ \ \text{dead} \]

‘The pig, I made it dead’

It appears that this verb has evolved to become an Agent oblique marker in the passive construction (i.e. as a P-case along with other P-cases such as \textit{teken}, see §3.3). Thus, in contemporary Balinese, it seems that there are two kinds of \textit{baan}.
(61) a. Ia ane ngae Nyoman ngeling (indirect causation)  
   3 REL AV.make name cry  
   'It is him who made Nyoman cry'

   b. Tiang ngae tembok-e ento putih (direct causation)  
   I AV.make wall-DEF that white  
   'I made the wall white'

In contrast, the morphological causative marked by -ang/-in (almost) always implies that the causer is in direct contact with the causee (i.e. acting upon the causee) to bring about the resultant event. This can be thought of as semantically a three-place predicate, and can be represented as having the sem-str in (62a) where EFFECT (signifying the resultant event/state) is understood as embedded in the AFFECT. That is, (62a) is to be read as 'X acts upon Y, and as a result, an event/state is brought about where Y is a participant'. An example is given in (62b). The sem-str of (62b) can be abbreviated as in (62c). Unlike the causative verb baan in (60b) (where the causation might be accidental), the morphological causative -ang/-in implies volitional and direct causation (e.g. by volitionally shooting the pig):

(62) a. \[
\begin{array}{ll}
\text{AFFECT} & ([\text{thing X}], [\text{thing Y}]) \\
\text{EFFECT} & ([\text{event/state Y}])
\end{array}
\]
   the 'result' expressed by the stem

   b. Tiang ngmati-ang celeng-e  
   I AV.die-CAUS pig-DEF  
   'I killed the pig'

   c. \[
\begin{array}{ll}
\text{AFFECT} & ([\text{thing I}], [\text{THING THE PIG}]) \\
\text{EFFECT} & ([\text{event/state THE PIG BECAME DEAD}])
\end{array}
\]

There is some motivation to adopt the view that causatives are syntactically either two-place or three-place predicates at the level of a-str. Balinese baan (60) is syntactically a two-place predicate, as shown in (63a) below, where the second argument is a complex argument. The causee 'the pig' is inseparable from the complex argument. That is, the a-str below accounts for the OV marking where the whole embedded clause is the OV SUBJ, as in (60). It does not allow (63b), where only 'the pig' is taken as the second argument, and appears as the OV SUBJ:

(63) a. a-str 'OV.cause < 'causer', 'dead'<pig>>

   b. *Celeng-e baan tiang mati  
   pig-DEF OV.cause 1 dead  
   'The pig, I made it dead'

However, there is evidence that causatives are also syntactically three-place predicates, the third argument being a complex argument (with its own predicate, i.e. XARG, see §5.2.4.2). This is clear with the periphrastic causatives. For instance, sentences (64a–b), which differ in the voice markings of the causative verbs, can be thought of as having the parallel structure in (64c). In this analysis, the predicate tebel 'thick' is an XARG whose SUBJ is controlled by the causee, the second ARG. Crucially, unlike in (63b), the causee
tembok-e ento ‘the wall’ in (64) can appear as the matrix OV SUBJ, separated from the subordinate clause.

(64) a. Tiang ngae tembok-e ento tebel
   I AV.make wall-DEF that thick
   ‘I made the wall thick’

b. Tembok-e ento gae tiang [tebel]
   wall-DEF that OV.make I thick
   ‘The wall, I made (it) thick’

c. a-str: ‘cause’<___,___,XARG<___>>

   sem-str: [AFFECT([1i],[THE WALL]i),
   EFFECT (BECOME([THE WALL]i,[THICK([THE WALL]i)])]

It is not immediately clear, however, whether the morphological causatives -ang/-in in Balinese can also be analysed as having a similar a-str to that shown in (64c) above. That is, although the morphological causatives are semantically understood as involving a causer, a causee and the resultant event/state (hence, three-place predicates), there is no clear evidence that the stem’s predicate constitutes an XARG in the a-str. If the stem predicate is an XARG, it forms a minimal/nucleus predicate and syntactically constitutes a binding domain. The crucial test would come from a reflexive that has to be bound by a local binder (i.e. within its own minimal nucleus). Balinese simple reflexives (e.g. awak, raga, etc., to be discussed in detail in §7.3.2) require that they be bound within the minimal nucleus. Unfortunately, the simple reflexives also have a constraint that they do not appear as the third arguments in the a-str (to be discussed in §7.3.2). Now, since an a-commanded non-Actor (reflexive) of a transitive base appears as the third argument in the derived causative (see Table 6.7), we cannot really have a test as to whether the stem’s predicate constitutes a minimal nucleus/XARG in the (derived) causative. Consider (65a), a non-causative sentence where either a simple or complex reflexive is possible, and (65b) where only a complex reflexive is possible:

(65) a. Lalipi-ne ngugut awakne/awak ‘bite’<snakei, selfi>
   snake-DEF AV.bite self.3/self
   ‘The snake bit itself’

b. Ia ngugut-ang lalipi-ne sig awakne/*awak
   3 AV.bite-CAUS snake-DEF to self.3/self
   ‘He made the snake bite itself/himself’

Given that the a-str of sentence (65a) is (66a) below, the derived causative (65b) seems to have a complex predicate of the type shown in (66b) rather than (66c). In the a-str shown in (66b), the base predicate and the causative predicate constitute a complex lexical unit and the reflexive appears in the third argument. In (66c), on the other hand, the base predicate ‘bite’ is in a nucleus of its own. If (66c) is the structure for the derived causative, the reflexive would count as an a-object (i.e. the second argument of its (embedded) nucleus) and the simple reflexive would be fine. But it is not.
I therefore analyse the morphological process of causativisation by means of -ang and -in in Balinese as an operation in the sem-str by which the sem-str of the base is embedded, as shown in (62a). (Its effects on the a-str alternations follow from a-mapping principles, to be discussed shortly). Syntactically, as summarised in Table 6.7, the a-str of the derived causative verb may consist of: (a) two terms only, (b) two terms with one non-term, or (c) three terms. The a-str of the (morphological) causative can be thought of as a complex predicate (simply abbreviated as 'causativised.pred' in (67)) which is essentially transitive (with the first two terms identified as causer/a-subject and causee/a-object respectively).

\[(67)\]

\[\text{a-str: } \text{causativised.pred'} \langle [+term], [+term], ([+/-term])\rangle\]

\[(68)\]

\[\text{a. } -ang \quad \text{causativised.pred'} \langle [+term], [+term], ([+]term]\rangle\]

\[\text{b. } -in \quad \text{causativised.pred'} \langle [+term], [+term], ([+term])\rangle\]

(68) says that the third argument of the -ang causative, if any, is [-term] (hence, the derived verb is monotransitive) whereas the third argument of -in is [+term] (hence, the derived verb is ditransitive).

Taking into account the points so far discussed, the lexical entries for -ang and -in can be represented as follows:

\[(69)\]

\[\text{a. } /-ang/ \quad [[\text{STEM}]_{v.1}] \quad \langle_, _, \rangle \rightarrow \text{AFFECT}(\{X|Y\} \rangle \text{EFFECT (AFFECT}(...[ ]_{i}, ...))\]

\[\text{b. } /-in/ \quad [[\text{STEM}]_{v.1}] \quad \langle_, _, (_\rangle \rightarrow \text{AFFECT}(\{X|Y\} \rangle \text{EFFECT (AFFECT}(...[ ]_{i}, ...))\]

(69) says that the causatives are verbal suffixes (V\(^{-1}\)). The sem-strs of the stems are embedded in the sem-strs of the causatives. The two causatives have the same sem-strs. They essentially differ, however, in the a-str specification associated with the third (optional) argument, namely a non-term for -ang (69a) but a term for -in (69b).

Crucially, the fusion is specified in semantic terms, as between the causee (i.e. the second argument of the matrix AFFECT) and an argument of the stem. The lower argument, which must be a term, can be either an Actor term (i.e. the first argument of the stem’s AFFECT) or a non-Actor term (i.e. the second argument). The termhood status of the stem’s argument is not shown in (69). (Such information is specified in the lexical
entry of the stem, and its correspondence with the argument of AFFECT in the *sem-str* is predictable from the a-mapping principle, see §5.3.3). The dots before and after the lower indexed argument in the lexical entries in (96) show that the shared lower argument is not specified with respect to Actorhood. For an intransitive stem, the fusion means that the only term argument is the causee, irrespective of whether it is an Actor or non-Actor. For a transitive stem, the causee can be either the Actor term or the non-Actor term (depending on language-specific restrictions). As for Balinese transitives, the causee is fused with the stem’s Actor (see Table 6.7).

When the stem is supplied, the mapping of the derived causative follows from a general principle. Suppose that the stem is intransitive *mati* ‘die’. The derived causative will be *mati-ang* ‘die-CAUS’ (see sentence (62b)). The grammar will generate the following a-mapping:

\[
(70) \quad \text{a-str:} \quad \text{‘die-cause’} < [+term], [+term], [-term] >
\]

\[
\begin{align*}
\text{sem-str} \quad \text{AFFECT} & \quad ([X], [Y]) \\
\text{EFFECT} & \quad \text{AFFECT}([], [Y]) \\
& \quad \text{BECOME}([Y], \text{DEAD}([Y])) \\
\text{STEM} &
\end{align*}
\]

The only term of the stem’s predicate *mati* ‘die/dead’ is a non-Actor, represented as the second argument in the embedded *sem-str*. It is fused with the causee, the second argument of the upper/matrix AFFECT. It is then mapped onto the second term (i.e. a-object) in the *a-str*. It cannot map onto the a-subject because it is outranked by the causer (the first argument of the matrix AFFECT) which is then the a-subject. The derived *a-str* ends up having two terms because the third (optional) argument of the causative *a-str* has no other (term) argument from the stem to map onto.

The third argument in the derived causative is present only when the stem is transitive. That is, there are two terms in the stem with the following fusion and alternations:

\[
(71) \quad \text{Transitive stem:} \quad \text{Derived causative verb:}
\]

\[
\begin{align*}
\text{two terms:} \quad \text{Actor term} & \leftrightarrow \text{the causer (i.e. the first [+term])} \\
& \leftrightarrow \text{the causee (i.e. the second [+term])} \\
\text{non-Actor term} & \leftrightarrow \text{third argument:} \\
& \leftrightarrow \text{either (i) [+term] or (ii) [-term]}
\end{align*}
\]

In short, (71) shows that, in causativisation, there can never be a promotion of a [-term] argument of the stem to be a [+term] argument of the derived verb.

The specification [+/-term] of the third argument is set depending on the causative type (see Alsina & Joshi (1991) for typology and parametric variations). In Balinese, as shown by (69), -ang has [+term] and -in [-term]. Each is exemplified below:

\[
(72) \quad \text{a. Tiang niman-ang ia sig adin-ne}
\]

\[
1 \quad \text{AV.kiss-CAUE} \quad 3 \quad \text{P-case little.sibling-3POSS}
\]

\[
\text{‘I made him/her kiss his/her little brother/sister'}
\]
b. *a-str*: ‘kiss-cause’< [+term], [+term], [−term]>

*sem-str*:

\[
\text{AFFECT (['1'], ['3'])} \\
\text{EFFECT (AFFECT (['3'], ['HIS LITTLE SIBLING']))}
\]

STEM: KISSING

(73) a. Nyoman nyuun-in ia banten name AV.carry.on.head-CAUS 3 offerings

‘Nyoman made her carry offerings on her head’

b. *a-str* ‘carry-cause’< [+term], [+term], [+term]>

*sem-str*:

\[
\text{AFFECT (['NYOMAN'], ['3'])} \\
\text{EFFECT (AFFECT (['3'], ['OFFERINGS']))}
\]

STEM: CARRYING

In both *niman-ang* ‘kiss-CAUS’ (72a) and *nyuun-in* ‘carry-CAUS’ (73a), as shown by their respective *a*-mappings (72b) and (73b), the least prominent argument in the *sem-str*, namely the non-Actor of the stem, is mapped onto the third argument in the causative *a-str*. Then the *f*-mappings (not shown here) follow from the general mapping principles discussed in §5.3.4. In these examples, the verbs are in AV: the causers are mapped onto SUBJs.

### 6.4.1.4 Binding in causatives

Given the causative *a-str* just discussed, where the causer is the *a*-subject, the causee is the base *a*-subject, which is the second argument in the causative *a-str*, and the term of the base, if any, becomes the least prominent item. The following properties of binding are therefore predicted.

First, the base argument can always be bound by the causer. This is confirmed. (74) shows causativisation of an intransitive base and (75) causativisation of a transitive base.

(74) a. Ia ulung 3 fall

b. Ia ng-ulung-ang *awakne* 3 AV-fall-CAUS self.3

‘(S)he (deliberately) made himself/herself fall’

(75) a. Ia nyuun padi 3 AV.carry.on head rice

‘She carried rice on her head’

b. Ia nyuun-in *awakne* padi 3 AV.carry.on.head-CAUS self.3 rice

‘She helped herself carry rice on her head’

Second, voice-marking alternations in the derived causatives do not change binding because *f*-mappings do not alter *a-str* prominence. For example, like (74b)–(75b), the following sentences are acceptable:
(76) a. Ulung-ang=a awakne
   OV.fall-CAUS=3 self.3
   ‘Deliberately making himself/herself fall was what (s)he did’

   b. Suun-in=a padi awakne
   OV.carry.on.head rice self.3
   ‘Carrying rice on head was what she helped herself to do’

Third, binding of the third argument (the oblique in the -ang causative and the Theme term in the -in causative) must be possible from either the causer or the causee because either of them is an a-commander of the third argument. This is also confirmed. The following sentences allow two readings:

(77) a. Lalipi-nei gugut-ang=aj sig awakneV;
   snake-DEF OV. bite-CAUS=3 at self.3
   (i) ‘(S)he made the snake bite himself/herself’
   (ii) ‘(S)he made the snake bite itself’

   b. Nyomanj gandong-in=aj panak awakneV;
   name OV. carry.on.back-CAUS=3 child self.3
   (i) ‘(S)hej made Nyomaji carry his/herj own child’
   (ii) ‘(S)hej made Nyomaji carry his/heri own child’

Fourth, the base Actor which becomes the causee, being the second term in the causative a-str, should allow binding by the causer only, not by the third argument (oblique/term, the non-Actor of the base). This is borne out. In (78), the reflexive awakne can only be identified with the a-subject ‘3’; it surfaces syntactically as either the AV SUBJ (78a) or the OV TCOMP (78b). It cannot be bound by the OBL anak-e ento.

(78) a. Ia i niman-ang panak awakneV sig anak-e ento j
   3 AV.kiss-CAUS child self.3 at person-DEF that

   b. Panak awakneV diman-ang=ai sig anak-e ento j
   child self.3 OV.kiss-CAUS=3 at person-DEF that
   ‘(S)he made her/his own child kiss the person’

Finally, a reflexive cannot be bound by a pronominal that it a-commands:

(79) a. *Tiang niman-ang awakne i sig panak [ia i]-ne
   1 AV.kiss-CAUS self.3 at child 3-DEF
   *‘I made himself i kiss his i own child’

   b. *<1, self.3, 3i-child>

(80) a. Tiang nimanang ia i sig panak [awakne i]
   1 AV.kiss-CAUS 3 at child self.3
   ‘I made him kiss his own child’

   b. <1, him i, self.3i-child>

(79a) is bad because, as its a-str in (79b) shows, the a-commanded awakne is bound by another pronominal which it a-commands (ia ‘3’). Reversing the a-command relation, as in (80), yields an acceptable sentence.
6.4.2 Applicativisation

6.4.2.1 Applicative forms: semantic constraints

An applicative verb in Balinese can be formed out of an intransitive base or a transitive base with either -ang or -in (i.e. morphologically the same forms as the causative suffix). The -ang form is associated with Benefactive, Instrumental and Stimulus roles\(^{27}\) (81), while the -in form is associated with Goal, Source and Locative roles (82).

(81) -ang applicatives
a. beli ‘buy’ beli-ang ‘buy-for’ (Ben)
b. tebek ‘stab’ tebek-ang ‘stab-with’ (Inst)
c. demen ‘happy’ demen-ang ‘like/love’ (Stimulus)

(82) -in applicatives
a. adep ‘sell’ adep-in ‘sell-to’ (Goal)
b. beli ‘buy’ beli-in ‘buy-from’ (Source)
c. tanem ‘plant’ tanem-in ‘plant-at’ (Loc)
d. pules ‘sleep’ pules-in ‘sleep-on’ (Loc)

It appears that applicatives in Balinese have similar semantic constraints as those observed in their causative counterparts. Locative applicatives, for example, require that the predicates represent events where there is some kind of ‘contact’ involved, and the Location must be relatively specific. That is, general Locatives do not commonly allow applicativisation. Consider:

(83) a. Ia negak di dampar-e / di paon-ne
  3 AV.sit at bench-DEF / at kitchen-3POSS
  ‘(S)he sat on the bench / in the kitchen’

(84) a. Tiang nongos di umah-ne / di kota
  1 AV.stay at house-3POSS in city
  ‘I stayed at his/her house / in city’

The Locative ‘(in) the kitchen’ (83) represents the location of the whole event of sitting whereas ‘(the) bench’ represents the thing as the specific location of contact of sitting. The ‘bench’ can be thought of as an argument of the verb ‘sit’, in the same way as bed in the bed was slept in (English) (i.e. it is an oblique complement). On the standard analysis, the Locative ‘in the kitchen’ is not an argument, but an adjunct. Likewise, one might apply the same analysis to (84): ‘(in) the city’ in (84) is a very general location of ‘staying’ (adjunct) in contrast to ‘a house’ (an oblique argument). Semantically, the constraint commonly has

\(^{27}\) Some psychological verbs taking Stimulus roles may also take -in with slightly different meaning, e.g. demen-ang ‘like’ versus demen-in ‘love’, but there are others which may take -in without any clear difference in meaning, e.g. dot-ang ‘want’ versus dot-in ‘want’.
something to do with the ease with which the promoted Locative can be construed as being ‘affected’ by the event. (The issue is not in fact a clear-cut opposition of adjunct versus oblique, because a Locative adjunct can be applicativised in Balinese (see example (99)–(100) with the verb tanem ‘plant’). It is hard to think of a general spatial location such as a city being affected by anyone’s ‘staying’. The same reason may explain why the OBL Locative of ‘put’, representing a specific location, is more easily applicativised:

(85) a. Ia ngejang nasi di piring-ne / di paon-ne
   3 AV.put rice at plate-3POSS / at kitchen-3POSS
   ‘(S)he put rice in his plate/in the kitchen’

b. Ia nyang-in piring-e ?? paon-ne nasi
   3 AV.put-APPL plate-DEF / kitchen-3POSS rice
   ‘(S)he put rice in his plate/in the kitchen’

The difficulty in conceiving paonne ‘his kitchen’ as the (applied) object in (85b) reflects the difficulty in imagining (in real life) how a kitchen full of rice could be achieved.

As for the applicatives with Benefactive/Goal/Source/Instrumental roles, the verbs involved must be understood as verbs of transfer (real or abstract) such as jemak ‘take’, beli ‘buy’, paca ‘read’ etc., or else as verbs expressing creation of products (e.g. gae ‘make’, tulis ‘write’ etc.). These applicatives are productive. Intransitive verbs expressing a service that is culturally relevant and understood as ‘transferable, on behalf of’ can also productively get an applicative (e.g. bakti-ang ‘pray-APPL=pray.on behalf of’, ayah-ang ‘serve-APPL=do community service on behalf of’).

To conclude, applicativisation is not random. It has semantic constraints.28

6.4.2.2 A-str alternations

The a-str alternations due to applicativisation look similar to the a-str alternations due to causativisation. If the base is intransitive, then the derived form is transitive, irrespective of whether the suffix is -in or -ang:

(86) a. Tiang tusing taen pules di kamar-e ento
   1 NEG ever sleep in room-DEF that
   ‘I never sleep in the room’

b. Kamar-e ento tusing taen pules-in tiang
   room-DEF that NEG ever OV.sleep-APPL 1
   ‘In the room I never sleep’

(87) a. Ia dot teken Nyoman
   3 want with name
   ‘(S)he wants Nyoman’

28 I am not sure how to capture the semantic constraints explicitly. The ‘contact’ and ‘transfer’ constraints might be easier to represent explicitly in the sem-str rather than, say, the idea of specific location versus general location. As shown by example (85) (with the verb ngejang ‘put’), a Locative oblique argument cannot always be applicativised. On the contrary, a Locative adjunct (e.g. associated with tanem ‘plant’ (see also example (99)–(100)) can be applicativised. While there is a clear semantic constraint involved here, the exact nature of this constraint and its interaction with the structural constraint (i.e. being an argument versus being an adjunct) need further discussion. I leave this for future research.
b. *Nyoman dot-ang=a name OV.want-APPL=3
   ‘(S)he wants NYOMAN’

The (a) sentences show non-applicative sentences where the italicised NPs are not terms (they are obliques, marked by prepositions). The (b) sentences show the applicative sentences in the OV marking, where the applied NPs are terms (i.e. OV SUBJ).

When the base is transitive, the a-str of the derived applicative varies depending on the applicative type. The Benefactive/Goal applicative -ang yields a ditransitive verb (i.e. three term arguments), as exemplified in (88). (The promoted item is put in boldface and the old argument is underlined.)29 The Instrumental -ang, however, results in a three-place predicate with the third argument being a non-term, as illustrated by (89). That is, the applicativisation promotes the Instrument argument (i.e. ‘the book’) to a term, but at the same time demotes the base’s Theme-term ‘his/her child’ to a non-term, marked by sig:

(88) a. *la meli nasi
   3 AV.buy rice
   ‘(S)he bought rice’

b. *la meli-ang Nyoman nasi
   3 AV.buy-APPL name rice
   ‘(S)he bought Nyoman rice’

(89) a. *la manteg panak-ne teken buku ento
   3 AV.throw child-3POSS with book that
   ‘(S)he pelted his/her child with the book’

b. *la manteg-ang buku ento sig panak-ne
   3 AV.throw-APPL book that at child-3POSS
   ‘(S)he threw the book at his/her child’

The Source/Locative -in with a transitive base yields a ditransitive predicate:

(90) a. *la meli baas sig dagang-e ento (transitive base)
   3 AV.buy rice at trader-DEF that

b. *la meli-nin dagang-e ento baas (ditrans. appl.)
   3 AV.buy-APPL trader-DEF that rice
   ‘(S)he bought rice from the trader’

(91) a. *la mempen klambi-ne di tas-e (transitive base)
   3 AV.place shirt-3POSS in bag-DEF
   ‘(S)he placed his/her shirt in the bag’

b. *la mempen-in tas-e klambi (ditrans. appl.)
   3 AV.place-APPL bag-DEF shirt
   ‘(S)he placed shirts in the bag’

Table 6.8 gives a summary of argument alternations in Balinese applicatives. One important point to note from the table is that, in all cases, the applied argument is ranked

29 Note that the examples given in (88)–(91) are in AV, hence the promoted arguments appear as objects. The correct claim is that applicativisation results in a promotion of an item to a term, because the promoted argument can be the OV SUBJ. See §6.4.2.3–6.4.2.4.
second in the derived \textit{a-str}. (This point is highlighted by marking the applied ARG in boldface).

