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Differential argument realization in Abui

Abstract: This paper discusses differential argument realization in Abui, a Papuan language (Eastern Indonesia) with semantic alignment (in terms of Donohue and Wichmann 2008; Kratochvíl 2011).¹ The paper examines the roles of volitionality, referential hierarchy, and specificity in differential argument realization (employing light verbs and verbal agreement) and shows that their effects are observable throughout the argument realization system and can be therefore considered the counterpart of differential case marking (DOM/DSM) reported for syntactically aligned, case-marking languages (Bossong 1983; Aissen 2003; Malchukov 2005; Kittilä 2006; de Swart 2007; and others). Although Abui differential argument realization correlates with the referential hierarchy (Bickel 2008), verbal subclasses (in terms of Tsunoda's 1985: 388 affectedness hierarchy) determine whether differential argument realization appears or not (cf. von Heusinger and Kaiser 2011).

The paper also considers the diachronic origins of differential argument realization in Abui. Most constructions are argued to originate from two-clause constructions, such as topic/focus constructions gradually merging into single-clause structures. Information-structure related morphemes (light verbs in Abui) serialize with lexical verbs. The process starts with 1st and 2nd person participants (interlocutors) and may extend to human or human-like third persons. Grammaticalization ends in the fusion of the light verb and person prefix, creating new verbal agreement paradigms, as manifested in several central Alor-Pantar languages (Kratochvíl et al. 2011).

Keywords: differential subject marking, Differential Object Marking, semantic alignment

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¹ Abui is an endangered language, spoken by roughly 16,000 speakers. In the mountainous areas it is still learned as a first language, but the coastal areas are undergoing a shift to the local Malay variety. The Abui corpus (currently about 120,000 words, roughly 30,000 clauses), covers the northern dialects of Takalelang, Mainang, and Atimelang. The corpus includes data collected from 2003 to 2012, as well as data collected by other researchers before WWII. A grammatical description of Abui is available in Kratochvíl (2007).

1 Introduction

The primary purposes of case marking and argument indexing are to (i) distinguish arguments and identify grammatical relations and (ii) differentiate uses in encoding specific semantic or pragmatic properties of the argument/event (de Hoop and Malchukov 2007: 1636–1637). The first use, often studied separately from the latter, is considered part of *grammatical relations*; the second one is usually referred to as *differential marking* (DOM for object, DSM for subject) and often treated as a kind of anomaly to be explained away. Semantic alignment systems (Donohue and Wichmann 2008) are a less well-known counterpart to accusative and ergative alignment systems (Tsunoda 1981, 1985; Comrie 1989; Bickel 2008).

The goal of this paper is to examine to what extent the notion of *differential (case) marking* is relevant for semantically aligned languages such as Abui. It will be shown that the notion is indeed relevant when ‘case’ is understood as any amount of differentiating morphological material. In head-marking Abui, this differentiating material consists of light verbs and verbal agreement and distinguishes *grammatical relations* from *differential marking* although both notions are in fact just two ends of the argument realization continuum. Effects of control, instigation, affectedness and individuation are found at the *grammatical relations* end of the continuum; effects of semantic and pragmatic features, such as animacy, volitionality, or specificity, are observable at the *differential marking* end. An overview of the continuum will be given in Section 5. A terminological note is in place here. The concept of *differential marking* will be regularly referred to as *differential argument realization* in relation to Abui data. This is done consciously because of the difficulty in establishing notions such as *subject* and *object*.²

The following section contains a literature review of various differential marking phenomena relevant for the Abui data presented in subsequent sections. Section 3, based on Kratochvíl (2011), explains argument realization in single verb clauses. Section 4 discusses clauses requiring an additional light verb to

² If *differential marking* is defined so broadly, it may also include phenomena sensitive to similar triggers such as “clitic doubling” in Balkan languages. Clitic-doubling (CD), a separate phenomenon characteristic of Balkan languages, displays many parallels with differential marking including a similar grammaticalization path. In the onset, the CD is triggered pragmatically (Greek) or restricted to a particular type of participants (experiencers in Bulgarian), but as it is extended, CD can become a general differentiation marking for all first and second person DOs and IOs (Albanian) or even to all definite DOs, and all IOs, as in Macedonian (Kallulli and Tasmowski 2008: 9–10).

realize one of the arguments; such constructions are taken to be the equivalent of *differential marking*. A conclusion can be found in Section 5.

2 Differential argument realization in a crosslinguistic perspective

Differential marking (both DOM and DSM) is a highly principled phenomenon attested in hundreds of both accusative and ergative languages (Aissen 2003: 436; Bossong 1983: 8). In this section, I will discuss three main types of differential marking: DOM, DSM, and Differential goal marking. Sections 2.4–2.5 summarize the known triggers and paths of diachronic development of differential marking.

2.1 Differential object marking (DOM)

Two main types of DOM have been found so far. Languages either distinguish objects according to their (i) animacy (or more precisely, the ranking on the referential hierarchy), or (ii) referential properties (definiteness, specificity). Camling (Tibeto-Burman) is an example of the first type. The object of the verb *set* ‘kill’ is not marked with the dative case suffix *-lai* (1a); but the human object, outranking the ‘snake’ in (1a) in terms of referential hierarchy, is compatible with the dative (1b).

(1) Camling

- a. *khu-wa lungto-wa pucho(*-lai) set-yo*
 he-ERG stone-INSTR snake(*-DAT) kill-3
 ‘he killed a snake with a stone.’
 (Kittilä 2008: 245, citing Ebert 1997: 46)
- b. *khana khut(-lai) ta-set-yu*
 you he(-DAT) 2-kill-3
 ‘You killed him.’
 (Kittilä 2008: 245, citing Ebert 1997: 46)

The first type has been the subject of some discussion recently, proposing to replace *animacy* with *referential hierarchy* (Iemmolo 2010), shown to be a more basic notion in grammatical relations (Haude 2009). The second type is illustrated in the following Turkish examples, where animacy is irrelevant; the distribution of the accusative case suffix *-yı* distinguishes definite objects (2a) from indefinite

ones (2b). Although examples such (2) are regularly used in the literature, the specificity is not the only semantic difference: (2a) is an accomplishment, but (2b) is an activity and could be considered intransitive. Further examples of DOM can be found in Section 2.5.

(2) Turkish

- a. *Ahmet dün akşam pasta-yı ye-di*
 Ahmet yesterday evening [cake-ACC]_o eat-PST
 ‘Yesterday evening, Ahmet ate the cake.’
 (de Swart 2007: 5, citing Kornfilt 2003: 123)
- b. *Ahmet dün akşam pasta ye-di*
 Ahmet yesterday evening [cake]_o eat-PST
 ‘Yesterday evening, Ahmet ate cake.’
 (de Swart 2007: 5, citing Kornfilt 2003: 123)

The basic argument realization in Abui is outlined in Section 3. Argument realization differentiation parallel to DOM is discussed in Section 4.1.

2.2 Differential subject marking

Bossong (1983: 18) originally argued that differential marking is more likely to be found in transitive patients than in transitive agents. De Hoop and Malchukov (2008: 567) suggest that DOM is found mostly in accusative languages; its counterpart in ergative languages is *differential subject marking* (DSM, sometimes also *differential agent marking* [DAM]). Despite the relatively higher frequency of DOM, both types of differential marking are sometimes considered to be two mirror phenomena (de Hoop and Malchukov 2008).

There is an emerging consensus that DSM is a common phenomenon and it is relatively well studied (see Aikhenvald et al. 2001; Bhaskararao and Subbarao 2004; de Hoop and de Swart 2008). The discussion is still open about the assignment of DSM: DSM is typically not assigned to subjects low in prominence (as would be predicted by Aissen 2003), but to highly prominent subjects (de Swart 2007). DSM addresses agentivity and volition associated with the subject and interacts with prominence (de Hoop and de Swart 2008; Fauconnier 2011a, 2011b).

An example of DSM triggered by reduced volition is taken from the Lezgian language Agul (Ganenkova et al. 2008: 175–181). Agul uses a number of locative cases, such as the suffix *-f/-w* (a location near the landmark) and the elative *-as* (motion out of a landmark) to express involuntary agents who (i) participate in undesirable or accidental action (3a), (ii) act merely as causees, being forced into action

by causers (3b), or (iii) are only potentially capable of doing something (3c). Abui shows a similar pattern, tracking variation in volition, viability, and effectivity of agents (Section 4.2).

(3) Agul

- a. *ruš.a-f-as berHem kura-se*
 girl-AD-ELAT dress.ABS get.dirty-FUT
 ‘The girl will unwittingly soil the dress.’ (the little girl was told that she has to be careful, but she cannot remember about that all the time, and she will most probably soil the new dress while playing)
 (Ganenkov et al. 2008: 175, Ex. (7))
- b. *baw.a ruš.a-f-as || ruš.a-w xed xa-s q’u-ne*
 mother.ERG girl-AD-ELAT girl-AD water.ABS bring-INF do-PST
 ‘Mother made the girl bring water.’
 (Ganenkov et al. 2008: 175, Ex. (10))
- c. *za-f-as k’ež lik’a-s xu-ne*
 1S-AD-ELAT letter.ABS write-INF become-PST
 ‘I managed to write a letter.’
 (Ganenkov et al. 2008: 175, Ex. (9))

2.3 Differential goal/recipient marking

Differential realization (DOM and DSM) is conventionally discussed only in relation to core arguments (Malchukov and de Swart 2009: 353). However, referential hierarchy-triggered asymmetries in the marking of goals/recipients in ditransitive constructions have been known for some time (Dryer 1986; Noonan 1992; Kittilä 2006, 2008). In Finnish, animate recipients are marked with the allative suffix *-lle*, but inanimate goals combine with the illative *-ön*, as shown in (4).

(4) Finnish

- a. *lähetti lähett-i lähetttime-n lähettäjä-lle*
 messenger.NOM send-3S.PST transmitter-ACC sender-ALL
 ‘A/the messenger sent a transmitter to the sender.’
 (Kittilä 2008: 257)
- b. *lähetti lähett-i lähetttime-n lähetystö-ön*
 messenger.NOM send-3S.PST transmitter-ACC embassy-ILL
 ‘A/the messenger sent a transmitter to the embassy.’
 (Kittilä 2008: 257)

In some languages the animate R (goal/recipient) is marked in the same way as the animate P (direct object). In other languages, marking distinct from the P marking has to be used (Kittilä 2008: 250–256). The R-marking interacts with affectedness, a property more easily assessed for animate participants (Kittilä 2008: 262–263). Examples (5a)–(5b) show that animate Rs in Lango transfer predicates can only be marked by verbal agreement as Ps when the transferred theme (T) is inanimate (Noonan 1992: 121). Animate Ts require verbal agreement and the R to be expressed with the preposition *bòt* ‘to’, as in (5c). Rs expressed as NPs either immediately follow the verb, or require the preposition *bòt* ‘to’ when they are placed after the transferred T (Noonan 1992: 121).

(5) Lango

- a. *lócə òmìyá búk*
 man 3S.give.PERF.1S book
 ‘The man gave me the book.’
 (Noonan 1992: 121, Ex. (4))
- b. *lócə òmìyá*
 man 3S.give.PERF.1S
 ‘The man gave it to me.’
 (Noonan 1992: 121, Ex. (5))
- c. *lócə òmìyé bòtá*
 man 3S.give.PERF.3S to-1S
 ‘The man gave him (e.g., a slave) to me.’
 (Noonan 1992: 121, Ex. (6))

Abui differentiates recipients (human) of transfer events from goals (non-human). In other event types, goals and locations are differentiated along the referential hierarchy as well. A detailed discussion can be found in Section 4.3.

2.4 Triggers of differential marking

The existing literature lists a range of semantic and pragmatic features triggering differential marking. Just a small sample can be seen in Table 1. Each feature is listed with relevant languages and sources reporting the phenomenon. Further examples can be found in recent studies such as Aissen 2003; de Swart 2007; de Hoop and de Swart 2008; Donohue and Wichmann 2008; and Dalrymple and Nikolaeva 2011.

Both head-marking and dependent-marking languages share a bias for the differential marking of animate and specific participants. In dependent marking

Table 1: Semantic and pragmatic triggers of differential marking

Feature	Language	Source
ANIMACY (HUMAN)	Romanian	Farkas 1978
	Slavonic, Indo-Aryan	Bossong 1983
	Sinhalese	Aissen 2003
	Spanish, Malayalam	de Swart 2007
	Lango	Noonan 1992
SPECIFICITY	Turkish	Kornfilt 2003
DEFINITENESS	Hebrew	Givón 1978
TOPICALITY	Tariana, Tucanoan	Zúñiga 2007
	Turkish	de Swart 2007
	Romance, Persian	Iemmolo 2010
	overview	Dalrymple and Nikolaeva 2011
ASPECT	Finnish, Russian	de Hoop and Malchukov 2007
AGENTIVITY	Tibetan	Kittilä 2002
VOLITION	Manipuri, Batsbi, Hindi	de Hoop and Malchukov 2007
CONTROL	Kambera	Klamer 2009

languages, DOM is found pervasively (Bossong 1983; Aissen 2003; de Swart 2007; Malchukov 2005; Kittilä 2006). In head-marking languages, differential marking is found in both subject and object (de Swart 2007: 86). Abui is a head-marking language that fits well into this pattern and is sensitive to a subset of the features listed in Table 1. Detailed discussion of triggers of differential argument realization can be found in Sections 4.2–4.4.

2.5 Motivation and origin of differential marking

Various motivations for differential marking have been put forward. According to Bossong (1983: 7), differential marking is motivated by the interaction of lexical and grammatical semantics: grammatical relations are by no means purely formal devices but are in their essence semantic. Iemmolo (2010: 241–243) identifies two angles from which differential marking is usually explained. These are the: (i) *indexing approach* and (ii) *discriminatory approach*.

In the indexing approach, differential marking is thought to mark properties of ‘genuine’ objects such as affectedness, individuation, or volition. In functional approaches to transitivity, these properties are considered to characterize “prototypical” subjects and objects in transitive events. Hopper and Thompson (1980) assert that more prototypical objects receive more marking; Næss (2007) considers deviations from the ‘prototype’ to trigger differential marking.

In the discriminatory approach, differential marking is assumed to discriminate between participants that share the same semantic properties and allows therefore for the correct interpretation of grammatical relations. Aissen's (2003) account of DOM is a good example of the discriminatory approach. Aissen (2003) proposes two prominence hierarchies (animacy and definiteness), shown in (6). The more prominent participants are more likely to be overtly case-marked (Aissen 2003: 436–437, 442, 444).

- (6) a. *Animacy scale: Human > Animate > Inanimate*
 b. *Definiteness scale: Personal pronoun (Pro) > Proper name (PN) > Definite NP (Def) > Indefinite specific NP (Spec) > Non-specific NP (NSpec)*

Abui data in Section 3 shows differentiation based on affectedness, individuation, etc.; this kind of differentiation is better explained in terms of the indexing approach. However, the data given in Section 4 is differentiated based on place in the referential hierarchy and specificity, which are addressed in the discriminatory approach. We will return to this question in the Conclusion.

2.5.1 Origins of animacy-triggered DOM in Romance

The Spanish example in (7) illustrates the animacy-triggered DOM: only human direct objects receive *a*-marking.

- (7) Spanish
 a. *conozco *(a) este actor*
 know-1S DOM this actor
 'I know this actor.'
 (von Heusinger and Kaiser 2011: 600, Ex. (8a))
 b. *conozco (*a) esta película.*
 know-1S DOM this film
 'I know this film.'
 (von Heusinger and Kaiser 2011: 601, Ex. (8b))

According to Iemmolo (2010: 259–260) the *a*-marking of human direct objects in Romance is historically related to the topic construction, already present in Latin. The development of the *a*-marking DOM can be reconstructed through comparison of Romance dialects. In Northern Italian, *a*-marking cognates (often glossed as accusative) are restricted to marking dislocated topical constituents, as in (8).

Iemmolo (2010: 248–249) shows that the plain object pronoun *me* in the dislocated position is ungrammatical, as in (8b).

(8) Northern Italian

Context: she said that she saw four people trying to pick the lock on her front door.

- a. **a** *me, non (mi) convince questo*

ACC me NEG CLIT.1S convince:PRS.1S this

‘This does not convince me.’