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
Base & Suff. & Appl. types & Derived \textit{a-strs} \\
\hline
Intransitive & -ang / -in & Ben/Loc/Th & Transitive (i.e. two terms) \\
& & & \textless{} base actor, \textit{appl.arg}\textgreater{} \\
Transitive & -ang & Ben/Goal & Ditransitive (i.e. three terms): \\
& & & \textless{}	extless{}	extless{} base.actor, \textit{appl.arg}, [base.non.actor]\textgreater{}	extgreater{}	extgreater{} \\
& & Instr & \textless{}\textless{}\textless{} base.actor, [\textit{appl.arg}]\textless{}	extless{}\textless{} base.non.actor\textgreater\textgreater{}	extgreater{} \\
& & Source/Loc & Ditransitive (i.e. three terms): \\
& & & \textless{}	extless{}\textless{} base.actor, \textit{appl.arg}, [base.non.actor]\textgreater\textgreater{}	extgreater{} \\
\hline
\end{tabular}
\caption{\textit{A-str} alternations in Balinese applicativisation}
\end{table}

6.4.2.3 \textit{The parallel structures of applicatives}

\textbf{a. Causatives vs Applicatives}

The fact that applicative forms and causative forms are the same is perhaps not accidental and unique to Balinese (see Austin 1997).\footnote{Other Austronesian languages showing similar cases are Indonesian and Javanese; unrelated languages include Australian Aboriginal languages (Austin 1997). Following Austin (1997), I analyse an applicative as having an \textit{a-str} of its own, similar to that of a causative predicate. However, the nature of the \textit{a-str} adopted here is different from that assumed in Austin (1997).} Syntactically, like the derived causatives, the \textit{a-strs} of the derived applicatives shown in Table 6.8 can consist of (i) two terms, (ii) two terms with the third argument being a non-term, or (iii) three terms. The applicatives can therefore be thought of as syntactically having the same \textit{a-str} specification as the causatives, with the third argument being optional and unspecified with respect to its termhood status:

\begin{equation}
(92) \quad \textit{a-str} \quad \text{`appl. pred'} < [+\text{term}, [+\text{term}], (+/-\text{term})]\textgreater{}
\end{equation}

As with causatives, the presence of the third argument in the derived \textit{a-str} depends on the transitivity of the base. Its exact termhood status depends on the applicative type.

\textit{Semantically}, causatives differ from applicatives in the following respects:

First, there is a difference in semantic relation between the event expressed by the stem and the event expressed by the derived verb. Causatives clearly express a cause–and–result relation. Applicatives express a variety of relations, although causation may be implied. Applicativisation may cause a shift of affectedness associated with the non-Actor arguments. For example, consider the non-applicative ‘sit’ with a resultative predicate in (93) (unacceptable) and the applicative counterpart in (94) (acceptable):

\begin{equation}
(93) \quad \text{a. } \textit{Ia negak di dampar-e lung} \\
\quad \text{3 sit at bench-DEF broken}
\end{equation}

‘(S)he sat on the bench and as a result the bench broke’

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b. *Di dampare ia negak lung
   at bench-DEF 3 sit broken
   ‘On the bench (s)he sat and the bench broke’

(94) a. Ia negak-in dampar-e lung
   3 AV.sit-APPL bench-DEF broken
   ‘(S)he sat on the bench and the bench broke’

b. Dampare tegakin=a lung
   bench-DEF OV.sit-APPL broken
   ‘On the bench (s)he sat and the bench broke’

Thus, the Locative ‘the bench’ is understood to be affected only when it is an applied argument (94), and as a result, it can undergo a change of state as expressed by the possibility of being modified by the resultative predicate lung ‘broken’.

Applicativisation may also be understood to introduce a ‘means’ relation (Davis 1996). Consider the pair beli ‘buy’ and beli-ang ‘buy-APPL’ (88), repeated here as (95a–b). The sem-str of the derived applicative is represented in (95c).

(95) a. Ia meli nasi
   3 AV.buy rice
   ‘(S)he bought rice’

b. Ia meli-ang Nyoman nasi
   3 AV.buy-APPL name rice
   ‘(S)he bought Nyoman rice’

c. \[
\begin{align*}
\text{AFFECT} & (\text{[‘3’],[‘NYOMAN’]} \\
\text{EFFECT} & \text{GO([‘RICE’][TO([‘NYOMAN’])])} \\
\text{BY} & \text{(AFFECT ([‘3’],[‘RICE’])}
\end{align*}
\]

Nyoman = Goal

STEM: BUYING

As shown by (95c), the derived applicative can be understood to express the idea that ia ‘3’ is an Actor in two events. (i) Ia is the Actor of the derived/matrix verb (i.e. the upper ‘3’ in (9c)). The verb is understood to affect Nyoman in the sense that it causes the rice to change location, where Nyoman is understood as the (intended) Goal. This is not part of the meaning of the base predicate ‘buy’. (ii) Ia is also the Actor of the event of buying (expressed by the stem) where ‘rice’ is affected. We can say that the event expressed by the base (buying) is used as a means by which the effect/resultant event (i.e. Nyoman’s receiving/benefiting from the thing bought) can be brought about.

The second difference between causatives and applicatives is the argument fusion/sharing shown below:

(96) (a) Causatives
\[
\begin{align*}
\text{AFFECT} & ([X],[i]) \\
\text{EFFECT} & ([\text{AFFECT}([…][Y],i,…)])
\end{align*}
\]

STEM

(b) Applicatives
\[
\begin{align*}
\text{AFFECT} & ([i],[X]) \\
\text{EFFECT} & ([\text{AFFECT}([Y],i)])
\end{align*}
\]

STEM
(96) shows four key points. First, the fusion of the lower/stem argument with the upper non-Actor/causee (causative, (96a)) in contrast to the upper Actor (applicative, (96b)). Second, the argument fused with the upper argument can be either Actor or non-Actor in causatives (96a) (represented by dots before or after the lower indexed argument, [Y]), but it must be the Actor in applicatives (represented as the leftmost argument of the lower AFFECT). Third, with respect to the new argument introduced by the processes, causativisation appears to introduce a new Actor, while applicativisation appears to introduce a non-Actor. In other cases, this (applied) non-Actor may be identified with an oblique of the stem, giving rise to the effect that applicativisation promotes a non-term to a term. (Recall that, in accordance with the a-mapping principle (see §5.33), the two upper arguments of AFFECT are mapped onto terms in the a-str). Fourth, related to the third point, causativisation appears to add an argument in the first position of the a-str of the base, whereas applicativisation adds a new argument in the second position. That is, given ‘sit<y>, causativisation will yield ‘sit-cause’<affector, y> whereas applicativisation yields ‘sit-at’<y, affected-loc>.

b. Syntactic alternations in applicatives illustrated

The entries for applicatives look similar to those of causatives, except for clear differences in the sem-strs— for simplicity the semantic restrictions are shown in (97) in terms of the thematic role labels. The entry in (97a), for example, says that the causative has the form l-ang/, which is morphologically a bound verbal suffix (V¹) whose derived form is also a V.

(97) a. /-ang/ [STEM]lv.1v <__, __( __)> [STEM where X = Go/Ben
                  [AFFECT( [ ]i,[X])
                  EFFECT ((AFFECT([Y]i,...])]

b. /-ang/ [[STEM]lv.1v <<__, __>(< __>)> [STEM where X = Instr
                  [AFFECT( [ ]i,[X])
                  EFFECT ((AFFECT([Y]i,...])]

Taking into account the facts about applicativisation in Balinese shown by Table 6.8, all applicatives, like causatives, are represented as having optional third arguments whose presence depends upon the transitivity of the stems. The -ang applicatives are represented as having two entries which differ in the termhood status of the third argument, depending on the semantic properties of the applied argument (i.e. the non-Actor, X). The Instrumental -ang (97a) has its third argument specified as [-term] whereas the Benefactive/Goal -ang (97b) has its third argument specified as [+term], the same as the
Source/Locative -in (97c). (The termhood status, i.e. [+/-term], is shown by the internal bracketings).

Now, given the entries of applicatives above, the formation of an applicative verb and its mapping follow the general principles. Take the intransitive stem 'sit' (94), whose applicative Locative is repeated here in (98). The a-mapping maps the first two arguments of the upper AFFECT to a-subject and a-object, and leaves the third argument unlinked because there is no other term from the stem. Then the f-mapping (AV) maps the Actor-a-subject onto SUBJ:

(98) a. Ia negak-in dampar-e
   3 AV.sit-APPL bench-DEF
   'S/he sat on the bench'

   b. gf-str : SUBJ OBJ
      a-str : 'AV.sit-at'< [+term], [+term], ([+term])>
      sem-str: AFFECT ([3]^i, 'THE BENCH')
               EFFECT ([AFFECT([ ])^i, ...])
               STEM: SITTING

If the stem is transitive, the third argument of the upper a-str layer must be present. Let us take the Locative -in again. Consider tanem-in 'plant-APPL=plant something in':

(99) tanem-in 'plant-APPL':

    a-str: 'plant-in'< [+term], [+term], [+term]>

    sem-str: AFFECT([ ]^i, Y)
             EFFECT ([AFFECT([ ])^i, Z])
             X = person who plants something
             Y = location of planting
             Z = thing planted

    STEM: PLANTING

(99) shows that the derived applicative tanem-in 'plant-APPL' is ditransitive, with the third argument being associated with the stem's non-Actor (i.e. the thing planted, Z). The a-mapping follows the general principle that the most prominent item (the Actor) is mapped onto the a-subject (i.e. the first term), and the second most prominent item (i.e. a Locative understood as the argument of the matrix AFFECT) is mapped onto the second argument in the a-str. Thus, applicativisation may lead to deviation from the thematic hierarchy where an (applied) Locative is more prominent than the Theme (i.e. the thing planted). In the Accusative mapping, the a-subject ('person planting') will be SUBJ, and the other two terms will be complements:

(100) Ia nanem-in teban-ne kasela-kutuh
     1 AV.plant-APPL backyard-3POSS cassava
     'S/he planted cassava in his/her backyard'

While one can imagine that applicatives across languages could have the same a-str with the third argument being optional, there may be language-specific constraints as to the nature of this third argument. For example, a language that does not allow a ditransitive
predicate is unlikely to allow its derived applicative to suddenly have the third argument as [+term] (yielding a ditransitive structure as with Balinese -in above).

Also, since the presence of a third argument in the derived applicative is very much determined by the availability of a term in the stem (for a language that allows ditransitives), the applicativisation should ideally take a monotransitive stem only. That is, since there are at most three (term) arguments in the derived a-str, the first two have been mapped, leaving only the third argument awaiting another term from the stem. It is expected that applicativisation should not generally be allowed on a ditransitive stem, because there could be two argument terms competing to be mapped onto the matrix third argument. (The remaining argument could probably not be mapped onto the possible oblique either, because the maximum arguments are three, and are unlikely to be four). This might be the reason why, as reported by Austin (1997), in the Australian languages Yidiny and the Mamu dialect of Dyirbal, the third embedded term must be 'removed'. Thus, in these languages, a valency-reducing process, namely antipassivisation, must apply prior to applicativisation. In other words, an applicative affix can only be attached after the ditransitive stem has got an antipassive affix, making the ditransitive verb monotransitive, and so reducing the number of the arguments to a level that is 'manageable' from the point of view of applicativisation.

6.4.2.4 Binding and mapping in applicatives explained

The parallel structures for applicatives capture what Baker (1988:246) calls 'Marantz's generalisation' which he explains as follows: 'whenever a verb appears with both extra morphology and an additional NP argument bearing some oblique thematic role (a pretheoretical characterisation of applicatives), that additional NP argument will behave like the surface direct object of the complex verb' (italics added). In the model of grammar adopted here, the added NP is specifically the second ARG in the a-str (i.e. the a-object, the second argument in the a-str), but it is not always a surface object (i.e. GF-OBJ).

Thus, the crucial advantage of handling applicativisation in the framework proposed here is that it works for both accusative and ergative languages. That is, assuming that the applied argument is the a-object in the a-str, we predict that it can have two possible surface grammatical realisations: either as GF-SUBJ (ergative) or as complement/GF-OBJ (accusative). For example, the AV/OV contrast of 'sit-APPL' in (94) shows that the applied Locative argument can be either the AV OBJ (and therefore comes postverbally) or the OV SUBJ (coming preverbally).

The analysis also accounts for the crucial fact of mapping symmetry. Applied OV ditransitives should be 'symmetrical' in the sense that either non-Actor term can be SUBJ. This follows immediately since ergative (OV) mapping specifies that the SUBJ is any term in the a-str except the a-subject. For example, in contrast to the AV structure associated with Locative applicative 'plant-APPL' in (100), we can have the following two OV structures, where the applied Locative can be SUBJ as in (101a), or the third argument (i.e. the base non-Actor) can be SUBJ as in (101b):

(101) a. Kasela-kutuh tanem-in=a teban-ne
cassava OV.plant-APPL backyard-3POSS
'(S)he planted CASSAVA (i.e. nothing else) in his/her backyard'
b. Teban-ne tanem-in=a kasela-kutuh
   backyard-3POSS OV.plant-APPL cassava
   ‘In his/her backyard, (s)he planted cassava’

Crucially, our analysis predicts binding asymmetry. The applied argument a-commands the base’s non-Actor, which now appears as the third argument in the derived applicative verb. Therefore, it can bind this third argument (i.e. the base’s a-object), but not vice versa. This is confirmed. Consider the non-applicative verb ng-alih ‘AV-search ((102a)) and the applicative counterparts (102b–c):

(102) a. Ia ng-alih potrekan awakne
   3 AV.-search picture self.3
   ‘(S)he searched for the picture of himself/herself’
   a-str: ‘search’< ‘3’, ‘picture.of.self.3’>
   (Agt) (Th)

b. Tiang ng-alih-ang ia₃ potrekan awakneᵢ
   1 AV-search-APPL 3 picture self.3
   ‘I searched for the picture of himselfᵢ for the benefit of himᵢ’
   a-str: ‘search-APPL’< ‘1’, ‘3’, ‘picture.of.self.3’>
   (Agt) (Ben) (Th)

c. *Tiang ng-alih-ang awakneᵢ potrekan ia₃-ne
   1 AV-search-APPL self.3 picture 3-DEF
   a-str: ‘search-APPL’< ‘1’, ‘self.3’, ‘picture.of.3’>
   (Agt) (Ben) (Th)

The (possessive) reflexive awakne in the non-applicative verb (102a) is in the second Theme argument, a-commanded by the a-subject ia ‘3’, hence can be a-bound. The sentence is acceptable. It is likewise a-commanded by ia in the applicative counterpart (102b): awakne is in the third argument and ia is an applied (Benefactive) argument in the a-object position. Thus, binding is fine. (Tiang ‘1’ is its a-commander but is not a possible binder because of a person feature clash). (102c) on the other hand shows the reverse situation (with the reflexive as the applied argument) and it renders the sentence bad.

On the a-str based-theory of binding adopted here (see Principle A (43)), we also predict that binding will not change even though the surface grammatical relations do. This is borne out. Hence, in contrast to (102a), the following two sentences are acceptable:

(103) a. Iaᵢ alih-ang tiang potrekan awakneᵢ
    3 OV.search-APPL 1 picture self.3

b. Potrekan awakneᵢ alih-ang tiang iaᵢ
    picture self.3 OV.search-APPL 1 3
    ‘I searched for the picture of himselfᵢ for the benefit of himᵢ’

In (103a) the applied argument is the surface subject, whereas in (103b) the third argument is the subject.

The following contrast with the -in verb further shows the binding asymmetry:

(104) a. Tiang ng-edeng-in idaᵢ raganneᵢ ring potrekan-e
    1 AV-show-APPL 3 self.3 at picture-DEF
    ‘I showed him/her himself/herself in the picture’
Recall that a ditransitive AV verb has a fixed order for its two complements: the complement immediately following the AV verb is the Benefactive/Goal NP (i.e. the applied, second term) and the other complement (the Theme, the third term) comes after it (§4.3.5.3). Hence, the applied NP ida in (104a) is the Benefactive NP. It a-commands and a-binds the reflexive raganne. Reversing the order, hence making the reflexive a-command ida as in (104b), renders binding impossible.

6.5 Conclusion

This chapter has discussed reflexive binding in Balinese. I have shown that Balinese reflexives, despite mostly having the same forms as various nouns meaning ‘body’ (for historical reasons), respect (universal) syntactic binding constraints. A-str-based binding conditions have been formulated (Principles A, B, and C) analogous to the binding principles known in other theories. It has been shown that binding in Balinese is sensitive to a-str prominence. The theory of binding adopted here accounts for function mapping and binding alternations in causativisation and applicativisation. The two processes are expressed by the same morphological forms (-ang/-in). I have analysed them as morpholexical processes involving fusion and embedding in the sem-str. They are also shown to have similar a-strs with the third arguments being optional (subject to the availability of a term from the stem). The termhood status of the third argument depends on the causative/applicative type. The chief syntactic difference between causatives and applicatives lies in the fusion of the matrix argument with the embedded argument: causatives fuse a matrix non-Actor while applicatives fuse the matrix Actor. I have shown how the theory predicts interactions of complex predicate formation, mapping and binding, e.g. symmetrical mapping but asymmetrical binding in derived applicatives/causatives.
7 Binding and morpholexical processes II

7.1 Introduction

This chapter continues the discussion of binding and morpholexical operations. It is broadly organised into three parts.

In the first part I consider binding involving quantifiers and interrogatives. I show (§7.2.1–7.2.2) that a quantified binder must linearly precede the item that it binds, in addition to obeying other a-str-based binding principles, i.e. the binder must be more prominent than its bindee in a-str. Observations of binding involving quantified NPs, interrogative NPs and reflexives with indefinite NPs lead to the formulation of the Linear Order Constraint for Binding in Balinese (§7.2.3).

In the second part, I tease out further differences between simple and complex reflexives. These turn out to depend crucially on a distinction between 'total command' (higher prominence at all levels of the parallel structures) and various forms of command formulated with respect to specific levels (§7.3.1). Simple reflexives must be 'totally commanded' whereas complex reflexives need not be (§7.3.2.1). Simple reflexives are also subject to severe role-theoretic constraints (§7.3.2.2), and unlike complex reflexives, cannot be bound by an item in a preceding sentence of the discourse (§7.3.2.4).

The analysis of the properties of simple and complex reflexives in turn sheds light on the vexed question of how many 'non-active' (i.e. passive, antipassive, stative, middle) constructions exist in Balinese. I show that there are two distinct true passives in Balinese (§7.4.3.2), a restricted resultative/stative passive (§7.4.5.1), but no antipassive (§7.4.5.2). The OV construction is shown again not to be a passive (§7.4.4).

7.2 Operator binding and the linear order constraint

In Balinese, both quantifier binding (i.e. binding of a pronominal by a quantifier such as 'every') and interrogative binding (i.e. by an interrogative item such as 'who') work in accordance with the a-str-based binding principles so far formulated. However, another type of prominence also comes into play, namely linear order (associated with c-str prominence).
7.2.1 Quantifier binding

Quantifier binding in Balinese is exemplified by the following sentences:

(1) a. Sabilang guruĕ maang murid-neĩ potlot
every teacher AV.give student-3POSS pencil
‘Every teacher gave his students pencils’

b. <‘every teacher’, ‘his/her students’, ‘pencil’>

(2) a. Sabilang guruĕ maang murid-e potlot-neĩ
every teacher AV.give student-DEF pencil-3POSS
‘Every teacher gave the students his pencils’

b. <‘every teacher’, ‘students’, ‘his/her pencil’>

(1a) shows that the quantifier sabilang is in the a-subject (Actor) NP. The quantified NP binds the pronominal -ne in the second (Goal) argument, as shown by the a-str in (1b). (2) shows binding of the third (Theme) argument.1

That quantifier binding must respect the a-str-based binding principles is evident from the following contrast:

(3) a. Sabilang anak cenikĩ alih-ang tiang cicing-neĩ ane ilang
every person small OV.search-APPL 1 dog-3POSS REL missing
‘Every child, I searched for his/her missing dog for him/her’

b. ‘search for’ <‘1’, ‘every child’, ‘his/her dog’>
   (agt) (ben) (th)

(4) a. *[Sabilang cicing ane ilangĩ alih-ang tiang tuan-neĩ
every dog REL missing OV.search-APPL 1 master-3POSS
‘Every missing dog, I searched for it for its master’

b. *‘search for’ <‘1’, ‘its master’, ‘every dog’>
   (agt) (ben) (th)

Recall that in Balinese either non-Actor term of a ditransitive can be the OV SUBJ (i.e. it is a symmetrical system). The contrast between (3) and (4) shows the asymmetrical effect of quantifier binding: the quantifier in the Benefactive subject NP (the second item) can bind the pronominal in the third argument (3), but not vice versa (4). (4) shows that binding fails even when the quantified NP ‘every missing dog’ (SUBJ) syntactically outranks the NP containing the pronominal -ne in tuan-ne (OBJ) in the gf-str.2

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1 On the binding reading, sentence (1), for example, means ‘teacher1 gave his/her student pencils, teacher2 gave his/her student pencils, teacher3 gave his/her student pencils, and so on’. However, this sentence may have a non-bound reading: ‘every teacher gives his/her student pencils’. In this section, I am interested in the syntactic and word order constraints imposed on the bound reading only. That is, the star * in the examples asserts the unacceptability of the relevant examples in the bound reading only. The sentences may be fine in their non-bound readings.

2 Sentence (4a) is, however, acceptable on a different reading, in which case ‘every dog’ is the Benefactive argument and ‘its master’ is the Theme argument:

   ‘search for’<‘1’, ‘every dog’, ‘its master’, >= ‘every missing dog, I search for its master for it’
   (agt) (ben) (th)

Note that binding in this reading respects the a-str-based constraint because the quantified NP argument outranks the NP containing the pronominal -ne that it binds.
The contrast between (5) and (6) illustrates quantifier binding associated with two obliques. The pronominal -ne can be bound in (5), but not in (6).

(5) a. Tiang matakon teken sabilang jlema_i ane teka unduk pianak-ne_i
I ask to every person REL come about child-3POSS
‘I asked every person_i who came about his/her_i child’

b.  <<‘1’>> <<‘every person_i’, ‘his/her_i child’>>
(agt)  (go)  (th)

(6) a. *Tiang matakon unduk sabilang jlema_i ane teka
I ask about every person REL come

teken pianak-ne_i
to child-3POSS
‘I asked his/her child about every person who came’

b.  <<‘1’>> <<‘his/her_i child’, ‘every person_i’>>
(agt)  (go)  (th)

As far as gf-str is concerned, neither is more prominent than the other because they are both oblique complements. However, in the a-str, since obliques are lexico-semantically ranked, the Goal oblique (marked by teken) is more prominent that the Theme oblique (marked by unduk). Therefore, the quantified argument a-commands the argument containing the pronominal in (5); this is not the case in (6). This accounts for the contrast in binding patterns between (5) and (6). To conclude, the type of prominence relevant for the quantifier binding shown in the examples above is basically sem-str prominence, which is reflected in the ordering of the two obliques in the a-str.

However, as we have observed in regard to reflexive binding (§6.3.1, §6.3.3), syntactic prominence overrides semantic prominence. (7) shows that a quantified Theme term argument (sabilang anak cenik) can bind a pronominal associated with the Goal, which is an oblique:

(7) Tiang ngedengang sabilang anak cenik_i sig bapan-ne_j
I AV.show every person small to father-3POSS
‘I showed every child_i to his/her_j father’

Crucially, for quantifier binding (and also for the interrogative binding discussed in the next subsection), linear order imposes a constraint: the quantified argument must precede the pronominal it binds, otherwise binding fails. Consider:

(8) a. Sabilang anak cenik_i gandong-in
    every person small OV.carry.on.back-CAUS
    tiang adin-ne_i
    I younger.sibling-3POSS
    ‘I made every child carry his/her younger sibling’

b.  <‘1’>, ‘every child’, ‘his/her_i sibling’>

---

3 It should be noted that, unlike term complements, there is no word-order constraint between two obliques in Balinese.

4 More examples of term and non-term alternations affecting binding are given in §7.3.3.4.
(9) a. *Adin-ne\textsubscript{i} gandong-in tiang sabilang younger.sibling-3POSS OV.carry.on.back-CAUS 1 every
anak cenik\textsubscript{i} person small
'I made every child carry his/her younger sibling'
b. <‘1’, ‘every child\textsubscript{i}, his/her \textsubscript{i} younger sibling’>

Sentences (8a) and (9a) share the same a-str (shown in (8b) and (9b) respectively), but differ in the f-mapping of the non-Actors onto SUBJ. If the (quantifier) binding were determined by a-str prominence alone, they would both be equally possible. However, binding by the quantifier is possible only when the second term (containing the quantifier) is a SUBJ preceding the pronominal as in (8a), not the other way around (9a). Backwards quantifier binding is not allowed.

7.2.2 Interrogative binding

Interrogative binding, as shown by (10), requires that the interrogative item\textsuperscript{5} precede and must be more prominent (in the a-str) than the pronominal it binds. Backwards binding is not possible (11):

(10) a. Nyen\textsubscript{i} tusing ng-runguang panak\textsubscript{\textit{i}}-ne\textsubscript{i}
who NEG AV-care child-3POSS
‘Who\textsubscript{i} does not care for his/her\textsubscript{i} child?’
b. ‘AV.care’ <‘who\textsubscript{i}, ‘his/her\textsubscript{i} child’>

(11) a. *Panak-ne\textsubscript{i} tusing runguang nyen\textsubscript{?}
child-3POSS NEG OV.care who
‘Who\textsubscript{i} does not care for his/her\textsubscript{i} child?’
b. ‘OV.care’ <‘who\textsubscript{i}, ‘his/her\textsubscript{i} child’>

Note that sentences (10) and (11) have the same a-str but differ in voice marking, hence in word order. Interrogative binding fails when nyen follows -ne (11). It is predicted that, in contrast to the a-str in (10) and (11), the binding associated with the a-str in (12a) will give rise to bad sentences irrespective of the voice marking (12b–c), because the interrogative item ‘who’ is a-commanded. However, it should be noted that the badness of (12b) is also due to linear order, as well as the definiteness constraint on the OV Actor ((12c) and see §2.3 example (7) and §3.2.1 example (15)):

(12) a. ‘care.for’<‘his\textsubscript{i} mother’, ‘who’\textsubscript{i}>
b. *Memen-ne tusing ng-runguang nyen\textsubscript{?}
mother-3POSS NEG AV-care who
c. *Nyen tusing runguang memenne?
who NEG OV.care mother-3POSS’
‘Who did his/her mother not take care of’

\textsuperscript{5} Note that an interrogative item can appear in situ (see §2.4.6).
\textsuperscript{6} Anak is the low register form of pianak ‘child, offspring’.
Better evidence that interrogative binding respects the general a-str-based binding principles is given by the following Locative applicative sentences:

(13) a. Nyen_i nyang-in sepatun-ne_i cap
who AV.put-APPL shoe-3POSS trade-mark
‘Who put a trade-mark on his/her shoes?’

b. ‘AV.put-APPL’ < ‘who_i’, ‘his/her_i shoes’, ‘trade-mark’>
(agt) (applied loc) (th)

(14) a. Sepatu cen_i jang-in=a cap-ne_i
shoe which OV.put-APPL=3 trade-mark-3POSS
‘Which shoe did (s)he put itsi trade mark on?’

b. ‘OV. put-APPL’ < ‘3’, ‘which shoe’, ‘itsi trade-mark’>
(agt) (applied loc) (th)

(15) a. *Cap cen_i jang-in=a sepatun-ne_i?
trade-mark which OV.put-APPL=3 shoe-3POSS
‘Which trade mark_i did (s)he put on itsi shoe?’

b. ‘OV.put-APPL’ < ‘3’, ‘itsi shoe’, ‘which trade-mark_i’>
(agt) (applied loc) (th)

In (13), nyen is a-subject/SUBJ (i.e. in AV marking) and the pronominal is in the applied Locative (second in prominence in the a-str). As expected, binding is fine. An important contrast is shown by (14) and (15). In (14), the interrogative phrase sepatu cen ‘which shoe’ is associated with the applied Locative (second argument) and therefore can bind the pronominal -ne in the third (Theme) argument, cap-ne. In (15), however, the interrogative phrase cap cen ‘which trade-mark’ is the (Theme) third argument and mapped onto SUBJ, appearing preverbally. Even though the interrogative phrase is SUBJ and precedes the pronominal associated with the applied Locative, binding is not possible because the interrogative argument is not the a-commander of -ne. In short, the interrogative argument must both a-command and precede the pronominal it binds.

The same contrast is shown by the high-register examples below:

(16) a. Anak alit encen_i rereh-ang ratu cakepan ipun j-e?
person small which OV.take-APPL title book 3POSS-DEF
‘For which child_i did you bring his/her_i book?’
(‘OV.bring’ <‘you’, ‘which child’, his/her_i book’>)

b. *Cakepan ipun j-e rereh-ang ratu anak alit encen_j?
book 3POSS-DEF OV.take-APPL title person small which
‘For which child_j did you bring his/her_j book?’
(‘OV.bring’ <‘you’, ‘which child’, his/her_j book’>)

In the Badung dialect jin, the shortened form of jang-in ‘put-APPL’, is often used.

Note that applicativisation may give rise to argument ordering in the a-str that is not strictly in accordance with the thematic hierarchy. That is, an applied Locative is understood to be more prominent than the base’s Theme. (Recall that Locative is at the lowest rank in Bresnan & Kanerva’s hierarchy (§S.2.2)). More specifically, in the present analysis, an applied Locative is also second argument (Y) in the sub-structure AFFECTION(X),(Y) of the sem-str. It is thus an affected Locative, one understood to be also a Patient (see the resultative test in §6.4.2.3, example (94)).
c. *Cakepan encen i rereh-ang ratu anak alit ipun i-e?
   book which OV take-APPL title person small 3POSS-DEF
   ‘Which book did you bring for its child?’
   (‘OV.bring’ ‘<you’, ‘itsi child’, ‘which book’)

Binding in sentence (16a) is fine because the interrogative phrase properly a-commands
and precedes the pronominal. Sentence (16b) is bad because of the linear order violation
(though a-command is respected), whereas (16c) is bad because of the a-command
violation (though linear order is respected).

In the preceding examples, I have used a ditransitive verb where the second and the
third argument differ in animacy so that in the Ergative mapping (i.e. with the OV verb), it
is easy to track down which is the second argument (Benefactive/Goal, animate) and which
is the third (Theme, non-animate). The theory under development predicts that if both
non-Actors are animate, then interrogative binding must force the interrogative to be
associated with the second argument (i.e. the Goal/Benefactive), not the Theme (third
argument). This is confirmed:9

(17) Nyen i alih-ang Nyoman memen-ne i
    who AV.search-APPL name mother-3POSS
(i) ‘For whom did you (Nyoman) seek his mother?’
    <‘Nyoman’(agt), ‘men’(ben), ‘his mother’(th)>
(ii) *‘Who did you (Nyoman) seek for his mother?’
    <‘Nyoman’(agt), ‘his mother’(ben), ‘who’(th)>

The interrogative binding in (17) can only have reading (i). Binding reading (ii) is
impossible because the a-str configuration would be violating the a-command constraint:
the interrogative item understood as the Theme does not properly a-command the
pronominal it is supposed to bind. (Note however that the non-binding reading is fine:
‘Who did you seek for his mother?’).

Since causativisation in effect adds a Causer, which is the most prominent item in the
derived sem-str and a-str, we make two predictions with regard to causativisation of a
transitive stem. First, interrogative binding between the base arguments will be preserved
after causativisation: that is, the base Actor/Causer can always bind the non-Actor, but not
vice versa. This is confirmed. (18a) shows binding in the non-causative verb, (18b)
binding in the derived causative, and (18c) binding failure.

(18) a. Jlema ken i tusing nyak negen padin-ne i? ‘who’i, ‘his rice’
    person which NEG willing carry rice-3POSS
   ‘Which person refused to carry his/her rice?’

b. Jlema ken i tegen-in ci padin-ne i? ‘causer(you)’, ‘who’i, ‘his rice’
   person which OV.carry-CAUS 2 rice-3POSS
   ‘Which person did you make carry his/her rice?’

---

9 In this example, I use the somewhat archaic verb seek in the glosses, in order to clearly distinguish the
Theme from the Benefactive. The more usual phrasal verb search for is unfortunately ambiguous in this
respect.
Second, the Causer will be a possible binder for all other arguments. This is also confirmed. (19) shows binding of a pronominal in the second argument (a), and third argument (b):

(19) a. Nyen i tusing nyak negen-in panak-nei padi who NEG willing AV.carry-CAUS child-3POSS rice
   ‘Who refused to make his/her child carry rice?’

b. Nyen i tusing nyak negen-in tiang padin-ne i?
   who NEG willing AV.carry-CAUS 1 rice-3POSS
   ‘Who refused to help/make me carry his/her rice’

7.2.3 The linear order constraint formulated

That linear order affects binding has been observed in the literature (Barss & Lasnik 1986; Bresnan 1995, 1998, 2001; Dalrymple 1993). In earlier work, I formulated the linear order constraint as (20) (Arka & Wechsler 1996; Wechsler & Arka 1998):

(20) Linear order constraint (Balinese):
    A pronominal (anaphor or ordinary pronoun) cannot precede
    a non-pronominal that binds it.

This constraint is intended to account for both quantifier binding and reflexive binding. In particular, it correctly allows cases of backwards binding of (complex) reflexives (e.g. binding of SUBJ as in examples (35)–(36) in §6.3.2), and it correctly blocks binding by non-pronominals, as in example (16b) above.

Further observation of a wide range of Balinese data, however, suggests that the constraint is too strong. There are a couple of crucial facts that escaped my attention when the two papers were written.

First, the linear order constraint is associated with an indefinite/generic non-pronominal binder. Consider (21a,b). Both have the same a-str, but differ in voice marking and linear order. Significantly, the non-pronominal binder is indefinite; it must precede the reflexive (21a). Backward binding is not possible (21b):

(21) a. (Ada) anak cekik ngugut awakne ‘AV.bite’< ‘a child’i, self.3’i>
    exist person small AV.bite self.3
    ‘(There is) a child biting himself/herself’

b. *Awakne gugut anak cekik ‘OV.bite’< ‘a child’i, self.3’i>
    self.3 OV.bite person small

A crucial contrast for the linear order constraint is shown by (22):

(22) a. Awakne edengin tiang anak cekik ento
    self.3 OV.show 1 person small that (backwards binding allowed)
    ‘I showed the child himself’

   <'1', ‘the child’i, ‘self.3’i>
The sentences in (22) share *a-str* prominence and mapping. The reflexive is the third (Theme) argument mapped onto SUBJ and comes sentence-initially. The sentences differ only in the definiteness of the second (Goal) argument ('child'). But backwards binding is acceptable only in (22a), where the binder is definite. Sentence (22a) proves that the backwards binding constraint for Balinese formulated earlier in (20) is not quite correct: it incorrectly predicts that (22a) would not be possible.

Second, backwards operator binding is barred in precisely the same situation as in (22). Consider (23) and (24). The interrogative NP *Nyeni* 'who' and the quantified NP *sabilang anak cenik* 'every child' are the second arguments (Goal/Experiencers). They must a-bind the pronominal *-ne* and must precede it (23a, 24a), not vice versa (23b, 24b):

(23) a. *Nyeni* edengin ci potrekan-nei?
   who OV.show 2 picture-3POSS
   'Who did you show his/her picture?'< '2', 'who', 'his/her picture'>

   b. *Potrekan-nei* edengin ci nyeni?
   picture-3POSS OV.show 2 who
   'Who did you show his/her picture?'< '2', 'who', 'his/her picture'>

(24) a. *Sabilang anak cenik* edengin tiang potrekan-nei
   every person small OV.show 1 picture-3POSS
   'I showed every child his/her picture'< '1', 'every child', 'his/her picture'>

   b. *Potrekan-nei* edengin tiang sabilang anak cenik
   picture-3POSS OV.show 1 every person small
   'I showed every child his/her picture'< '1', 'every child', 'his/her picture'>

This leads to the question of the commonality between indefinite NPs, interrogative NPs and NPs quantified by *sabilang* 'every'. Before tackling it directly, some more evidence is in order.

Consider the binding between obliques shown in (25). All these sentences respect *a-str* prominence; let us isolate linear order and then control the definiteness of the Goal *anak cenik*. Binding is possible when the Goal is definite, whether the linear order constraint is respected (25a), or violated (i.e. backwards binding) (25b). When the Goal is indefinite it must respect linear order (25c); backwards binding is not possible with this indefinite Goal binder (25d):

(25) a. Da matakron *teken anak cenik ento* unduk awakne
   NEG ask to person small that about self.3
   'Do not ask the child about himself/herself'

   b. Da matakron unduk awakne *teken anak cenik ento*
   NEG ask about self.3 to person small that
   'Do not ask the child about himself/herself'

   c. Tiang matakron *teken anak cenik* unduk awakne
   1 ask to person small about self.3
   'Do not ask a child about himself/herself'
d. *Da matakon unduk awakne teken anak cenik
   I ask about self.3 to person small
   ‘Do not ask a child about himself/herself’

A similar pattern is observed with interrogative binding (26) and quantifier binding (27).
We observe that linear order must be respected precisely in the same situation as in (25c-d):

(26) a. Bapa matakon teken nyenₐ unduk panak-ne i?
   Father ask to who about son/daughter
   ‘Who did you (Father) ask about his/her son/daughter?’

b. *Bapa matakon unduk panak-ne i teken nyenᵢ?
   Father ask about son/daughter to who
   ‘Who did you (Father) ask about his/her son/daughter?’

(27) a. Tiang matakon teken sabilang anak cenikᵢ unduk bapan-ne
   I ask to every person small about father
   ‘I asked every child about his/her father’

b. *Tiang matakon unduk bapan-ne i teken sabilang anak cenikᵢ
   I ask about father to every person small
   ‘I asked every child about his/her father’

The fact that the three kinds of NPs (indefinite NPs, NPs quantified by sabilang ‘every’,
and interrogative NPs) obey the same linear order restriction suggests that we can group
them together as a class of indefinites. Heim (1982:267) cross-classifies NPs as shown in
(28), where an indefinite NP, for example a cat, and a quantified NP such as every cat,
belong to the same class [-definite], in contrast to the cat [+definite].

(28)

<table>
<thead>
<tr>
<th>Quantifying:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no:</td>
</tr>
<tr>
<td>Definite</td>
<td>a cat</td>
</tr>
<tr>
<td></td>
<td>no cat</td>
</tr>
<tr>
<td></td>
<td>the cat</td>
</tr>
<tr>
<td></td>
<td>it</td>
</tr>
</tbody>
</table>

In her theory of (in)definiteness, all definites must be familiar, in the sense that the
discourse referents they are mapped onto must have been previously introduced into the
discourse. Indefinites, in contrast, do not have this property. All indefinites must be novel
in the sense that they must introduce into the domain of discourse referents that were not
previously present. Enç (1991) further clarifies the distinction, and the relation between
definiteness and specificity. Both definites and specifics require that their discourse
referents be linked to previously established referents, and both indefinites and non­
specifics require that their referents not be so linked. They differ in the nature of the
‘linking’: a strong, identity relation for definites but generally a weak, inclusion relation
for specifics.¹⁰ Crucially, according to Enç, all definites are specifics because identity of

¹⁰ For example, in the sentences ‘Five children arrived late. They had missed their bus’, the pronoun they is
said to require a strong antecedent (i.e. the second sentence is felicitous if they refers to five children).
referents entails inclusion. But indefinites may be specific or non-specific. For example, an NP such as a snake can be either specific (as in Bill has a snake and a tortoise in his room) or non-specific (i.e. any snake as in We wanted to find a snake in the bush), but it is always indefinite.

Thus, the NP anak cenik ‘a child/children’ is indefinite (either specific or non-specific). Sabilang anak cenik ‘every child’ and anak cenik encen ‘which child’ are also indefinite (because they do not have referents previously introduced into the discourse) but specific (because they are understood as a subset of a particular group in the relevant context—(every) one of the children). On this view, the motivation for the linear order constraint associated with these NPs becomes immediately clear. Note that the backwards constraint in (20) is parameterised in terms of a pronominal versus a non-pronominal binder. It is now apparent why a referentially dependent nominal cannot come before an indefinite that binds it: the domain of discourse is ‘empty’, in the sense that no referent has been introduced on which the pronominal is referentially dependent.

To conclude, given these (new) facts, the linear order constraint in Balinese can be reformulated as follows:

(29) Linear order constraint (final version):
A pronominal (anaphor or ordinary pronoun) cannot precede an indefinite NP that binds it.

7.3 Binding conditions revisited

7.3.1 Degrees of prominence

The parallel-structures-based theory of prominence adopted here predicts the possibility of a prominence mismatch (Bresnan 1995, 1996). For this reason, it will be helpful to think of overall prominence as a relative matter, as schematised in (30). The possibilities in (30a) and (30c) are the two opposing ends and of course mutually exclusive. The interesting cases come under (30b).

It is expected that languages will vary with respect to which layers of structure are relevant for binding (see Bresnan 1998, 2001 for typology). However, the theory also allows for variation within a single language. The hypothesis is that if a language has more than one form of expression, there must be some motivation for why that is the case; different forms must not have identical distributions. We also expect that languages will dislike certain mismatches and prefer total prominence. We now test this hypothesis by looking closely at variation in binding associated with morphologically simple and complex reflexives.

The idea of inclusion roughly means ‘partitive’: an individual of a group or a subgroup of a group. This is exemplified by the quantification of every man in Sally danced with every man. It is understood as quantification over a contextually given set of men. That is, it is equivalent to Sally danced with every one of the men. It does not imply that Sally danced with every man on Earth (see Enç 1991).
(30) If x and y are arguments of a given predicate, then there may be a relative degree of prominence between x and y:

(a) x totally/maximally outranks y:
   x outranks y in all parallel structures
   (gf-str, a-str, sem-str, and i-str (information structure))

(b) x partly outranks y (i.e. a prominence mismatch)
   x outranks y in some structure but is outranked by y
   in some other structure

(c) y totally outranks x

7.3.2 Simple versus complex reflexives

The distribution of simple reflexives (awak, raga, etc.) is more restricted than that of complex reflexives (awakne, raganne etc.) due to syntactic, semantic and pragmatic constraints.

7.3.2.1 Syntactic constraints

Simple and complex reflexives differ syntactically in two respects: (i) the relevance of gf-str prominence, and (ii) the binding domain of the nucleus. First, the simple reflexive requires total prominence of a binder. This means that it must meet Principle A (see §6.3.4.2) and in addition, it requires that the binder must be its gf-commander (i.e. be more prominent in the syntactic ranking/gf-str). (Gf-command is not analogous to f-command; see Dalrymple (1993), Sells (1985) for discussion of f-command). Consider the sentences in (31), which share a-str prominence where the anaphor is a-commanded, but which differ in voice markings/mappings/gf-strs:

(31) a. Ia nebek awak(ne)/iba(ne)/dewek (ne)  SUBJ
    3 AV.stab self.(3) <'3', 'self.(3)' >

    b. Awak/iba/dewekne tebek=a  SUBJ
       self.3 OV.stab=3 <'3', 'self.3' >

    c. *Awak/iba/dewek tebek=a
       self OV.stab=3 <'3', 'self' >

       '(S)he stabbed herself/himself'

When the reflexives are a-commanded and gf-commanded (31a), either simple or complex reflexives are possible. When they are a-commanded but not gf-commanded (31b,c), only complex reflexives are acceptable (31b), simple reflexives are not (31c). (The same constraint is true for the high-register counterpart ragan(ne)).

---

11 This is not really due to linear order, because even when the reflexive follows the binder the pattern is maintained. For example, a complex reflexive can come after the V, but a simple reflexive still renders the sentence unacceptable:

Tebek=a awakne/*awak
stab=3 self.3/self

'(S)he stabbed herself/himself'
Second, the simple reflexive differs from its complex counterpart in that it must be bound in its nucleus. The complex reflexive must be bound by its a-commander in some _a-str_, not necessarily in its nucleus. Recall that Principle A in §6.3.4.2 has no constraint on locality (i.e. being in the same nucleus) and the reflexive is required to be bound at _some a-str_. This allows a complex reflexive to take an antecedent outside its nucleus. Simple reflexives, however, must be bound within their own nucleus, as shown by the following contrast:

(32) a. Luh Sariₙᵢ matakon apa Nyomanᵢ gedeg teken awakneᵢᵣᵢ
   name ask what name angry with selfₙᵢ
   ‘Luh Sariₙᵢ asked whether Nyomanᵢ was angry with herself/himselfᵢᵣᵢ’

   b. Luh Sariᵢ matakon apa Nyomanᵢ gedeg teken awakᵢᵣᵢ
   name ask what name angry with selfᵢᵣᵢ
   ‘Luh Sariᵢ asked whether Nyomanᵢ was angry with herself/himselfᵢᵣᵢ’

The complex reflexive _awakne_ in (32a) can be bound either by _Nyoman_ (the a-commander within its nucleus) or _Luh Sari_ (the matrix Actor, an argument of the matrix predicate). The simple reflexive _awak_ (32b), on the other hand, can be bound only by the a-commander within its own nucleus, _Nyoman_. Here is another example, where the simple reflexive _raga_ must be bound in its nucleus (the SUBJ of the AV _nebek_ ‘stab’ is controlled and raised, understood as _tiang_):

(33) Idaᵢ ngaden tiangᵢ dot nebek ragaᵢᵣᵢ *
   3 AV.think 1 want AV.stab selfᵢᵣᵢ
   ‘(S)he thought that I wanted to stab myself/*herself/*himself’

To conclude, unlike a complex reflexive, a simple reflexive must be bound by an a-commander which is also its gf-commander and, crucially, the a-and-gf-commander must be in the same predicate nucleus. Consequently, a simple reflexive allows only short-distance binding; its complex reflexive counterpart, on the other hand, allows both short- and long-distance binding. (I capture these language-specific restrictions in the revised Principle A formulated later in (51)).