(Iemmolo 2010: 249, Ex. (6))

- b. **me non mi convince questo*

me NEG CLIT.1S convince:PRS.1S this

‘This does not convince me.’

(Iemmolo 2010: 249, Ex. (8))

- c. **??A** *Mario lo ha sempre fatto ridere*

ACC name CLIT.3S.M AUX.3S always make:PTCP.PST laugh:INF

‘He always made Mario laugh.’

(Iemmolo 2010: 250, Ex. (15))

In Northern Italian dialects, *a*-marking is not compatible with proper names and common nouns, as shown in (8c). Yet in Peninsular Catalan dialects (9a)–(9b), *a*-marking co-occurs with dislocated pronouns, proper names, and human/definite common nouns. In Balearic Catalan (9c), *a*-marking may even occur with dislocated inanimate definite direct objects.

(9) Peninsular and Balearic Catalan

- a. **a** *ta mare, la vaig vore ahir*

ACC your mother CLIT.3S.F AUX.1S see:INF yesterday

‘your mother, I saw her yesterday.’

(Iemmolo 2010: 252, Ex. (25))

- b. **an** *es pobres, Diu els ajuda*

ACC the poor.ones God CLIT.3P.M help:PRS.3S

‘the poor ones, God helps them.’

(Iemmolo 2010: 252, Ex. (27))

- c. **a** *ses pomes, mengemmos les*

ACC the apples eat:IMPER.1P CLIT.3P

‘as for the apples, let’s eat them.’

(Iemmolo 2010: 252, Ex. (29))

The gradual extension of the use of *a*-marking along the referential hierarchy in several Romance dialects illustrates the grammaticalization path for pragmatically triggered DOM. A human/animate-triggered alternative also exists: it takes on the task of signaling any human/animate objects, as in modern Spanish and in Sicilian (Iemmolo 2010: 257).

In Old Sicilian, direct objects are most likely to be differentiated when they are dislocated or pronominal (Iemmolo 2010: 255). Dislocation in Old Sicilian (marking topics) was available to animate and referential NPs, many of which in Iemmolo's sample of 14th century texts are pronouns (61 out of 154) (Iemmolo 2010: 257). The Modern Sicilian DOM is triggered by animacy and referentiality, but no longer by topicality, as it was in the Old Sicilian DOM.

2.5.2 Origins of DOM in cross-linguistic perspective (Dalrymple and Nikolaeva 2011)

Dalrymple and Nikolaeva (2011) offer a wider perspective on the diachronic development of differential marking systems. They argue that DOM often originates as a marking device for topics; the grammaticalization involves narrowing or spreading of semantic features triggering DOM to differentiate object ranking high on the referential hierarchy (Dalrymple and Nikolaeva 2011: 18). This process is illustrated in (10).

(10) a. Spreading of DOM (Dalrymple and Nikolaeva 2011: 208)

b. Narrowing of DOM (Dalrymple and Nikolaeva 2011: 212)

Dalrymple and Nikolaeva (2011: 215) divide languages displaying DOM into three types, listed in Table 2, depending on triggers of DOM, that correspond to three stages of grammaticalization.

Table 2: DOM systems types (Dalrymple and Nikolaeva 2011: 215)

TYPE 1	Languages where DOM is regulated solely by information structure; correlations with semantic features are only tendencies (no spreading or narrowing).
TYPE 2	Languages where DOM is regulated solely by semantic features; correlations with information structures are only tendencies (loss of connection to information-structure role via narrowing or spreading).
TYPE 3	Languages where DOM is regulated by both information structure and semantics: <div><div>(a) Languages where DOM applies to topical objects and non-topical objects with certain semantic features (spreading to arguments with topic-worthy features, while also retaining a connection to information-structure role).</div><div>(b) Languages where DOM applies to topical objects only if they have certain semantic features (narrowing to arguments with topic-worthy features bearing the appropriate information-structure role).</div></div>

2.5.3 Distribution of DOM across verbal subclasses (von Heusinger and Kaiser 2011)

Differential marking interacts with verbal semantics. von Heusinger and Kaiser (2011) have tracked the diachronic development of the *a*-marking in Spanish for twelve verbs divided into five verbal subclasses, using the affectedness scale of Tsunoda (1985: 388). They have shown that PERCEPTION, FEELING and EFFECTIVE ACTION verb classes grammaticalized the *a*-marking of human objects more rapidly than PURSUIT and KNOWLEDGE, subclasses (von Heusinger and Kaiser 2011: 609–614). Importantly, the ranking of the percentage of *a*-marking of human objects in Spanish, both definite and indefinite, does not entirely correspond to Tsunoda’s hierarchy (von Heusinger and Kaiser 2011: 611–612), as can be seen in (11).

- (11) a. *Tsunoda 1985*: ACTION > PERCEPTION > PURSUIT > KNOWLEDGE > FEELING
b. *Spanish definite NPs*: PERCEPTION, FEELING, ACTION >> PURSUIT, KNOWLEDGE
c. *Spanish indefinite NPs*: PERCEPTION > FEELING, ACTION > KNOWLEDGE > PURSUIT

Von Heusinger and Kaiser (2011: 613–614) also show that Spanish PERCEPTION class verbs such as *oir* ‘hear’ and *escuchar* ‘listen’ have acquired the *a*-marking more rapidly than *mirar* ‘look at’ and *ver* ‘see’. The authors ascribe this to the competition of agentivity, which is higher in the cases of *oir* and *escuchar*: their direct objects have to actively produce some noise to be heard or listened to (2011:

615). We will return to the origins of differential argument realization and its unequal distribution across verbal subclasses in Abui in Section 4.5.

3 Abui semantic alignment

This section sketches the argument realization in Abui – a Papuan language spoken in Eastern Indonesia and a member of the Alor branch of the Alor-Pantar family (Holton et al. 2012). Only features necessary for the understanding of differential argument realization (Section 4) are included here. Abui is head-final and head marking; person prefixes index possessors on possessed nouns and undergoer arguments (at most two) on verbs. According to Siewierska (2011), systems marking undergoers alone (leaving actors unmarked) are rare, constituting only about 7% of her sample. In the Alor-Pantar family, undergoer marking is a common trait. Arguments and adjuncts precede the verb. Abui syntax is characterized by moderate clause chaining following the temporal sequence of events and distinguishes between final (fully inflected) and medial verbs. Further details can be found in Kratochvíl (2007, 2011).

3.1 Basic morphosyntactic oppositions

Abui semantic alignment is a typologically rare system where semantic features of participants directly determine argument realization. This means that Abui realizes clause arguments consistently with their semantic properties, and not as grammatical subjects or objects. This property complicates the question of whether the splits in the marking of undergoers discussed in this section should be considered counterparts of DOM.

As mentioned above, undergoer arguments are realized as prefixes on the verb. There are five distinct paradigms of undergoer prefixes (two out of the five paradigms combine with nouns to express possessors). Actor arguments are realized by free pronouns. The entire system is given in Table 3. The prefixes follow a CV(V) pattern, where the consonant records person, while the vowel records number and argument type. The same arrangement is found also in other Alor-Pantar languages, including the neutralization of the *a*- and *e*-grade in plural (also found in Kamang and Sawila), but only the general *a*-grade (paradigm I) is reconstructed for the whole family (Kratochvíl et al. 2011; Holton et al. 2012: 97–98). The genitive *e*-grade (paradigm III) is reconstructed in the third person only (Holton et al. 2012: 97–98). The *d*-forms (3i) are innovated in Abui.

Table 3: Abui pronominal and person agreement inventory

Person		I	II	III	IV	V
1S	<i>na</i>	<i>na-</i>	<i>no-</i>	<i>ne-</i>	<i>noo-</i>	<i>nee-</i>
2S	<i>a</i>	<i>a-</i>	<i>o-</i>	<i>e-</i>	<i>oo-</i>	<i>ee-</i>
1PE	<i>ni</i>	<i>ni-</i>	<i>nu-</i>	<i>ni-</i>	<i>nuu-</i>	<i>nii-</i>
1PI	<i>pi</i>	<i>pi-</i>	<i>pu-/po-</i>	<i>pi-</i>	<i>puu-/poo-</i>	<i>pii-</i>
2P	<i>ri</i>	<i>ri-</i>	<i>ru-/ro-</i>	<i>ri-</i>	<i>ruu-/roo-</i>	<i>rii-</i>
3	–	<i>ha-</i>	<i>ho-</i>	<i>de-</i>	<i>doo-</i>	<i>dee-</i>
3I	<i>di</i>	<i>da-</i>	<i>do-</i>	<i>he-</i>	<i>hoo-</i>	<i>hee-</i>
DISTR	–	<i>ta-</i>	<i>to-</i>	<i>te-</i>	<i>too-</i>	<i>tee-</i>
gloss	A	PAT	REC	LOC	GOAL	BEN

Besides the six paradigms, some arguments can be expressed as bare nouns only, adding up to seven basic argument realization options. There is no default transitive or intransitive role, but arguments appear as one of the seven argument roles: ACTOR (A) – free pronoun, PATIENT (PAT) – prefix paradigm I, RECIPIENT (REC) – prefix paradigm II, LOCATION (LOC) – prefix paradigm III, GOAL (GOAL) – prefix paradigm IV, BENEFACTIVE (BEN) – prefix paradigm V, and NEUTRAL (N) – bare noun or NP. The labels for the argument roles refer to typical thematic roles but do not imply one-to-one correspondence.

First and second person participants are realized with pronominal forms, as in (12). Third person participants may be realized by additional NPs, as in (12b), but it is not always possible to add a free pronoun co-referential with the person prefix in the same position where an NP would be allowed, as in (12c)–(12d).

- (12) a. *na ha-tak do a he-roa!*
 [1SA 3.PAT-bring.down PRX]_{CLAUSE} 2SA 3.LOC-watch.CNT
 ‘watch how I shoot!’ [A-PAT; A-LOC]
- b. *na el tifi do ha-beek-d-i*
 1SA before [tv PRX]_{NP} 3.PAT-bad-HOLD-PFV
 ‘I broke the television’ [A-PAT]
- c. *na (?hel/ ?hedo) ha-kuoila*
 1SA 3TOP 3FOC 3.PAT-throw.down.CNT
 ‘I am pushing it over (to fall)’ [A-PAT]
- d. *a (?nel/ ?nedo) na-wel*
 2SA 1S.TOP 1S.FOC 1S.PAT-bathe
 ‘you are bathing me’ [A-PAT]

The pronoun doubling, marking topics and focused constituents, as in (12c)–(12d) seems more plausible with undergoer prefixes other than PAT. The constraint could be phonological: focus in Abui is marked by pitch and intensity and could be easily mistaken for the length distinction between LOC ~ BEN and REC ~ GOAL prefixes.³

- (13) a. *na edo oo-burok naha do! a-ran ba*
 1SA [2S.FOC]_{GOAL} 2S.GOAL-move not PRX 2S.PAT-quiet.CPL SIM
taa!
 lie
 ‘I am not disturbing you, just sleep!’ [A-GOAL]
- b. *a ko yang nedo ne-wahai re nala wala*
 2SA IRR maybe [1S.FOC]_{LOC} 1S.LOC-look.at or something just
war-marang nu mia ba a he-wahai?
 sun-come.up SPC in-DUR REL 2SA 3.LOC-look.at
 ‘are you looking at me or is there something eastwards you are looking
 at?’ [A-LOC]

Other argument types (LOC, REC, GOAL, BEN, and N) in two-argument clauses with an A argument can be seen in (14). In (14a), the GOAL prefix *hoo-* refers to the A argument of the preceding clause *Fanmalei di*. The A argument is expressed with the free pronoun *na*. In (14b), the LOC argument is realized with the LOC prefix *he-* and the NP *bataa bika* ‘(sticky) tree seeds’. In (14c), the first person A argument combined with the GOAL argument realized with the prefix *hoo-* referring to the NP *atáng* ‘your hand’. Finally, (14d) illustrates the BEN argument in a construction involving another A argument.

- (14) a. *Fanmalei di de-mayol he-ananra na hoo-faaling*
 [name 3A]_{GOAL} 3I.AL-woman 3.LOC-talk.CNT 1SA 3.GOAL-listen
 ‘I am listening to Fanmalei talking about his girl’ [A-GOAL]
- b. *na bataa bika he-mi-a!*
 1SA [tree seed]_{LOC} 3.LOC-take-DUR
 ‘I am plucking off the sticky tree seeds [from a cloth]’ [A-LOC]

³ This part of the Abui grammar remains unclear; speakers differ in their judgements. I made no study of the doubling, but I presume that the doubled pronominal is always an adjunct and can always be omitted.

- c.

na

a-táng

hoo-puna-d-i,

na

a-fik-e

1SA

[2S.INAL-hand]_{GOAL}

3.GOAL-hold.CPL

1SA

2S.PAT-pull.away-IPFV

'I am holding onto your hand and pulling you'

[A-GOAL]
- d.

kaai

di

fe

hee'-akeeng

[dog

3A]_A

[pig]_{BEN}

3.BEN-threaten

'The dog is threatening/attacking the pig'

[A-BEN]

Kratochvíl (2011) argues that argument roles correspond to specific combinations of features such as specificity [SPC], control [CTRL], volition [VOL], instigation [INST], affectedness [AFF], individuation [IND], change [CHANGE], and change of state [COS]. A schematic overview of the system is given in Figure 1.

Fig. 1: Semantic features driving Abui argument realization

Table 4 gives an overview of Abui argument types, their morphosyntactic realization and semantic features. Undergoer and neutral arguments are ranked for individuation and linked to Beavers’ (2011) account of affectedness.⁴

None of the undergoer prefixes is more privileged or the default choice in intransitives: the Abui affectedness-based system cannot be analyzed in terms of direct or indirect objecthood (following Fillmore 2003 or Dowty 1991) and considered DOM, more so because tracking the degree of affectedness is not considered a characteristic of DOM.

⁴ Establishing a language-internal predicate classification based on construction alternations (such as Levin 1993) and entailment tests for Abui requires further research.

Table 4: Abui argument types, their realization and properties

Type	Realization	SPC	AFF.DEGREE	IND	Beavers 2011
a. NEUTRAL	(NP)	±	–	–	unspecified
b. BENEFACTIVE	(NP +) BEN prefix	+	+	–	potential
c. GOAL	(NP +) GOAL prefix	+	+	+	potential
d. LOCATION	(NP +) LOC prefix	+	++	–	non-quantized
e. RECIPIENT	(NP +) REC prefix	+	++	+	non-quantized
f. PATIENT	(NP +) PAT prefix	+	+++	+	quantized
g. ACTOR	(NP +) A free pronoun	+	n.a.	+	n.a.

3.2 Argument type selection and fluidity

Although a number of predicates are rigid in their argument selection, Abui semantic alignment has been characterized as relatively fluid (Kratochvíl 2007, 2011; Fedden et al. 2012, 2013). To illustrate the fluidity, the paradigm of the verb *wik-wit* ‘carry in hands/arms’ is given in (15). Each pronominal paradigm indicates a different degree of affectedness (Kratochvíl 2011: 601–606).

Carried animate participants are realized with the PAT prefix, even in cases when their animacy is only pretended in a game (15b). The indexing of other human participants seems to take precedence over inanimates, as can be seen in the marking of human “self-benefactors,” who are involved ‘alone, without others’ (REC – (15c)) and “goals” (GOAL – (15e)). The inanimate themes are mostly not indexed but realized as NPs (NEUTRAL – (15c), (15f)). Cases such as (15d) do not follow the same pattern, marking both the theme (LOC) and benefactive (BEN). Although reference is made to a definite theme, just as in (15f), only in (15d) the theme is indexed with the LOC prefix even though the NP denoting the theme is omitted.