### 7.3.2.2 A semantic constraint

A simple reflexive in Balinese also differs from its complex counterpart in terms of the lexico-semantics of the predicate with which it is associated. A simple reflexive with an intransitive predicate appears as an oblique, but is restricted to the (psychological) state predicates such as _inget_ ‘remember’, _pedih_ ‘angry’, etc. The reflexive oblique expresses the Stimulus. It cannot occur with other kinds of intransitive predicates. Its complex reflexive counterpart, however, has no such restriction:

(34) a. Ia inget teken awk(ne)/dewek(ne)/iba(ne)
   3 aware with selfₙᵢ
   ‘(S)he is aware of himself/herself’

   b. Ia ngomong teken awk(ne)/dewek(ne)/iba(ne)/awak(ne)/dewek(ne)/iba
   3 speak to selfₙᵢ self
   ‘(S)he spoke to himself/herself’
(34a) shows that either simple or complex reflexives are possible with the psychological state predicate *inget*. With the intransitive predicate *ngomong* 'talk' (34b), on the other hand (where the oblique expresses a Goal), the simple reflexives are not possible.

With transitive predicates, simple reflexives require the predicate to be a highly transitive one, where the reflexive is understood to be highly affected, and is associated with the second argument (a-object). Thus, the verb 'see' as in (35a), does not allow simple reflexives, whereas a verb with causative meaning such as *tebek* 'stab' or *matiang* 'kill' may take them (35b):

(35) a. Ia ningalin awakne/dewekne/ibanne/*awak/*dewek/*iba
  3 AV.self self.3 self
  '(S)he saw herself/himself'

  b. Ia nebek awakne/dewekne/ibanne/awak/dewek/iba
  3 AV.stab self.3 self
  '(S)he stabbed himself/herself'

Since a simple reflexive must be the second argument in the *a-str* (i.e. a-object), it is typically associated with the l-object, the second argument of the most prominent AFFECT in the *sem-str*. We therefore expect that a ditransitive predicate will not appear with a simple reflexive as its third argument. This is because the third argument is semantically embedded in the *sem-str* (see the applicative representation in §6.4.2.3). Consider the reflexive in the first object position in (36a) (where both kinds of reflexives are possible), in contrast to the second object/third argument in (36b) (where only complex reflexives are possible):

(36) a. Ia ng-atur-ang awak(ne)/dewek(ne)/iba(ne) sig raja-ne
  3 AV-offer-APPL self(.3) to king-DEF
  '(S)he offered himself to the king'

  b. Ia ng-atur-in raja-ne awakne/dewekne/ibane/*awak/*dewek/*iba
  3 AV-offer-APPL king-DEF self.3 self
  '(S)he offered the king himself/herself'

Here is another contrast showing that the third argument cannot be a simple reflexive (37b):

(37) a. Ia ng-umbah baju-ne kedas
    3 AV-wash shirt-DEF clean
    '(S)he washed the shirt clean'

  b. Tiang ng-umbah-ang ia baju-ne kedas
    1 AV-wash-APPL 3 shirt-DEF clean
    'I washed the shirt clean for him'

In short, although we might argue that the Patient 'the shirt' in (ii) is as affected as that in (i), nevertheless its demotion to third argument (subordination in the *sem-str* of the derived predicate) causes it to lose its property of being accessible to resultative modification. We might want to say that, in (ii), the ditransitive verb does not highlight the affectedness of its Theme argument.

---

12 A piece of evidence for this comes from the following alternation with a resultative predicate: (i) shows that the resultative predicate can modify the Patient *baju-ne* 'the shirt' (which is the only OBJ), and (ii) shows the ditransitive applicative where *baju-ne* becomes the third argument (second OBJ). Crucially, the resultative predicate 'clean' cannot modify it:

  i. Ia ng-umbah baju-ne kedas
    3 AV-wash shirt-DEF clean
    '(S)he washed the shirt clean'

  ii. Tiang ng-umbah-ang ia baju-ne kedas
    1 AV-wash-APPL 3 shirt-DEF clean
    'I washed the shirt clean for him'
(37) a. Ida ng-edeng-ang raganne/ raga sig anak-e ento
   3 AV-show-APPL self.3/ self to person-DEF that
   ‘(S)he showed himself/herself to the person’

   b. Tiang ng-edeng-in ida raganne/ *raga
   1 AV-show-APPL 3 self.3 self
   ‘I showed him/her himself/herself ’

In short, the a-str and sem-str restrictions on simple reflexives are: they must be a-object (i.e. the second term ARG in the a-str), and they must be a typical l-object (i.e. semantic object, the second argument of the most prominent AFFECT).

To sum up, the syntactic and semantic restrictions on simple reflexives can be captured by the parallel structures shown in (38) below. (38) states that the simple reflexives raga, dewek, awak and iba appear in two configurations: with intransitive predicates (38a) and with transitive predicates (38b). In the first situation, the reflexive is an oblique of a state predicate (i.e. a non-term position in the a-str) and bears a Stimulus role (i.e. it is in second argument of REACT in the sem-str). In the second situation, the reflexive must be the affected argument. In all cases, it must be gf-commanded (hence, a complement function in the gf-str).

(38) The parallel-structure constraints of simple reflexives in Balinese:

<table>
<thead>
<tr>
<th></th>
<th>(a)</th>
<th>(b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>c-str</td>
<td>raga/dewek/awak/iba</td>
<td></td>
</tr>
<tr>
<td>gf-str</td>
<td></td>
<td>Complement</td>
</tr>
<tr>
<td>a-str</td>
<td>pred &lt;&lt;&lt; , , &gt;&gt;</td>
<td>pred &lt;&lt; , , , ... &gt;</td>
</tr>
<tr>
<td>sem-str</td>
<td>[STATE REACT([X],[Y])]</td>
<td>[EVENTAFFECT([X],[Y])]</td>
</tr>
</tbody>
</table>

7.3.2.3 Exempt anaphors and anti-binding

The interaction of a-str and sem-str prominence also distinguishes complex from simple reflexives. Note that an Agent fails to bind an anaphor when it is syntactically outranked by the anaphor, as shown by (39a). The complex anaphor13 raganne is a Theme term whereas the Agent is an oblique, marked by antuk. The binder is the Goal/Experiencer term I Bapa ‘Father’. The a-str and sem-str are shown in (39b):

(39) a. I Bapa, j ka-edengin raganne, j* i ring potreka-ne antuk idai
   Art father PASS-show self.3 at picture-DeF by 3
   ‘Father j was shown himself j/*i in the picture by him i’

b. i ≠ j = k

<table>
<thead>
<tr>
<th>a-str</th>
<th>‘show’ &lt;&lt;‘father’ , ‘self.3 k’ &gt;, ‘3 j’ &gt;&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>sem-str</td>
<td>(exp i) (th k) (agt j)</td>
</tr>
</tbody>
</table>

13 Unfortunately, I cannot give a contrast with a simple reflexive in this example, because a simple reflexive does not appear as the third argument, due to the semantic constraints just outlined, examples (36)–(37).
There are two things going on here which should be clearly distinguished. (For simplicity, the *sem-str* items are represented by the traditional thematic roles). First, the anaphor *raganne* 'self.3' is a-commanded (i.e. outranked in the *a-str*) by the Goal / Bapa 'Father'. Therefore, the anaphor must be bound by its a-commander, respecting principle A \((k=j)\). This is obvious. Second, the anaphor a-commands (and also gf-commands) the Agent/I-subject (because the Agent is an oblique). As expected, the Agent cannot bind the anaphor in such a case, even though it outranks the anaphor semantically \((k\neq i)\). This shows that prominence in the *a-str* must be ranked higher than prominence in the *sem-str* (see also §6.3.1):

\[(40)\] Balinese: \ a-str prominence \ \ \ > \ \ \ \ sem-str prominence

(40) says that when a syntactic prominence condition applies, the syntactic constraint itself outranks the constraint of semantic prominence. Thus, we can account for (39) where, though the Agent outranks the anaphor semantically, it does not bind it. In short, an Agent/I-subject is not always a binder in Balinese.

Now, what happens when syntactic (*a-str*) prominence is not at issue, that is, when the anaphor itself is *syntactically* the most prominent item? Let us look at two possible cases.

**Case 1**

In this situation, the anaphor is the most prominent argument in the *a-str* but it is not an Agent, as in (41):

\[(41)\] *a-str*: \langle 'refl', ...,\rangle.
非-Actor

In such a case, the *a-str*-based principle A does not apply because the reflexive anaphor has no a-commander. Given the ranking of prominence in (40), we predict that semantic prominence will apply. This is confirmed, as shown by (42). However, *sem-str*-based binding applies for the complex reflexives only, not the simple reflexives. This means that simple reflexives must be a-commanded as well as gf-commanded (see (38)):\[14\]

\[(42)\] a. *Raganne/* raga/*ida tan ka-ruŋu-ang antuk ida (h.r.)
self.3 self 3 NEG PASS-care-APPL by 3
'(Lit.) Himself/he was not taken care of by him'
'He did not take care of himself'
b. *Ibane/*iba not-a di kacan-e teken siap-e ento
self.3 self see-PASS at mirror-DEF by rooster-DEF that
'Itsself was seen in the mirror by the rooster'
c. *Ibane/*iba lwan-a mapalu teken siap-e di kacan-e
self.3 self against-PASS ma-hit by rooster-DEF at mirror-DEF
'Itsself was fought by the rooster in the mirror'

Binding of complex reflexives, as exemplified in (42), illustrates what has been called 'exempt' binding (Pollard & Sag 1994). (Recall that Principle A does not prevent an anaphor being bound by a binder that it a-commands, as long as the anaphor itself is not a-commanded). It appears that it is 'exempt' only in terms of the *a-str*-based binding. It is

\[14\] See also example (48) for cases of possible discourse binding.
not really 'exempt' from the overall binding requirement with respect to the parallel­
structures-based theory of prominence adopted here. Languages perhaps vary as to how
they deal with a prominence mismatch within the parallel structures; in Balinese a non-a-
commanded anaphor can be bound by its sem-commander (i.e. a semantically more
prominent argument: 'x sem-commands y' roughly means 'x outranks y in the associated
sem-str'). However, this applies only to the complex reflexives.15

If sem-command is relevant when an anaphor has no a-commander, then a Theme a-
subject can in theory be bound not only by an Agent oblique but also by another oblique
which sem-commands it. This is borne out. (43) shows that a complex reflexive, but not a
simple one, can be bound by either of the two obliques:16

(43) Awakne/ *awak ane takonang-a sig I Nyoman-e teken I Wayan
self.3 self REL ask-PASS to name-DEF to name
'It was himself that I Nyoman was asked by I Wayan';
a-str: 'ask-PASS' << 'self.3';j>> 'Wayan'; 'Nyoman';

Case 2

In this case, the anaphor has no a-commander and no sem-commander. This means that
the reflexive anaphor is the most prominent item in both a-str and sem-str (expressed by
AV marking). This can be shown by the following structures:

(44) a-str: << 'refl', ...>>

| sem-str: Actor/l-subj

Since the reflexive in (44) has no a-commander or sem-commander, a-binding and sem-

binding as discussed earlier do not apply. But, we wish to know two things. First, can it
be bound by the argument it a- and sem-commands? This is in theory not prohibited by
Principle A. Second, can it be bound by a binder that is pragmatically marked? The

answers to both questions are negative irrespective of the reflexive types:

(45) a. *Raganneij / *raga ng-runguang idai
self.3 self AV-care 3
'?Himself/herself took care of him'

15 One might therefore expect a contrast in passives of ditransitives. That is, given an a-str of the form
'pass.pred'<<go, th><agt>>, we would expect that the reflexive Goal cannot be bound by the Theme, but
rather that the reflexive Theme must be bound by the Goal. However, it is difficult to make the reflexive
to be understood as a Goal since Balinese is symmetrical. Consider:

i. Awakneij edengin-a Nyoman teken Wayan
self.3 show-PASS by name
'Nyoman was shown himself by Wayan'

ii. Nyoman edengin-a awakneij teken Wayan
name show-PASS self.3 by name
'Nyoman was shown himself by Wayan'

In either case, irrespective of the passive SUBJ, the reflexive awakne is understood as the Theme and
therefore the sentence is acceptable.

16 In other languages, sem-str-based binding may be restricted to the l-subject (Mohanan 1990).
b. *Ibanne\textsubscript{i} / *iba ngenot siap-e ent\textsubscript{o}\textsubscript{i} \\
self.3 self AV.see rooster-DEF that 
?‘Itself saw the rooster’

(46) a. *Idai\textsubscript{i} raganne\textsubscript{i} / *raga ng-runguang \\
3 self.3 self AV-care 
?‘As for him/her, himself/herself took care of’

b. *Siap-e ent\textsubscript{o}\textsubscript{i} ibanne\textsubscript{i} / iba ngenot 
rooster-DEF that self.3 self AV.see 
?‘As for the rooster, itself saw (it)’

The unacceptability of (45)-(46) suggests that a reflexive cannot be bound by a nominal that it outranks in both \textit{a-str} and \textit{sem-str}. Principle A does not actually rule out this kind of impossible binding, but the constraint can be formulated as an anti-binding condition (see also Bresnan 2001:226):

(47) Anti-binding (Balinese): 
A reflexive anaphor cannot be bound by a nominal that it outranks in both \textit{a-str} and \textit{sem-str}.

Note that the anti-binding condition (47) correctly allows binding of a complex reflexive term/subject by an Agent/Goal complement as in the examples of Case 1, because in those instances the binder outranks the bindee in \textit{a-str} only, not in \textit{sem-str}.

7.3.2.4 Discourse binding?

If there is such a thing as discourse binding, I would take it to mean the use of a reflexive form whose antecedent/binder is outside the sentence it is in. This is, as I show shortly, pragmatically motivated by the speaker’s emphasis of an identical referent.\textsuperscript{17} Though it is possible (subject to certain restrictions), discourse binding must not violate syntactic binding.

Discourse binding in Balinese is generally possible only with a \textit{complex} reflexive which is an \textit{a-subject} (i.e. exempt from \textit{a-str}-based binding). Consider the context where sentence (b) follows sentence (a):

(48) a. Nyoman pedih gati 
name angry very 
‘Nyomani was upset’

b. 1a / awakne / *awak orahang-a mamaling teken anak-e 
3 self.3 self say-PASS AV.steal by person-DEF 
(i) ‘He\textsubscript{ij} was said to steal by people’
(ii) ‘He \textit{h}imself \textit{ij} was said to steal by people’

\textsuperscript{17} The pragmatic contrast expressed by this use of reflexive is something like ‘s/he to whom I have already referred, not someone else’. Note that, in Balinese, the reflexive form used to express this pragmatic effect is associated with an argument (in the subject position). In English, on the other hand, the effect is expressed by a reflexive form modifying a free pronoun \textit{e.g. he himself}. This kind of reflexive in English is often traditionally called an emphatic reflexive. It appears that the two uses of reflexive forms (i.e. reflexivity and emphatic) are related. Indeed, the ancestor of the reflexive morpheme \textit{self} was an NP emphatic \textit{self} or \textit{syl} (Faltz 1985:239–240).
In the context of (48), either the pronoun _ia_ or the complex reflexive _awakne_ can be used, but not the simple reflexive _awak_. Unlike _ia_, which may be understood as someone else, not necessarily _Nyoman_ (reading (48bi)), _awakne_ enforces a non-ambiguous reading; that is, the reflexive takes an immediately foregoing possible antecedent, namely _Nyoman_ (reading (48bi)).

Note that the reflexive in (48b) actually has a sem-commander, namely the Agent oblique _teken anak-e_ ‘by people’, but discourse binding is nevertheless possible. This means that, though semantic ranking plays a role in binding, it can be violated. But when the reflexive is a-commanded, the reading involving discourse binding by a binder in the preceding sentence seems hard to get. Thus, following sentence (49a), the pronoun _ia_ is used in (49bi) or (49bii). Note that the sentences in (49b) share the same _a-str_ but differ in voice marking:

(49) a. Nyoman demen gati.
   name happy very
   ‘Nyoman was very happy’

   b. (i) Cang meli-ang _ia/_ ?*_awakne/_ *awak sepeda
       1 AV.buy-APPL 3 self.3 self bike

       (ii) _ia/_ ?*_awakne/_ *awak beli-ang cang sepeda
            3 self.3 self OV.buy-APPL 1 bike
       ‘I bought him a bike’

However, there is a tendency for a maximally prominent item in both _a-str_ and _sem-str_ (i.e. _l-subject_ - _a-subject-SUBJ_) to be forbidden to have discourse binding. Hence, in contrast to (48), we cannot have reflexives in either the AV (50a) or OV (50b); a pronoun must be used:

(50) a. Ia mayus. Ia/ *Awak(ne) sing taen ngalih gae
   3 lazy 3 self.(3) NEG ever AV.search job
   ‘He is lazy. He has never searched for a job’

       _a-str_: ‘AV.search’ < ‘3/*self’, job’>

   b. Ia mayus. Gae apa sing taen alih=a/ *awakne/*awak
      3 lazy job what NEG ever OV.search=3 self.3 self
      ‘He is lazy. No jobs have been searched for by him’

       _a-str_: ‘OV.search’ < ‘3/*self’, job’>

It appears that being ‘exempt’ from a-binding does not mean that discourse binding is always allowed. The real constraint seems to be that a maximally prominent reflexive in both _sem-str_ and _a-str_ cannot be bound.

7.3.2.5 Binding conditions parameterised

Based on the previous discussion, the properties of simple and complex reflexives in Balinese can be summarised in Table 7.1. They share the constraint in point (g), formulated as an antibinding constraint.
Table 7.1: Simple versus complex reflexives

<table>
<thead>
<tr>
<th>Syntax:</th>
<th>Simple: awak, raga, dewek...</th>
<th>Complex: awakne, ragane, dewekne...</th>
</tr>
</thead>
<tbody>
<tr>
<td>gf-str</td>
<td>a. obligatorily gf-commanded</td>
<td>a. possibly gf-commands its binder</td>
</tr>
<tr>
<td>a-str</td>
<td>b. obligatorily a-commanded</td>
<td>b. possibly non a-commanded</td>
</tr>
<tr>
<td>Nucleus</td>
<td>c. +nucleus: short-distance binding</td>
<td>c. no nucleus constraint: short-/long-distance binding</td>
</tr>
<tr>
<td>Semantics:</td>
<td>d. obligatorily sem-commanded</td>
<td>d.i. possibly not sem-commanded, especially if bound by its a-commander</td>
</tr>
<tr>
<td>sem-str</td>
<td>ii. if not a-commanded, it can take its sem-commander as its binder</td>
<td></td>
</tr>
<tr>
<td>e.i. as Stimulus-OBL with intransitive psych verbs</td>
<td>e. no lexico-semantic restrictions</td>
<td></td>
</tr>
<tr>
<td>ii. as the Patient of highly transitive verbs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pragmatics:</td>
<td>f. does not allow discourse binding</td>
<td>f. discourse binding allowed, except when maximally prominent (l-subject - a-subject-SUBJ)</td>
</tr>
<tr>
<td>Anti-binding</td>
<td>g. cannot both a-command and sem-command its binder</td>
<td>g. cannot both a-command and sem-command its binder</td>
</tr>
</tbody>
</table>

The facts about Balinese simple and complex reflexives summarised in points (a)–(c) in the table suggest that Principle A must be parameterised to meet language-specific constraints. (Principle B and C remain the same, however). Our revised parallel-structures-based Principle A can be formulated in (51):

(51) Binding condition (Balinese):
Principle A: (i) an a-commanded complex reflexive must be bound by its a-commander (if any), otherwise possibly by its sem-commander
(ii) a simple reflexive must be bound by the SUBJ which is also the a-subject and the I-subject in its nucleus

Principle A for a complex reflexive is similar to the so-called Principle Z (Xue 1994; Manning & Sag 1998) but is slightly different in explicitly specifying the role of sem-str prominence. Principle A for a simple reflexive, on the other hand, is more like the classic constraint on reflexives, but is even more constrained in that the binder must be the GF-SUBJ—a-subject–l-subject item in the same nucleus (i.e. its ‘total’ commander).

The binding conditions so far formulated capture the restrictions on simple versus complex reflexives, in conjunction with the anti-binding condition formulated in (47). The key parameterisations of Principle A are the following. First, nucleus specification is explicit in (51ii) but absent in (51i), allowing short-and-long distance binding of complex
reflexives (e.g. example (32)). Second, *a-str*-based binding applies only for complex reflexives (allowing a complex reflexive to gf-command its binder, example (31b)). Simple reflexives are subject to ‘total binding’, correctly ruling out example (31c) while predicting that they appear in complement functions. Third, semantic binding with a complex reflexive is possible, but only when the reflexive is not a-commanded (example (42)). This is not obligatory because a sem-commanded complex reflexive allows discourse binding (examples (39), (43)).

The anti-binding condition (47) correctly excludes examples like (45) (which are not ruled out by the revised Principle A above). Our syntactised *a-str*, which reflects lexico-semantic prominence, may account for the semantic aspect shown by point (d) in the table. Some semantic and pragmatic aspects so far observed, e.g. properties such as (f), fall outside the binding conditions formulated in (51).

### 7.4 Passivisation and non-active constructions

#### 7.4.1 Introduction

This section discusses non-active constructions in Balinese, namely the \=a verb without a PP (52a), the -a verb with an optional PP (52b), and the ka- verb (52c), in contrast to the AV construction (52d):

\[(52) \begin{align*}
a. \text{Nyoman } baang=\text{a } \text{name } \text{OV.give=3 } \text{money} \\
     & \text{‘(S)he gave NYOMAN (not someone else) money’} \\
b. \text{Nyoman } baang-a \text{ name } \text{give-PASS money by Wayan} \\
     & \text{‘Nyoman was given money (by Wayan)’} \\
c. \text{Gumi-ne } ka-prentah \text{ (antuk/teken bangsa gelah)} \\
     & \text{country-DEF PASS-govern by people own} \\
     & \text{‘The country is governed (by our own people)’} \\
d. \text{Ia maang Nyoman pipis} \\
     & \text{3 AV.give name money} \\
     & \text{‘(S)he gave Nyoman money’}
\end{align*}\]

There is evidence that the verb with the ka- prefix (52c) is the real passive in Balinese (Arka & Wechsler 1996; Artawa 1994; see also §7.4.3.2 below). Traditionally, (52a–c) are all analysed as passives (Barber 1977; Hunter 1988; Kersten 1970) in contrast to the ‘active’ sentence (52d), without any clear supporting argument as to why this is the case (except, apparently, the fact that the subject is not an Actor). While it is made explicit in Arka & Wechsler (1996) and Artawa (1994) that the -a verb without PP (1a) is not passive, there has not been explicit discussion of the status of the -a verb with a PP (i.e. constructions of the type (52b)).