- (15) a. *Bui kaai ha-wik*
[name]_N [dog]_{PAT} 3.PAT-carry.in.arms
‘Bui is carrying her dog in her arms’ [N-PAT]
- b. *Bui bataa tuku mi de-wiil he-r ba*
name wood piece take 3I.AL-child 3.LOC-reach SIM
ha-wik
3.PAT-carry.in.arms
‘Bui made a doll from a piece of wood and carries it around’ [N-PAT]

- c. *akun nuku, dikang di de-naamang*
 morning one again 3A [3I.AL-cloth]_N
do-wit-i, pun namei he-yaar-i
 3I.REC-carry.in.arms.CPL-PFV field prepare.field 3.LOC-go.CPL-PFV
 ‘one morning, he again took his clothing and went to work in the field’
 [A-N-REC]
- d. *a-táng do mi Ø he-wik,*
 2S.INAL-hand PRX take [Ø]_{LOC} 3.LOC-carry.in.arms
hee-wik-e!
 3.BEN-carry.in.arms-IPFV
 ‘carry it in your hands, carry it for him!’ [(A)-LOC, (A)-BEN]
- e. *na ara mi hoo-wik*
 1sA firewood take 3.GOAL-carry.in.arms
 ‘I give him firewood to carry’ [A-GOAL]
- f. *sura foka do baai wik-e?*
 book big.CNT PRX also carry-IPFV
 ‘shall I carry this big book too?’ or ‘should this big book be brought too?’
 [(A)-N]

Realization of the ‘bearer’ in (15) varies. Both (15a)–(15b) are expressed without the free A pronoun *di*. In imperatives and questions, there is no reference to the ‘bearer’, as in (15d) and (15f). In all instances the omission of the free pronoun is meaningful and characterizes events with decreased or demoted agency. Differential realization of agents is discussed in Section 4.2.

Although many verbs show a similar pattern, paradigms contain gaps. The assumption in this analysis is that the argument constraints reveal the meanings of verbs. For example, verbs compatible with the PAT argument denote events bringing about a change of state. On the other hand, verbs incompatible with the PAT argument denote events without change of state. Similarly, verbs incompatible with NEUTRAL arguments (expressed by an NP, but not co-indexed on the verb) refer to events with affected arguments (in terms of Beavers 2011).

3.3 Single argument clauses

The argument types discussed above express intransitive arguments as well, as in (16). In (16a)–(16b), the single participant in a motion event is realized as the A argument. In (16c), the affected participant is expressed as PAT and REC argument. Agents in two-argument clauses can be demoted resulting in passive-like single argument clauses, but preserving the undergoer argument person index,

such as REC in (16d). Free pronouns cannot be used here. Participants passively involved in a natural process or state are realized as LOC arguments (16e)–(16f). Experiencer of heat is expressed with a GOAL prefix (16g). Attributes of both humans and non-humans such as their size, color, etc. (16h)–(16i) are left without person indexing; they are NEUTRAL arguments. In the third person, these predicates can occur without a supportive item (copula), but in the first and second person (16j) the free focus pronoun has to be used. This is an instance of person-based differentiation of intransitive predicates (cf. Stassen 1997: 596). The LOC-*do* paradigm is derived from the light verb *d*+ASP ‘get, hold’, which is compatible with person indexing. See Section 4.5.1 for further details.

- (16) a. *afeida war-weria na ayon-i*
 yesterday noon 1SA swim.CPL-PFV
 ‘yesterday at noon I went swimming’ [A]
- b. *ne-naana di me naha*
 1S.AL-older.sibling 3A come not
 ‘my older brother/sister is not coming’ [A]
- c. *anui beeka noo-saai ya na-rik-i no-beeka*
 [rain bad]_N 1S.GOAL-come.down.CPL SEQ 1S.PAT-ill-PFV 1S.REC-bad
 ‘I got caught up in the storm and fell gravely ill’ [N-GOAL; PAT, REC]
- d. *moku ba lakaang dakun-i yo wan ee mi*
 child LNK very dirty-PUT MD.AD already before take
yé=ng arin ba ho-luok ho-lan-i
 water=SEE cram.CPL SIM 3.REC-rub 3.REC-rub.CPL-PFV
ho-kui-a ho-bilel-r-a
 3.REC-peel-DUR 3.REC-sprout-REACH-DUR
 ‘that child that was so dirty was taken and soaked in the water, washed and scrubbed until she become clean’ [REC]
- e. *ruwol he-pok-u*
 chicken 3II.LOC-burst-PRF
 ‘the chick hatched’ [LOC]
- f. *ama ba món war buti he-maria*
 person LNK die.CPL day four 3.LOC-leak.fluid
 ‘anyone[‘s body] who has been dead for four days leaks liquid’ [LOC]
- g. *noo-lila*
 1S.GOAL-hot
 ‘I feel hot’ [GOAL]
- h. *nefala foka naha*
 [1S.AL-house]_N big.CNT not
 ‘my house is not large’ [N]

- i. *maama tukoi*
 [father]_N strong
 '[my] father is strong' [N]
- j. *edo tukoi*
 [2s.FOC]_N strong
 'you are strong' [N/FOC]

Single argument predicates display fluidity in argument selection as well. In (17), alternations between PAT/LOC arguments and GOAL encode the difference between affected or attributed state and experienced state. This rare alternation is only available to human participants.

- (17) a. *na-akuti*
 1S.PAT-blind.CPL
 'I became blind' [PAT]
- b. *noo-akuta*
 1S.GOAL-blind.CNT
 'I feel blind' [GOAL]
- c. *ne-rekna*
 1S.LOC-thirsty
 'I am thirsty' [LOC]
- d. *noo-rekna*
 1S.GOAL-thirsty
 'I feel thirsty' [GOAL]

3.4 Reflexive and middle construction

Semantic underpinnings of the Abui system require some participants to be realized by two coreferential arguments whenever an argument fits the semantic features of an actor (CTRL, VOL, INST) and undergoer (AFF). The single self-affecting participant in reflexive events is expressed with both the free pronoun and person prefix. In (18), a transitive predicate *haweli* is contrasted with the reflexive *daweli*. The *h*-series prefix *ha-* refers to a third person participant lacking actor features. The prefix *da-* refers to the A argument *Fani di*. The A argument can be demoted completely, as can be seen in (18c)–(18d) to stress the resulting state of Fani, although the distinction whether he has performed the washing himself or has been washed is still made.

- (18) a. *Fani di el ha-wel-i*
 [name 3A]_A before 3.PAT-pour-PFV
 ‘Fani has washed him’ [A-PAT]
- b. *Fani di el da-wel-i*
 [name 3A]_A before 3I.PAT-pour-PFV
 ‘Fani has washed himself’ [A-PAT]_I
- c. *Fani el da-wel-i*
 [name]_{PAT} before 3I.PAT-pour-PFV
 ‘Fani already had a shower’ [PAT]_I
- d. *Fani el ha-wel-i*
 [name]_{PAT} before 3.PAT-pour-PFV
 ‘Fani has already been washed’ [PAT]

The *d*-series alternation is not restricted to transitive verbs. Verbs of translational motion can undergo the same alternation, where the single argument may be realized in three ways as A, A and REC, or REC only, as shown in (19). The verb *laak* denotes a motion towards a goal location, which rarely appears in the clause, as in (19d). Most often, *laak* combines with the A argument (19a). An equivalent of a middle construction (Kemmer 1993, 1994) also exists: *laak* may take on the REC prefix *do-*, coreferential with the A argument (19b) or drop the A argument and retain only the REC prefix (19c). The semantics of the REC prefix also includes the meaning of ‘alone, without others’ which are compatible with almost any event, one can leave [home] without anyone else, or get better or feel good without any outside intervention, as in (20c)–(20d).

- (19) a. *di laak*
 3A leave.for
 ‘he leaves, he is going (to some place)’ [A]
- b. *di do-laak*
 3A 3I.REC-leave.for
 ‘he returns (to his original location)’ [A-REC]_I
- c. *do-laak*
 3I.REC-leave.for
 ‘he (has to) leave (for his destination), return (to his original location)’ [REC]_I
- d. *wan melang laak-e?*
 already village leave.for
 ‘is he going home (lit. to the village)’ [(A) N]

Many verbs may undergo the [A ~ A + *d*-series ~ *d*-series] alternation. There are a few “inherently middle” verbs such as *-lal* ‘laugh, smile’, attested only in the [A + *d*-series ~ *d*-series] alternation (see Kratochvíl 2011: 609–613 for more examples). The *d*-series prefixes contrast with *h*-series in other single argument clauses, such as (20). The *d*-series implies that the participant carries some responsibility for the event, which is completely missing when the *h*-series is used.

- (20) a. ***da-kaai***
 3I.PAT-drop.CPL
 ‘he stumbled [was not paying attention]’ [PAT]
 b. ***ha-kaai***
 3.PAT-drop.CPL
 ‘she fell (only about small children and non-humans not attributed control)’ [PAT]
 c. ***do-kaang***
 3I.REC-good
 ‘he is healing (getting better)’ [REC]
 d. ***ho-kaang***
 3.REC-good
 ‘he feels good (in a good mood)’ [REC]

In order to address this alternation, we have to adopt a narrower definition of control. Control is often used interchangeably with instigation (Næss 2007: 45). To account for the alternations such as (20), we will distinguish between responsibility for the onset of an event and its execution. Instigation will refer to the first, while control is reserved for the latter. In most cases both notions will collapse (cf. Tsunoda 1985), but examples such as (19c) and (20c) show that the absence of the A argument indicates the lack of control but the *d*-series prefix indicates that the affected argument is responsible for the onset of the event, i.e., instigating the motion, fall, or healing (3I is used in glosses, subscript _i in the labels).

To sum up, in single argument clauses, person indexing shows a strong bias towards humans. Although animate and inanimate participants are not principally excluded, they certainly form a minority.

3.5 Other two-argument clauses

Abui clauses are constructed with the rules of the semantic alignment stipulated above. In consequence, there are more than a dozen two-argument clause types, which can be roughly divided into: (i) two-argument clauses without an instigator

(no *d*-series prefixes, no A construction alternation, and (ii) two argument clauses with an instigator (allowing the *d*-series prefixes, compatible with the A construction alternation).⁵

The instigator-less clauses contain either at least one NEUTRAL argument or are co-indexed for two undergoer arguments. This pattern is common for location verbs, verbs of similarity and verbs of possession. The located, compared, or possessed participant is expressed as the NEUTRAL argument, as in (21a). Human locations or “owners” are indexed with prson prefixes (21b). Verbs of bodily experience and bodily processes pattern similarly as (21b).⁶ The stimulus is typically realized as a NEUTRAL argument. The human experiencer is realized with the appropriate person prefix, as in (21c)–(21d). Further examples can be found in Kratochvíl (2011: 613–616).

- (21) a. *afu loku tama mi-a*
 [fish PL]_N [sea]_N in-DUR
 ‘fish live in the sea, lit. fish are in the sea’ [N-N]
- b. *seng noo-pa*
 [money]_N 1S.GOAL-touch.CNT
 ‘I have got money’ [N-GOAL]
- c. *ara tika hoo-lai*
 [fire smoke]_N 3.GOAL-spread
 ‘smoke is blown to him, engulfs him’ [N-GOAL]
- d. *na-took na-rik*
 [1S.INAL-stomach]_N 1S.PAT-hurt
 ‘my stomach hurts’ [N-PAT]

Emotion predicates regularly require both the stimulus and experiencer to be indexed, as can be seen in (22). In all cases, the human experiencer is not instigating or controlling the event but passively reacts to the stimulus; it is not grammatical to refer to such an experiencer with a free pronoun.

- (22) a. (**a*) *o-ne-beei?*
 2SA 2S.REC-1S.LOC-angry
 ‘are you angry with me?’ [REC-LOC]

⁵ Similar clause types, sometimes referred to as semitransitive, have been reported for other languages (cf. Næss 2007: 189; Dryer 2007: 270–274; Tsunoda 1981: 149–151).

⁶ Experiencers receive special treatment in many languages, often being recorded in so-called “impersonal” constructions.

- b. (**na*) *sieng ma he-noo-maran-i*
 1SA [rice cooked]_{LOC} 3.LOC-1S.GOAL-come.up.CPL-PFV
 ‘I am stuffed with the rice, I am satiated by the rice’ [LOC-GOAL]

Instigator clauses always contain an experiencer instigating the event but with variable control and volition and can mostly undergo the A construction alternation, illustrated below with the bracketed pronoun. Cognitive and “self-benefactive” events are most frequently realized in this way. Cognitive events of ‘thinking’ and ‘remembering’ are exemplified in (23). When the actor pronoun is present, the cognitive event is a volitional act, but when it’s missing, the construction refers to an involuntary process (see Section 4.2.2 for further details about this alternation).

- (23) a. (*na*) *Simon he-no-mpang*
 (1SA) [name]_{LOC} 3.LOC-1S.REC-think
 ‘I think of Simon’ [LOC-REC]
 b. (*na*) *ne-wiil he-na-minang*
 (1SA) [1S.AL-child]_{LOC} 3.LOC-1S.PAT-remember
 ‘I remember my child’ [LOC-PAT]

Self-benefactive constructions, unlike reflexives (Section 3.4), describe situations in which the actor benefits from the outcome of the event. As in the previous case, the actor can be realized as either A or NEUTRAL argument with the same meaning alternation as in (23). These instances illustrate the systemic bias towards indexing arguments placed high on referential hierarchy.

- (24) a. *yoikoi do di ama he-baleei do-takai*
 [turtle PRX 3A]_A [person 3.al-banana]_N 3I.REC-steal
 ‘the turtle steals someone’s bananas for himself (only)’ [A-N-REC]
 b. *ni mayol moku nu-ha-pai*
 1PEA [woman child]_{PAT} 1PE.REC-3.PAT-keep
 ‘we keep our daughter with us’ [A-REC_I-PAT]
 c. *hare di he-tee-tang ho?*
 so 3A 3.LOC-DISTR.BEN-hand tag
 ‘so they exchanged it, right?’ [A-LOC=BEN]
 d. *do-da-lal-i-a*
 3I.REC-3I.PAT-laugh-PFV-DUR
 ‘he is giggling, lit. laughing for himself’ [REC_I-PAT_I]

e. *doo-da-lal*

3I.GOAL-3I.PAT-laugh

‘he is smiling at himself (in the mirror)’

[GOAL₁-PAT₁]

Abui semantic alignment leaves little room for syntactic categories such as pivots or controllers to be developed or maintained, see Kratochvíl (2011: 620–622).

4 Differential argument realization in Abui

The previous section illustrated differential argument realization based on semantic features of participants such as affectedness, individuation, control, and volition. Although Abui differentiates between seven argument types (A, PAT, REC, LOC, GOAL, BEN, N); core arguments are realized as pronouns (A), person prefixes (U), or bare NPS (NEUTRAL). When further differentiation is needed, it is manifested by larger bulk of morphological material involved (following Haiman 1983:792). In Abui this “bulk of morphological material” comes in the form of serialization with light verbs. Example (25) contrasts the argument realization in several ‘hitting’ events. In (25a), the hitting is directed towards fruits on the tree, and in (25b), a body part is hit, while in (25c), a human is beaten. The first two sentences show differential realization based on the degree of affectedness, but (25c) shows a differential treatment of a participant outranking the previous one on the referential hierarchy. To express the first person undergoer, the light verb *-l* (GIVE), indexed with the LOC prefix, combines with the main verb *bol* ‘hit’.

- (25) a. *di kanai do bol took bol took*
 3A [canari.nut PRX]_N hit drop hit drop
 ‘he was hitting the canari nuts dropping [them] down’ [A-N]
- b. *baloka ne-toku he-bol he-balasi ba*
 [name]_N [1S.AL-leg]_{LOC} 3.LOC-hit 3.LOC-beat.CPL SIM
wea-d-i
 blood-GET-PFV
 ‘the [sharp] grass hit my legs and slashed them making them bleed’ [N-LOC]
- c. *Markus di ne-l bol ne-l balasa*
 name 3A 1S.LOC-GIVE hit 1S.LOC-GIVE beat.CNT
 ‘Markus is beating me, lit. Markus gives me a beating’
 [A-LOC-*l* + main.verb]

There is a small group of light verbs in Abui, characterized by a considerable amount of polysemy and shared distributional patterns: *ng/n* ‘SEE’, *-l* ‘GIVE’, *-r* ‘REACH’, *-dV* ‘HOLD/GET’, *mi* ‘IN/TAKE’, *i* ‘PUT/HAVE’, *-k* ‘THROW’, *pa* ‘TOUCH’, *bV* ‘JOIN/HIT’ etc.⁷ An Abui light verb is glossed with regular face only when it is the single main verb of a clause. In all other uses (differential argument realization, derivation, complex predicates) they are glossed with small capitals (for more details see Klammer and Kratochvíl 2010). The presence of light verbs is the diagnostic feature of differential argument realization, as in (25).⁸ The light verb forms a constituent with the differentially realized argument. In the case of agents, the constituent is located at the beginning of the clause; in the case of undergoers, goals, and other semantic roles, it must immediately precede the main verb. We will see that in some cases the referential constituent (NP or clause) can be found further before the verb, but even in those instances the light verb remains immediately adjacent to the main verb.