In what follows, I argue that the bound form -a leads a double life, as a pronominal clitic, and also as a grammatical marker functioning as a passive marker, as clearly seen from my glossing of =a in (52a) and -a (52b). My view therefore differs from Artawa (1994) and Clynes (1995) in that I analyse the -a verbs as real passive verbs in certain circumstances. The presence of the PP Agent (oblique) renders the construction
grammatically passive. In the absence of the PP oblique, out of context, it may be ambiguous between OV verb and passive. My view also differs from the traditional analysis of Balinese (Barber 1977; Hunter 1988; Kersten 1970) in that I do not share the view that all -a verbs are passives. Nor do I follow these scholars in collapsing the grammatically distinct voice which I call Objective Voice (OV) with passive. There is convincing evidence that the free pronominal of the OV verb is not an oblique (see §3.2.5); hence it is wrong to analyse the construction as passive. Many of the occurrences of -a verbs in real texts belong to the Objective Voice (OV), not to the passive.

The working hypothesis is this. The non-active forms must have different, but also overlapping, properties, otherwise there would be no point in preserving the difference. This section on Balinese passives aims to explore the grammatical, semantic and pragmatic motivation for the difference, but also to show the similarity. First, I will discuss the status of the bound pronominal marker -a (§7.4.2). I will defend my analysis by giving evidence from grammatical tests and pragmatics (§7.4.3). I will show the difference between OV and passive verbs in §7.4.4.

7.4.2 Distribution of the free pronoun ia and its corresponding bound form =a

The distributions of the clitic and the free pronoun are mutually exclusive. The clitic appears only on the OV verb if it is the OV Agent, as in (52a), repeated as (53a). The corresponding non-clitic pronoun Agent ia is not possible (53b). Elsewhere, the pronoun ia must be used, and the enclitic =a is not allowed; e.g. as the AV Patient in (54), or as the single argument of an intransitive verb irrespective of the intransitive type, as in (55).

(53) a. Nyoman baang=a pipis
  name OV.give=3 money
  ‘(S)he gave NYOMAN (not someone else) money’
  b. *Nyoman baang ia pipis

(54) a. Nyoman ningalin ia
  name AV.see 3
  ‘Nyoman saw him/her’
  b. *Nyoman ningalin=a

(55) a. Ia ulung / malaib
  3 fall / run
  ‘(S)he fell/ran’
  b. *Ulung=a / malaib=a

7.4.3 Double function of =a/-a

The bound form =a/-a has a double function in contemporary Balinese: (i) it is a clitic with a referential meaning, and (ii) it is a passive marker. I argue that the second function develops from (i.e. is a grammaticalisation of) the first: the clitic has lost its syntactic status as an independent argument (having semantic content) to become a syntactic
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The shift is functionally motivated in the grammatical system of Balinese (see §7.4.3.2 below).

7.4.3.1 The pronominal clitic =a

I now present the evidence for the claim that =a is a pronominal clitic bearing a syntactic function.

First, it is a (pronominal) clitic because, unlike free pronouns, it must be attached to a host. It cannot stand by itself. And it is a clitic, not a suffix, because it has four out of six common properties of clitics as opposed to inflectional suffixes which are cited in Zwicky (1985), Zwicky (1987) and Zwicky and Pullum (1983): it can be attached to a preposition (not strictly to a verb), there is no gap in the relevant set of combinations, it is morpho-phonologically regular, and it is semantically regular. In terms of its position in word structure, it must be outside all other formatives (i.e. in outermost or final position). Also, unlike the free pronoun, it cannot be stressed. These are typical morpho-phonological properties of clitics cross-linguistically.

Second, though morpho-phonologically it looks like an affix (i.e. in being bound to an OV host), semantically and syntactically it is like a free pronoun. It contains an index (i.e. it is referential) and it functions as a syntactic unit (i.e. as an argument of the head verb). The evidence comes from binding. (56) shows that the third-person pronoun can bind the reflexive awakne in either form: as free pronoun (56a), or as enclitic (56b):

(56) a. Ia tusing ngrungu-ang awakne ia
   3 NEG AV.care-APPL self.3 ‘care < ‘3′, ‘refl.3′>

   b. Awakne tusing rungu-ang=a =a
   self.3 NEG OV.care-APPL=3 ‘care < ‘3′, ‘refl.3′>

‘(S)he did not care about himself/herself’

I have argued that the two sentences of the type shown in (56) share an a-str where the third-person argument (the a-subject) a-commands and therefore a-binds the reflexive. The only difference is the morphological realisation of the third-person argument. In short, the enclitic =a in (56b), just like the free pronoun ia (56a), bears an index (a semantic referent) and is linked to an argument in the a-str.

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18 Hunter (1988) has a similar view (based on pragmatic reasons). However, he does not give any syntactic evidence to support his stance. His approach also differs from mine in that he does not distinguish the grammatically distinct voice labelled here as OV.

19 The grammaticalisation is not yet complete, however, because the -a passive still retains the third-person feature restriction.

20 For example, it can appear (optionally) with the preposition ajak ‘with’ in the complex quantifier ajak(=a) liu/makejeng ‘with many/all of them’ when the referent is animate.

21 Morpho-phonologically its form is shorter than the free pronoun ia, from which it is undoubtedly derived historically. In standard Balinese, -na (instead of =a) is used when the host is vowel-final (e.g. beli=na ‘buy=3’) but in the Badung dialect, the clitic =(n)a is invariably =a (i.e. the vowel/consonant final of the host is not a condition).

22 For example, it must appear after the applicative/causative suffixes such as -in and -ang:

   a. tegak-in=a ‘sit-APPL=3’ *tegak=a-in ‘(S)he sits on something’
   b. tegeh-ang=a ‘high-CAUS=3’ *tegeh=a-ang ‘(S)he made it high’
Third, the evidence that the pronominal clitic has an index comes from its ‘anaphoric’ function (in the general sense of referring back in a text). Sentence (57b) appears after sentence (57a) in the quoted text:

(57) a. Keto masih Nyoman Santosa tanpa bayu
    that same name without energy
    nglantas ngelut Made Arini. (TLS:104)
    then AV.embrace name
    ‘Similarly then Nyoman Santosa could not resist hugging Made Arini’

b. Tekek-ang=a pesan, buka tusing lakar lebang=a buin. (TLS:104)
    tight-CAUS=3 very as if NEG FUT OV.release=3 again
    ‘He tightly hugged her as if he would not release her again’

In (57a), two persons are mentioned, Nyoman Santosa (a boy) and Made Arini (a girl). In (57b), the two persons are referred to by a zero pronominal (i.e. the subject of tekek-ang=a ‘make tight’) and a clitic =a. The zero pronominal refers to Made Arini and the clitic refers to Nyoman Santosa, not the other way around. Since the clitic must be an OV Agent and the sentences describe the event of ‘hugging’, the clitic =a must refer to Made Santosa, the Agent of (57a), the person who hugged the girl.

Fourth, like a free pronoun, it can take a quantifier ajak makejang ‘with all’ to mean ‘all of them’:

(58) a. Ia ajak makejang nyilih buku
    3 with all AV.borrow book

b. Buku silih=a ajak makejang
    book OV.borrow=3 with all
    ‘They all borrowed books’

Note that in both cases we get the third-person plural meaning. Here is another example of quantification with a different quantifier:

(59) I Ubuh paksa=na ajaka liu (SB)
    Art name OV.force=3 with many
    ‘Many of them forced I Ubuh’

That the free and bound pronominals can be pluralised/quantified in the same way suggests that the bound pronominal clitic has semantic content. The real (ka-) passive, on the other hand, cannot have quantifier modification in this way, as shown by (60). Sentence (60) suggests that ka- is really a passive marker having no referential content. Sareng sami/akeh ‘(lit.) with all/many’ is the high-register variant of ajak makejang/liu:

23 In the Balinese naming system, a male person’s name generally ends in -a (e.g. Santosa, Putra etc.) and a female’s name ends in -i (e.g. Arini, Putri, etc.).

24 The pronominal clitic does not distinguish between male and female referents, but generally there is no ambiguity about its anaphoric relation because it must refer to the Agent. One can therefore easily track down which is the Agent and which is the Patient depending on the flow of the discourse. However, other syntactic constraints, such as raising and control in which only the subject is targeted, also limit the anaphoric reference of the clitic.
Fifth, the clitic cannot be doubled by a free pronoun or an NP, as exemplified by (61). This supports the idea that the Agent clitic is linked to the a-subject argument. There can be only one a-subject/logical subject, so the addition of another free pronoun makes the sentence unacceptable because the free pronoun ia (or NP Wayan) is left dangling.

The ka-passive, on the other hand, although commonly followed by a PP, may appear with an NP. Although rare, this usage is attested in real texts. (62) shows that the ka-passive formed out of the same stem temah 'curse' is found with an Agent NP (a) as well as with an Agent PP (b) in the same text:

(62) a. Yan saja ka-temah Widi, ngenken nu nu masliweran
If really PASS-curse God why still wandering
   di gumi-ne tenenan? (KA:115)
in world-DEF this
   ‘If he has really been cursed by God, why is he still wandering around here?’

b. Ane terang gati ia suba ka-temah ban Widi (KA:127)
REL clear very 3 already PASS-curse by God
   ‘What is very clear is that he has been cursed by God’

Finally, =a (63c), like the free pronoun ia (63a,b), can function as a resumptive pronoun. The real (ka-) passive, however, cannot serve as a resumptive pronoun (63d).

(63) a. I meme, ia suba teka
Art mother 3 already come
   ‘As for Mother, she has come’

b. I meme, apa Nyoman ningalin ia?
Art mother what name AV.see 3
   ‘As for Mother, did you (Nyoman) see her?’

c. I meme, apa jakan=a di paon?
Art mother what OV.cook=3 at kitchen
   ‘As for Mother, what is she cooking in the kitchen’

d. ?*I biyang, napi ka-tumbas ring pasar?
Art mother what PASS-buy at market
   ‘As for Mother, what did she buy in the market?’

To conclude, the =a clitic has the properties shown in (64), where the points in (b-e) distinguish it from the (real) ka-passive:

(63) is fine if biyang 'Mother' (i.e. without the article I) is used vocatively to mean 'you, Mother': ‘Mother, what is being bought (by you) in the market?’ This use of passive is motivated by politeness (i.e. it is an avoidance strategy against addressing the second person directly).
(64) a. It is a pronominal clitic, morphologically bound to a host (OV verb).
    b. It has referential content (an index); it can be quantified by *ajak makejang* "all", it can function as a resumptive pronoun, and it can refer back in a discourse.
    c. Semantically, it is the OV Actor; since it is itself an argument, doubling with another (Agent) free pronoun/NP is not possible.
    d. Syntactically, it cannot be the grammatical subject of the OV.
    e. It is a term (core argument, an a-subject/logical subject), not an oblique, because it can bind another argument item (e.g. the grammatical subject).

### 7.4.3.2 The low and high passive constructions

Evidence from binding and other properties summarised in the preceding section shows that the clitic is an argument (i.e. a-subject). However, there is evidence (to be discussed shortly) that the -a verb followed by a PP Agent shows the properties of a passive construction. It appears that the bound form has changed to become a passive-like suffix, while at the same time retaining its original status as an enclitic. There is a functional reason for this, which I deal with presently. I claim that the bound form =a/-a leads a double life in contemporary Balinese. More correctly, there are two kinds of a: enclitic =a and passive _a. 26 It is an enclitic in one context and a passive-like in another context. (Out of context, the two might be hard to distinguish).

The view that both the =a clitic and the -a passive are historically related is supported by the fact that the -a passive is constrained to have a third-person Actor (see example (68b) below). (Hence, the grammaticalisation to become passive is not complete yet). Nevertheless, syntactically speaking, the -a passive is more like the ka- passive (and passives in other languages) rather than its clitic counterpart (i.e. the =a clitic in the OV construction). Evidence will be given in §7.4.3.4.

The grammaticalisation of -a to become a passive marker is motivated by the grammatical system of Balinese. The real passive (i.e. the ka- passive) is generally used in the high register. 27 Since the low register has no passive, there is a need to fill in the gap for backgrounding the Agent, a need which is handled by the ka- passive in the high register. In the low register, -a followed by a PP Agent comes to the rescue and functions just like a passive construction. I will argue that, for functional and grammatical reasons, in such a case, the bound form -a is a passive marker.

Based on the register constraint, I will call the -a passive the low passive, in contrast to the ka- passive, which I will call the high passive. (This naming is for expository reasons only; it does not imply that their distribution is mutually exclusive, as we shall see). The register constraint on the two passives is associated with the perceived social status of the Agent (and/or the addressee). 28 The general rule is that the high passive is used when the Agent (and/or the Addressee) is assumed to be of socially high or respected status. For

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26 The development of a person marker to become a passive marker is not unique to Balinese. Indonesian passive *di-* may have developed from the pronominal *dia* '3', although there is no clear evidence for this (Guilfoyle, Hung, & Travis 1992; Kana 1986; Shibatani 1999); see also Ross (to appear) who discusses different hypotheses for the origins of *di-*. Other languages reported to show similar development are Aina, Kimbundu (Bantu), and Trukic (Austronesian) (Shibatani 1999:410–411).

27 Historically, it was borrowed from Old Javanese (Clynes 1995; Hunter 1988).

28 See Chapter 8 in Arka (1998) for Balinese pragmatic agreement.
example, God is assumed to be socially high and the *ka-passive* is used in (65a), even though in this case, the addressee is of low status, as clearly shown by the use of *caï* ‘you (low caste)’ at the beginning of the sentence. On the other hand, animals are considered to be low. But in a text which is a description of how to plant corn (65b), the reader/addressee is honoured and is assumed to be socially high, and the high passive is used even though the Agent *semur* ‘ant’ is an animal:

(65) a. Cai cara maelon pesan teken sundel-e totonan.
2 as if favour very with prostitute-DEF that
Ane suba terang salah. Ane terang gati ia suba
REL already clear wrong REL clear very 3 already

*ka-temah ban Widi.* (KA:127)
PASS-curse by God
‘You seem to be in favour of the girl who is very clearly wrong. What is clear is that she has been cursed by God’

b. Daun punika intuk ngantos dedek, dagingin toya
leaf that OV.crush until soft OV.put.in water
adukang ring winih jagung-e, mangda tan
OV.mix at seed corn-DEF so that NEG

*ka-teda antuk semur.* (SSB:20) (h.r.)
PASS-eat by ant
‘Crush the leaves until they are soft, add in some water, and mix them with the corn seeds so that they will not be eaten by ants’

The low passive is generally used when the Agent is socially low. The addressee is generally also low, or at least neutral with respect to social status, as shown in the following quotation from a Balinese novel (66). The low passive forms (*priksan-a* (66a) and *tingalin-a* (66b)) are used because the Agents *Nyoman Santosa* and *Made Astiti* are considered to be socially low (i.e. of low caste):

(66) a. Denyut nadi tangan-ne Gusti Ayu Jinar
pulse blood.vessel hand-3POSS name

*priksan-a teken Nyoman Santosa* (TLS:95)
examine-PASS by name
‘The pulse in the blood vessel of Gusti Ayu Jinar’s hand was examined by Nyoman Santosa’

b. Nyoman Santosa tau teken *tingalin-a* baan Made Astiti (TLS:116)
name know with see-PASS by name
‘Nyoman Santosa was aware of being seen by Made Astiti’

Since the low and high passives have social constraints tied to politeness, the use of one or the other in effect gives rise to different degrees of politeness. For example, in the following sentences from Tinggen (1993), the use of the high passive (67a) is considered to be more polite than the use of the low passive (67b). Note that, in (67b), what I call low passive is used in a high-register context to signal a different degree of politeness—(67b) is not as polite as (67a).
Another difference between the two passives is related to the historical origin of the low passive. Since low passive derives from a pronominal (with a third-person feature in it), its distribution is more restricted than the high passive with respect to the person constraint. In particular, there is no restriction on the high passive as to the type of person associated with the PP Agent oblique. Sentence (68a) shows that the first-person Agent tiang ‘1’ can be the oblique of the high passive. The corresponding low passive, however, cannot have a first-person oblique (68b). It must have a third-person Agent oblique (68c): 29

(68) a. Bli Man sida masih ka-tepuk teken tiang. *(TLS:103)
Brother name can still PASS-see by 1 (h.r.)
'(Lit.) Brother Man can still be seen by me'
'I can still see Brother Man'

b. *Bli Man nyidaang masih tepuk-a teken cang
Brother name can still see-PASS by 1
‘Brother Man can be still seen by me’

c. Bli Man nyidaang masih tepuk-a teken Made Arini
Brother name can still see-PASS by name
‘Brother Man can be still seen by Made Arini’

To sum up, there are two kinds of passives in Balinese: (i) the high passive and (ii) the low passive. The emergence of the second passive is motivated by a gap in the grammatical system of Balinese, and meets a functional need in low-register discourse. The two passives are different in two respects: first, the register constraint and the associated pragmatic politeness, and second, the historical origin and the inherited third-person constraint.

7.4.3.3 Passive typology and the a-str of passives

a. Different kinds of passives

A clear effect of passivisation cross-linguistically is the alternation in the syntactic status of the Agent of the base verb. Another side of passivisation is the ‘promotion’ of the ‘second’ argument term of the verb stem to the ‘top’ argument in the derived passive verb. That is, the argument which was second in the ranking of the base a-str becomes the most prominent item in the derived a-str. It then becomes the most eligible argument to be mapped onto the surface subject.

I will analyse passivisation as a process whereby the Actor (of the base) is, for some reasons (to be discussed shortly), prevented from getting the Accusative mapping (see

29 Therefore there is a gap for first- and second-person obliques in low passive. See §7.4.4 for further discussion.
§5.3.4.2), which results in the delinking of the Actor in both its a-mapping onto a-subject and surface SUBJ (69) (represented by a † for each kind of mapping):

(69) Passivisation constraint (universal):

\[
\begin{array}{c}
\text{SUBJ} \\
\uparrow \\
<< [+\text{term}], [+\text{term}], ... >> \\
\uparrow \\
\text{Actor} \\
\end{array}
\]

(69a) basically represents two independent, but related, delinkings of the Actor: delinking of its a-mapping and of its f-mapping. The delinking of its a-mapping is automatically followed by its f-mapping delinking (i.e. not being an a-subject prevents the Actor from being mapped onto SUBJ). However, it should be made clear that linking the Actor to the a-subject is not necessarily followed by its f-mapping onto SUBJ.

It should be noted that the term passive has been used in the literature to refer to a range of 'non-active' constructions exhibiting one or both types of delinkings shown in (69). There are at least four possibilities (see Foley & Van Valin 1984:160).

First, delinking of the Actor in both a-mapping and f-mapping, as represented in (69) above. This leads to alternative mappings which, since they deviate from the default mapping, are generally marked (morphologically and/or periphrastically). The alternative mappings are known as foregrounding and backgrounding passives (Foley & Van Valin 1984; Keenan 1986) and are illustrated in (70):

(70) Foregrounding and backgrounding passives:

\[
\begin{array}{c}
\text{(a)} & \text{(b)} \\
\begin{array}{c}
\text{SUBJ} \quad \text{OBJ} \\
\uparrow \\
<< [+\text{term}], [+\text{term}], ... >> \\
\uparrow \\
\text{Actor} \quad \text{Non-Actor}
\end{array} & \begin{array}{c}
\text{SUBJ} \quad \text{OBL} \\
\uparrow \\
<< [+\text{term}], ... >> [-\text{term}], ... > > \\
\uparrow \\
\text{Actor} \quad \text{Non-Actor}
\end{array}
\end{array}
\]

(70a) represents the delinking of the Actor, and also what would otherwise be a default mapping for the non-Actor. (70b) represents a prominence alternation due to (70a). The ideas of backgrounding and foregrounding are associated with prominence in the parallel structures (i.e. the crossing mapping lines): delinking of the Actor from [+term] (not allowing it to be the a-subject, the most prominent in the a-str) means that it is [-term], appearing as an OBL in the gf-str. Thus, it is downgraded/backgrounded to a less prominent position. (Note that a term outranks a non-term, SUBJ outranks OBL).

Backgrounding of an Actor may be semantically motivated. For example, the Actor may be not in control of the event (see Balinese OV and passive contrast in §7.4.4). The Indonesian 'accidental' passive marked by ter- is also a good example where a less

---

30 Consider the ter- passive (a) and the di- passive (b), which differ in volitionality of the Actor. Unlike (a), which is 'accidental', (b) implies that the Actor is a volitional doer. Passive in (b) is motivated by some pragmatic and perhaps also syntactic consideration. See Purwo (1989) and Arka and Manning (1998) for further discussion.
typical Actor (i.e. a non-volitional doer) is not linked to the a-subject (i.e. the first [+term] ARG), hence it cannot be SUBJ.

(70b) also shows the foregrounding effect of the passivisation. The non-Actor is foregrounded or promoted to a more prominent position in two or perhaps three structures: in the a-str (to become a-subject), in the gf-str (to become SUBJ) and in the i-str (information structure) (to become TOP). The motivation may be syntactic and/or pragmatic (e.g. topic continuity). Syntactically, in an Accusative language like English where SUBJ must be a-subject, a syntactic requirement for a non-Actor to be SUBJ (e.g. in certain constructions like gaps in coordination, etc.) forces the Actor-a-subject to be delinked and backgrounded. Pragmatically, a close connection between SUBJ and TOP is also responsible for foregrounding passives. That is, the non-Actor must be the a-subject/SUBJ in order to make it possible to have pragmatic prominence in i-str as TOP, facilitating the flow of information in a discourse. Indeed, many instances of passives are pragmatically motivated by topic continuity. English passives and Balinese high and low passives are of this type.

Second, delinking by suppressing the Actor entirely. This is just like (70b), where the non-Actor becomes the a-subject and is then mapped onto SUBJ but it differs from (70b) in that the Actor cannot be mapped onto a [-term] argument (or is possibly entirely absent from the derived sem-str). Forcing an oblique Actor in this type of structure yields a bad sentence. The result is that the verb becomes statived. This is sometimes called medio-passive or simply stative (sometimes distinguished from true passive). Balinese has a construction of this type, marked by ma- (see §7.4.5.1).

Third, delinking and backgrounding of an Actor without foregrounding of the non-Actor. According to Foley and Van Valin (1984, and references therein), Ulcha (Manchu-Tangue), Nanai, Finnish and Ute are languages of this type. In these languages, a verb with passive morphology may have its non-Actor remain in accusative marking, with the Actor removed from the core of the clause. No other NP may assume pivot/subject status. Or else, the removed the Actor is replaced by a dummy item in the pivot/subject position, e.g. Dutch impersonal passives, see (Foley & Van Valin 1984:156–157). Balinese has no structures of this type.

Fourth, foregrounding of the non-Actor term without backgrounding of the Actor. This means that the Actor is still linked to the a-subject but is not linked to SUBJ. The SUBJ is the a-object. This is precisely what I have called Objective Voice (OV) in Balinese, not passive. Since OV represents a structure where the Actor behaves syntactically in the same way as the AV’s Actor, e.g. with respect to QF, binding, etc. as shown in Table 3.6, §3.2.5), it would be a mistake to lump it together with passives and/or analyse it as a passive construction. In short, this kind of structure does not really represent the removal of an Actor from the a-subject in the a-str. I therefore claim that OV is syntactically different from the first three types of passive just mentioned, and nothing is to be gained by lumping it together with them.