In the remainder of this section, I will discuss the differentiation of neutral arguments (4.1), actor arguments (4.2), goals and locations (4.3), animacy and specificity as triggers of differential argument realization (4.4), and end with a discussion of origins of differential argument realization in Abui (4.5).

4.1 Differential realization of human undergoers

Abui does not display a consistent pattern in which participants at any rank of the referential hierarchy are treated across all verbal subclasses. A subset of verbs, which realize their undergoers as NEUTRAL arguments, differentiates them whenever they are human, as in (25) above. Further examples of the verb *bol* ‘hit’ with human undergoers are given in (26). Note also that the inanimate undergoer can be elided in favor of marking the benefactive, as in (26c), showing the bias towards the indexing of highly ranked participants.

⁷ The heterosemy (cf. Lichtenberk 1991) of Abui light verbs resulted from a grammaticalization process, during which a number of verbs such as ‘give’ and ‘hold’ have taken on the task of facilitating argument realization in certain syntactic positions retaining their ability to licence arguments.

⁸ These diagnostic features “leak” somewhat: there are several verbal subclasses that express their human participants by default with light verbs, most notably predicates denoting bodily experience, cognition, and emotion. These predicates are structured around common cognitive metaphors such as ANGER IS HEAT or PEACE IS SILENCE. For example *ne-l dohung* [1S.LOC-GIVE steam] refers to feeling hot and sweaty in a humid climate, while *do-mi ha-da rama* [3I.REC-IN 3.PAT-HOLD-DUR calm] refers to someone recovering his/her composure.

- (26) a. *ko na e-l bol!*
 IRR 1SA 2S.LOC-GIVE hit
 ‘I will hit you!’ [A-LOC-*l* + main.verb]
- b. *ama loku di te-l bol*
 person PL 3A DISTR.LOC-GIVE hit
 ‘the people [the crowd] beat all of us’ [A-LOC-*l* + main.verb]
- c. *ma, na ee-bol*
 well 1SA 2S.BEN-hit
 ‘well, I will hit (it) for you’ [A-BEN]

The verb *takei~takai* ‘bite, chew’ displays a similar pattern. N arguments express the ‘chewed’ entity in habitual contexts (27a). Specific inanimate entities undergoing biting or chewing are indexed with the LOC or GOAL prefix (27b)–(27c); animates are also indexed with the LOC prefix, but require the additional light verb *-l* ‘give’ (27d).

- (27) a. *di fu takai ho-mi=wea naha*
 3A [betel.nut]_N chew.CPL 3.REC-IN=blood not
 ‘he doesn’t like to chew betel nut’ [A-N]
- b. *tukda-ili di wan hel nala amur do hedo*
 mouse 3A already [3TOP something hairs PRX]_{LOC} 3.FOC
wan he-takei
 already 3.LOC-bite
 ‘the mouse bit through that hair [string]’ [A-LOC]
- c. *pi miyei la to-h-ier ba*
 [1PIA come.CPL be.MD DISTR.REC-3.PAT-roast.CPL]_{GOAL} SIM
mi pi fat ma too-takai
 take 1PIA [corn cooked]_{GOAL} DISTR.GOAL-bite.CPL
 ‘we came [back from the market] and immediately roasted it [all the fish we brought] and ate it with cooked corn’ [A-GOAL]
- d. *ne-feela di ne-tak mading hu mon do di*
 1S.AL-friend 3A 1S.LOC-stop so.that snake PRX 3A
ne-l takai naha
 1S.LOC-GIVE bite.CPL not
 ‘my friend held me back so that the snake would not bite me’ [A-LOC-*l* + main.verb]

The [LOC-*l* + main.verb] alternation is very common in Abui – there are hundreds of instances in the corpus. The alternation primarily occurs with verbs of contact by impact such as ‘bit, poke, prick, massage, beat up, kill, bite, sting, smite, cut,

hack, strike’ combined with a human undergoer. The [LOC-*l* + main.verb] construction is also used to realize affected human participants of (i) verbs of motion and locomotion, (ii) search verbs – ‘search, guard’, (iii) and verbs of change such as ‘shorten, lengthen, revitalize, rejuvenate, etc.’. The [LOC-*l* + main.verb] construction is not compatible with verbs of perception.

4.2 A marking alternations

In general, only humans and certain animates can be realized as A arguments in Abui (i.e., they are compatible with free pronouns), as shown in (12)–(16). Natural forces can be marked by free pronouns too, when their effect is beyond the ordinary. In (28), the treatment of two natural forces is contrasted. In (28a), the rain is realized as an N argument. In (28b), where a house was broken by a gale; the argument *timoi* ‘wind’ is followed by the free pronoun *di* (3A) marking the excessive force of the ‘wind’.

- (28) a. *anui sei kaanra mai no-laak*
 [rain]_N come.down.CNT complete.CNT and.then 1S.REC-leave.for
 ‘when it stops raining, I will go back’ [N]
- b. *di de-fala ba timoi di ha-lák-i yo mi=ng*
 3A 3.AL-house REL wind 3A 3.PAT-break-PFV MD.AD IN=SEE
 ha-tamadia
 3.PAT-repair.CNT
 ‘he is making repairs on his house that was broken by the gale’ [A-PAT]

Examples (16)–(20) show that human and animate single participants are not always realized as the A argument either. The person indexing reveals a differential realization of instigating participants lacking control and supports the view of *actor* as a cluster of semantic features (Cruse 1973; Dowty 1979, 1991; Hopper and Thompson 1980; Rozwadowska 1988; Reinhardt 2002; Næss 2007; Creissels 2008: 148). Semantic features responsible for the differential realization of actor are listed in Table 5. There are five basic alternations related to volition (4.2.1 and 4.2.2), participation in an (un)desirable action (4.2.3–4.2.4) or participation in a not entirely viable action (4.2.5).

Table 5: Triggers of differential realization of agents in Abui

Type	Pattern	Section
INVOLUNTARY AGENT	A= <i>ng</i> alternation	4.2.1
INVOLUNTARY PARTICIPANT	A ~ N alternation	4.2.2
RELUCTANT AGENT	LOC- <i>i</i> alternation	4.2.3
RESTRICTED AGENT	LOC- <i>ng</i> alternation	4.2.4
EFFECTIVE AGENT	PAT- <i>ra/re</i> alternation	4.2.5

4.2.1 Involuntary agents: A=*ng* alternation

Agents lacking volition are realized as A arguments of the light verb *ng* ‘see’ followed by the lexical verb. Although the A pronouns and PAT person prefixes are often homophonous, the evidence that the construction combines with the A paradigm comes from the third person form (29e), where we find the pronoun *di* and not the prefix form *da-* (3I.PAT).

- (29) a. *na wan (he-)ananri*
1sA already 3LOC-talk.CPL
‘I have already talked (about it)’ [A-(LOC)]
- b. *na=ng wan ananri*
1sA=SEE already talk.CPL
‘I had to talk (against my will)’ [A=*ng* + main.verb]
- c. *na yaa*
1sA go
‘I am going, I go [there]’ [A]
- d. *na=ng yaa*
1sA=SEE go
‘I happen to go’ [A=*ng* + main.verb]
- e. *di=ng da-rui-d-a nu he-n war kalokol*
3A=SEE 3I.PAT-erect-GET-DUR SPC 3.LOC-SEE sun daybreak
marang
come.up
‘he got up at daybreak’ [A=*ng* + PAT-main.verb]

The above alternation is common in Abui. The light verb *ng* commonly marks non-volitional controllers acting mistakenly or in confusion (30), in both single- and two-argument clauses.

- (30) a. *nu-kuta, a=ng beeka laak-i*
 1PE-grandparent 2SA=SEE bad leave.for-PFV
 ‘grandfather, you went the wrong way’ [A=ng + main.verb]
- b. *ai a=ng beeka lol hare me yo*
 oh 2SA=SEE bad walk so come MD.AD
 ‘hey, you are going the wrong way, so come here’ [A=ng + main.verb]
- c. *a कांग हा-पating-d-i*
 2SA good 3.PAT-advice-GET-PFV
 ‘you have advised him well’ [A-PAT]
- d. *a=ng कांग हा-पating-d-i*
 2SA=SEE good 3.PAT-advice-GET-PFV
 ‘you happened to have advised him well’ [A=ng-PAT]
- e. *na ne-l mi tembok he-ha-b-i, kabei*
 1SA 1S.LOC-GIVE take wall 3.LOC-3.PAT-join-PFV little
na-nooting da-yongfi na=ng marakdi ya dikang
 1S.INAL-sould 3I.PAT-asleep.CPL 1SA=SEE scare.CPL SEQ again
na nel balei wahiye
 1SA 1S.LOC-GIVE around look.at-IPFV
 ‘I sat myself down and leaned against the wall, and I was bit sleepy,
 when I was startled and looked around’ [A=ng]

There is a similar English construction expressing decreased agency in instances such as *I saw a loss*, or *the markets saw a correction this month*. There are an additional 206 (0.68% of all clauses) instances of the [A=ng + main.verb] construction in the Abui corpus (the percentage is based on the assumption that an average Abui clause counts 4 words – there are then about 30,000 clauses in the 120,000 word corpus). Any verb compatible with the A argument can participate in this construction. In addition, verbs such as *-ruida* ‘get up, wake up’ occur more frequently in the involuntary agent construction than with only the A argument.

4.2.2 Involuntary participants lacking control: [A~N] alternation

Another frequent alternation is to replace the A argument with the NEUTRAL argument. Neutral arguments are expressed by a noun or noun phrase in third person. In (31) the verbs *aisa~aisi* ‘urinate, pee’ and *mia* ‘be in (a location)’ are contrasted. Both verbs can occur with either the NEUTRAL or A argument. In (31b), a combination of the NEUTRAL argument and GOAL can be seen. *Fanmalei* is a small boy, who is afraid to sleep alone, but regularly wets his bed and one of his parents or relatives sleeping next to him. Because *Fanmalei* is clearly not doing

so on purpose and has no control over the bed-wetting, he cannot be realized as the A argument. In (31c)–(31d), two ways of staying in a location are contrasted. In (31c), the participant insists on remaining in his location, while in (31d), no volition seems to be involved. Finally, older speakers prefer participants placed lower on the referential hierarchy, such as dogs, not to be realized as A arguments, but as NEUTRAL arguments with those predicates that make an assessment of intentions, such as ‘search’ (31e).

- (31) a. *pi-wai, wai pi-kuya hare pi yaa aisi=te*
 1PI-urine urine 1PI.PAT-soak so 1PIA go urinate.CPL=INCH
 ‘we need to pee, so let’s go pee first’ [A]
- b. *Fanmalei noo-aisi!*
 [name]_N 1S.GOAL-urinate.CPL
 ‘Fanmalei peed on me [bed-wetting on his parent]’ [N-GOAL]
- c. *a do mi-a maiye ama e-l feng kaang*
 2SA PRX in-DUR if [person]_N 2S.LOC-GIVE injure can
 ‘if you [decide to] stay here, you can get killed’
 [A-N; N-LOC-*l* + main.verb]
- d. *Fani fala mia oro kamai ha-d-a=mui-l-a*
 name house in-DUR DST cat 3.PAT-HOLD-DUR=play-GIVE-DUR
 ‘Fani is playing with the cat over there in the house’
 [N-N; N-PAT-*d-a* + main.verb]
- e. *kaai do (*di) yang rui tahai*
 [dog PRX]_N 3A maybe [rat]_N search
 ‘the dog might be looking for rats’ [N-N]

The first and second person equivalents of the [A~N] alternations shown in (31) realize the NEUTRAL argument with focus pronouns. Focus pronouns behave as simple nouns and can be marked as the A argument with the corresponding A-series pronoun, but in its absence are interpreted as NEUTRAL arguments, as in (32). Neutral arguments are characterized by the lack of volition and control and may refer to events that are not instantiated. The [A~N] alternation is very common in Abui; see also (15a)–(15b), (16c), (18c), and (23).

- (32) a. *nedo na no-laak*
 [1S.FOC 1SA]_A 1S.REC-leave.fore
 ‘I am going home [on my own]’ [A-REC]
- b. *nedo no-laak*
 [1S.FOC]_N 1S.REC-leave.fore
 ‘I am just going home [on my own]’ [N-REC]

Agents involuntarily participating in an action are expressed with the [LOC-*i* + main.verb] construction whether the action is desirable or undesirable (depending on the nature of the event and the negator *naha*). The [LOC-*i* + main.verb] construction involves the light verb *i* ‘put, have (to)’ which is indexed for the LOC argument for the reluctant agent. The construction is used to mark events that cannot be controlled, as in (33a). An undesirable state of affairs (from the perspective of the dog) is presented in (33b), although in this case ‘dying’ does not involve volition but illustrates ongoing semantic bleaching and grammaticalization. The *d*-series prefix reveals that the participant remains the instigator of the event, as discussed in Section 3.4.

- [illegible]

There are about 200 instances (0.66% of all clauses) of the [LOC-*i* + main.verb] construction in the Abui corpus. The only unifying semantic feature is their compatibility with the A argument. However, the reluctant agent alternation is available to verbs normally not compatible with the A argument, such as *akuta* ‘blind’ in (34) expressing the participant’s negative attitude to the event. Such constructions are almost exclusively found with first and second person. The presence of the ‘light verb copula’ illustrates the ongoing “verbal intrusion” into expressions of “properties and qualities” and contrasts with third person instances (see Section 3.3) with “zero copula” (in terms of Stassen 1997: 13, 586).

- (34) a. *nedo akuta*
 1S.FOC blind.CNT
 'I am blind' [N]
- b. *ne-i akuta*
 1S.LOC-have blind.CNT
 'I have always been blind [and never accepted it]' [LOC-i + main.verb]

4.2.4 Restricted agents: [LOC-*ng* + main.verb] alternation

The [LOC-*ng* + main.verb] construction expresses “restricted agents” who are deprived of other possibilities of acting than the one described by the main verb. The restricted agent construction uses the light verb *ng* indexed with the LOC prefix referring to the performer, as in (35) and (36). The construction is sensitive to the referential hierarchy: it is attested only in first and second person. First person instances given in (35) are used as hedges in conversations to reduce one’s responsibility (35a), or to indicate flexibility in negotiation of a bride price (35b).

- (35) a. **ne-ng** *la* *na-kol-na-kol-r-i*
 1S.LOC-SEE [be.MD]_{MODAL} RED[1S.PAT-trick]-REACH-PFV
 ‘I just could not help but cheat’ [LOC-*ng* + main.verb]
- b. **ne-ng** *de-i* *Ehei-ye* *masi* *iti*
 1S.LOC-SEE 3I.LOC-have drum.type-IPFV but that.INAN
o-kalen *hare* *d-i* *Fiyaifutal*
 2S.REC-refuse so get-PFV drum.type
 ‘I couldn’t help [thinking that] an Ehei drum is appropriate but you don’t want that, so let it be a Fiyaifutal drum’ [LOC-*ng* + main.verb]

Second person instances in (36) are from conversations as well, and are used to limit the addressee’s options and stress the inevitability of the proposed suggestion. Presenting the addressee as being deprived of other choice mitigates the face-threat and avoids an imperative.

- (36) a. **e-ng** *we-i* *ba* *he-l* *kooi*
 2S.LOC-SEE leave-PFV SIM 3.LOC-GIVE cut.down
 ‘you cannot but go slay him’ [LOC-*ng* + main.verb]
- b. **e-ng** *la* *he-tulusa* *re!*
 2S.LOC-SEE be.MD 3.LOC-write.CNT or
 ‘you should just write it!’ [LOC-*ng* + main.verb]
- c. *ai*, **e-ng** *he-fanga*
 oh 2S.LOC-SEE 3.LOC-tell.CNT
 ‘you will have to tell it [to me]’ [LOC-*ng* + main.verb]
- d. **e-ng** *nuk-nuk-d-i=te* *hu,* *ko* *pi...*
 2S.LOC-SEE RED[one]-GET-PFV=INCH SPC.AD IRR 1PIA
 ‘see [to it that the list is checked] one by one, then we will ...’ [LOC-*ng* + main.verb]

4.2.5 Effective agents: [PAT-ra + main.verb] alternation

(37) a. ***a-ra*** *ne-piyei* *do* *he-falaaka* *tahai*
 2S.PAT-REACH.CNT [1S.AL-dream PRX 3.AL-message]_N search
 ‘try to clarify my dream’ [PAT-*ra* + main.verb]

b. ***a-re*** *n-uor-i*
 2S.PAT-REACH.ICP 1S.PAT-strike.CPL-PFV
 ‘try to throw at me’ [PAT-*re* + main.verb]

c. ***a-ra*** *na-pun-i*
 2S.PAT-REACH.CNT 1S.PAT-grab.CPL-PFV
 ‘try to catch me’ [PAT-*re* + main.verb]

d. ***na-ra*** *mara* *he-wahai* *h-ién-i*
 1S.PAT-REACH.CNT go.up.CNT 3.LOC-look.at 3.PAT-see.CPL-PFV
 ‘how about if I try to go up to see him’ [PAT-*ra* + main.verb]

4.3 Differential realization of goals and locations

As mentioned in Section 2.3, Abui strictly differentiates human recipients and inanimate goals in transfer events. A simple example with the verb *taboik* ‘send’ is given in (38). Note that the transferred theme is realized as an argument of the light verb *mi* ‘take’.

- (38) a. *Fani, a sura taboik maiye mi ba hedo=ng taboik-e*
 name 2SA [letter]_N send if take SIM here=SEE send-IPFV
 ‘Fani, if you will be sending a letter, send it here’ [A-N=ng + main.verb]
 b. *ko na ne-’imil on=te mi e-tabok*
 IRR 1SA [1S.AL-email]_N make.CPL=INCH take 2S.LOC-send
 ‘I will write an email and send it to you’ [A-LOC]

What is unusual about the Abui system is that the goals are distinguished through the entire system (also for motion verbs, verbs of communication, etc.) according to their position on the referential hierarchy and several other features. Each feature, with the corresponding pattern and section is listed in Table 6.

Table 6: Triggers of differential realization of goals and locations in Abui

Feature	Pattern	Section
VISIBLE GOAL	N=ng alternation	4.3.1
UNAFFECTED GOAL	N=ng alternation	4.3.1
SYNTACTIC NON-ADJACENCY	mi=ng alternation	4.3.2
SPECIFIC GOAL	LOC-ng alternation	4.3.3
INDIVIDUATED GOAL	REC-ng alternation	4.3.3
DISTAL + HUMAN GOAL	REC-k alternation	4.3.4
PROXIMATE + HUMAN GOAL	GOAL-pa=ng alternation	4.3.4
INDIVIDUATED LOCATION	REC-mi alternation	4.3.5

4.3.1 The N=ng alternation

The basic pattern for inanimate goals is shown in (39). Non-specific, often remote goals are realized as bare nouns, as in (39a). Affected goals are indexed with a person prefix; (39b) implies that some water will be taken away. Specific goals that are not affected are realized as arguments of the light verb *ng* ‘see’, as in (39c). The minimal pair in (39d)–(39e) shows the verb *haruida-haruidi* ‘put up,

build, erect' combined with a PAT argument in (39d) when the event occurs at once, but house-building done in stages requires the original PAT argument to be realized as a goal with the [N=ng + main.verb] alternation (39e). Finally, (39f) shows that the light verb *ng* 'see' can combine with an entire clause which does not express a goal location but rather a circumstance.⁹

- (39) a. *na yá sei*
 1SA [water]_N come.down
 'I come down to water' (invisible, unclear where) [A-N]
- b. *na yá he-sei*
 1SA [water]_{LOC} 3.LOC-come.down
 'I come down for some water!' (specific) [A-LOC]
- c. *na yá=ng sei*
 1SA [water]_N=SEE come.down
 'I come down to water! (visible, clear where)' [A-N=ng + main.verb]
- d. *mayol di de-kuong-faala ha-rui-d-i*
 [woman 3A]_A [3I.AL-bicycle]_{PAT} 3.PAT-erect-GET-DUR
 'the woman put up her bicycle' [A-PAT]
- e. *ne-feela di ne-l tulung ba ne-fala=ng*
 1S.AL-friend 3A 1S.LOC-GIVE help SIM [1S.AL-house]_N=SEE
ha-rui-d-a
 3.PAT-erect-GET-DUR
 'my friend helps me a bit to build my house' [N=ng + main.verb]
- f. *na natea, a me=ng na-suonra*
 1SA stand.CNT [2SA come]_{CLAUSE}=SEE 1S.PAT-shift.along.CNT
 'I am standing, and as you come, you bump into me'
 [CLAUSE=ng + main.verb]

4.3.2 Syntactically non-adjacent goals: the *mi=ng* alternation

The basic inanimate pattern shown in 4.3.1 undergoes the [*mi=ng* + main.verb] alternation whenever the goal noun or clause is not syntactically adjacent to the light verb *ng* 'see'. The light verb *mi* 'be in' is added because the light verb *ng* cannot form a single phonological word or be hosted by the following main verb. The basic [N=ng + main.verb] construction in (40a) contains the goal noun *ara*

⁹ The precise number of the [N=ng + main.verb] constructions in the corpus cannot be established, because of the way the corpus is annotated at present.

‘fire’. In (40b), the goal location is not mentioned but it is incorporated in the meaning of the predicate *ming ii* ‘light, set on fire’ (lit. ‘put into’). The [*mi=ng* + main.verb] construction shares some properties with applicatives, by allowing an argument to be added in the sentence and shifting the meaning of the predicate.

- (40) a. *korek api he-pala ara=ng i-i*
 [matches 3.AL-short.piece]_N [fire]_N=SEE put-PFV
 ‘the match was put [lit] in the fire’ [N-N+*mi=ng* + main.verb]
- b. *na korek api he-pala mi=ng i-i*
 1SA [matches 3.AL-short.piece]_N IN=SEE put-PFV
 ‘I lit a match, lit. I put a match in [the fire]’ [A-N + *mi=ng* + main.verb]

Further examples are given in (41). The [*mi=ng* + main.verb] alternation is used when the goal location constituent is not syntactically adjacent to the main predicate and a phonological support is needed to host the light verb *ng* ‘see’, as in (41a)–(41b). The triggering environment can be any NP constituent following the head, such as the demonstrative *yo* in (41a). The instrument/source *yambuk nu* ‘a glass’ occurs in the preceding clause in (41b). In (41c) the goal location *fakal* ‘flat basket, scuttle’ is separated from the [*mi=ng* + main.verb] construction by two clauses. Finally, just as in (39f), the [*mi=ng* + main.verb] construction is compatible with entire clauses, typically describing a circumstance, as in (41d).

- (41) a. *wiil-mayol di bataa pol mi ba, tenga yo mi=ng*
 girl 3A wood hammer take SIM plate MD.AD IN=SEE
batet-i ya he-n mia poku-kaili
 smite.CPL-PFV SEQ 3.LOC-SEE IN-DUR shattered.CPL
 ‘the girl took a hammer and hit at a plate [as you know] and doing so, she smashed it into shreds’ [A-N + *mi=ng* + main.verb]
- b. *yambuk nu nu-mi=wewa ba ni mi=ng buuk*
 [glass SPC]_{GOAL} 1PE.REC-IN=blood SIM 1PEA IN=SEE consume
 ‘we want that glass to drink from’ [A *mi=ng* + main.verb]
- c. *fakal mi ne-r ba na ruwol bira mi*
 [flat.basket]_{GOAL} take 1S.LOC-reach SIM 1SA chicken egg take
ba mi=ng i-i=se
 SIM IN=SEE put-PFV=INCH
 ‘give me a scuttle and I will put eggs into it’ [*mi=ng* + main.verb]

- d. *na-yongfi* *kaang-kaang-d-i* *ya, a* *miyei*
 1S.PAT-asleep.CPL RED[good]-GET-PFV SEQ [2SA come.CPL
na-teini *ba* ***mi=ng*** *na-rui-d-a* *yo*
 1S.PAT-wake.up.CPL]_{CLAUSE} SIM IN=SEE 1S.PAT-erect-GET-DUR MD.AD
 ‘I was asleep, and you came and woke me so I would get up’
[*mi=ng* + main.verb]

The [mi=ng + main.verb] alternation is very common; the Abui corpus contains 650 instances (2.16%). The most common verb subclasses compatible with the [mi=ng + main.verb] alternation are (i) verbs of motion and locomotion, (ii) verbs of communication, (iii) verbs of contact and impact, (iv) verbs of perception, and (v) verbs of change of state.

4.3.3 Specific and individuated goals: LOC-*ng*~REC-*ng* alternations

Finer differentiation is made for specific goals, which are differentiated further when they are individuated. Individuation refers to "... the distinctness of the patient from the A ... and to its distinctness from its own background" (Hopper and Thompson 1980: 253). Individuation is a characteristic of highly salient participants (Silverstein 1981: 240) that are usually ranked high on the animacy hierarchy and perceived as independent entities. Individuated participants are involved in the event in their entirety, although often being involved alone, without others, but do not necessarily reach the maximum degree of affectedness. In (42), a number of specific goals of motion events are compared. Individuated goals, such as tops of plants or backs of animals are realized with the light verb *ng* 'see' indexed with the REC prefix (42b)–(42d). Remaining specific goals are indexed with the LOC prefix. In (42a)–(42c) the goal location is not affected by the motion event, unlike (39b).

- (42) a. **a** **he-ng** *yaa* *tadeng* *yen-r-a?*
 2SA 3.LOC-SEE go day how.much.CPL-REACH-DUR
 ‘for how many days do you go there’ [A-LOC-*ng* + main.verb]
- b. **a** *wata* **ho-ng** *yaar-i*
 2SA coconut 3.REC-SEE go.CPL-PFV
 ‘you climbed on a coconut tree’ [A-REC-*ng* + main.verb]
- c. **di** *fu* *do* **ho-ng** *marei*
 3A [betel.nut PRX]_{REC} 3.REC-SEE go.up.ICP
 ‘he climbs onto the betel nut palm’ [A-REC-*ng* + main.verb]

- d. *di kuda ho-ng mit-d-i*
 3A horse 3.REC-SEE sit-GET-PFV
 ‘he mounted the horse, lit. he got seated on the horse’
 [A-REC-ng + main.verb]

The [LOC-ng + main.verb] construction can take an entire clause as its argument. The clause describes usually a circumstance (physical handicap), as in (43). The handicap is conceptualized as a location. Example (43a) translates literally as ‘he is sick, but seeing it he can walk’. The light verb *ng* appears in its completive stem *n* when the circumstance is completed (usually in the past), as in (43b).

- (43) a. *ha-rik haba he-ng laak kaang*
 [3.PAT-ill]_{LOC} but 3.LOC-SEE leave.for can
 ‘he is able to walk despite his illness’ [LOC-ng + main.verb]
- b. *ha-rik-i ba la=ng kabei mon-i, haba*
 [3.PAT-ill-PFV SIM be.MD=SEE little die.CPL-PFV]_{LOC} but
he-n ho-kaan-r-i
 3.LOC-SEE.CPL 3.REC-good.CPL-REACH-PFV
 ‘he was so ill that he almost died, but he recovered from it’
 [LOC-ng + main.verb]

There are about one hundred instances (>0.3%) of the [LOC-ng + main.verb] construction in the Abui corpus. The verbs compatible with this construction are from the same subclasses as in 4.3.2. There are about the same number of [REC-ng + main.verb] constructions in the corpus, but they are compatible only with verbs of motion, locomotion, and position.

4.3.4 Proximate and distal human goals: REC-k~GOAL-pa=ng alternations

Human goals are differentiated from all preceding types and show sensitivity to distance. Remote human goals are realized with the light verb *k* ‘throw’ indexed with the REC prefix, as in (44a). Proximate human goals take the light verb *pa* ‘touch’ combined with *ng* ‘see’ indexed with the GOAL prefix, as in (44b). Both types of human goals are not affected and contrast with instances such as (44c), where the human goal is affected by the rain (i.e., becomes wet).

- (44) a. *pi raha ho-k sei*
 1PIA [chief]_{REC} 3.REC-THROW come.down
 ‘we go down to meet the [far away] chief’ [A-REC-k + main.verb]

- b. *pi raha hoo-pa=ng sei*
 1PIA [chief]_{GOAL} 3.GOAL-TOUCH.CNT=SEE come.down
 ‘we go down to the [nearby, visible] chief’ [A-GOAL-*pa=ng* + main.verb]
- c. *anui beeka noo-saai*
 [rain bad]_N 1S.GOAL-come.down.CPL
 ‘I was caught up in the storm [and got wet]’ [N-GOAL]

The differential goal marking alternation such as (44) can be extended to speech verbs such as *fanga~fangi* ‘say’ (45). The human “goal” (addressee) of speech is realized in the same way. This realization contrasts with affected goals of the same verb *fanga~fangi* ‘say’, as in (44c). Note also the meaning shift between ‘tell someone’ (45a)–(45b) to ‘tell off someone, scold someone’ (45c).

- (45) a. *na ho-k fangi*
 1SA 3.REC-THROW say.CPL
 ‘I told him’ [A-REC-*k* + main.verb]
- b. *tewir=te e-a-took a-rik nu mi*
 why=INCH [2S.AL-2S.INAL-stomach 2S.PAT-hurt SPC] take
no-k fanga naha?
 1S.REC-THROW say not
 ‘why didn’t you tell me about your upset stomach’ [REC-*k* + main.verb]
- c. *a hoo-fangi re naha?*
 2SA 3.GOAL-tell.CPL or not
 ‘did you tell him off (scold), or not?’ [A-GOAL]

There are about 180 instances (0.6%) of the [GOAL-*k* + main.verb] constructions in the corpus, combined with (i) verbs of motion, locomotion and position, (ii) verbs of communications, and (iii) verbs of bodily processes (urinated, defecate). The [GOAL-*pa=ng* + main.verb] construction is less common (122 instances, 0.4%). It is compatible only with verbs of motion, and with singletons for locomotion (put) and activity (work).

4.3.5 Individuated locations: the REC-*mi* alternation

Locations are primarily expressed as NEUTRAL arguments of various locative verbs, such as *mi-a* ‘be in’ in (46a). Differentiation, in the form of an additional light verb *mi* ‘be in’ (without aspectual inflection) indexed with the REC prefix, comes in whenever locations are individuated or ranked high on the referential hierarchy. Effectively, such constructions require two locative verbs, but only

the main verb is inflected for aspect, as in (46b), illustrating the degree of heterosemy and grammaticalization of *mi* 'be in'. Emotion and cognition predicates are probably the original environment where the [REC-*mi* + main.verb] alternation was developed. Experiencers are by default realized with the light verb *mi* 'be in' indexed with the REC prefix, as in (46c)–(46d). Other constituents can occur between the [REC-*mi*] and the main verb.

- (46) a. *di=ning ayoku kamar mi-a mui-mui-l-a*
 [3A=in.number two]_A [room]_N in-DUR RED[game]-GIVE-DUR
 ‘the two of them are playing in the room’ [A-N]
- b. *kaai fila pakai ho-mi mi-a*
 [dog young]_N [basket]_{REC} 3.REC-IN in-DUR
 ‘the puppy is inside the basket’ [N-REC-*mi* + main.verb]
- c. *no-mi he-l diyei*
 1S.REC-IN 3.LOC-GIVE heat.up
 ‘I hate him/her, lit. [it] heats up in me about him/her’
 [REC-*mi* + LOC-*l* + main.verb]
- d. *no-mi he-l ha-luol*
 1S.REC-IN 3.LOC-GIVE 3.PAT-follow
 ‘I envy him, lit. [it] tracks/follows/stalks him in me’
 [REC-*mi* + LOC-*l* + main.verb]

The Abui corpus contains 367 instances (1.2%) of the [REC-*mi* + main.verb] construction; occurring with (i) verbs of emotion and cognition, and (ii) location verbs.