---

a. Buku itu ter-bawa oleh Amir
   book that PASS-bring by Amir
   ‘The book was accidentally carried by Amir’

b. Buku itu di-bawa oleh Amir
   book that PASS-bring by Amir
   ‘The book was (volitionally) carried by Amir’
b. A-str alternations

The foregrounding and backgrounding passives (70) are of particular interest here because the termhood status of the Actor changes. Supposing that we have a three-place transitive predicate STEM (71a), i.e. two terms (α, β) and one non-term (γ), then passivisation will give rise to a crossing line in the a-mapping, as shown in (71b):

(71) (a) STEM

<table>
<thead>
<tr>
<th>SUBJ</th>
<th>&lt;&lt;α, β, γ&gt;&gt;</th>
</tr>
</thead>
</table>

Actor (non-Actor)

(b) PASSIVE

<table>
<thead>
<tr>
<th>SUBJ</th>
<th>&lt;&lt;β, α, γ&gt;&gt;</th>
</tr>
</thead>
</table>

Actor non-Actor

(71) shows that passivisation affects the prominence of only the Actor argument. Passivisation reverses the syntactic prominence between the Actor (α) and the non-Actor term (β). However, it maintains the Actor’s prominence with respect to a non-term argument (e.g. γ). This is because the Actor is still the most prominent item in the non-term group (outranks other argument(s) in this group). Also, the prominence relation between the non-Actor term (β) and the non-term argument (γ) remains the same: β syntactically outranks γ both in the stem (before passivisation) and in the passive a-str. Therefore, we predict that significant binding alternations must take place between the Actor (α) and the other term argument (β), but not between α and the non-term γ. This is borne out. Consider the AV in (72a) and its corresponding passive sentence (73a):

(72) a. Ida i ngedengin anak-e j punika raganne i ring potrekan-e

3 AV. show person-DEF that self.3 at photo-DEF

‘He i showed the person j himself ij in the picture’

b. ‘AV.show’ < ‘3’ i , ‘person’ j, ‘self.3’ ij >

(agt) (go) (th)

(73) a. Anak-e punika i ka-edengin raganne v*j ring poterkan-e

person-DEF that PASS-show self at mirror-DEF

antuk ida j

by 3

‘The personi was shown himself v*j in the mirror by him j.’

b. ‘PASS.show’ << ‘person’ j, ‘self.3’ v*j, ‘3’ i >>

(go) (th) (agt)

As shown by their respective a-strs in (b), the a-command relation between the Experiencer ‘person’ (index j) and the Theme reflexive is preserved in passivisation, (72b) vs (73b). The fact that binding between these arguments is unchanged is therefore accounted for. As predicted, the Actor ida ‘3’ (index i) can be a possible binder of the reflexive only in the AV (72), not in the passive (73).

Now, sentence (74) is an AV structure with an oblique. As expected, the quantified NP associated with the Actor (‘every customer’) can bind the pronominal in the oblique Locative. Recall that an Actor is the most prominent item in both the term group and the oblique Group. We predict that, even though the Actor is no longer an a-subject in the derived structure, passivisation will in effect give rise to an a-str where the Actor a-
commands the Locative argument, hence binding is maintained. This is confirmed, as shown by (75):

(74) a. \textit{Sabila} \textit{nasabah} \textit{i} nagih \textit{jinah} ring bank \textit{ipun} \textit{i} e- every customer AV. draw money at bank 3POSS-DEF 'Every customer \textit{i} drew money from his \textit{i} bank'

b. 'AV. draw'<<'every customer'\textit{i}, 'money'>,<'his \textit{i} bank'>>

(75) a. Jinah-e ka-tagih antuk \textit{sabilang} \textit{nasabah} \textit{i} ring bank money-DEF PASS-draw by every customer at bank \textit{ipun} \textit{i} e-

3POSS-DEF 'The money was drawn by every customer \textit{i} from his \textit{i} bank' (h.r.)

b. 'PASS. draw'<<'money'>,<'every customer'\textit{i}, 'his \textit{i} bank'>>

We also predict that the quantified Locative oblique cannot bind the pronominal in the passive Agent. This is borne out:

(76) a. ?*Jinah-e ka-tagih ring \textit{sabilang} \textit{nasabah} \textit{i} antuk bank money-DEF PASS-draw at every customer by bank \textit{ipun} \textit{i} e-

3POSS-DEF 'The money was drawn from every customer \textit{i} by his \textit{i} bank'

b. *'PASS. draw'<<'money'>,<'his \textit{i} bank', 'every customer'\textit{i}'>>

7.4.3.4 Evidence for the low passive

The following evidence shows that the \textit{-a} verb followed by a PP Agent is syntactically passive. The \textit{-a} verb also shows the semantics/pragmatics of passives.

\textbf{a. Syntactic evidence}

First, the categorial expression of the Agent. As normally in passive constructions cross-linguistically (and the high passive in Balinese), the Agent is marked by a preposition. The preposition for the high passive is normally \textit{antuk} or \textit{olih}, but it can also be \textit{teken} (e.g. (68a)). The same preposition is used to mark the Agent of the low passive (68c).

Second, the PP Agent of the low passive is not simply doubling the bound form \textit{-a}. The PP Agent following the \textit{-a} verb is indeed an argument. Therefore, the \textit{-a} affix, like its high-register counterpart \textit{ka-}, is a passive marker. This analysis is supported by the evidence showing that the PP Agent of the low passive behaves in the same way as the PP Agent of the high passive with respect to binding. The point is that the Agent is grammatically an oblique, not a term. (Recall that the pronominal clitic is a term, see example (56)). To illustrate the point, consider the following contrast where we have a cliticised OV verb (77a), a low passive (77b) and a high passive (77c):
Chapter 7

(77) a. Anak-e cenik ento_i edengin=a_j awakne_i/j di kaca-ne person-DEF small that OV.show=3 self.3 at mirror-DEF 'He showed the child himself i/j in the mirror'

b. Anak-e cenik ento_i edengin-a awakne_i/j di kaca-ne person-DEF small that show-PASS self.3 at mirror-DEF

teken ia_j
by 3
'The child i was shown himself i/j in the mirror by him j.

c. Anak-e alit punika_i ka-edengin ragane_i/j ring kaca-ne person-DEF small that PASS-show self.3 at mirror-DEF

antuk idaj
by 3
'The child i was shown himself i/j in the mirror by him j.

The enclitic =a (77a) is the a-subject (term) and can bind the reflexive (i.e. it is co-indexed by j). The appearance of a PP Agent teken ia in the low passive (77b) gives rise to a different binding where co-indexation by j is not possible. Precisely the same situation is observed in the corresponding high passive (77c). This supports the view that the Agent PP (77b,c) does not syntactically have the same status as the enclitic Agent =a in (77a). That is, the passive Agent in (77b,c) is an oblique, not a term.

More evidence that the PP Agent of the low passive is an oblique comes from quantifier binding. (78a) shows the low passive and (78b) the high passive. They exhibit the same pattern with respect to binding of the pronominal -ne/ipun:

(78) a. Sabilang anak cenik_i beli-ang-a teken bapan-ne_i tas every person child buy-APPL-PASS by father-3POSS bag

[term]&[Ben]
[Obl]&[Agent]
'A bag was bought for every child i by his i father '

b. Sabilang anak alit_i ka-ambil-ang ajengan antuk reraman every person small PASS-take-APPL food by parents

[term]&[Ben]
[obl]&[Agent]

ipun i-e
3POSS-DEF
'Food was taken for every child i by his i parents' (h.r.)

The pronominals -ne (low passive, 78a) and ipun (high passive, 78b) are associated with the Agent PPs. The binder (i.e. the quantifier sabilang) is associated with Benefactive/Goal NPs (sabilang anak cenik / alit 'every child'). Given the constraint on quantifier binding that the binder must be syntactically more prominent than the bindee, we can conclude that the Agent PPs in the two sentences above must be obliques, less prominent than the NPs containing the quantifier (which are terms).

The same also holds for the following Locative applicative low passive (79):

(79) a. Sabilang banten_i jang-in-a teken penyuuun-ne_i pinget Every offering put-APPL-PASS by carrier-3POSS mark

'On every offering_i, a mark was put by its i carrier'
b. *Pinget jang-in-a teken penyuun-ne sabilang banten
mark put-APPL-PASS by carrier-3POSS every offering
‘A mark was put by its carrier on every offering’

Sentence (79a) is fine because the pronominal -ne of penyuun-ne ‘its carrier’ in the PP Agent oblique is bound by the quantifier in the applied Locative NP (hence, term) sabilang banten ‘every offering’. Note that, if we assume that the Agent is also a term, binding would fail because the Agent is thematically higher than the Locative argument. Sentence (79b) is bad because the word-order constraint on operator binding is violated.

Now, if the analysis (that the PP Agent is OBL) is correct, three predictions follow. First, a quantifier associated with the Agent PP must not be able to bind a pronominal associated with the Benefactive or Theme terms. This prediction is borne out. In the low passive (80a,b) below, linear order is respected; but the sentences are bad because the quantifier sabilang is associated with an oblique and the pronominal -ne that it binds is associated with a term.

(80) a. *Buku baang-a [teken sabilang guru i] obl [murid-ne] term
book give-PASS by every teacher student-3POSS
‘Books were given by every teacher to his student’

mark put-APPL-PASS by every carrier offering-3POSS
‘A mark was put by every carrier on his offering’

The same prediction holds for the high passive, as in:

(81) *Ajeng an ka-ambl i-ang [antuk sabilang rarama i] obl
food PASS -take-APPL by every parents
[anak alit-ipun i -e] term
person small-3-DEF
‘Food was taken by every parent for his child’ (h.r.)

Second, given the idea that within the group of obliques, a passive Agent oblique is more prominent than other obliques, then the quantifier associated with the Agent oblique is predicted to be able to bind a pronominal in the other obliques. This is also confirmed. Consider jang-a (82a), which is the non-applicative counterpart of jang-in-a in (79). Note that this sentence, in contrast to (80b), is acceptable: the pronominal in the Locative item banten-ne ‘his offering’ can be bound by the quantifier of the Agent oblique. The same holds for the high passive, as shown by (82b):

(82) a. Pinget jang-a teken sabilang panyuun i di/sig banten-ne i
marker put-PASS by every carrier in offering-3POSS
Agent-OBL Loc-OBL
‘A mark was put by every carrier on his offering’

b. Jinah-e ka-tarik antuk sabilang nasabah i ring bank ipun i
money-DEF PASS-draw by every customer at bank 3-DEF
Agent-OBL Loc-OBL
‘The money was drawn by every customer at his bank’ (h.r.)

Third, if the voice marking is switched to AV, binding must be acceptable because the Agent is now a term (i.e. a-subject/SUBJ) and the most prominent item. Crucially, it must
be able to bind a pronominal in any other argument of the verb. This prediction is borne out (83)–(85). In these double-complement constructions, the quantifier in the subject (Agent) NP can systematically bind the pronominal in the two complements (OBSJs and OBLs):

(83) a. Sabilang guru i maang murid-ne i buku
Every teacher AV.give student-3POSS book
‘Every teacher i gave his i student a book’ (binding of 1st complement)
b. Sabilang guru i maang murid-e bukun-ne i
Every teacher AV.give student-DEF book-3POSS
‘Every teacher i gave the student(s) his i book’ (binding of 2nd complement)

(84) a. Sabilang panyuun i nyang-in banten-ne i pinget
Every carrier AV.put-APPL offering-3POSS mark
‘Every carrier i put a mark on his i offering’ (binding of 1st complement)
b. Sabilang panyuun i nyang-in bante-ne pinget-ne i
Every carrier AV.put-APPL offering-DEF mark-3POSS
‘Every carrier i put his i mark on the offering’ (binding of 2nd complement)

(85) a. Sabilang nasabah i narik jinah ipun i-e ring bank (h.r.)
every customer AV.draw money 3POSS-DEF at bank
‘Every customer i drew his i money from the bank’ (binding of 1st complement)
b. Sabilang nasabah i narik jinah ring bank ipun i-e
every customer AV.draw money at bank 3POSS-DEF
‘Every customer i drew money from his i bank’ (binding of 2nd complement)

That the Agent PP is an oblique is further supported by the Quantifier Float (QF) test. (Recall that QF is restricted to terms, §3.2.1). Consider:

(86) a. Guru-ne maang murid-e buku makejang
teacher-DEF AV.give student book all
(i) ‘All the teachers gave the students books’
(ii) ‘The teacher(s) gave all the students books’
b. Murid-e baang-a teken Guru-ne buku makejang
student-DEF give-PASS by teacher-DEF book all
(i) ‘All the students were given books by the teacher(s)’
(ii) ‘The student(s) was/were given books by all the teachers’
c. Guru-ne ka-aturang teken murid-e jinah sami (h.r.)
teacher PASS-give by student-DEF money all
(i) ‘All the teachers were given money by the students’
(ii) ‘The teacher(s) was/were given money by all the students’

(86a) shows the AV verb, (86b) the low passive and (86c) the high passive. Note that the two passives (86b,c) pattern the same in contrast to the AV (86a). In the AV form (86a), the Agent ‘the teachers’ is subject (i.e. a term). The quantifier makejang can float, so two readings are possible. In the corresponding low and high passives (86b,c), by contrast, the QF cannot be associated with the PP Agent (i.e. reading (ii) is not possible). This is what is expected if the Agent is an oblique in the passives because QF is a property of terms in
Balinese. In short, the QF test suggests that -a, just like ka-, gives rise to a passive construction where the Agent is an oblique, not a term.

A resumptive pronoun test also confirms the oblique status of a PP Agent:

(87) a. I Meme, apa jakan=a di paon?
   Art mother QW OV.cook=3 at kitchen
   ‘As for Mother, what is she cooking in the kitchen?’

   b. ?*I Meme, apa jakan-a teken ia di paon?
   Art mother QW cook-PASS by 3 at kitchen
   ‘As for Mother, what is being cooked by her in the kitchen?’

Without the PP Agent, (87a) can be interpreted as an OV verb with clitic =a. The clitic is an a-subject, a term; it can therefore function as a resumptive pronoun. (Only terms can function as resumptive pronouns, see §3.2.2.2). The presence of the PP Agent, however, forces the low-passive interpretation of the -a verb whereby the Agent is an oblique. Being an oblique, the third-person pronoun Agent cannot function as a resumptive pronoun. The badness of (87b) is expected.

b. Semantic/Pragmatic evidence

More evidence that there are two passives in Balinese comes from the fact that the two have parallel distributions in texts. This is not to say that the distributions are exactly the same (due to the sociolinguistic factors). Rather the point is that the low passive is used in just the cases where passives are generally used. My observation of a number of texts reveals that the low passive can be found in the same semantic and pragmatic conditions where the high passive is encountered. The same observation is also made in Hunter (1988). The situations with unknown Agents or backgrounded Agents are typical conditions where passives are used cross-linguistically.

The low passive, like the high passive, appears in situations where the Agent is not identifiable. In this case, the marker -a really is a passive marker, not a pronominal marker, because it does not refer. It does not have the anaphoric function of its clitic counterpart. For example, the bound -a in sentence (88a) does not refer back to any previous text, because it is in the first paragraph of the story and no antecedent is mentioned. The Agent is not clearly identified, and the passive construction is used, just as in its English translation. Likewise, the Agent is not identified in the high passive (88b). Note that adanin-a (the low passive verb) (88a) and ka-adanin (the high passive verb) (88b) are formed out of the same stem adanin ‘give a name to’. Their use reflects the same situation where name-giving is a conventional activity and the giver of the name is not an issue in the discourse:

(88) a. Ada tuturan satua, anak ubuh. Nu cerik suba kalahin-a
   exist tell story person orphan still small already leave-PASS
   mati baan meme bapan-ne. En to krana ia
   dead by mother father-3POSS that why 3
   adanin-a I Ubuh. (SB)
   call-PASS Art orphan
   ‘There is a story about an orphan. He was still small when his parents were dead. That is why he is called I Ubuh (the Orphan).’
b. Krama banjar-e ka-pimpim baan prajuru banjar member small village-DEF PASS lead by official village

ane ka-adanin kelihan banjar (TBB:1) REL PASS call head village

'The members of the village are led by an official called Kelihan Banjar (Village Head)'

As commonly observed in other languages, the occurrence of passives can be pragmatically motivated by such things as topic continuity. A non-Agent item can be a topic and is therefore pragmatically more prominent than, and comes before, a newly introduced item (i.e. completive focus) (Choi 1996; Foley 1994). Crucially, there is a close correlation between a TOP item and a subject/pivot item (Foley & Van Valin 1984; Foley 1994). In Balinese, topic continuity is maintained by the constraint that the topic item be the subject/pivot (i.e. the preverbal argument) (Pastika 1996). For example, consider the following quotation from a story:

(89) Lutung jaruh kereng pesan ng-usak-asik di abian-abian monkey naughty often very AV disturb disturb at garden garden anak-e. Sedek dina anu ia luas ng-alih amah, person DEF when day particular 3 go AV search food saget ka-cunduk ia teken Sang Kancil... (SBB:30) suddenly PASS meet 3 by Art Goat

'The naughty monkey very often disturbs people’s gardens. One day, he goes out to get food. Suddenly he is met by the Goat…'

The topic in (89) is Lutung ‘(the) monkey’, introduced in the first sentence. This topic is maintained by using the pronominal ia in the following sentence. When a new participant is introduced, namely Sang Kancil ‘the Goat’, it is not introduced as SUBJ, but rather as an oblique. Making the new participant SUBJ, even though it is an Agent, would otherwise disrupt the flow of the text (i.e. topic continuity).

Similarly, the low passive is used for the same pragmatic reason:

(90) a. "Gusti Aji lunga kija, Gusti Biang?" name go where name

'Where is Gusti Aji going, Gusti Biang?'

b. "Ka Badung. Mara gati alih-a teken timpal-ne" (TLS:114) to name just very escort PASS by friend 3POSS

'(He’s going) to Badung. (He was) just picked up by his friends'

The two sentences are a question-answer pair quoted from a Balinese novel. Note that in the first sentence (i.e. the question), the person asked about is Gusti Aji. (Gusti Biang is the person to whom the question is addressed). Thus, Gusti Aji is the topic, and continues to be the topic in the second sentence (the answer). Being a topic, it is realised as zero (which is cross-linguistically common). And crucially, the new information introduced is the Agent timpal-ne ‘his friends’. It is backgrounded as an oblique, marked by teken. In this way, topic continuity is maintained. This effect is a typical use of passives cross-linguistically. The verb alih-a (90b) can therefore be thought of as a passive verb.

To conclude, there is convincing syntactic, semantic and pragmatic evidence to support the view that the verb with bound -a is another passive construction in Balinese (the low
passive), in addition to the *ka-* passive (the high passive). In the presence of a PP Agent, the -a verb is unambiguously a passive verb for syntactic reasons. In the absence of the PP Agent, however, there can be ambiguity. Nevertheless, it must be either OV or passive in any given context.

### 7.4.4 OV verbs versus high passives/low passives

Recall that the low passive has a third-person constraint: backgrounding of a first/second-person Agent is prohibited (see example 68). Its corresponding high passive however has no such a constraint. Hence, there is a gap. It turns out that the gap is filled by the use of the *ka-* passive, as shown by (91b). Interestingly, this borrowed *ka-* passive in the low register generally appears with *baan*31 rather than *teken*, as normally in the -a passive:

(91) a. Nika tan *ka-rambang* antuk tiang (h.r.)
    that NEG PASS-think by 1

b. Nto tusing *ka-rambang* baan?teken cang (l.r.)
    that NEG PASS-think by 1

'That is not thought of by me' (I cannot think of/imagine that)

(91) shows how the *ka-* passive is ‘borrowed’ and used in a low-register context. It should be noted that the semantic force responsible for the backgrounding exemplified above is a property that distinguishes passives from the OV construction, namely failure to be a typical Actor or failure to be in full control of the event. This use of passives is observed in psychological verbs such as *rambang, pineh, keneh* ‘think/imagine/consider’ and *rasa* ‘feel’. In Balinese, Agent backgrounding of the kind exemplified in (91) (i.e. with *ka-*) generally appears in negative sentences. (91) implies that ‘there is something causing him/her to be unable to think of that’ or perhaps ‘it is too big or complicated for him to think of’. The use of the OV form in the negative sentence does not imply this; rather it implies that ‘the Actor would have been in full control of the event but chose not to do it’. Hence, in contrast to (91a–b), we have (92a–b). It should be noted that the backgrounding use of the high passive *ka-* (when used in a low-register context) has the specific semantic

31 The OBL Agent preposition *baan* or the shorter form *ban* (sometimes pronounced with a schwa *ben*) seems to have developed from a verb meaning 'to cause':

(i) Malaib celeng-e *baan/ban/ben* tiang
    run pig-DEF baan 1

'I caused the pig to run'

Its corresponding form with nasal prefix *maan* or *man* (but not with a schwa, ??*men*) may have an NP complement, and it means ‘to get’ (e.g. *maan buku* ‘to get a book’). If it takes a verbal complement, it signals perfective aspect (i.e. a completed event) as in (ii), or else a modal verb expressing ability as in (iii):

(ii) Ia *maan* ng-alih Nyoman kema
    3 PERF AV-search name there

'(S)he has searched for Nyoman there'

(iii) Ia tusing lakar *maan* kema
    3 NEG FUT able go.there

'(S)he will not be able to go there'
constraint just mentioned, hence we still have a contrast of the two passives associated with the third-person Agent in a low-register context (92c–d):

(92) a. Nika tan rambang tiang \( h.r. \) \( (OV) \)
    that NEG OV.think 1
    'I did not think of/imagine that'

b. Nto tusing rambang cang \( l.r. \) \( (OV) \)
    that NEG OV.think 1
    'I did not think of/imagine that'

c. Nto tusing rambang-a teken I Nyoman \(-a\) pass.
    that NEG think-PASS by name
    'That was not considered by Nyoman'

d. Nto tusing ka-rambang baan I Nyoman \( ka\)-pass)
    that NEG PASS-think by name
    'That was the thing Nyoman was unable to think of'

7.4.5 The ma- constructions

7.4.5.1 Resultative passives

There is another construction marked by ma-, which is also traditionally classified as a passive (Kersten 1970):

(93) a. Nika sampun ma-adol
    shirt-DEF PERF ma-sell
    'The shirt has been sold'

b. Buku-ne suba ma-jaang
    book-DEF already ma-put
    'The books have been put (in some place)'

c. Surat-e ane lakar ma-kirim isinin prangko. \( \text{(SBB)} \)
    letter-DEF REL FUT ma-send OV.put.on stamp
    'On the letter which will be sent, a stamp is affixed'

The ma- constructions in (93a) can be thought of as a kind of passive (i.e. the second type discussed in §7.4.3.3a) because the Actor is removed from the possible accusative mapping. In fact it is syntactically/semantically removed altogether (see below). We can call ma- verbs of this type actorless or 'resultative' passive' (due to the semantic constraint, discussed shortly).

a. Syntactic constraints on the ma-passive

The ma- passive syntactically differs from the high/low passives in that it has the following properties. First, there is no function alternation of the Agent. That is, the ma-verb does not allow an oblique Agent PP (94a):\(^{32}\)

\(^{32}\) It should be noted that, in semantic terms, the absence of Agency is a matter of degree (Verhaar 1990: 160). In Verhaar's terms, Balinese ma- verb would be called 'stative', which is very close to, but different from, a passive across languages. The point is that, while the absence of Agency in statives is
(94) a. *Surat-e lakar ma-kirim teken Wayan
   letter-DEF FUT ma-send by name
b. Surat-e lakar kirim-a teken Wayan
   letter-DEF FUT send-PASS by name
   ‘The letter will be sent by Wayan’

Second, *ma- normally takes certain transitive stems, e.g. (95a). It does not take the ditransitive counterpart (95b). Low and high passives do not have this constraint (95c):

(95) a. Montor-e sampun ma-adol
   car-DEF PERF ma-sell
   ‘The car has been sold’
   (transitive stem)
b. *Ipun sampun ma-adol-ang montor
   3 PERF ma-sell-APPL car
   ‘A car has been sold for him’
c. Ipun sampun ka-tumbas-ang montor
   3 PERF ma-sell-APPL car
   ‘(S)he has been bought a car’
   (ditransitive stem)

In fact, *ma- may take a ditransitive stem, but only in a very limited context with certain verbs, especially when the ‘resultative constraint’ is met; see example (97).

b. Semantic properties of the *ma- passive

The *ma- passive has the peculiar semantic property of viewing an event from a ‘result’ point of view. Thus, it may cover what is called ‘stative’. This claim is supported by the following evidence.