4.4 Triggers of differential argument realization in Abui

Differential argument realization in Abui is triggered by (i) high ranking on the referential hierarchy, (ii) specificity, and (iii) individuation. Referential hierarchy ranking is responsible for differentiation globally (see 4.4.1–4.4.3). Specificity and individuation are tied with affectedness but do not display a unified pattern across Abui verb classes (see 4.4.4).

4.4.1 Referential hierarchy-based differentiation of core arguments

Section 2.3 discussed the Lango “trigger-happy” verbal agreement (in terms of Comrie 2003) where the indexing of human recipients takes precedence over inanimate transferred themes. Similarly in Abui, participants ranked high on the

referential hierarchy, especially the first and second person, are more likely to be indexed as undergoers, as in (47). The human location of the thorn (possessor) in (47b) is preferably indexed with the GOAL prefix *noo-* on the verb. The removed theme *aloba* ‘thorn’ fails to be indexed as an argument of the verb, as in (47c), even if another verb is added (47d), although the indexing is possible in other instances, such as (47a).

- (47) a. *na aloba he-mi-a*
 1SA thorn 3.LOC-take-DUR
 ‘I am taking out/removing the thorns’ [A-LOC]
- b. *aloba nu a noo-mi-i so!*
 thorn SPC 2SA 1S.GOAL-take-PFV PRX.AD
 ‘those thorns, you should remove [them] from me!’ [N || A-GOAL]
- c. **aloba nu a he-noo-mi-i so!*
 thorn SPC 2SA 3.LOC-1S.GOAL-take-PFV PRX.AD
 intended reading: ‘those thorns, you should remove [them] from me!’
 [A-GOAL-LOC]
- d. **aloba nu a me noo-he-mi-i so!*
 thorn SPC 2SA come 1S.GOAL-3.LOC-take-PFV PRX.AD
 intended reading: ‘those thorns, you should remove [them] from me!’
 [LOC-GOAL]

4.4.2 Referential hierarchy-driven differentiation of comitatives and instruments

Abui displays the prevailing typological pattern in differentiating comitatives and instruments (Stolz et al. 2011). There are several types of comitatives in Abui, but the one relevant to our discussion consists of the light verb *d* ‘hold, get’ indexed for the PAT argument, followed by the main verb, as in (48). The [PAT-*d*-ASP + main.verb] comitative implies that the companion is undergoing a change of state. Where this criterion is not met, another comitative construction has to be used.

- (48) a. *Fani oro kamai ha-d-a mui-l-a*
 [name]_N DST [cat]_{PAT} 3.PAT-HOLD-DUR play-GIVE-DUR
 ‘Fani is playing with a cat over there’ [N-PAT-*d*-ASP + main.verb]
- b. *Deri di Simon ha-d-a sakola*
 [name 3A]_A [name]_{PAT} 3.PAT-HOLD-DUR learn
 ‘Deri is teaching Simon, lit. Deri is learning with Simon’
 [A-PAT-*d*-ASP + main.verb]

Instruments are expressed as arguments of the light verb *mi* ‘take’, as can be seen in (49), and their realization is identical to that of transferred themes (49b). Abui transfer verbs *l* ‘give’ and *r* ‘reach’ and the verb ‘show’ allow only two arguments and require the light verb *mi* ‘take’; without the light verb, the below sentences are ungrammatical.

- (49) a. *ama kawen mi bataa tukong*
 [person]_N [machete]_N TAKE [wood]_N cut
 ‘one cuts wood with a machete’ [N-N *mi* + main.verb]
- b. *na seng *(mi) ne-mayol he-r-i*
 1SA money take 1S.AL-woman 3.LOC-reach-PFV
 ‘I gave my wife the money’ [A-N *mi* + transfer.verb]
- c. *di balei wataka do *(mi ba) mayol do*
 3A banana blossom PRX take SIM woman PRX
he-h-iéng-r-i-a
 3.LOC-3.PAT-see-REACH-PFV-DUR
 ‘she showed a banana blossom to the woman’ [A-N *mi* + transfer.verb]

Complex constructions derived from the instrument/transferred theme construction are used when the transferred theme is ranked high on the referential hierarchy, as in (50), where the [LOC-*l* + main.verb] construction must be used and the verb *mi* ‘take’ serves as the main verb.

- (50) *na ne-l mi ba bala he-ha-b-i ba miti,*
 1SA 1S.LOC-GIVE take SIM wall 3.LOC-3.PAT-join-PFV SIM sit-PFV
n-iyeng kabei moopi, na mi=ng marakdi ya
 1S.INAL-eye little sleepy.CPL 1SA IN=SEE scare.CPL SEQ
ne-l balei wahi
 1S.LOC-GIVE around look.at
 ‘I sat myself down, leaned against the wall, and I was bit sleepy, when I was startled and looked around’ [A-LOC-*l* + *mi* + *ba* + locomotion.verb]

The [A-PAT-*d*-ASP + main.verb] construction occurs 204 times (0.68%) in the Abui corpus. It always introduces an animate companion – in the vast majority of cases, a human. The construction is compatible with (i) motion verbs, (ii) communication verbs, and (iii) social interaction verbs (argue, disturb, war, meet, accompany, teach, etc.). The [N *mi* + main.verb] construction is used for both instruments and transferred themes; more than two thousand instances occur in the corpus (over 6.6% of clauses).

4.4.3 Referential hierarchy-triggered asymmetries in other parts of the Abui grammar

According to Malchukov (2008: 213), some languages manifest animacy-based differentiation globally; sensitivity to animacy is not restricted to the argument realization. Abui quantification is sensitive to referential hierarchy: Abui quantifiers [*ning* + NUMERAL] ‘be in number’ and *fal* ‘together, jointly’ are reserved for human A arguments, as in (51). Both quantifiers combine with the A series pronouns. The quantifier *fal* may scope over an entire NP, as in (51b).

- (51) a. *ama luuk do, di=ning ayoku de-meeting*
 person dance PRX [3A=in.number two]_A [3I.AL-betel.vine]_N
takai
 chew.CPL
 ‘while people were dancing, the two of them chewed their betel nut’
 [A-N]
- b. *afeida he-feela di=fal miyei*
 yesterday [3.AL-friend 3A=together]_A come.CPL
 ‘both his friend and him came yesterday’
 [A]

Abui quantifier *loku* (PL) indicates a plural quantity of individuated entities denoted by the noun. At the same time *loku* also functions as an associative plural marker. When combined with mass nouns such as *sieng* ‘rice’, *loku* imposes a “human-like” individuated nature on the entity and refers to a plural number of corn or rice plants or even crops (52a). With place names, *loku* denotes a plural number of inhabitants (52b).¹⁰ Abui numerals combine with all countable nouns and many mass nouns (the numeral implies a container or a usual unit).

- (52) a. *sieng loku ba ut mi-a nu sik-bakon-i*
 rice PL LNK garden in-DUR SPC pluck-rip.off.CPL-PFV
mi melang sei
 take village come.down
 ‘the rice crops that are in the field (have to be) harvested and brought home’

¹⁰ The plural quantifier *loku* probably originates in the word ‘people, person’. The word is used for little human-like figures used for divination.

- b. *Kafola loku afu tahai kaang*
 [area PL]_N [fish]_N search good
 ‘Kabola people are good fishermen’ [N-N]

4.4.4 Specificity-triggered differential argument realization

In Abui, specificity matters in realization of both agents and undergoers. Besides being human and really acting, agents need to be specific to be realized as A arguments. Example (53) contains two descriptions elicited with the *MPI 2001 Staged events stimuli set* (van Staden et al. 2001). Example (53a) is a response to the video clip *080M_fbpushfan*. In this video, a player pushing a fan outside of the field can be seen while a few other players are standing far away, observing what is going on. These players in the background, not participating in the pushing, are realized with an N argument. The translation captures their low involvement with the English *there* construction. Example (53b) describes *101M_fblongpasses*. In this case, the players passing the ball to each other are the only ones included in the clip and therefore presented as specific, realized as A arguments also in the second clause.

- (53) a. *ama bal ha-d-a muila hu, wiil-neng nuku*
 [person]_N ball 3.PAT-HOLD-DUR play.CNT SPC.AD [boy one
di bal futing ho-mi=ng we mai wiil-neng nuku
 3A]_A ball yard 3.REC-IN=SEE leave and.then [boy one
ba bal ha-d-a mui-l-a yo di=ng
 REL [ball 3.PAT-GET-DUR play.CNT MD.AD]_{NMC} 3A=SEE]_A
ha-suonra ba uisaha dong yaar-i
 3.PAT-push.CNT SIM outside PRX=SEE go.CPL-PFV
 ‘there was a football game going on (lit. people were playing football)
 when a young man entered the field and then one of the players just
 pushed that man out’ [N; A_i; A_j=ng + main.verb]
- b. *ama di bal ha-da muila hu, fal*
 [person 3A]_A ball 3.PAT-HOLD-DUR play.CNT SPC.AD [together
kabei di bal mi ba to-k ha-kul
 little 3A]_A ball take SIM DISTR.REC-THROW 3.PAT-kick
 ‘these guys were playing football, they were passing the ball to each
 other over long distances’ [A_i; A_j + mi + REC-k + main.verb]

Realization of undergoers in Abui is sensitive to discourse factors (topicality, specificity) but depends on affectedness. Example (54) contrasts a habitual event

of ‘wood-chopping’ with an event describing the ‘chopping’ of a specific wood quantity. Only in the second instance, *bataa* ‘wood’ is indexed on the verb *fakda* ‘chop’. The specificity difference in (54a)–(54b) comes from the speaker. In (54c) the specificity is created through the discourse structure. The left-dislocated topic *fiyai hu* ‘candlenuts’ does not trigger indexing on the verb *muria*, but the subsequent left-dislocated contrastive topic *baleei-bataako* ‘bananas and cassavas’ is indexed on the verb *muria* ‘plant’. Similar examples can be seen in (43) and (47a)–(47b).

- (54) a. *maama bataa fak-d-a*
 father [wood]_N break-HOLD-DUR
 ‘father chops wood’ [N-N]
- b. *maama bataa he-fak-d-a*
 father [wood]_{LOC} 3.LOC-break-HOLD-DUR
 ‘father chops the wood (for cooking today)’ [N-LOC]
- c. *fiyai hu ni muria re, baleei-bataako re,*
 [candlenut SPC.AD]_N 1PEA plant.CNT or [banana-cassava]_{LOC} or
ri he-muria
 2PA 3.LOC-plant.CNT
 ‘we plant candlenuts, right, bananas and cassavas, you plant those’
 [A-N; A-LOC]

Not all specific undergoers are indexed but only those that are sufficiently affected (Kratochvíl 2011: 599–601). Example (55) contrasts two instances of the verb *mi* ‘take’. While *ket do* ‘the comb’ in (54a) is not affected by ‘taking, picking up’, the topical *fu-meeting nu* ‘betel nuts and betel vine’ are indexed with the LOC prefix in (54b). The semantics of the verb *mi* also changes to ‘accept, take away’. Two more cases of indexing of specific undergoers determined by affectedness can be seen in (45a)–(45b).

- (55) a. *da-táng do ha-tol ba sei o ket*
 3I.INAL-hand PRX 3.PAT-reach SIM come.down.CNT MD.L [comb
do mi-a
 PRX]_N take-DUR
 ‘he stretches out his hand to pick up the comb underneath’ [N-N]
- b. *fu-meeting nu na he-mi yaa nu*
 [betel.nut-betel.vine SPC]_{LOC} 1SA 3.LOC-take go SPC
 ‘I accepted (lit. took away) betel nuts and betel vine’ [A-LOC]

4.5.1 Origins of differential argument realization – information-structure marking

Two-clausal structures can simplify through syntactic change (Harris and Campbell 1995: 151–194). We will discuss three types of two-clausal structures containing the light verbs *l* ‘give’, *d* ‘hold, get’, and *i* ‘put’.

Abui topics (58a) are constructed with the light verb *l* 'give' indexed with the LOC prefix: *ne-l* (1S.LOC-GIVE), *e-l* (2S.LOC-GIVE), *he-l* (3.LOC-GIVE) forming a separate constituent which admits clause-final particles such as *baai* 'too'. The [LOC-*l*] topics are the source of (i) the NP initial topic marker *hel* (58b)–(58d) and the differential [LOC-*l* + main.verb] construction (58b). In both cases, the grammaticalization involves a reanalysis into left-dislocation (58a) structure followed by integration into the clause (58b-d), yet each constituent ends up in a different syntactic position according to its function. The topic marking *hel* becomes an NP-initial constituent (glossed as 3TOP), while the differentiating [LOC-*l*] is located in the VP.

- (58) a. *niya!*, **nel** *baai*, **na** *sieng do tapei*
 1PE.AL-mother [1S.TOP also]_{LEFT.DISLOCATION} 1SA rice PRX pound
yo!
 MD.AD
 ‘mum, me too, let me pound the rice [for the party]’
 [LOC-*l*_{TOP} | A-N + main.verb]
- b. **hel** *mon do he-l ariida-ariida, na lakaang*
 [3TOP snake PRX]_{TOP} 3.LOC-GIVE RED[appear.CNT] 1SA very
mielang baai
fear also
 ‘this snake, it’s being shown, I am very scared’
 [LOC-*l* N DEM_{TOP} | LOC-*l* + main.verb]
- c. **hel** *he-hai ya he-neng do di=ning ayoku*
 [[3TOP 3.AL-wife and 3.AL-man PRX]_{TOP} 3A=in.number two]_A
nee
eat
 ‘so this couple they both ate’
 [[LOC-*l* N DEM]_{TOP} | A + main.verb]
- d. *hare ee hel ama sua nu ma, maa?*
 so [before 3TOP person three SPC]_{TOP} be.PRX who
 ‘so those three people earlier on, who were they?’
 [[LOC-*l* N DEM]_{TOP} | *ma wh-word*]

The VP-internal [LOC-*l*] serves in differential argument realization (glossed fully) and no longer encodes information-structure. That the original topicality is irrelevant can be seen in (58b), where both the topical *hel* and the differentiating [LOC-*l*] occur in a single clause, and in (59a), where the form *el* is preceded by the focus pronoun *edo*. The differential [LOC-*l*] has grammaticalized to mark human undergoers of (i) verbs of contact by impact, (ii) verbs of motion and locomotion, (iii) search verbs – ‘search, guard’, (iv) and verbs of change such as ‘shorten, lengthen, revitalize, rejuvenate, etc.’ Some more examples can be found in Section 4.4.3.

- (59) a. *ne-ng edo e-l tahai do mai me*
 1S.LOC-SEE 2S.FOC 2S.LOC-GIVE search PRX and.then come
oo-fahake
 2S.GOAL-embrace-IPFV
 ‘I must have been looking for you, so I embraced you’
 [FOC + LOC-*l* + main.verb]
- b. *Arjun Maifan he-l bol dokaleng*
 [name name 3.LOC-GIVE hit]_{CLAUSE} 3I.REC-refuse
 ‘Arjun does not want to hit Maifan’ [N-LOC-*l* + main.verb]

Abui verbs of cognition, such as *mpang* ‘think’ in (60), have a complicated argument structure (see 3.5). When the stimulus is first or second person, an additional [LOC-*l*] construction has to be added, as in (60b). In the third person, the [LOC-*l*] construction is not needed. Effectively, the stimulus is expressed twice in a process similar to Balkan “clitic doubling” (Kallulli and Tasmowski 2008). The example reveals that Abui differential argument realization develops and extends along the referential hierarchy; describing it as sensitivity to animacy would be an oversimplification. The example also illustrates that the extension of the [LOC-*l*] construction is ongoing, spreading into verbs of emotion and cognition.

- (60) a. *na Simon he-no-mpang*
 1S name 3.LOC-1S.REC-think
 ‘I think of Simon’ [A₁-LOC-REC₁-main.verb]
- b. *na e-l he-no-mpang*
 1S 2S.LOC-GIVE 3.LOC-1S.REC-think
 ‘I think of you’ [A₁-LOC-*l* + LOC-REC₁-main.verb]

Abui focus construction is constructed with the light verb *d* ‘hold, get’ inflected for aspect and indexed with the LOC prefix. The aspectual inflection modifies the

meaning of the light verb between attributive focus (*ne-d-o* paradigm; punctual aspect -o) and focused future agent (*ne-d-e* paradigm; imperfective -e).

The [LOC-*do*] constituents do not admit clause final particles but are separated by a pause from the rest of the clause, as in (61a). Once their meaning becomes reinterpreted as a separate focus paradigm, the pause is no longer necessary and the focus pronoun can be integrated into the clause. The [LOC-*do*] forms also realize attributed first and second person N arguments, as in (16j) or (61b).

- (61) a. ***nedo***, *ne-i* *yo* *la*
 [1S.FOC]_{LEFT.DISLOCATION} 1S.LOC-HAVE MD.AD be.MD
do-te-falaaka *baai*, *la=ng*
 3I.REC-DISTR.LOC-bright.CNT also be.MD=SEE
ha-bui-ha-bui-d-a
 RED[3.PAT-short]-GET-DUR
 ‘it’s my opinion, I would like it if we can just be frank to each other, just keep it short’
- b. ***nedo*** *namu* *beeka* *tai* *beeka-e!*
 [1S.FOC wound bad]_{CLAUSE} [heal cannot-IPFV]_{CLAUSE}
 ‘I am badly wounded, it cannot be healed’ [FOC-N]

The [LOC-*de*] paradigm is used to put focus on agents and occurs mostly in conversations when a choice must be made, as in (62). There are 140 instances of this construction in the Abui corpus, most frequently with first or second person singular. The construction is used with A-compatible verbs.

- (62) a. Q: *ne-feela*, ***ede*** *mara* *re* ***nede*** *mara?*
 1S.AL-friend 2SA.FOC go.up. or 1SA.FOC go.up.CNT
 ‘hey buddy, are you going up or am I going?’ [FOC_A or FOC_A]
- A: *ai*, ***nede*** *mara* *yo!*
 oh 1SA.FOC go.up.CNT MD.AD
 ‘no, I will be going up’ [FOC_A]
- b. *ai*, *ko* ***nede*** *saai* *ha-ik-e!*
 oh IRR 1SA.FOC come.down.CPL 3.PAT-feed-IPFV
 ‘no, [it’s me who] will go down [i.e., not you] to feed it [the pig]’
 [FOC_A verb₁ verb₂]

The “reluctant agent” [LOC-*i*] construction is constructed with the light verb *i* ‘put, have’. Perhaps also this construction is originally two-clausal. Besides (61a) above, further examples are given in 4.2.3. A single text fragment is split up into

two examples in (63) showing the syntactic flexibility of the [LOC-*i*] construction: it may occur dislocated (63b) as well as integrated in a clause (63a).

- (63) a. *eh, ne-ng ee la a-kol-r-i yo*
 oh 1S.LOC-SEE before be.MD 2S.PAT-trick-REACH-PFV MD.AD
baai, e-i na-l-a hu, amakaang
 also [2S.LOC-HAVE like.PRX-GIVE-DUR SPC.AD]_{CLAUSE} person
nuku do de-bukomang do do-it ba lole,
 one PRX 3I.AL-heart PRX 3I.REC-lie.on SIM walk-IPFV
 ‘I just couldn’t help but cheat you, you thought that people left their
 heart at home and were walking around without it’ [FOC_A]
- b. *e-i, ede kaang kul meikaang*
 [2S.LOC-HAVE]_{LEFT.DISLOCATION} 2SA.FOC probably must dumb
naha baai
 not also
 ‘you really must be stupid, that’s for sure’ [LOC-*i* | FOC_A main.verb]

To sum up, we have seen that there are at least four constructions in Abui which can be left-dislocated and serve at the same time in differential argument realization. In analogy, similar information-structure related function, although obscured through grammaticalization, is assumed also for constructions discussed in Sections 4.2–4.4.

4.5.2 Origins of differential argument realization – syntactic integration of multiple clauses

The second path to developing differential argument realization in Abui is clause union. Givón (2009: 62–65) defines the clause union process as follows: a complex clause falling under a single intonation contour and containing multiple lexical predicates develops into a single clause structure if the events described in the complex clause (i) share the referents, (ii) are simultaneous or temporally adjacent, and (iii) occur in the same location. Abui examples of this process are given in (64). Example (64a) contains two pairs of clauses, sharing the first person a argument and happening simultaneously. The second example has the same meaning as (64b), where clause union has produced a single clause. Also the first instance in (64a) could become [REC-*k* + verb₁], just as (64c) can be expressed as [GOAL-*pa*=ng + verb₁]. More examples can be found in 4.3.4.

- (64) a. *na iti furai ba o-k miyei*
 [1SA lie.on-PFV run.CNT]_{MOTION} SIM [2S.REC-THROW come.CPL
so, wan na sei
 PRX.AD]_{GOAL + MOTION} || [already 1SA come.down.CNT]_{MOTION}
oo-pa mia
 [2S.GOAL-touch.CNT take-DUR]_{GOAL}
 ‘I saw that you are standing over there, so I run there, towards you, I am
 coming down to you’
 [A verb₁ *ba*_{SIM} REC-*k* + verb₂] || A verb₃ GOAL-*pa* + verb₄]
- b. *ni ama ba nala kapuk adua*
 1PEA person REL something sew master
hoo-pa=ng sei
 3.GOAL-TOUCH.CNT=SEE come.down
 ‘we are going down to the tailor’ [A-GOAL-*pa=ng* + main.verb]
- c. *ama nuku oro buoka mi-a ba da-moi-d-a*
 person one DST far in-DUR SIM 3I.PAT-sound-GET-DUR
mai na furai ba hoo-pa=ng
 and.then [1SA run.CNT]_{MOTION} SIM [3.GOAL-touch.CNT=SEE
yaar-i
 go.CPL-PFV]_{GOAL + MOTION}
 ‘a person called in the distance and I ran and went towards him’
 [A verb₁ *ba*_{SIM} GOAL-*pa=ng* + verb₂]

Another instance of clause union, this time expressing accompaniment, is given in (65). The first sentence contains two clauses linked with the simultaneous linker *ba*. Clause union is achieved in the second instance, where the simultaneous linker *ba* cannot be used.

- (65) a. *na sei a-d-o ba*
 [1SA come.down.CNT 2S.PAT-HOLD-PNCT SIM]_{C1}
mui-mui-l-a kaang?
 [RED-[game]-GIVE-DUR can]_{C2}
 ‘may I come to you and play?’ [A-PAT-*d-ASP ba*]_{C1} [. . .₂]_{C2}
- b. *na a-d-a (*ba) nuk-nukda*
 [1SA 2S.PAT-HOLD-DUR SIM disturb.CNT]_{CLAUSE}
 ‘I am disturbing you’ [A-PAT-*d-ASP* + main.verb]

The distribution of constructions given in (65) reveals a preference for the single-clause structure. There are 93 instances of the biclausal [PAT-*d-ASP ba* main.verb] construction in the Abui corpus. The construction is compatible with

(i) verbs of motion (ii) verbs of assuming position, and (iii) verbs of group activity such as ‘play’, ‘harvest’, ‘clear fields’, etc. On the other hand, the single clause [A-PAT-*d*-ASP + main.verb] construction occurs 204 times in the Abui corpus. The construction is compatible with (i) motion verbs, (ii) communication verbs, and (iii) social interaction verbs (argue, disturb, war, meet, accompany, teach, etc.).

4.5.3 Distribution of differential argument realization across Abui verbal subclasses

Von Heusinger and Kaiser (2011: 613–614) have shown that Spanish PERCEPTION class verbs such as *oir* ‘hear’ and *escuchar* ‘listen’ acquired the *a*-marking more rapidly than *mirar* ‘look at’ and *ver* ‘see’. Unequal distribution is also characteristic for Abui differential argument realization constructions (Section 4). Table 7 lists all constructions, their labels, total number, and triggering features. The right-most column lists compatible verbal subclasses starting with the most frequent ones. It is assumed that the verb class with the highest frequency is the environment where reanalysis occurred, before the construction became available through extension to other subclasses. The extension is gradual and follows the referential hierarchy (Bickel 2008) starting with first and second person participants, as shown in (60).

Table 7 suggests that at least some constructions may be in competition, and their relative frequency will determine which construction will prevail: the restricted agent [LOC-*ng*] construction (4.2.4) is much less frequent than the reluctant agent construction [LOC-*i*], described in (4.2.3). Given their relative semantic similarity and the fact that the [LOC-*ng*] construction is also used to differentiate specific goals (4.3.3), the balance could tip in favor of the [LOC-*i*] reluctant agent construction in the end.

Although there is no diachronic data on Abui or any other Alor-Pantar family language, internal reconstruction offers some insights into the development of the argument realization system in Abui. Both the previous and current section show that two-clausal constructions recording the information-structure (4.2.4), and complex sentences 4.5.2) may develop over time into single-clause structures, and be reinterpreted first as differential argument realization devices with a [(PRO) light.verb + main.verb] structure.

Due to the proximity of the indexed light verb [PERSON-light.verb] to the lexical verb, the structure has been repeatedly reanalyzed as a separate person agreement paradigm in the past. Klammer and Kratochvíl (2006) make this point for Abui. Multiple person prefix sets in Abui probably originate in the fusion of

Table 7: Compatibility of Abui differential realization construction with verbal subclasses

Type and construction	Section	Tokens	Constraints	Compatible subclasses
ANIMATE UNDERGOER [LOC- <i>l</i> + main.verb]	4.1	>1000 (>3%)	human	contact and impact, motion, locomotion, search verbs, verbs of change, spreading into emotion and cognition verbs
INVOLUNTARY AGENT [A= <i>ng</i> + main.verb]	4.2.1	206 (0.7%)		verbs compatible with the A argument
RELUCTANT AGENT [LOC- <i>i</i> + main.verb]	4.2.3	201 (0.66%)		idem.
RESTRICTED AGENT [LOC- <i>ng</i> + main.verb]	4.2.4	50 (0.15%)	1 st and 2 nd person only	idem.
EFFECTIVE AGENT [PAT- <i>ra/re</i> + main.verb]	4.2.5	>34 (>0.1%)	1 st and 2 nd person	idem.
VISIBLE GOAL [N= <i>ng</i> + main.verb]	4.3.1	>500 (>1.6%)	locative nouns only	motion, locomotion, position
UNAFFECTED GOAL [N= <i>ng</i> + main.verb]	4.3.1	>500 (>1.6%)	idem.	idem.
SYNTACTIC NON-ADJACENCY [<i>mi=ng</i> + main.verb]	4.3.2	650 (2.16%)	cannot refer to humans	motion, locomotion, communication, contact and impact, perception, change of state verbs
SPECIFIC GOAL [LOC- <i>ng</i> + main.verb]	4.3.3	>100 (>0.3%)	idem.	idem.
INDIVIDUATED GOAL [REC- <i>ng</i> + main.verb]	4.3.3	>100 (>0.3%)	individuated goal only	motion, locomotion, position
DISTAL + HUMAN GOAL [REC- <i>k</i> + main.verb]	4.3.4	180 (0.6%)	human goal	motion, locomotion, position, communication, bodily processes
PROXIMATE + HUMAN GOAL [GOAL- <i>pa=ng</i> + main.verb]	4.3.4	122 (0.4%)	human goal	motion, locomotion, (activity)
INDIVIDUATED LOCATION [REC- <i>mi</i> + main.verb]	4.3.5	367 (1.2%)	individuation	emotion and cognition, location
COMITATIVES [A-PAT- <i>d-ASP</i> + main.verb]	4.4.2	204 (0.68%)	must be animate	motion, communication, social interaction
INSTRUMENTS [N- <i>mi</i> + main.verb]	4.4.2	>2000 (>6.6%)	inanimate	verbs with instruments or transferred themes

the original *a*-grade and *e*-grade prefixes with light verbs. For example **ha-o* (3-POINT) would have fused into *ho-*, or **he-e* (3LOC-ADD) > *hee-*, etc. through re-analysis of morpheme boundaries and semantic fusion, as in (66).

- (66) **ha-o* *tuk* > *ha-o-tuk* > *ho-tuk* ‘measure on him’
 3-POINT measure 3-POINT-measure 3.REC-measure
 PERSON-*o* + main.verb > PERSON-*o*-main.verb > PERSON-main.verb]

It is impossible to establish whether the hypothesized form **ha-o* had anything to do with information structure. The complicating issue is the known tendency of Papuan languages to limit the number of verbs indexing their undergoers. It is quite common for Papuan languages to restrict the indexing to several (light) verbs such as ‘hit’, ‘give’, ‘see’, or ‘do’. The remaining verbs have to combine with light verbs if the undergoer is to be indexed (Bromley 1981; Foley 1986: 139–142). In the Alor-Pantar family, Teiwa (Klamer 2010) has a single undergoer paradigm used solely to index humans. Two paradigms (*a*- and *e*-grade) have been reconstructed for the entire family (Holton et al. 2012: 98), although the authors remain agnostic about the syntactic status of the reconstructed *e*-grade (prefix or free pronoun). Other AP languages, such as Klon (Baird 2008), Adang (Haan 2001), Kamang (Schapper 2012), and Subo (own data), have developed multiple undergoer paradigms. The increase in the number of pronominal paradigms appears to be an areal feature in Alor-Pantar languages, limited to the western half of Alor.¹¹ When the past innovations in the pronominal paradigms are combined with the internal reconstruction of Abui differential argument realization, the full grammaticalization path emerges, ending in the creation of new person agreement paradigms, as schematically shown in (67).

- (67) a. 2 CLAUSES > DISLOCATION > DIFFERENTIAL.MARKING >
 [ARG V_1]_{C1} [. . V_2]_{C2} > [ARG V_1 # . . V_2]_C > [ARG + V_1 + . . . V_2]_C >
 NEW PARADIGM
 [ARG_i + PERSON_i- V_2]

¹¹ Case complexity has been shown to be an areal feature (Kulikov 2009: 456). Complexity of person indexing on verbs (head-marking counterpart of case in dependent-marking languages) is a feature of western and central Alor languages. At the same time, the de-verbal channel is well recognized as a source of “case” – in our case distinct person agreement paradigms (Givón 2009: 330; Heine 2009: 462). This topic has been studied in the larger perspective of the emergence of case markers or adpositions in the context of serializing languages (Lord 1982, 1993, Heine 2009).

- b. 2 CLAUSES > CLAUSE.UNION > DIFFERENTIAL.MARKING >
 [. . .V₁]_{Cl} *ba* [ARG V₂]_{C2} > [. . .V₁ARG V₂]_C > [ARG + V₂ + . . . V₁]_C >
 NEW PARADIGM
 [ARG_i + PERSON_i-V₁]

5 Conclusion and Discussion

In accusative and ergative languages, differential marking may correlate with prominence (Iemmolo 2010) or with referential hierarchy (Silverstein 1976, 1981; Comrie 1989; Aissen 2003; de Swart 2007), but both phenomena are usually considered to be of peripheral importance. This paper examined whether “differential marking” is applicable to languages with semantic alignment, such as Abui. It was found that differentiation in marking is the default condition, as in other languages of this type (Tsunoda 1981, 1985; Munro and Gordon 1982; Davies 1986; Mithun 1991; Broadwell 2006). While in other languages differential marking discussion may revolve around a single marker or construction, Abui displays a tantalizing sensitivity to a variety of semantic features matched with a great variety of differentiating alternations, confirming the fundamental semantic underpinnings of its alignment type. It illustrates the point that accumulation of complexity in one domain of a language may lead to analogical structuring of related domains, perhaps as part of the payoff for its heavier cognitive burden. The source constructions of the innovated person agreement paradigms (Klamer and Kratochvíl 2006) must have been frequent to undergo phonological reduction faster than the differential marking constructions (cf. Bybee 2006).

Abui basic argument realization (employing free pronouns and person indexing – Section 3) is sensitive to control, instigation and affectedness. Differential realization (employing light verbs – Section 4) is sensitive to participant’s inherent (referential hierarchy), discourse-related (specificity, topicality), and event-related features (volition, control). All triggers and corresponding differential realizations are summarized in Table 8.