First, not all transitive predicates allow *ma- affixation. Only verbs of high transitivity that give rise to a kind of result (e.g. a product or a transferable thing) allow *ma-. Verbs of ‘low’ transitivity, such as verbs of perception, do not take *ma-. This characteristic distinguishes *ma- from *ka/-a passives. Consider the contrasts in (96):

(96) a. Wayan ka-tepuk/ tepuk-a / *ma-tepuk
   name PASS-see/ see-PASS / ma-see
   ‘Wayan was seen (by her/him)’
b. Orta-ne ento dingeh-a / *ma-dingeh
   news-DEF that hear-PASS ma-hear
   ‘The news was (over)heard (by her/him)’

Second, in a certain very restricted context, *ma- may take a ditransitive stem, but it appears in a very restricted meaning. Consider (97). The *ma- verb (97a) emphasises the idea that the Benefactive argument received a completed product whereas the normal passive (97b) does not have such an implication; e.g. (97b) may imply that the homework had not been completed at all.

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semantically and syntactically at the low end (i.e. ‘none’), this is not the case in passives. Passives imply the presence of Agency in varying degrees (see example (98) below).
(97) a. Ia terus ma-gaen-ang pe-er³³
   3 keep ma-make-APPL homework
   '(S)he always has his homework done (by someone)
   (i.e. she just receives the completed work)'

b. Ia gaen-ang-a pe-er
   3 make-APPL-PASS homework
   'For him/her, the homework was done'

Third, the absence of the Agent oblique (i.e. in the syntax of ma-) is accompanied by the absence of an implied Agent. The viewpoint of ma- is that of the Patient, not of the Agent. This is also shared with low/high passives to some extent, but there is a crucial difference: the ma- verb excludes the Agent in derived a-str as well as in the sem-str. Evidence comes from an Agent-oriented adverbial test. Consider the use of gelap 'deliberate' in passive (98a) (acceptable), in contrast to its use in ma- (98b) (unacceptable). Sentence (b) is good if gelap is dropped:

(98) a. Jelanan-e gelap ka-ubet-ang / ubet-ang-a
   door-DEF deliberate PASS-close-CAUS close-CAUS-PASS
   'The door was deliberately closed'

b. *Jelanan-e gelap ma-ubetang
   door-DEF deliberate PASS-close
   'The door was deliberately closed'

In short, this is expected if ma- is a (stative) result-oriented verb. Chichewa is also reported to show a similar contrast of passives and statives (Dubinsky & Simango 1996; Mchombo 1993).

Fourth, aspectual properties. The SUBJ of ma- is, in Tenny's terms (Tenny 1992, 1994), 'measuring out' the event, whereas the SUBJ of a passive verb is not necessarily doing so. The aspectual contrast is evident in the negative sentences (99a-b):

(99) a. Be-ne ton den ma-pangang luung
   meat-DEF not.yet ma-grill good
   'The meat was not yet well grilled (i.e. not well done, still red)'

b. ??Be-ne ton den ka-panggang/panggang-a luung
   meat-DEF not-yet PASS-grill good
   'The meat was not well/properly grilled'

c. Be-ne suba ka-panggang/panggang-a/ma-panggang luung
   meat-DEF PERF PASS-grill good
   'The meat was well/properly grilled'

The goodness of the grilling is 'measured out' by the state of the meat, and the result is directly observable from the state of the meat. (99a) is a negative sentence but it nevertheless implies that 'grilling' has taken place. Hence, the resultative predicate luung 'good' can modify the SUBJ of the ma- verb. Sentence (99b), in contrast, resists the resultative predicate 'good' because there is no such implication. The sentence is negative but it does not imply that the grilling has not taken place. Omitting luung in (99b) renders

³³ This is a borrowed word from Indonesian, originally an abbreviation PR, pronounced as 'pe-er', which stands for pekerjaan rumah 'work house = homework'.
the sentence acceptable. However, the positive sentence (99c), especially when the perfective auxiliary suba is used, shows that all of the passives can co-occur with the resultative predicate luang.

Finally, since the ma-verb is a result-oriented verb implying a completed event, it is expected that it will not appear in the progressive aspect. The other two passives, on the other hand, do not have such a restriction. This is confirmed:

(100) a. Tiying-e sedeng ka-cet/cet-a
    bamboo-DEF PROG PASS-paint/paint-PASS

b. ??Tiyinge sedeng ma-cet
    bamboo-DEF PROG ma-paint

‘The bamboo is being painted’

To conclude, there are three passives so far discussed: high passive (ka-), low passive ((n)a), and resultative/stative passive (ma-).

7.4.5.2 An antipassive ma-?

There are ma-verbs which seem to be antipassives (Pastika 1997; Sidhakarya 1995). These (restricted) ma-verbs, unlike the resultative ma-, do not take transitive stems. (They are generally formed out of bound forms or non-verbal stems). (101) is from Pastika (1997) but the glossing is mine. (I do not gloss -ang ‘the transitive/applicative or causative suffix’, and put it in bold to emphasise the contrast with ma-).

(101) a. Ia ngeneh-ang tiang
    3AV.think-ang 1

b. Ia ma-keneh teken tiang
    s/he ma-think to me

‘S/he has some feeling (love) for me’

(101) could be thought of as showing an antipassive alternation. Using Dixon’s terminology, an antipassive alternation is observed as follows: the transitive Agent A (ia ‘3’) in (101a) becomes S (the intransitive sole argument) in (101b), and the transitive O (tiang ‘1’) goes to the Periphery with the intransitive ma-verb, marked by teken (i.e. the same preposition marking the oblique Agent in the passive).

The verb ma-daar ‘ma-eat’ is, according to Sidakarya (1995:89), an antipassive verb. Consider:

(102) a. Nasi-ne daar tiang
    rice-DEF OV.eat 1

‘I ate the rice’

b. Tiang ma-daar
    1 ma-eat

‘I ate’

c. *Tiang ma-daar teken nasine
    1 ma-eat to rice-DEF

‘I ate the rice’
The alternation in (102a–b) seems to show antipassivisation too: (102a) shows the A t i a n g appearing as a non-SUBJ with the transitive verb, with the O nasi-ne as SUBJ. In the ma-construction (102b), the A becomes the intransitive SUBJ but, unlike in (101), the old Patient (nasi-ne) cannot appear as an OBL (102c).

However, I find the supporting argument for the antipassive analysis rather weak for a number of reasons. First, such an analysis would be correct only on the assumption that (101b), for example, is indeed derived from (101a). The question is whether this is the case. Why is the derivational direction this way? What prevents us from assuming the reverse direction, i.e. that (101a) is derived from (101b)? This direction of derivation would be a case of applicativisation, rather than antipassivisation. In other words, on the antipassive analysis, (101a) is morpho-syntactically more basic than (101b): (a) is the input for (b). It is precisely this basic assumption that is very shaky. Note that the verb n geneh a n g (i.e. the AV form) is syntactically transitive (i.e. having A and O in Dixon’s terms) due to the presence of -ang (a transitiviser: applicative/causeative in Balinese). It should be noted that -ang is absent in the supposedly intransitive antipassive. In normal passivisation (the mirror image of antipassive), -ang remains:

(103) High passive:

a. ambil $\rightarrow$ ka-ambil \\
   ‘take’ ‘PASS-take’

b. ambil-ang $\rightarrow$ ka-ambil-ang \\
   ‘take-APPL’ ‘PASS-take-APPL’

Low passive:

c. jemak $\rightarrow$ jemak-a \\
   ‘take’ ‘take-PASS’

d. jemak-ang $\rightarrow$ jemak-ang-a \\
   ‘take-APPL’ ‘take-APPL-PASS’

Given the basic idea that stages in the derivational process are morphologically marked, it is hard to believe that the forms with -ang (keneh-ang/takon-ang) constitute the input for the ma-form without -ang (ma-keneh/ma-takon).

Second, none of the non-derived transitives in Balinese (that I am aware of) can take ma- antipassivisation. That is, if antipassivisation exists, the test would be that a normal transitive may take ma-. (Note that passives may take any transitive stem). The example in (102) seems to be true antipassivisation because we have transitive stem daar and a derived intransitive ma-daar. Arguably, however, ma-daar is not derived from the transitive verb stem daar for a historical reason. This word comes from the noun root daar, an old Javanese word (Zoetmulder 1982:350) which means ‘food’. Thus, ma-daar is more literally translated as ‘to have a meal/food’, rather than to ‘eat’. If that is the case, ma-daar is just like other Unergative intransitive verbs based on noun roots, such as ma- jaler ‘ma-pants= have pants on’, and the transitive verb daar has undergone zero-derivation in the same way as other transitive verbs with noun roots such as arit ‘sickle (N)’ $\rightarrow$ arit ‘to cut something with sickle (V)’, etc. Indeed, undervived transitive verbs cannot undergo ‘antipassivisation’. For example, the following alternation of the verb d ingeh ‘hear’ is not attested in Balinese: A d ingeh O ‘A hear O’ $\rightarrow$ * A ma-d ingeh teken O ‘A hear teken O’.

Third, surface grammatical-relation alternations may be deceptive if one ignores the morphological marking. That is, the appearance or absence of affixes is not random. Also, in the presence of multiple affixes, their relative position with respect to the root is crucial:
it may reflect the order of the derivational processes respectively marked by the affixes (see Baker’s Mirror Principle (Baker 1985)). Returning to the data in (101)-(102), as far as morphological marking is concerned, arguably neither is derived from the other. I believed that a theory of word formation should treat the transitive and intransitive verbs as being derived from a common root: roots keneh (101) and daar (102). The fact that the resulting a-strs differ must be explained by the ma- and -ang affixation, or zero-derivation for the transitive daar. In short, it is in principle predictable that ma- verbs, -ang verbs and zero-derived verbs of the same roots may end up having different a-strs and surface gf-strs. In the parallel-structures model of grammar, this simply entails different mappings of structures, without any implication that one is the input of (or derived from) the other. I therefore conclude that what accidentally looks like an antipassive alternation is not really an antipassivisation process.

To conclude, a close look at ma-verbs suggest that they are mainly of two types. First, the Unergative ma-, a variant of AV marking. The Unergative ma- has the following properties. Semantically, the sole term argument is an Actor-like argument (see §2.5 and §5.3.4.3). Morphologically, it generally takes a bound root (e.g. ma-lincer, ma-kepi etc.), or a nominal free root (e.g. batis ‘leg’ (N) → ma-batis ‘have a leg’). It does not generally take a transitive root. Second, the resultative passive ma-. Semantically, this type differs from the Unergative counterpart in that it represents the result of an action, where the Agent is suppressed; it may cover what others refer to as ‘stative’. The sole argument is a typical Patient. Morphologically, it generally takes a highly transitive stem, e.g. tugel ‘sever’ → ma-tugel ‘be severed’.

7.4.6 Non-active constructions: summary

The following points emerge from the study of verbs associated with non-active morphology (-a and ka- verbs vs OV verbs). First, they are all non-active verbs where the subject is a non-Agent item. Second, there are two kinds of -a: enclitic =a and passive -a. Third, the enclitic =a patterns with the OV verb, where =a is not a syntactic marker but an argument of the head verb. It is a term or core argument of the verb; it is the a-subject (i.e. the most prominent item in the a-str of the predicate). This explains why in reflexive and quantifier binding, it can bind the reflexive/pronominal associated with any other argument(s). Also, the clitic =a has a referential index (i.e. it refers) and can therefore function as a resumptive or anaphoric pronominal, as shown by the evidence in actual texts. Fourth, the passive -a patterns with the passive ka-. Based on their register constraint, they are dubbed low passive and high passive respectively. Their grammatical and pragmatic properties are alike and conform to passive properties cross-linguistically. Grammatically, the argument of the verb is the Agent PP, not the bound form -a or ka.

34 Except when it is attached to a stem with inherently reciprocal meaning, e.g. diman → madiman ‘kiss each other’.

What is traditionally called the reciprocal ma- seems to belong with the Unergative intransitives. It could be that the ‘reciprocal’ meaning does not inhere in the prefix of ma-, but rather in the stem to which ma-is prefixed. That is, the ‘reciprocal’ ma- is restricted to certain stems generally understood as expressing reciprocal activities, such as ma-diman ‘kiss each other’ and ma-salaman ‘shake hands with each other’. Activities that are not inherently reciprocal do not take ma-, e.g. *ma-tendang ‘kick each other’. In this case, a different reciprocal marker, the word saling, is used; e.g. saling tendang ‘kick each other’. In short, ma- itself arguably does not carry a reciprocal meaning.
Syntactically, the PP Agent is an oblique, not a term. Categorically, the Agent is marked by a preposition (the typical marking for obliques in Balinese and other languages lacking case morphology). The crucial property of this Agent PP is that it is syntactically not the most prominent item in the a-str of the predicate, as shown by reflexive and quantifier binding data. Hence, grammatically the -a and ka- verbs are passive verbs, in contrast to the AV and OV verbs. Pragmatically, their distribution in real texts also suggests that the two passive verbs pattern together: their appearance is motivated by considerations such as topic continuity in the discourse, where the non-Agent items are more topical and the Agent is something new, less important or unknown, and is therefore backgrounded or simply 'suppressed'. Fifth, the first- and second-person gap in the low passive is filled by the use of the ka-passive. Backgrounding the Agent is also semantically motivated: the backgrounded Actor is not a typical Actor, not fully in control of the event. This distinguishes the ka-passive from OV.

7.5 Conclusion

This chapter has consisted of three parts. The first part deals with operator binding, in which a-str prominence and linear order are shown to be important. The second discusses the study of simple and complex reflexives in Balinese. Principle A has been revised to meet language-specific constraints where nucleus (locality), and degrees of prominence (in a-str, sem-str, and gf-str) are parameters. The third part discusses various kinds of non-active constructions in Balinese. Syntactic, semantic and pragmatic evidence supports the view that the verb with bound form -a is another passive construction in Balinese (the low passive), in addition to the ka-passive (the high passive). While both passives and OV verbs share the property that a non-Actor is SUBJ, they have crucial syntactic/semantic differences. Syntactically, the Actor is still the a-subject in the OV verbs but an oblique in the Passive verbs. Semantically, the OV Actor is a typical Actor in control of the event, whereas the passive Actor may imply that the actor is less typical, not in control of the event. This is clear in the use of the ka-passive (high passive) for the first and second persons (also used in a low-register context to fill the gap of the -a passive). There is also another passive, marked by ma-, called the actorless or resultative passive, or stative. This ma-passive is semantically different from the Unergative ma- which has an Actor(-like) argument.
In this book, a close examination of a range of facts from Balinese has contributed to an understanding of how information of different kinds, associated with morphosyntax, semantics and pragmatics, comes together to determine the set of linguistic expressions. I have tried to do two things at once: to show and to describe facts of Balinese grammar, but at the same time, to highlight the theoretical significance of those facts. I have made explicit the model of grammar adopted (i.e. LFG) and the related theoretical assumptions. The insights put forward in this study can be expressed in different models of grammar. I have shown the significance of the parallel structures in grammar, the role of underspecification in mapping, the role of the syntacticised a-str in complex arguments involving raising and control, and the role of structural prominence in binding. I have demonstrated how the proposals lead to certain predictions. In what follows, I highlight some of the important points emerging from the present study.

8.1 Parallel structures

It turns out that, to have an integrated account of morphosyntax, semantics, and pragmatics, the parallel-structures model of grammar adopted should have at least the following layers: sem-str, a-str, gf-str, and c-str. The principal correspondences among them have been made explicit. The c-str (which represents linear and hierarchical ordering of surface linguistic expressions) is associated with the gf-str by the c-str and function correspondence principles (Chapter 4, following Bresnan 2001). The correspondence principles and the phrase-structure rules determine the structural positions bearing grammatical and/or discourse functions. Regularities in the syntactic expression of

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2 On some points, the conclusions in this study are compared with conclusions reached by previous Balinese studies making different claims.
3 The significance of another layer which is called 'pragmatic structure' (or prag-str) in Balinese is discussed in Arka (1998). I propose that the prag-str be the locus for social information associated with the speech-level system, and its related issues of semantic and pragmatic agreement as well as linguistic politeness. I analyse social information in terms of 'social predicates', whose arguments are indices shared either by arguments in the sem-str (giving rise to a phenomenon which looks like a selectional restriction), or by speech participants (the SPEAKER and ADDRESSEE). The social restrictions on linguistic forms are treated as appropriateness conditions for the use of the forms. See Arka (1998:404–449) for the proposal for a precise account of semantic/pragmatic agreement and the related implicatures of (dis)honouring, which is essentially the manipulation of social information/ appropriateness conditions to communicate personal affect.
arguments have been dealt with in terms of a-mapping (sem-str ↔ a-str) and f-mapping (a-str ↔ gf-str).

Amongst the layers, one is worth mentioning here, namely the a-str. I have motivated the need for a syntacticised a-str, first proposed in Manning (1994, 1996b). I have demonstrated that adopting it allows a natural and systematic account of voice-marking alternations and the associated alternations in function-mapping, for both simple and complex arguments. More research is needed to reveal whether an a-str-based analysis similar to that adopted here can be extended to other languages, especially (Western) Austronesian languages, to account for similar grammatical phenomena.

8.2 Binding conditions

While Manning (1994, 1996a, 1996b) and Manning and Sag (1998, 1999) argue that a-str is the locus for binding, I have shown that binding in Balinese is not solely determined by a-str prominence. In addition to a-str prominence, surface precedence/linear order (c-str) is also crucial. This is captured by the Linear Order Constraint for Balinese, exemplified in the binding of quantified and interrogative NPs (§7.3.2). The form of the reflexive is also a factor. A complex reflexive obeys mainly a-str-based binding, allowing a SUBJ to be bound by a complement. Nevertheless, sem-str prominence also plays a role, especially when a reflexive is not a-commanded. A simple reflexive, by contrast, is severely constrained: it must be bound in its nucleus (i.e. strictly locally), it appears in the second position (i.e. l-object/a-object), not in a third-argument position, it is restricted to certain highly transitive verbs, and it must also be f-commanded. On the surface syntax, therefore, all these constraints render a simple reflexive obligatorily bound by the GF-SUBJ of the same predicate, just like the classic reflexives of well-studied languages such as English. To account for simple and complex reflexives in Balinese, a precise parameterisation of Principle A has been proposed (§7.3.2.5).

The morpholexical processes of causativisation, applicativisation and passivisation have given support to the claims/predictions made by the proposed binding principles.

8.3 Typological orientations

There seems to be disagreement as to the issue of whether Balinese is an accusative or ergative language. In order to clarify this issue, let me digress very briefly to the simple model within which questions of accusativity/ergativity are generally couched. In Dixon’s (1979, 1987, 1994) and Comrie’s (1978) models of grammar, different modes of grammatical organisation are typologically distinguished in terms of S (the single argument of an intransitive verb), A (the Agent of a transitive verb) and P or O (the Patient of a transitive verb). This logically gives rise to the following combinations; see also Payne (2001:140) and Croft (2001:138):

\[ S \rightarrow A \rightarrow P \]

\[ S \rightarrow A \rightarrow O \]

\[ S \rightarrow O \rightarrow P \]

\[ S \rightarrow O \rightarrow A \]

Following Comrie (1978), henceforth I use P.
The first three, accusative organisation (1a), ergative organisation (1b), and active organisation (1c), are common and widely attested in the world's languages. The organisation in (1d), while possible, is rare presumably because it is 'inefficient' in the sense that each type of argument is marked individually (there being little utility in a special marking for S). The organisations in (1e), where A and P are aligned, and (1f), where all arguments are treated the same, are (predictably) not attested, because a language so organised could not capture the fundamental distinction of 'who does what to whom'. (Note that the alignments of arguments may show up overtly in terms of morphological markers (e.g. case markings), hence morphological accusativity/ergativity, and/or syntactic properties, hence syntactic accusativity/ergativity).

As to the grammatical organisation of Balinese, Clynes (1995) states that Balinese shows an accusative pattern only when the object is a definite NP (p.299). According to him, it does not make sense to claim that Balinese has an ergative organisation (p.298). (I return to the reason for this). Beratha (1992) provides no elaborate discussion of ergativity, although she notices it. Detailed discussion of Balinese ergativity is found in Artawa (1994), cited again in Artawa, Artini and Blake (2001). Wechsler and Arka (1998) discuss ergativity in Balinese (from an HPSG perspective), but it is made explicit in the paper that Balinese also shows accusativity (or more precisely, the accusative mapping). My study in this dissertation reveals that, while I support the claim that Balinese exhibits ergative and accusative properties as discussed in §5.3, a thorough examination of the lexicosemantics of the intransitive/transitive markings (not well addressed in the previous

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5. Note that throughout the book, I take the position that the morphological marking as evidence for grammatical alignment includes head/verb marking such as verbal agreement or verbal affixation reflecting a choice of a particular argument (A vs P). Thus, in this view, the nasal prefix (N-) signifying AV and the zero prefix signifying OV on the verb are taken into account in the typology of grammatical alignment.

6. Note that I use the terms accusative and ergative mappings to refer explicitly to two kinds of mappings in transitive predicates, depending on whether the a-subject or a-object is mapped onto SUBJ (§5.3.4). Taking into account the mapping and marking of the intransitive verbs, i.e. whether the (only) a-subject-SUBJ is marked in the same way as the accusative mapping or the ergative mapping, then we get the accusative, ergative or active systems. A language having an accusative mapping is not necessarily an accusative language (i.e. having the accusative system represented in (1)); likewise a language having an ergative mapping does not mean that the language is an ergative language. This is the case with Balinese, where the accusative and ergative mappings are part of an active system.
studies, including Wechsler and Arka (to appear) leads me to believe that Balinese essentially has an active organization. In this respect, my analysis supports Clynes’ (1995:255–258). (Discussion to support this view has been given in §2.5 and §5.3.4.3–4, but more is given presently).