We argue that the basic undergoer realization in Abui (5 prefix paradigms + NEUTRAL arguments, Section 3) is not an equivalent of DOM. No canonical “object” argument can be established and the differentiation triggers differ too. Abui differentiates undergoers based on affectedness, individuation, and specificity. In DOM languages, differentiation is driven by topicality, specificity, or animacy.

The only clear equivalent of DOM is the Abui [Loc-*l* + main.verb] construction which differentiates undergoers placed high on the referential hierarchy (1>2>3[+ sometimes animate]) from those placed lower in (i) verbs of contact and impact,

Table 8: Argument realization types in Abui and differentiation triggers

Argument realization	Basic	Differential
Morphosyntactic characteristics	A: (NP +) free pronoun u: (NP +) pronominal prefix N: NP or focus pronoun	basic pattern + light verb
Differentiation triggers	A: control, instigation, specificity u: affectedness, individuation, specificity N: ± specificity	A: volition, desirability, viability GOAL: specificity, syntactic non-adjacency, referential hierarchy ranking, individuation, distance LOCATION: individuation

(ii) motion and locomotion, (iii) search verbs, (iv) verbs of change, and (v) verbs of emotion and cognition (see Section 4.4.1).

The equivalency of DMS with the Abui A marking alternations (Section 4.2) is straightforward: volition and animacy trigger differentiation in both system. Differential realization of goals and locations in Abui goes far beyond the reported patterns (Kittilä 2008; Noonan 1992) and displays sensitivity to specificity, individuation and referential hierarchy. In 4.4.3, it was shown that referential hierarchy is responsible for differentiation in quantification and thus Abui manifests such differentiation globally (following Malchukov 2008: 213).

It has been shown that differential marking originates in information-structure related constructions (Dalrymple and Nikolaeva 2011) but through grammaticalization the information-structure status (topic, focus) may become irrelevant as other features gain in prominence (specificity, referential hierarchy). Abui differential marking developed along the same path (Section 4.5) and indicates that at the end of its grammaticalization differential marking may enrich the basic argument realization system.

Finally, Abui argument realization offers a new perspective on the discussion about the motivation of differential marking. Iemmolo (2010: 241–243) identifies two angles from which differential marking is usually explained. The *indexing approach* explains differential marking in relation to properties of ‘genuine objects’ such as affectedness, individuation, or volition. Deviations from such prototypes trigger differential marking. The *discriminatory approach* assumes that differential marking discriminates between participants that share the same semantic properties and reveals underlying prominence hierarchies (referential hierarchy, definiteness, topic-worthiness, etc.).

The Abui system combines both motivations: the basic argument realization indexes affectedness, individuation and control (in the absence of a “prototype” [Section 3]); differential argument realization is sensitive to participant’s prom-

inence (referential hierarchy, specificity). It seems therefore that the discussion about the motivation of differential marking is in fact about different stages of the grammaticalization of the differentiating system (cf. Dalrymple and Nikolaeva 2011: 208–215).

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References

- Aikhenvald, Alexandra Y., Robert M. W. Dixon & Masayuki Onishi. 2001. *Non-canonical marking of subjects and objects*. Amsterdam & Philadelphia: John Benjamins.
- Aissen, Judith. 2003. Differential object marking: Iconicity vs. economy. *Natural Language and Linguistic Theory* 21(3). 435–483.
- Baird, Louise. 2008. *A grammar of Klon: A non-Austronesian language of Alor, Indonesia*. Canberra: Pacific Linguistics.
- Bhaskararao, Peri & Karumuri V. Subbarao. 2004. *Non-nominative subjects*. Amsterdam & Philadelphia: John Benjamins.
- Bickel, Balthasar. 2008. On the scope of the referential hierarchy in the typology of grammatical relations. In Greville G. Corbett & Michael Noonan (eds.), *Case and grammatical relations: Studies in honor of Bernard Comrie* (Typological Studies in Language 81), 191–210. Amsterdam & Philadelphia: John Benjamins.
- Bossong, Georg. 1983. Animacy and markedness in universal grammar. *Glossologia* 2/3. 7–20.
- Broadwell, George Aaron. 2006. *A Choctaw reference grammar*. Lincoln, NE & London: University of Nebraska Press.
- Bromley, H. Myron. 1981. *A grammar of Lower Grand Valley Dani*. Canberra: Pacific Linguistics.
- Bybee, Joan. 2006. From usage to grammar: The mind's response to repetition. *Language* 82(4). 711–733.
- Comrie, Bernard. 1989. *Language universals and linguistic typology*. Chicago: University of Chicago Press.
- Comrie, Bernard. 2003. When agreement gets trigger-happy. *Transactions of the Philological Society* 101(2). 313–337.
- Creissels, Denis. 2008. Remarks on split intransitivity and fluid intransitivity. In Olivier Bonami & Patricia Cabredo Hofherr (eds.), *Empirical issues in syntax and semantics* 7, 139–168. <http://www.cssp.cnrs.fr/eiss7/creissels-eiss7.pdf>
- Cruse, D. A. 1973. Some thoughts on agentivity. *Journal of Linguistics* 9(1). 11–23.
- Dalrymple, Mary & Irina Nikolaeva. 2011. *Objects and information structure*. Cambridge: Cambridge University Press.

- Davies, William D. 1986. *Choctaw verb agreement and universal grammar* (Studies in Natural Language and Linguistic Theory). Dordrecht: D. Reidel.
- Donohue, Mark & Søren Wichmann. 2008. *The typology of semantic alignment*. Oxford: Oxford University Press.
- Dowty, David R. 1979. *Word meaning and Montague grammar: The semantics of verbs and times in generative semantics and in Montague's PTQ* (Synthese language library 7). Dordrecht: Reidel.
- Dowty, David R. 1991. Thematic proto-roles and argument selection. *Language* 67. 547–619.
- Dryer, Matthew S. 1986. Primary objects, secondary objects, and antitativity. *Language* 62(4). 808–845.
- Dryer, Matthew S. 2007. Clause types. In Timothy Shopen (ed.), *Clause structure, language typology and syntactic description*, vol. 1, 224–275. Cambridge: Cambridge University Press.
- Ebert, Karen H. 1997. *Camling (Chamling)*. Munich: Lincom Europa.
- Farkas, Donka. 1978. Direct and indirect object reduplication in Romanian. In *Papers from the Fourteenth regional meeting of the Chicago Linguistic Society*, 88–97. Chicago: Chicago Linguistic Society.
- Fauconnier, Stefanie. 2011a. Differential agent marking and animacy. *Lingua* 121(3). 533–547.
- Fauconnier, Stefanie. 2011b. Involuntary agent constructions are not directly linked to reduced transitivity. *Studies in Language* 35(2). 311–336.
- Fedden, Sebastian, Dunstan Brown, Greville Corbett, Gary Holton, Marian Klammer, Laura C. Robinson & Antoinette Schapper. 2013. Conditions on pronominal marking in the Alor-Pantar languages. *Linguistics* 51(1). 33–74.
- Fedden, Sebastian, Dunstan Brown, František Kratochvíl, Laura C. Robinson & Antoinette Schapper. 2012. Lexical stipulation vs. referential hierarchies: Variation in pronominal indexing in Alor-Pantar languages. Ms. University of Surrey.
- Fillmore, Charles J. 2003. The case for case. In *Form and meaning in language 1: Papers on semantic roles*, 23–122. Stanford: CSLI Publications.
- Ganenkova, Dmitry, Timur Maisak & Solmaz Merdanova. 2008. Non-canonical agent marking in Agul. In Helen de Hoop & Peter de Swart (eds.), *Differential subject marking*, 173–198. Dordrecht: Springer.
- Givón, Talmy. 1978. Definiteness and Referentiality. In Joseph Greenberg (ed.), *Universals of human language*, vol. 4, 291–330. Stanford, CA: Stanford University Press.
- Givón, Talmy. 2009. *The genesis of syntactic complexity: Diachrony, ontogeny, neuro-cognition, evolution*. Amsterdam & Philadelphia: John Benjamins.
- Haan, Johnson Welem. 2001. *The grammar of Adang: A Papuan language spoken on the island of Alor, East Nusa Tenggara – Indonesia*. Sydney: University of Sydney dissertation.
- Haiman, John. 1983. Iconic and economic motivation. *Language* 59. 781–819.
- Harris, Alice C., & Lyle Campbell. 1995. *Historical syntax in cross-linguistic perspective*. Cambridge: Cambridge University Press.
- Haude, Katharina. 2009. Hierarchical alignment in Movima. *International Journal of American Linguistics* 75(4). 513–532.
- Heine, Bernd. 2009. Grammaticalization of cases. In Andrej Malchukov & Andrew Spencer (eds.), *The Oxford handbook of case*, 458–469. Oxford: Oxford University Press.
- von Heusinger, Klaus & Georg A. Kaiser. 2011. Affectedness and differential object marking in Spanish. *Morphology* 21. 593–617.

- Holton, Gary, Marian Klamer, František Kratochvíl, Laura C. Robinson and Antoinette Schapper. 2012. The historical relations of the Papuan languages of Alor and Pantar. *Oceanic Linguistics* 51(1). 86–122.
- de Hoop, Helen & Andrej L. Malchukov. 2007. On fluid differential case marking: A bidirectional OT approach. *Lingua* 117. 1636–1656.
- de Hoop, Helen & Andrej L. Malchukov. 2008. Case-marking strategies. *Linguistic Inquiry* 39(4). 565–587.
- de Hoop, Helen & Peter de Swart. 2008. Cross-linguistic variation in differential subject marking. In Helen de Hoop & Peter de Swart (eds.), *Differential subject marking*, 1–16. Dordrecht: Springer.
- Hopper, Paul & Sandra Thompson. 1980. Transitivity in grammar and discourse. *Language* 56. 251–299.
- Iemmolo, Giorgio. 2010. Topicality and differential object marking: Evidence from Romance and beyond. *Studies in Language* 34(2). 239–272.
- Kallulli, Dalina & Liliane Tasmowski. 2008. Clitic doubling, core syntax and the interfaces. In Dalina Kallulli & Liliane Tasmowski (eds.), *Clitic doubling in the Balkan languages*, 1–32. Amsterdam & Philadelphia: John Benjamins.
- Kittilä, Seppo. 2002. *Transitivity: Towards a comprehensive typology*. Turku: University of Turku.
- Kittilä, Seppo. 2006. The woman showed the baby to her sister: On resolving humanness-driven ambiguity in ditransitives. In Leonid Kulikov, Andrej Malchukov & Peter de Swart (eds.), *Case, valency, and transitivity*, 291–309. Amsterdam & Philadelphia: John Benjamins.
- Kittilä, Seppo. 2008. Animacy effects on differential goal marking. *Linguistic Typology* 12(2): 245–268.
- Klamer, Marian. 2009. Differential marking of intransitive subjects in Kambara (Austronesian). In Helen de Hoop & Peter de Swart (eds.), *Differential subject marking*, 281–299. Dordrecht: Springer.
- Klamer, Marian. 2010. *A grammar of Teiwa*. Berlin & New York: De Gruyter Mouton.
- Klamer, Marian & František Kratochvíl. 2006. The role of animacy in Teiwa and Abui (Papuan). *Proceedings of BLS 32*. Berkeley, CA: Berkeley Linguistics Society.
- Klamer, Marian & František Kratochvíl. 2010. Abui tripartite verbs: Exploring the limits of compositionality. In Jan Wohlgemuth & Michael Cysouw (eds.), *Rara and rarissima: Documenting the fringes of linguistic diversity*, 209–233. Berlin & New York: De Gruyter Mouton.
- Kornfilt, Jaklin. 2003. Scrambling, subscrambling, and case in Turkish. In Simin Karimi (ed.), *Word order and scrambling*, 125–155. Oxford: Blackwell.
- Kratochvíl, František. 2007. *A grammar of Abui: A Papuan language of Alor*. Utrecht: LOT.
- Kratochvíl, František. 2011. Transitivity in Abui. *Studies in Language* 35(3). 588–635.
- Kratochvíl, František, Sebastian Fedden, Gary Holton, Marian Klamer, Laura C. Robinson & Antoinette Schapper. 2011. Pronominal systems in Alor-Pantar languages: Development and diachronic stability. Paper presented at the workshop “Person Forms across Time and Space: Divergence or Convergence,” 20th International Conference on Historical Linguistics, Osaka, Japan, July 28.
- Kulikov, Leonid. 2009. Evolution of case systems. In Andrej Malchukov & Andrew Spencer (eds.), *The Oxford handbook of case*, 439–457. Oxford: Oxford University Press.
- Levin, Beth. 1993. *English verb classes and alternations: A preliminary investigation*. Chicago & London: The University of Chicago Press.

- Lichtenberk, Frantisek. 1991. Semantic change and heterosemy in grammaticalization. *Language* 67(3). 475–509.
- Lord, Carol. 1982. The development of object markers in serial verb languages. In Paul Hopper & Sandra Thompson (eds.), *Studies in transitivity*, 277–300. London: Academic Press.
- Lord, Carol. 1993. *Historical change in serial verb constructions*. Amsterdam & Philadelphia: John Benjamins.
- Malchukov, Andrej. 2005. Case pattern splits, verb types, and construction competition. In Mengistu Amberber & Helen de Hoop (eds.), *Competition and variation in natural languages: The case for case*, 73–117. London & New York: Elsevier.
- Malchukov, Andrej. 2008. Animacy and asymmetries in differential case marking. *Lingua* 118(2). 203–221.
- Malchukov, Andrej & Peter de Swart. 2009. Differential case marking and actancy variations. In Andrej Malchukov & Andrew Spencer (eds.), *The Oxford handbook of case*, 339–355. Oxford: Oxford University Press.
- Munro, Pamela & Lynn Gordon. 1982. Syntactic relations in Western Muskogean: A typological perspective. *Language* 58(1). 81–115.
- Næss, Åshild. 2007. *Prototypical transitivity*. Amsterdam & Philadelphia: John Benjamins.
- Noonan, Michael. 1992. *A grammar of Lango*. Berlin & New York: Mouton de Gruyter.
- Rozwadowska, Bożena. 1988. Thematic restrictions on derived nominals in thematic relations. In Wendy Wilkins (ed.), *Syntax and semantics: Thematic relations* (Syntax and Semantics 21), 147–165. San Diego: Academic Press.
- Schapper, Antoinette. 2012. Sketch of Kamang. Ms. Leiden University.
- Silverstein, Michael. 1976. Hierarchy of features and ergativity. In Robert M. W. Dixon (ed.), *Grammatical categories in Australian languages*, 112–171. Canberra: Australian Institute of Aboriginal Studies.
- Silverstein, Michael. 1981. Case marking and the nature of language. *Australian Journal of Linguistics* 1. 227–244.
- van Staden, Miriam, Gunter Senft, Nick J. Enfield & Jürgen Bohnemeyer. 2001. Staged events. In Stephen C. Levinson & Nick J. Enfield (eds.), *Manual for the field season 2001*, 115–125. Nijmegen: Max Planck Institute for Psycholinguistics. <http://fieldmanuals.mpi.nl/volumes/2001/staged-events/>
- Stassen, Leon. 1997. *Intransitive predication*. Oxford: Clarendon Press.
- Stolz, Thomas, Cornelia Stroh & Aina Urdze. 2011. Comitatives and instrumentals. In Matthew S. Dryer & Martin Haspelmath (eds.) *The world atlas of language structures online*. Munich: Max Planck Digital Library, chapter 52. Available online at <http://wals.info/chapter/52>
- de Swart, Peter. 2007. *Cross-linguistic variation in object marking*. Utrecht: LOT.
- Tsunoda, Tasaku. 1981. *The Djaru language of Kimberley, Western Australia* (Pacific linguistics 78). Canberra: Research School of Pacific Studies, Australian National University.
- Tsunoda, Tasaku. 1985. Remarks on transitivity. *Journal of Linguistics* 21(2). 385–396. <http://www.jstor.org/stable/4175793>.
- Zúñiga, Fernando. 2007. The discourse-syntax interface in Northwestern Amazonia: Differential object marking in Makú and some Tucanoan languages. In Leo Wetzels (ed.), *Language endangerment and endangered languages: Linguistic and anthropological studies with special emphasis on the languages and cultures of the Andean-Amazonian border area*, 209–227. Leiden: Leiden University Publications of the Research School of Asian, African, and Amerindian Studies.