8.3.1 **Balinese is not an ergative language**

Artawa (1994) claims that Balinese is an ergative language. However, Artawa, Artini and Blake (2001) claim only that Balinese is ‘ergative-like’. They notice that Balinese exhibits the syntactic alignment pattern shown in (1b) (where S and P are called absolutive) and treat the verb in the bare form (i.e. the OV verb) as morphologically and syntactically more basic than the nasalised verb (i.e. the AV form). In other words, the nasal form is the marked form, making the A pivot, roughly equivalent to the detransitivised/antipassivised form in a language with ergative syntax such as Dyirbal. In my view, however, neither is syntactically more basic than the other.

I have made explicit the following claim. I agree that Balinese shows ergative properties in the sense that a P can be (surface) SUBJ while the predicate is still transitive (i.e. the ergative mapping). Balinese should not, however, be analysed as having an ergative system, showing a syntactic alignment of the type (1b), for the following reasons (cf. footnote 6 in this chapter): (a) Balinese also shows the syntactic organisation where A is SUBJ while the verb is transitive (i.e. the accusative mapping, with the AV verb); (b) the morphologically bare verb (i.e. OV) can be thought of as having a zero formative, thus equally formed out of the same root as the AV verb (see §7.4.5.2, also §8.3.2 below); and (c) the morphological markings in intransitive verbs, where the sole arguments are SUBJs (i.e. S in Dixon’s terminology), are not all aligned with the transitive markings when the P arguments are SUBJ. In other words, S in Balinese intransitives is split, hence S is not really aligned with P, as in (1b). Rather, as I showed in §2.5.3, §5.3.4.3 and §5.3.4.4, only a typical Patient S argument is aligned with P. This comprises a rather small number of intransitive verbs. The majority of arguments classified as S (i.e. the Actor-like S, where the idea of Actor-like properties covers certain semantic properties including manner) are aligned with A (see also §8.3.3 below).

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7 It should be noted that the active or split-S system in Balinese is mainly reflected in the verbal marking. In a very restricted aspect, it does show up, however, in the grammar. For example, the unaccusative verb *laku* ‘go’ has its sole argument appearing as a complement, not as Subject as shown by (a):

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>where OV.go=3</td>
<td>where AV.run=3</td>
<td>where 3 AV.run</td>
</tr>
<tr>
<td>‘Where did (s)he go?’</td>
<td>‘Where did (s)he run (to)?’</td>
<td>‘Where did (s)he run (to)?’</td>
</tr>
</tbody>
</table>

That is, the sole argument of the unaccusative intransitive verb *laku*, e.g. ‘3’, syntactically appears as a complement =na, not SUBJ. The corresponding unergative verb *malaib* (b) does not allow this; it should appear as SUBJ ia (c).

8 However, it should be noted that my analysis differs from his analysis (and therefore differs in the ultimate conclusion) with respect to (i) the exact nature of how the split-S phenomenon is viewed within a broader system of syntax-semantic relations and (ii) the place of split-S in the typological alignments of accusative vs ergative systems.
8.3.2 The nature of OV/AV alternations

While it is very tempting, based on the 'surface' or 'overt' morphological realisations, to assume/analyse that AV is derived from OV, such an analysis will inevitably run into problems in precisely accounting for how the AV and OV constructions are related syntactically. The crucial aspect to address is the fact that the alternations do not change the termhood status of the arguments (i.e. both A and P remain core arguments), and the consequent maintenance of the syntactic prominence of the Actor and non-Actor arguments and their binding properties. All previous researchers, notably Artawa (1994), Artawa, Artini and Blake (2001), and Clynes (1995), share the view that OV is more basic than AV, implying that AV is derived from OV. Although Artawa (1994), Artawa, Artini and Blake (2001) state explicitly that the AV derivation is not an antipassivisation, the critical issue of the nature of the OV/AV derivation (i.e. accounting for their unchanged syntactic properties) is left unanswered. In my analysis (§3.2, §5.3.4.1 and §5.3.4.2), the AV/OV verbs are technically both 'marked', signifying two different voice markings, thus allowing different mappings of the Agent and Patient arguments onto the SUBJ function, the motivations for which may be pragmatic (e.g. maintaining topic continuity) or syntactic (e.g. giving the argument access to control). Since my analysis treats AV as marking the Agent \( \leftrightarrow \) a-subject \( \leftrightarrow \) SUBJ mapping, it also accounts for the functional similarity of the Balinese AV and the Agent \( \leftrightarrow \) SUBJ/PIVOT association in Dyirbal. Crucially, however, as discussed in §3.2 and §5.3.4.2, an alternation of OV to AV is not an \( a-str \) operation (i.e. not the equivalent of Dyirbal's detransitivised construction in any sense). Since it is simply a marker of an alternative mapping, it does not alter the transitivity of the base. That is, the OV/AV alternation does not result in a derived intransitive verb. I have shown how my analysis makes correct predictions with respect to syntactic binding. In short, Balinese shows an ergative mapping (i.e. with the OV verb), but it does not follow from this that the structure with the OV verb is more basic than the AV counterpart, or that the AV verb is derived from the OV verb. (Also, having an ergative mapping does not entail an ergative system).

I have shown in §5.3.5 how the syntactic/semantic restrictions on control relations (involving 'coreference' between a matrix argument and an argument in a complement clause) can be handled within a parallel-structures model of grammar. Importantly, I have shown how AV and OV voice-marking change to meet syntactic requirements of (syntactic) control relations without necessarily affecting the syntactic transitivity of the base verbs.

8.3.3 A simple model of grammar and the intransitive split

The terminology of S, A, and P should be used cautiously. The simple model of grammar using this terminology lumps together different kinds of information, blurring syntax-semantics associations. For example, what is called P in (1) is, in the LFG model of grammar adopted here, an argument that is semantically a Patient or logical object (i.e. the second argument of AFFECT in the \( \text{sem-str} \)), and also an \( a\)-object (i.e. syntactically a term argument which is second in prominence in the \( a\)-str), and is also understood as the PIVOT (i.e. syntactically the surface SUBJ). S is the single argument of the intransitive verb (i.e. the only term), hence understood as the SUBJ/PIVOT. Unlike A and P, no semantic characterisation is implied for S. There seems to be an arbitrary decision (and
also an over-simplification) in analysing the intransitive argument in Balinese as S and aligning it with P (assuming the bare transitive verb to be basic). This gives rise to an ergative system, the alignment pattern in (1b). Note that such an analysis fails to take into account the significance of the semantic split in the intransitive markings in Balinese.

Although the previous studies, notably Clynes (1995), do notice the split in intransitive verbs, they seem to have failed to recognise one crucial lexico-semantic aspect, namely the distinction of directed motion versus manner of motion. Not surprisingly, they provide no insights as to the significance of the split in relation to the overall transitive (accusative/ergative) mappings and markings. Again, I suspect the failure might be (partly) attributable to the simple model of grammar assumed (i.e. using A, P, and S terminology). These terms, as I just mentioned, are a mixture of semantic ‘macro-roles’ and grammatical functions, lumping together different kinds of information. They cannot help to tease out the (subtle) semantic properties that split S and account for the intricate semantics-syntax interaction. For example, the unmarked intransitive verbs such as mai ‘come’ which take an Agent, and the intransitive verbs in the N-forms such as ngetel (< ketel ‘to drip’), which take a non-Agent argument (Artawa, Artini & Blake 2001:12), appear to be ‘exceptions’. Apparently these forms are judged in terms of a typical A (i.e. requiring a volitional Agent as in the highly transitive N- or AV verb). As I have pointed out (in §2.5.2 and §5.3.4.3), there are a number of properties relevant to the split; being in control over the event (i.e. being a typical A) is only one of them. Importantly, the split in verbs of motion is determined by the property of manner of motion, in contrast to directed motion. Once we recognise these properties (which are not unique to Balinese), then a well motivated analysis can be put forward. What are regarded as exceptions are in fact natural instantiations of the category. For example, mai ‘come’ is a directed, telic verb of motion, hence Unaccusative (i.e. a bare intransitive, equivalent to the transitive OV), whereas ngetel ‘drip’ can be classified as a verb of manner of motion and atelic, hence Unergative (expressed in an N-form, equivalent to the transitive AV). Given the semantic complexity motivating the intransitive split, anyone proposing a representation of the split in terms such as $A = S_A$ and $S_P = P$ must be interpreted cautiously. I have represented the grammatical organisation of Balinese showing the split in §5.3.4.3–4, wherein the terms ‘Actor-like’ and ‘typical Patient’ are carefully used as shorthands, rather than simply A and P. This is intended to highlight the fact that the split is not straightforwardly definable in terms of A(gent) and P(atient).

### 8.4 Different kinds of information and diagnostic tests

The LFG model of grammar explicitly sorts out different kinds of information that play a role in a language. Unless we know the kinds of information/structures we are dealing with (and their nature), there is always a danger of applying an inappropriate diagnostic test. For example, definiteness (i.e. whether a referent is present in the relevant discourse) is given too much emphasis, and is used as a diagnostic test to determine argumenthood (whether a nominal is a syntactic argument of the head verb) and termhood (whether the argument is core or not). Clynes (1995), for example, formulates a definiteness requirement as follows:
(2) Definiteness requirement:
NPs bearing a core grammatical relation must be formally and semantically definite (Clynes 1995:195).

This leads to the conclusion shown in (3) (AP = Actor Pivot, or AV in my terminology, and must is italicised in the original):

(3) The NP complement of AP verbs must be topical/definite to carry the grammatical relation ‘Object’ (Clynes 1995:197).

He concludes that an indefinite complement NP is not an object. Therefore, according to him, the AV verb with an indefinite complement NP, though semantically transitive, is syntactically intransitive, leading to an incorporation analysis:

(4) Indefinite nominal complements of Actor pivot verbs are incorporated into the verb to form a syntactically intransitive unit (Clynes 1995:196).

It is very unfortunate that, in his analysis, a Theme complement NP of an AV ditransitive verb (which is generally indefinite), as in his example quoted here as (5) (glossing is mine), is not a (second) object/term. That is, technically in his analysis, it is a non-core argument or oblique. This is because jaja ‘cake’ cannot appear with an definite suffix -ne. However, further tests of the complement, varying the pragmatic prominence associated with definiteness, make the sentence acceptable, particularly when the subject is given a pragmatic FOCUS contrast (with a clear break), and the definiteness is achieved by having the definite suffix -ne, together with the determiner ento as in (5b):

(5) a. Pekak meli-ang I Putu jaja(*-ne)
   granpa AV.buy-APPL name cake-DEF
   ‘Grandpa bought I Putu some cake’

   b. Pekak // meli-ang I Putu jaja(-ne) ento
   granpa AV.buy-APPL name cake(-DEF) that
   ‘It is Grandpa who bought I Putu that cake’

The point is that definiteness is one aspect of pragmatic prominence (i.e. relative prominence in the information structure (i-str) of TOP/FOC, see Choi 1996 and Foley 1994). Hence, for ditransitive verbs, a normal i-str is that the third argument is a completive focus (i.e. indefinite), or if it is definite, the other arguments, especially the subject, must be not only definite, but must also be given the pragmatic prominence of contrastive FOCUS, pragmatically outranking the complement. Now, since the third argument of a transitive verb, jaja ‘cake’, can appear either as an indefinite or definite nominal NP as in (5), then its syntactic status as an object/core/term is not really determined by its definiteness property. It is clear that the conclusions in (2) and (3) are untenable. Indeed, they are incorrect (i.e. refuted by the data, e.g. (5b)), and furthermore rather strange, because definiteness, which is a property of the i-str, is used to determine termhood/objecthood, which is a syntactic property (in a-str and gf-str). I have shown in Chapter 3 (summarised in Table 3.6) that being syntactically a term argument (i.e. not oblique) must be assessed in terms of syntactic criteria (not definiteness).

The conclusions in (2), (3) and (4) are too strong. Note that the implication of (4) is that the indefinite complement nominal jaja would be taken as an incorporated nominal with the verb. Such an implication is simply unacceptable, because the indefinite complement and the head verb are structurally intervened by a (definite) complement NP.
8.5 Cliticisation, transitivity and ergativity

Based on syntactic evidence (§4.3.3.1), I have argued at length against an incorporation analysis, as adopted by Clynes (1995). Clynes uses the terms incorporation and cliticisation interchangeably (p.298), and argues that the resulting structures are syntactically intransitives (p.195). (He also frequently uses the term ‘a phonological word’ to mean the same as ‘incorporation/cliticisation’). Thus, in his notation, following his incorporation analysis, a complement nominal should be represented as a phonological word, as in his examples (and glossing) shown in (6):

(6) a. Batis-e cegut=legu (p.298)
    leg-DEF bit=mosquito
    ‘My leg was bitten by a mosquito’

b. Nyoman lempag=tiang (p.299)
    N hit=I
    ‘Nyoman was hit by me’

Furthermore, the verb-complement structures are analysed as syntactically intransitive verbs. Apparently, by ‘syntactically intransitive’, he means that, due to his incorporation analysis, the verbs in (6) each appear to have only a single definite argument NP (i.e. the subject) in the c-str, as his notations in (6) show. The assumed incorporated complements (i.e. legu ‘mosquito’ in (6a) and tiang ‘1’ in (6b)) are not counted as syntactic arguments. Consequently (he perhaps has in mind the simple model of grammar with S, A, and P), the subject arguments of the verbs in (6) (and also the AV verbs with indefinite nominal complements, see (7) below) are technically S, rather than P or A. Hence, he goes on to say (footnote 3, p.298):

I take it that it makes no sense to claim that a language is ‘semantically ergative’ where this refers purely to abstract semantic structures.

That is, in his view, for the ergative pattern to be correct for examples like (6), their A and P must be interpreted as A and P at a semantic level. Hence the relevant verbs exhibit semantic transitivity, not syntactic transitivity, because syntactically, the sentences like (6), in his view, are intransitive with only a single S argument. It is immediately apparent that there is some confusion here regarding what is in syntax and what is in semantics, hence what is meant by ‘syntactic transitivity’ and ‘semantic transitivity’.

However, as I pointed out in §4.3.3.1, there is good syntactic evidence (structural elaborations such as coordination, gapping etc.) as well as morphological evidence (reduplication, §4.3.3.1.2) for not adopting an incorporation analysis. Note that even if the idea that an argument such as tiang in (6b) is cliticised were correct, the consequence—that by virtue of cliticisation the verb becomes syntactically intransitive—seems not to be well founded. For one thing, the OV Agent is syntactically an a-subject (i.e. a core/term argument), as shown by evidence from binding (§6.3.2). Thus, there is no evidence to believe that the syntactic transitivity of the OV form has been reduced/changed. The idea of ‘a syntactic argument’ must not be taken as merely a surface realisation of an argument as an overt NP (i.e. with phonetic/graphical substance), and structurally occupying a separate leaf at c-str. Rather, an argument is still a syntactic argument even when it appears as a bound form/suffix, when it is a zero pronounal, or when it is obligatorily ‘deleted’ as in control relations (i.e. the equi target/controlled argument).
8.6 Phrase structures and pragmatic prominence

The LFG model allows an integrated account of syntax and pragmatic relations. As pointed out by Choi (1996) and also Foley (1994), a unit that is given pragmatic prominence (e.g. a contrastive FOCUS) comes before a unit that is pragmatically less prominent (i.e. a unit that simply bears a completive focus/new information). Structurally, the unit bearing contrastive FOC is adjoined to IP (see §4.3.5.2). Crucially, a string must constitute a structural unit in order to be allowed to adjoin to IP. Strings that do not form a structural unit cannot be joint-fronted together (i.e. treated as a unit). This is a property of c-str unity. Relevant here is the placement of the particle ja, which I claim to be an emphatic marker showing that the unit it marks has a certain pragmatic prominence.

Clyne (1995:195) claims that ja marks a word-level unit, and uses this in support for his incorporation analysis. He observes that ja acts like a second-position clitic. Consider his examples in (7) (the glosses are slightly modified):

(7) a. baca ja buku-ne! (ex. 57, p.195)
   OV.read PART book-DEF
   ‘Read the book!’

b. Maca buku ja! (ex. 62, p.196)
   AV.read book PART
   ‘Read books / do book-reading’

c. Buku-ne ja baca! (ex. 63, p.196)
   book-DEF PART OV.read
   ‘Read the BOOK (not something else)’

d. *Buku-ne baca ja! (ex. 61, p.195)
   book-DEF read PART

(8) Negak (ja)!
   AV.sit (PART)
   ‘Sit down/have a seat’

(7a) shows an OV imperative with a definite NP, and ja comes after the verb. (7b) shows an AV imperative with an indefinite NP, and ja comes after the sequence of verb plus complement. And (7c) shows an OV imperative, like (7a), but with the definite NP sentence-initially, and ja coming after this first-position NP. Now, since ja must appear in second position, as in (7a) and (7c), the badness of (7d) is accounted for, because in this sentence ja appears in third position.

The badness of (7d) in contrast to the goodness of (7b) is taken as evidence for the claim that the AV and the indefinite nominal in (7b) constitute a single (phonological) word (i.e. an incorporated structure). In short, the AV + complement maca buku in (7b) is an X° unit, on a par with the single-word verb baca in (7a), single-noun subject buku-ne in (7c), or the (Unergative) intransitive verb negak in (8).

However, my observations suggest that ja is in fact a particle that gets attached to a (structural) unit that is given contrastive focus. Then, the badness of (7d) can be alternatively explained without appealing to incorporation, but rather as following from a general constraint, determined by the phrase-structure schema (discussed in depth in Chapter 4). Crucially, the analysis adopted here predicts that (7d) could be acceptable on a different pragmatic reading, where the NP buku-ne ‘the book’ is assigned TOPIC, and a
clear break follows (see (12) below). Let me elaborate on the alternative analysis adopted here.

First of all, it should be noted that imperative constructions highlight the action, hence the verb is given pragmatic prominence. Therefore, it is not surprising that imperatives are generally verb-initial, as in (7a-b) (although in Balinese SVO is the canonical order). But, as shown by the translations in (7), different fronted units in the imperative sentences give rise to different pragmatic implications. Crucially, in the surface syntax, the fronted unit marked by ja, which bears pragmatic prominence (i.e. FOC), may range from a single V as in (7a), or a single N (i.e. a Patient argument) as in (7c), to complex phrasal units as in the following sentences:

(9) a. [Di tas-e ento]PP ja buku-ne jaang
   in bag-DEF that PART book-DEF OV.put
   ‘Put the book IN THAT BAG’ (not in other containers)

   b. [Buku ane beli di peken Badung ibi]NP ja baca
      book REL OV.buy at market Badung yesterday PART OV.read
      ‘Read THE BOOK that (we/you) bought in the Badung market yesterday’
      (i.e. not other books)

In (9a), the unit bearing the FOCUS prominence is a Locative argument PP, and it can take the emphatic ja. In (9b), the unit bearing the FOCUS is a Patient argument NP, and it can likewise take ja. Note that this NP is a complex one (containing a relative clause). In these two sentences, it is clear that the units marked by ja are structurally phrasal units in the c-str, because there is no reason whatsoever to analyse a relative clause and its noun head in (9b), for example, as being within an X°. Similarly, given the associated pragmatic aspect of ja in (7b), we can say that the AV verb and its complement in this sentence form a unit that bears pragmatic prominence; hence this unit can take ja, without necessarily implying that the unit has come about through incorporation. In short, ja simply marks a unit that bears a contrastive pragmatic prominence, which can be either a word or a syntactically complex structural unit containing an embedded clause.

To be precise, given the study of phrase structure in Chapter 4, the structural configurations of the sentences in (7) can be represented as in (10), where the unit marked by ja is adjoined to IP (to be explicit about the IP adjunction, the lower IP that does not dominate anything as in (10b,d) is also represented). Structures (10a–c) are permissible structures, whereas (10d) is an illicit one because the string adjoined to IP is not a structural unit, not licensed by the phrase-structure schema in Balinese (marked by ? in (10d)). That is, the OV verb baca ‘read’, in a structurally unmarked configuration, is under S, whereas its subject buku-ne ‘the book’ is in [Spec, IP], a unit higher in the phrase-structure tree. Forcing these two structurally separate units to be a joint unit, and adjoining this ‘unit’ to IP bearing FOC, then marking it with ja, is expected not to be allowed by the phrase-structure schema of Balinese. Hence, structure (10d) is unacceptable. Retaining subject NP and the verb in their positions and placing ja at the end, as in structure (11), is not allowed either, because ja is then in a structurally wrong position, namely not attached to a pragmatically marked unit (FOC).
The analysis adopted here predicts that sentence (7d) will be acceptable, when a break is made after the NP *buku-ne*, because the string is now broken into permissible units, obeying the phrase-structure schema:

(12) Buku-ne // baca ja
    book-DEF    OV.read    PART
    ‘As for the book, read it’ (e.g. do not just hold it)
That is, *buku-ne* is now considered to be an NP structurally separate from the following OV verb *baca*, which itself is a unit adjoined to IP and containing a marked focus V(P) (the lowest IP is not shown here):

(13) IP
    (TOP)
    NP
    IP
    (FOC)
    VP
    // *buku-ne*  // *baca*  // *ja*
    book-DEF  // OV.read  // PART

In short, the structure in (13) is well-formed, obeying the requirement of *ja*-placement (i.e. being attached to a unit that bears FOC), and the SUBJ NP is also structurally adjoined to IP (dominated by the highest IP), signifying a pragmatic TOP. Such a structure requires a clear pause (**//**), a general sign of adjunction, where separate units are involved. Since the subject NP *buku-ne* and the verb *baca* are not forced to be a unit, then the sentence is, as predicted, acceptable. Sentence (7d), by contrast, is expected to be bad, as shown by the phrase structure trees in (10d) and (11).

To conclude, *ja*-placement is pragmatically motivated and constrained by a general phrase-structure configuration, where it must be attached to a unit adjoined to IP (to the left), because this is the position for FOCUS. There is no necessary implication that the unit marked by *ja* is an incorporated structure, with the consequence that the valency of a transitive verb has been reduced because of it. The alternative analysis adopted here provides an integrated account, showing the interaction between pragmatics and the surface structural positions of units bearing a certain pragmatic prominence. Crucially, it provides a natural explanation for why the same string marked by *ja*, which is (normally) unacceptable, can be rendered acceptable if a proper break/pause is made.


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List of abbreviations for source materials

- ITN = Iwang Titiang Newek
- KA = Kobaran Apine
- KNK = Kepatutan Ngulati Kemajuan
- LS = Ni Luh Sari
- MRH = Mirah
- SB = Satua Bali
- SBB = Sari Basa Bali
- TBB = Titi Basa Bali
- TLS = Tresnane Lebur
- TAPE = recorded conversation

(a)-(j) are titles of (collections of) Balinese (short) stories, novels, and plays by the following authors:


