國立臺灣師範大學英語學系

博 士 論 文

Doctoral Dissertation

Department of English
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賽夏語的子句間關係:
角色與指稱語法的分析

Interclausal Relations in Tungho Saisiyat:
A Role and Reference Grammar Approach

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中華民國一零七年二月

February, 2018

中文摘要

本研究調查賽夏語裡面的並存動詞(juxtaposed verbs)。賽夏是台灣南島語裡面的一個分支，此語言有著大量的此種結構。其中，兩個(或以上)動詞共同出現在一個句子裡面，但無子句或詞組分界的標記，因此其句法地位不甚明確。此議題值得詳究。該模糊的語法現象可從兩個研究方向切入。第一，這些並存動詞的句法地位為何？第二，這些動詞應該被分析為何種構式(constructions)？

為了解決這兩個問題，本研究訂立了兩個研究目標。在首要研究目標中，本研究使用角色指稱語法 (Role and Reference Grammar in Van Valin & LaPolla 1997, Van Valin 2005 and Van Valin 2007) 中的一個分析架構：並存動詞的子句間關係(interclausal relations)，來分析並存動詞的結構。這個架構的分析面相包含了三個層次：語意關係(semantic relations)，接合單位-聯繫關係組合 (juncture-nexus combinations)，以及語意和句法之間的介面。在第二研究目標中，本研究要根據子句間關係和語法特徵，來對這些並存動詞的構式(constructions)做出分類。

這兩個面向的研究，亦即（一）接合單位-聯繫關係組合和（二）構式的分類，發現賽夏語兩處語法上的特殊點。首先，並存動詞主要出現在子句(clausal)和大核心接合(core junctures)，但較少出現在小核心結合(nuclear juncture)。而且，大多數的並存動詞為附屬關係(subordination)與並附關係(cosubordination)。相較之下並列關係(coordination)則尚未被證實。第二，本研究更發現在賽夏語裡面，大核心接合層級的並存動詞，比其他兩個接合層級，擁有較多種類的語法構式。

嚴格來講，賽夏語並不能被視為連續動詞語言(serializing languges)。主要原因在於，大部分的並存動詞並不能被判定為連續動詞構式(serial verb constructions)，而只有少數並存動詞被判定為該類構式。因此連續動詞構式在本文所探討的眾多賽夏複雜句構式裡面，並不是一個主要的語法特徵，而是僅只其中一種。

關鍵詞：賽夏語，台灣南島語，並存動詞，子句間關係，複雜句結構，角色與指稱語法

Abstract

This dissertation investigates juxtaposed verbs in Saisiyat, an Austronesian language of Taiwan. This language exhibits a pervasive phenomenon whereby multiple verbs, which share core arguments, are aligned in a sentence without explicit marking of clausal or phrasal boundary. Such a linguistic pattern gives rise to two questions. First, what is the syntactic status of these juxtaposed verbs? Second, which grammatical constructions do these juxtaposed verbs belong to?

To solve these two questions, we want to reach the following goals. The first is to clarify interclausal relations of juxtaposed verbs based on Van Valin & LaPolla (1997), Van Valin (2005) and Van Valin (2007). Three components of interclausal relations are examined, including semantic relations, juncture-nexus combinations and the interface between these two linguistic components, that is the interface between semantics and syntactic structures. The second goal is to classify these juxtaposed verbs into specific grammatical constructions on the basis of their interclausal relations and grammatical properties.

Saisiyat exhibits two linguistic idiosyncrasies in terms of (i) the semantic-syntactic interface and (ii) the correspondence between juncture-nexus combinations and grammatical constructions. First, the majority of juxtaposed verbs examined in this dissertation represent the clausal and core junctures, and a minority to the nuclear juncture. Most of juxtaposed verbs display subordination and cosubordination, and none of them exhibits coordination. Second, juxtaposed verbs in the core juncture exhibit more types of constructions than the juxtaposed verbs in the other two junctures.

Saisiyat cannot be viewed as a serializing language in a strict sense. Only a small number of semantic relations are expressed through serial verb constructions, while a large number of them are manifested in other types of complex constructions e.g., construction of verbal modifiers and complementation. That is to say, serial verb constructions are not a dominating feature of the complex constructions investigated in this study.

Keywords: Saisiyat, Formosan, juxtaposed verbs, interclausal relations, juncture-nexus combinations, complex sentences, Role and Reference Grammar

Acknowledgements

> "Life has its rhythm and we have ours. They're designed to coexist in harmony, so that when we do what is ours to do and otherwise let life be, we garner acceptance and serenity. (285)"
>
> — Victoria Moran, Younger by the Day: 365 Ways to Rejuvenate Your Body and Revitalize Your Spirit

Studying complex sentences of Saisiyat is a gaiety that I indulge in this dissertation. This linguistic phenomenon does not only involve every detail in syntax, but also the interaction with semantics, morphology, discourse and even prosody. It took me a period of time to realize such an interaction which may even be more complicated than I presumed at the very beginning. And this is one of the reason why language facts are so important to a linguistic investigation (I deeply appreciate Professor Elizabeth Zeitoun for teaching me this notion throughout these years of training).

I would like to pay the greatest gratitude dwelling from the bottom of my heart to the following two figures who played crucial roles in the completion of this dissertation. One goes to Joy J. Wu and the other goes to Elizabeth Zeitoun. Without guidance from these two important figures, I could not have carried out this study by myself. They provided constructive comments and solid linguistic training. I admire their vigorous attitudes as scholars and will look up to as the standard that I should conform to in research. My appreciation goes to Joy J. Wu for resolving my questions of RRG, pointing out murky discussion on Saisiyat sentences, and making suggestions for reorganizing problematic expressions. Furthermore, I would like to pay my deepest gratitude to Professor Elizabeth Zeitoun for supervising the progress of this dissertation, despite her tight schedule. She shows enthusiasm in providing profound advice upon the Saisiyat data and puts effort to share her ideas how to

present analyses in a logical and concise method.

I am most grateful to my informants for providing reliable language data during these years of fieldtrips. My appreciation goes to kalih a ’oemaw tition, ’ae’aew a taboe: kaybaybaw, waon a boong ba:bai’, and lalo a taheS kaybaybaw. I would also like to thank my Saisiyat friend, Mrs. Tai-hwa Chu (okay a boa tition), a current teacher of Saisiyat, for sharing her knowledge on the Saisiyat language with me. Among these informants, I would like to commemorate Mr. parain a ’aro’ kaybaybaw (Mr. De-sheng Gao), who passed away one year ago. He was my first teacher of Saisiyat language. During fieldwork sessions, he always showed enthusiasm and patience. I really do not know how to repay the hospitality he afforded when we were working in his home. It is a shame that I cannot give him this final version in person as a token of my gratitude for these past years.

For other people who provided assistance in the proposing of this dissertation, I give you my thanks. My appreciation goes to the teachers in the Department of English, National Taiwan Normal University (NTNU), who provided professional linguistic training in my Ph.D. program. I would also like to thank Professor Hsiu-chuan Liao and Professor Jung-hsing Chang who shared precious comments on complex sentences. Last, it is an honor to have received advice from the committee members during my oral defense that helped me revise an earlier draft. I would like to pay gratitude to my family with sincerity. My parents have supported this work financially and emotionally during these years. My parents-in-law have helped my wife and I taking care of the children when both of us were terribly busy.

Finally, I dedicate this work to my wife for keeping faith in me for such a long time (even when we were under a serious financial crisis a couple of years ago) Thanks to her for bringing me two heavenly beloved children: Adonia and Aslan during the writing of this dissertation. She deserves my deepest appreciation.

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Abbreviations

A	actor
ARG	argument
ACC	accusative
AF	agent Focus
ART	article
ASP	aspect
AV	actor voice
CAUS	causative
COM	comitative
COMP	complementatizer
CONJ	conjunction
CONT	continuative
COORD	coordination
COS	change of state
DAT	dative
DIR	directional
DYN	dynamic
GEN	genitive
GER	gerundive
EXP	experiencer
HAB	habitual
I/BF	instrument/Beneficiary Focus
IF	instrument Focus
IMP	imperative
INCH	inchoative
INTENS	intensifier
IRR	irrealis
LIG	ligature
LNK	linker
LOC	location
LOCNMLZ	locative nominalization
MOD	modal
N	noun
N.	a number of
NEG	negation
NMLZ	nominalization
NOM	nominative

NP	noun Phrase
OPT	optative
PERF	perfective
PFT	perfect
PF	patient Focus
PL	plural
PN	personal noun
POSS	possessive
PRED	predicate
PROG	progressive
PST	past
Q	interrogative marker
R	pemote
REAL	realis
RED	reduplication
RRG	Role and Reference Grammar
SA	same actor
SF	singular feminine
SG	singular
STAT	stative
TA	tense-aspect marker
TR	transitive
U	undergoer
UV	undergoer voice
UVL	undergoer voice—locative
UVP	undergoer voice—patient
UVC	undergoer voice—circumstance
V	verb
VP	verb phrases
1	first person
2	second person
3	third per

Conventions

:	(in gloss)	indivisible morpheme boundary
.	(in gloss)	promentaue morpheme
<>	(in gloss)	infixation
-	(in transcription & gloss)	morpheme boundary
=	(in transcription & gloss)	clitic boundary
(*)	(in transcription)	a unit in parenthesis that should not occur
*()	(in transcription)	a unit in parenthesis that should not be deleted
*'English translation'		ungrammatical sentence
?'English translation'		barely acceptable sentence (for pragmatic oddness or cultural inappropriateness)
V1		the firstly occurred verb in a sentence
V2		the secondly occurred verb in a sentence
,		intonation break
.		end of a sentence
≈		being paraphrased into
+		two linguistic constituents/events are combined

Chapter 1

Introduction

This dissertation investigates the semantics and syntax of complex constructions in Saisiyat, with a focus on its juxtaposed verbs. Saisiyat is one of the Formosan languages which belong to the Austronesian family. The language data is based on the Tungho dialect. The analysis proposed in this dissertation is based on Role and Reference Grammar (RRG), as presented in Van Valin & LaPolla (1997), Van Valin (2005) and Van Valin (2007). Section 1.1 presents the definitions regarding the terminology used in this dissertation as well as the scope of this research. I then turn to the literature review, and state my research motivations and goals in the subsequent sections.

1.1 Defining the terminology and the scope of this research

Section 1.1.1 introduces definitions. In section 1.1.2, I outline the scope of this research by illustrating the phenomena investigated with a number of examples.

1.1.1 Defining the terminology

The definitions of the following terms are based on Payne (1997), Zeitoun et al. (2015)

and Kroeger (2005) and apply specifically to Saisiyat.[1] They are given in terms of the relevance to the present discussion.

Juxtaposed verbs: Verbs or verb phrases that co-occur together in a single sentence without linking elements such as ligatures or coordinators that are not obiligatorily present.

Mono-clausal structure: A mono-clause that stands for a syntactic unit consisting of a predicating element and its arguments (*cf.* Payne 1997:71). It represents the smallest syntactic unit that expresses a complete proposition (Kroeger 2005:342). Core arguments of a mono-clause may be elided under pragmatic influence but they can be realized for emphasis.

Bi-clausal structure: A syntactic constituent that is composed of two or more mono-clauses. Each clause has its own nominative argument which may be elided in non-initial clauses under pragmatic influence.

Complement: A dependent unit which is selected by a matrix unit. A complement may be a finite syntactic unit (such as a full-fledged clause) or non-finite syntactic unit (such as a verb without voice marking). It may be a subject (e.g., ***That John won the game*** *surprises everyone*) or an object (e.g., *Lisa*

[1] This study also adopts certain terms of Role and Reference Grammar (Van Valin & LaPolla 1997, Van Valin 2005 and Van Valin 2007). The rest of the terminology relies on Role and Reference Grammar will be presented in chapter 2.

persuaded me ***to buy the ring***).

Finite verb: A verb which can be individually marked by functional categories such as aspect and mood. In most of conditions, these verbs exhibit explicit voice marking.[2]

Non-finite verb: A verb which cannot be marked by functional categories (as in negative or imperative clauses). It appears in its base form.

Gerund: A constituent which exhibits certain noun-like properties such as taking place in argument position in a mono-clause (*cf.* Zeitoun et al. 2015:489-492).

1.1.2 The scope of this present research

In Saisiyat, juxtaposed verbs can be pervasively observed occurring in single sentences. They display a bundle of grammatical features that suggest they may not belong to a linguistically homogeneous type. For example, such verbs express a wide range of semantic relations e.g., phasal relation, a modifying subevent, psych-action and sequential relation as shown in (1.1a-d) respectively.

[2] In Saisiyat, verbs that exhibit AV zero marking do not fit into this definition. For instance, the verb *kishkaat* 'to study, to read' appears in a AV construction in its bare form. It does not exhibit the AV form ****k**om**ishkaat* or ****ma-**kishkaat* (intended for *'AV.study').

(1.1) Juxtaposed verbs that express various semantic relations

a. **aro'** **pil-'al'alay** **t<om>alek** **ka** **pazay.**
PN cook-start <AV>cook ACC rice
'Aro starts to cook rice.' (phasal relation)

b. **korkoring** **miririi'** **k<om>ita'** **ka** **kinaat**.
child AV:stand <AV>see ACC book
'The child is reading books standing.' (modifying subevents)

c. **yako** **ma-ngoip** **r<om>a'oe:** **ka** **'io'.**
1SG.NOM AV-forget <AV>drink ACC medicine
'I forgot to take (my) medicine.' (psych-action)

d. **ma'an** **korkoring** **min'itol,** **s<om>i'ael** **ka** **walo'.**
1SG.GEN child AV:wake.up <AV>eat ACC candy
'My child woke up and ate candies.' (sequential relation)

Moreover, the use of an intonation break between the two juxtaposed verbal units is not consistent across juxtaposed verbs. Some juxtaposed verbs are uttered with a pause in (1.2a), but some of them are not as in (1.2b).

(1.2) Examples of juxtaposed verbs with or without a pause

a. **yako** **k<om>ahoes** **ka** **ralom,** **sh<om>iboeh**.
1SG.NOM <AV>ladle ACC water <AV>pour
'I ladled water and poured it (in a container).'

b. **korkoring** **'aemoeh** **manraan.**
child quick AV.walk
'The child walked quickly.'

Furthermore, some juxtaposed verbs allow the insertion of the conjunctor *=o* 'and' as in (1.3a), but others do not as in (1.3b).

(1.3) Examples of juxtaposed verbs in Saisiyat with or without the insertion of the conjunctor *=o*

a. **sia** **[min'itol](=o)** **[s<om>i'ael** **ka** **walo'].**
3SG.NOM AV:wake.up(=CONJ) <AV>eat ACC candy
'He/She woke up and ate candies.'

b. **'aro'** **[ma-ngoip](*=o)** **[r<om>a'oe:** **ka** **'io'].**
PN AV-forget(*=CONJ) <AV>drink=CONJ ACC medicine
'Aro forgot to take (the) medicine.'

These juxtaposed verbs do not simply represent the combination of two verbal units in their surface forms. Instead, they involve a problem of unclear borderline between mono-clauses and bi-/multiple clauses. They also raise the importance of discussing the semantics of these complex constructions, together with the interface between syntax and semantics.

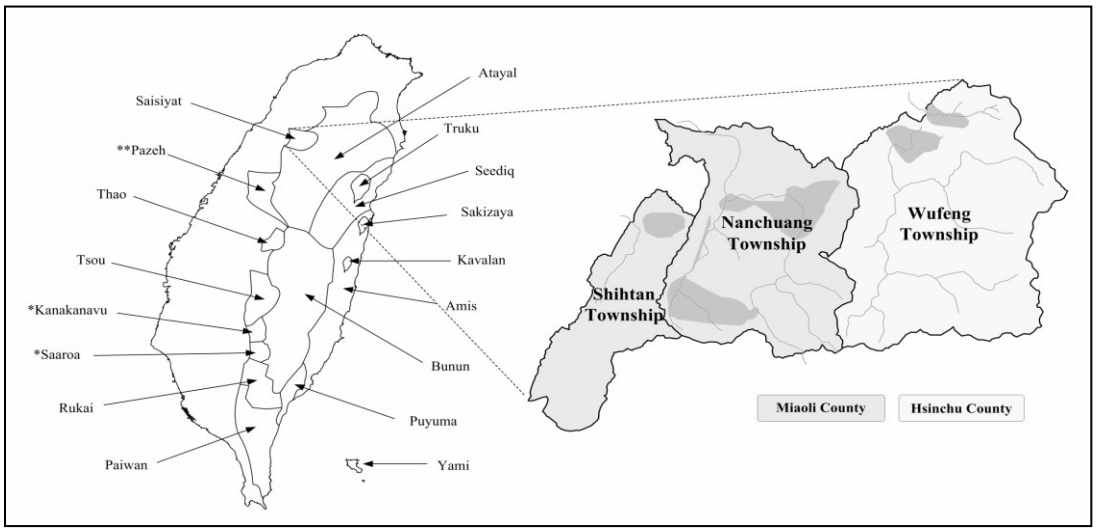
Before describing the research motivations and specifying the goals of this study, I will first introduce some background on the Saisiyat population, my fieldwork and informants in section 1.2. I will further summarize previous studies that are related to this study in section 1.3.

1.2 The Saisiyat language

Saisiyat is spoken in North-western Taiwan. Map 1.1 illustrates the location of the Saisiyat speech community and the distribution of Formosan languages. The Saisiyat population is estimated at 6,500 as of March 2017[3] but the number of fluent speakers

[3] Based on the census provided by the Council of Indigenous People (https://www.apc.gov.tw).

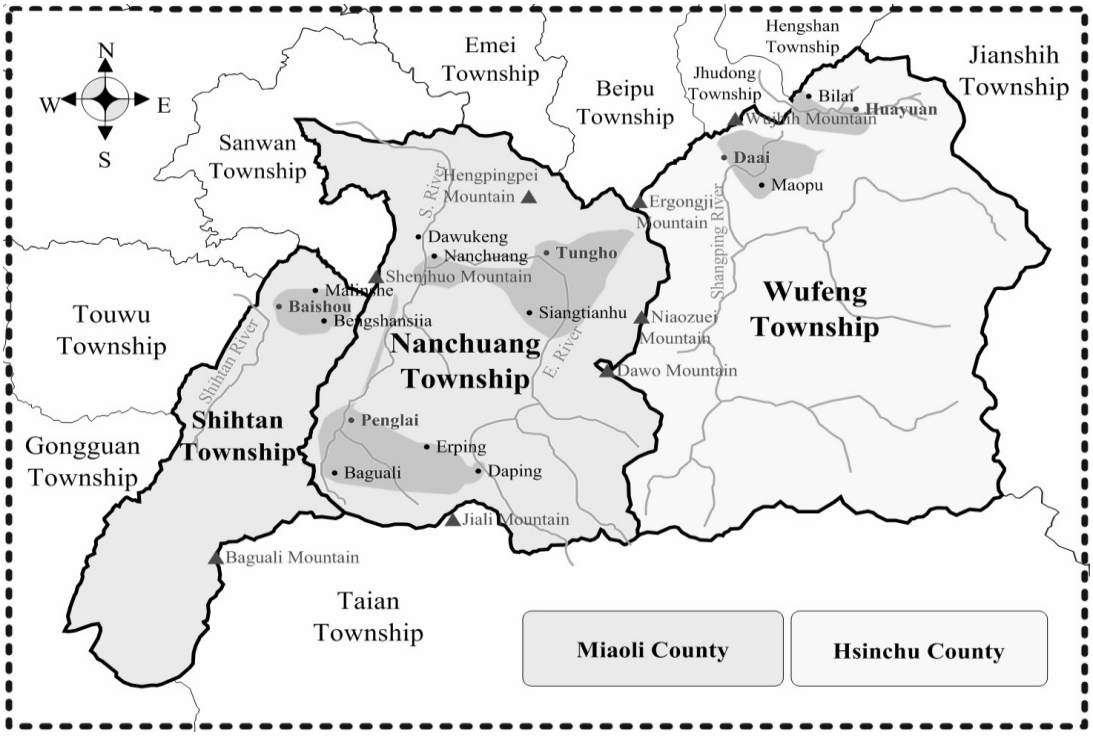
of Saisiyat is much below. The actual amount of fluent speakers is hard to be precisely apprehended but it might not exceed 1000. They do not only speak Saisiyat but also speaks Mandarin and Hakka.



Map 1.1. Geographical distribution of Saisiyat within the Formosan languages

(Zeitoun et al. 2015:3)

Saisiyat includes two dialects (P. Li 1978): the **Taai** dialect is spoken in Wufeng Township, Hsinchu County, and is known as the dialect of the northern area. The **Tungho** dialect is spoken in Nanchuang and Shitan Townships, Miaoli County and referred to as the dialect of the southern area. Map 1.2 illustrates the distribution of these two dialects.



Map 1.2. Distribution of the Saisiyat dialects (Zeitoun et al. 2015:5)

According to P. Li (1978), the main difference between these two dialects resides in phonology and lexicon. With respect to phonology, the two dialects differ in the apical fricatives and the loss of the flap. The apical fricatives are pronounced as /θ/ and /ð/ in the Tungho dialect and /s/ and /z/ in the Taai dialect. The flap /ɾ/ was kept in the Taai dialect[4] until the 1980's but has long been lost in the Tungho dialect. The two dialects also display semantic differences in some lexical words. For example, the word *rarahoe'* refers to one's eyes as big in the Taai dialect but not in the Tungho dialect. Rather it means a tremendous quantity of things such as a huge pile of fruit (M. L. Yeh 2003). The Taai community lives among the Squliq Atayal. Therefore

[4] Note that the flap is not heard anymore in the Taai dialect nowadays (E. Zeitoun p.c.).

speakers of this dialect have been deeply affected by Atayal and learn to speak Atayal rather than Saisiyat.

Unless specified otherwise, all the Saisiyat examples were collected by myself through fieldwork. Table 1.1 lists the basic information of my informants. Three of them belong to the elder generation (over 80 years old), who use Tungho Saisiyat as their mother tongue as well as advanced Mandarin (with proficient listening ability, together with less-proficient speaking ability regarding higher level of vocabulary and accurate pronunciation of tones).

Table 1.1 Saisiyat informants of the Tungho dialect

Saisiyat Name **Chinese Name**	**Gender**	**Age**	**Community**	**Language proficiency**
kalih a ’oemaw tition A-liang Zhu	Male	1928-2015[5]	Tungho (Xiangtianhu)	Saisiyat: fluent Mandarin: advanced Hakka: advanced Japanese: fluent
parain a ’aro’ kaybaybaw De-sheng Gao	Male	1928-2017	Tungho	Saisiyat: fluent Mandarin: advanced Hakka: advanced Japanese: fluent
’ae’aew a taboe: kaybaybaw Yang-zhao Gao	Female	1932-	Tungho (has been residing in Taoyuan county in recent years)	Saisiyat: fluent Mandarin: advanced Hakka: basic Japanese: advanced
waon a boong ba:bai’ Yu-yun Feng	Female	1943-	Penglai	Saisiyat: fluent Mandarin: advanced Hakka: advanced Japanese: none
lalo a taheS kaybaybaw	Female	1967-	Tungho	Saisiyat: fluent Mandarin: fluent Hakka: fluent Japanese: none

[5] This study collects Saisiyat data since 2012. The first two of my informants kalih a ’oemaw tition (Mr. A-liang Zhu) and parain a ’aro’ kaybaybaw (Mr. De-sheng Gao) have passed away in 2015 and 2017, respectively. Starting from 2014, the latter informant had no longer worked with me in field works due to his ill health. My informants are the other three persons from 2015 to present.

1.3 Literature review

Section 1.3 introduces previous research on the morphosyntax of Saisiyat. This section is divided into two subsections. The studies which are directly related to this dissertation are further summarized in sections 1.3.1.1-1.3.1.7. Section 1.3.2 introduces previous studies that are related to serial verb constructions of Saisiyat.

1.3.1 Previous studies on Saisiyat grammar

This section introduces previous research on the morphosyntax of Saisiyat. Early studies on Saisiyat grammar focused on phonology, vocabulary, and transcription of folktales. Later studies concerns morphosyntactic issues. Table 1.2 lists previous studies on Saisiyat grammar in the order of their published year.

Table 1.2 Previous studies on Saisiyat

Author, year	Description
Ogawa and Asai, 1935	This is a monograph which presents a collection of Saisiyat folktales and a brief sketch of the grammar.
Chao et al., 1954	This is a phonological study of Saisiyat. The authors report their investigation of Saisiyat vowels, consonants systems together with syllable structures. They also present a collection of lexical items.
Tsuchida, 1964	This is a phonological study of Saisiyat. The author examines the phonological inventory of Saisiyat and discusses phonological rules in Saisiyat.
P. Li, 1978	P. Li (1978) transcribes vocabulary from Taai and Tungho dialect and discusses the case marking system and other related issues such as basic phonological division between two dialects.
M. L. Yeh, 1991	This is a MA thesis which deals with the phonology and syntax of Saisiyat. Details regarding some these issues are given in Section 1.3.1.1
M. L. Yeh, 1995a	Yeh presents the research findings on the focus and case marking system in Saisiyat based on Yeh (1991) as well as her further fieldnotes.
M. L. Yeh, 1995b	Yeh (1995b) presents research findings on tense and aspect marking and several temporal expressions in Saisiyat.
Zeitoun et al., 1996	Zeitoun et al. (1996) investigate the temporal, aspect and modal systems (TAM henceforth) of Formosan languages. The authors claim that in Saisiyat, there is no distinction between past and present. Moreover Saisiyat exhibits a mixed system of both modal auxiliary and affixation to

	denote future events.
L. Huang, 1997	This is a conference paper. The author introduces the typological features of SVCs in Formosan language. Her analysis will be introduced in Chapter 7.
L. Huang et al., 1998	The authors present a typological analysis of the nominal case marking systems of Formosan languages. Saisiyat is considered as a language with a rich case marking system. The fact that nominative and accusative case markers are identical is said to have lead to the SVO order in AF clauses.
M. L. Yeh, 2000a	Yeh (2000a) is one of monographs of the series on Formosan grammars. It provides a sketch of Saisiyat grammar. A detailed summary is given in Section 1.3.1.2.
M. L. Yeh, 2000b	Yeh (2000b) shows that nominalization in Saisiyat represents different degrees of decategorization between nouns and verbs. Syntactic nominalization is used as background information and can be treated as a neutral category between verbs and nouns. Lexical nominalization can be treated as the noun category for deriving nouns and introduce an argument into the clause.
M. L. Yeh, 2000c	Yeh (2000c) discusses Saisiyat negators. The author recognizes six negators*: 'oka', 'okay, 'okik, 'amkay, 'amkik, 'izi','i'ini,* and *kayni'*[6] according to their functions and syntactic distributions.
M. L. Yeh, 2000d	Yeh (2000d) discusses four types of reduplication. The author argues that a reduplicant remains invariant in the reduplicating process, and is independent of the hierarchical structure of the copied morpheme.
M. L. Yeh, 2003	In this dissertation, the author addresses two main issues: (i) forms and meanings of focus affixes in Saisiyat and (ii) the division of non-actor focus (NAF). Section 1.3.1.3 summarizes this study.
M. L. Yeh, 2016	M. L. Yeh (2016) is a sketch grammar of Saisiyat. The author provides new findings. An overview of this work is given in Section 1.3.1.4.
Zeitoun, 2001	This squib revisits Yeh's (2000c) analysis. The author (2001) claims that a negation marker in Saisiyat is composed of a negator with a ligature followed or not by the consonant *-k*. The use of the ligature (and the (non-)occurrence of the consonant) is triggered by verb classes (either dynamic or stative). This study is further discussed in Section 1.3.1.5.
H. Huang, 2003	This thesis addresses the notions of tense, aspect and reality of Saisiyat and Tsou. The analyses on Saisiyat are summarized in Section 1.3.1.6.
Chiang and Chiang, 2005	This journal paper is on Saisiyat pitch accent. The authors observe that Saisiyat lexical words exhibit an acoustic pattern whereby the accented syllable in a lexical word shows the greatest pitch range from other non-accented syllables.
Zeitoun and Wu, 2005	In this journal paper, the authors provide an alternative analysis from M. L. Yeh (2000d, 2003) on Saisiyat reduplication. The authors show that in Saisiyat there is a mismatch between a prosodic copying unit and its corresponding semantic meaning.
Hsieh, 2007	This is a dissertation that deals with the language of emotion in Kavalan and Saisiyat. The author investigates the *shi*-construction, i.e., referential focus sentences as well as thinking verbs in Saisiyat. Her findings are further summarized in Section 1.3.1.7.
Hsieh and S. Huang, 2006	In this journal paper, the authors explain zero marking in the nominative from a pragmatic perspective. They claim that the absence of nominative case markers is ascribed to ongoing word order change from a V-initial to a subject-initial, the main function of this change being to introduce a new referent into discourse. Moreover, they also account for the coding of the recipients in ditransitive sentences in which the recipient is marked as either dative or accusative. This dual marking is determined by the spatial or psychological distance between the agent and the recipient.
Zeitoun et al., 2011	In this journal paper, the authors claim that the connector *ki*, which also

[6] Whenever necessary, I have changed transcriptions in certain words to conform to my own transcriptions

	functions as a comitative case marker, contrasts with the connector *=o*. The major piece of evidence is that *ki* can be pluralized i.e. *ki-l* while *=o* cannot. Moreover, *ki* cannot connect two non-nominal elements such as *VP *ki* VP but *=o* can. Other tests like word order, negation and verbal classification also support this analysis.
Cheng, 2011	This thesis discusses transitivity and ergativity of Saisiyat. Cheng observes that Saisiyat exhibits both ergative and accusative patterns in case marking but only displays ergative pattern in conjunction reduction.
Chao, 2013	This is a thesis that discusses the grammaticalization of the utterance verb *kosha:* 'say' of Saisiyat. This verb is worthy investigating for its multiple discourse functions. This study will be discussed in Section 3.5.4.
Zeitoun et al., 2015	This is a monograph which extensively presents the morphology of Saisiyat. Several topics are addressed in this book, including morphological processes, word classes, nominal morphology, verbal morphology, negation and composite verbs. Chapter 3, a basic sketch of Saisiyat, will introduce Zeitoun et al.'s (2015) discussion of Saisiyat morphosyntax that involves complex sentences in Saisiyat.
Chou, 2016	This journal paper discusses object control (OC) constructions in Saisiyat from the perspective of formal syntactic theory. The author considers that an OC construction is atemporal as its temporal frame is dependent on the matrix clause. The author proposes two types of canonical and non-canonical types. This structure will be discussed in section 8.3.

Below, I summarize the books or papers that are related to this research. These works were first introduced in Table 1.2 and were cross-referenced if selected for a longer summary.

1.3.1.1 M. L. Yeh (1991)

M. L. Yeh (1991) reports that Saisiyat is not an absolute verb-initial language. Non-actor focus (NAF) sentences exhibit free order. In actor focus (AF)[7] sentences, word order is strictly aligned as $A_{ctor}V_{erb}O_{bject}$. She ascribes the divergent word orders to case syncretism in the nominative and accusative sets. Actors do not require any case

[7] As explained in Starosta (2002), Austronesian 'focus' is commonly assumed to be a kind of subject-verb agreement whereby the predicate agrees with the subject in theta-role. His paper shows that Austronesian focus is not voice inflection but rather lexical derivation. Following Starosta (2002), in this dissertation, I will use the term 'voice' to refer to subject-verb agreement instead of 'focus' as used in M. L. Yeh (2000a) (*cf.* Table 1.4). Whenever the term 'focus' is used, it retains the original usage of a particular author.

marker in most AF sentences and if they do, they are marked by *ka*, which also marks patient arguments in AF sentences. Consequently it is difficult to discern grammatical relations in AF sentences under such conditions. Therefore the word order is essentially used to signal grammatical relations in AF sentences.

1.3.1.2 M. L. Yeh (2000a)

M. L. Yeh (2000a) elaborates on Saisiyat morphology and syntax based on M. L. Yeh's (1991) findings. This section focuses on her revised analyses of the case marking and voice marking. For case marking, she identifies the semantic roles that cases designate. The nominative case encodes actor, experiencer, instrument, patient, theme, location, and reason. The accusative case encodes patient and theme. The genitive case is used for possessor, actor, experiencer, and instrument. The dative case encodes a beneficiary. The locative case encodes location and source arguments.

M. L. Yeh (2000a) also introduces structures of simple clauses. Her introduction includes a discussion on existential, possessive, locative, imperative and negative clauses. Table 1.3 summarizes this part.

Table 1.3 Simple clauses of Saisiyat (from M. L. Yeh 2000a:105-109)

Types	Descriptions	Example
Existential clauses	Introducing a theme	**hayza: 'aehae' kaehoey ray taew'an rangi'.** have one tree LOC house beside 'There is a tree beside a house. '
Possessive clauses	Introducing possession	**yako hayza: too' korkoring.** 1SG.NOM have three child 'I have three children.'
Locative clauses	Locative phrases as predicates	**korkoring ray taew'an.** child LOC house 'The child is at home.'
Imperative clauses	Predicates occurring in infinite forms	**shebet ka korkoring!** beat ACC child 'Beat the child!'

She classifies complex sentences into four categories: clausal complementation, relative clauses, adverbial constructions and coordination constructions. Figure 1.1 schematizes this classification.

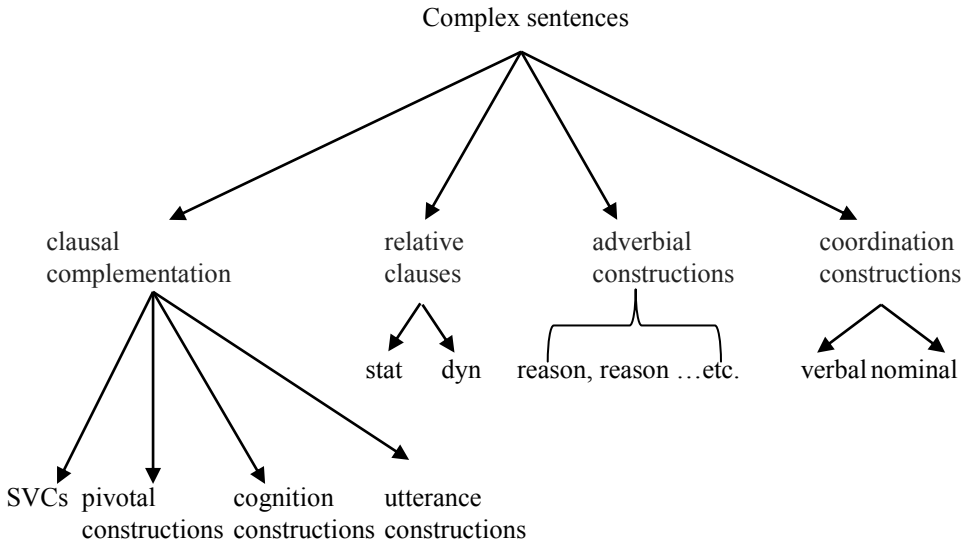


Figure 1.1 Classification of Saisiyat complex sentences
based on M. L. Yeh (2000a)

Complementation includes serial verb constructions (SVCs), pivotal , cognition and utterance constructions. Relative clauses are divided into two types: stative and dynamic types. Adverbial sentences contain reason, concessive, conditional, purposive and temporal constructions. Coordination includes verbal and nominal types. Table 1.4 summarizes complementation described in M. L. Yeh (2000a).

Table 1.4 Saisiyat complementation clauses according to M. L. Yeh (2000a:133-141)

Type	Description	Example
Serial verb constructions (SVCs)	Verbs are serialized without conjunctors, and share arguments. They usually denote a sequential meaning	**baki'** **'am=m-wai'** **kanman** **s<om>i'ael** **ka** **pazay**. grandfather IRR=AF-come 1SG.LOC <AF>eat ACC rice 'Grandfather will come to my house to have a meal. '
Pivotal constructions	The patient of the 1st verb is the actor of the 2nd verb	**baki'** **sh<om>iwa:** **shi-'osha'** **nisia.** grandfather <AF>promise I/BF-go 3SG.GEN 'Grandfather permitted him to leave.'
Cognition constructions	The complement clause is introduced by cognition verbs e.g., *komoha:* 'say (AV)'	**yako** **bazae'** **k<om>osha:** **baki'** **'am=m-wai'.** 1SG.NOM hear <AF>say grandfather IRR=AF-come 'I heard that grandfather will come (here).'
Utterance constructions	It introduces a protagonist's point of view	**baki'** **ma'yakai'** **(komosha:)** **'am=m-wai'.** grandfather AV:tell (COMP) IRR=AV-come 'Grandfather said that he will come (here).'

Table 1.5 provides a description of adverbial clauses in Saisiyat, on the basis of Yeh's classification (2000a).

Table 1.5 Saisiyat adverbial clauses according to M. L Yeh (2000a:146-152)

Type	Description	Example
Reason clauses	The order of the two clauses is not fixed. Conjunctors, such as *kano*' are not obligatory.	**'aewhay ka kawash baki' (kano'/ma-'isa:)** bad NOM sky grandfather what/also-then **'okay 'osha' '<oem>alop.** NEG:LIG go <AF>hunt 'Grandfather didn't go hunting because the weather is bad.'
Concessive clauses	Conjunctors such as *ma'* 'still' are used to introduce main clauses	**'isahini' ('ana) '<oem>oral yako** now even <AF>rain 1SG.NOM **ma' 'am=rima'=ila.** still IRR=go=COS 'I will go out even if it was raining now'
Conditional clauses	Expressing counter factual or possible future events	**yako naw (komosha:) kabkababae:** 1SG.NOM if COMP bird **'am=mayap=ila hita**. IRR=fly=COS there 'I would fly there if I was a bird.'
Purposive clauses	A purposive clause is manifested as a nominalized clause.[8]	**'oya' t<om>alek no korkoring ka-si'ael-en** mother <AF>cook DAT child NMLZ-eat-PF 'Mother cooked for the child to eat.'

Table 1.6 presents a description on relative clauses and the construction of coordination in Saisiyat. As reported in M. L. Yeh (2000a), nominal coordinates are linked by what she calls the coordinator *kir,*[9] and the verbal coordinands are connected by the clause-linkage markers (CLMs, which will be further discussed in chapter 2) =*o* and =*a*. Relative clauses are introduced by what M. L. Yeh (2000a) calls the relativizers *'ima=* and *kama=*; the former co-occurs with stative verbs and the latter with dynamic verbs. A verb infixed by <*in*> also forms a relative clause. The modifier clause can occur in pre- or post-modifiee noun phrase positions.

[8] This analysis is formally proposed in M. L. Yeh (2003).

[9] Zeitoun et al. (2015) report that nominal coordinands are also connected by the CLMs =*o* and =*a*. As for *kir*, it is not found in Tungho Saisiyat. By contrast, Tungho Saisiyat has *ki* 'comitative (singular)' and *kil* 'comitative (plural)'. According to Zeitoun et al. (2011), *ki* has two functions. One is the comitative case and the other is coordinator. In M. L. Yeh (2016), she also reports that *ki* acts as the comitative case in Saisiyat.

Table 1.6 Saisiyat relative clauses and coordination constructions in M. L. Yeh (2000a:142-146;152-154)

Type	Description	Example
Stative relative clauses	Introduced by *'ima=*, occurring before or after the modified NP	**['ima=shekla' hi 'obay] ka ma'iaeh m-wai'=ila.** NMLZ=recognize ACC PN NOM person AF-come=COS 'The person who knows Obay has come.'
Dynamic relative clauses	Introducing by *kama=*, occurring before or after the modified NP	**tatini' sharara' ka [kama=ra'oe: pinobaeaeh] kabinao:.** old.(wo)man like ACC NMLZ=drink wine young.woman The old (wo)man likes the young woman who drinks.'
Verbal coordination	Using coordinators *=o* and *=a*, or simply juxtaposing verbal coordinands	**sia sh<om>bet ka ma'iaeh=o '<om>angang naehan ka ma'iaeh** 3SG.NOM <AF>beat ACC person=CONJ <AF>scold still ACC person 'He beat and scolded people.'
Nominal coordination	Using coordinators *=o*, *=a*, or simply juxtaposing nominal coordinands	**'ataw=o kalih sharara' s<om>i'ael ka tawmo'.** PN=CONJ PN like <AF>eat ACC banana 'Ataw and Kalih like to eat bananas.'

1.3.1.3 M. L. Yeh (2003)

As mentioned above, M. L. Yeh (2003) discusses two issues: (i) forms and meanings of focus affixes in Saisiyat, and (ii) the division of non-actor focus (NAF), regarding the relations between focus affixes and thematic roles. She follows the conventional dichotomy between actor focus (AF) and non-actor focus (NAF). NAF markers are further divided as patient focus (PF), locative focus (LF), and instrumental/benefactive focus (I/BF). Figure 1.2 schematizes this relation.

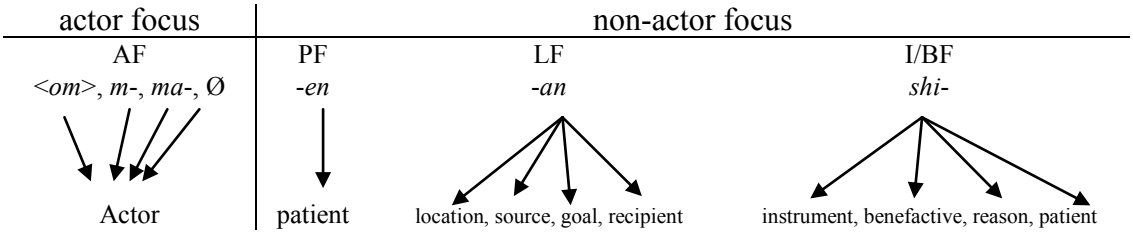


Figure 1.2 Relations between focus markers and thematic roles

(from M. L. Yeh 2003:50)

AF encodes the actor as the nominative argument. PF *-en* assigns one thematic role to the nominative argument and displays a one-to-one correspondence. According to M. L. Yeh (2003), the LF suffix *-an* selects source or goal arguments as subjects.[10] However M. L. Yeh (2003) observes that LF encodes patient-like arguments of two-argument verbs as subjects. The I/BF *shi-* designates four thematic roles as nominative. Figure 1.3 illustrates the mapping between NAF markers and thematic roles.

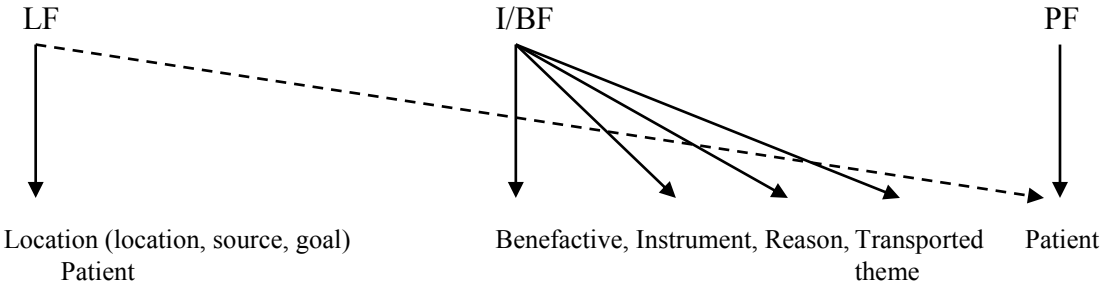


Figure 1.3 The mappings between NAF affixes and thematic roles

(According to M. L. Yeh 2003:84)

[10]M. L. Yeh (2003) and Hsieh (2007) claim that the function of *-an* is to mark locative nominalization, instead of focus. However, Zeitoun et al. (2015) show that *-an* is still used as a voice marker in Modern Saisiyat. This issue will be discussed in chapter 3.

Another contribution is the analysis of semantic extensions of I/BF *shi-* marking in M. L. Yeh (2003). As Figure 1.4 illustrates, the beneficiary meaning rendered by the *shi*-marking is the prototypical usage. This usage is extended to malefactive, reason and instrument. Furthermore, the malefactive usage is extended to the patient usage on the basis of affectedness given by its nominative argument. The transported patient and reason are extended usages from the instrument meaning of *shi-* 'I/BF'.

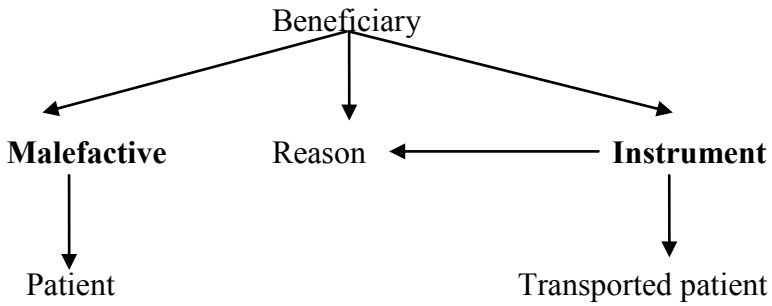


Figure 1.4 Semantic extension of I/BF
According to M. L Yeh (2003:109)

1.3.1.4 M. L. Yeh (2016)

M. L. Yeh (2016) is a sketch grammar of Saisiyat. On the basis of M. L. Yeh (2000a), the author presents new findings. First, she briefly introduces Saisiyat morphology including affixation, reduplication, compounding, onomatopoeias, loan words and word classes. Second, she elaborates on hortative constructions[11] and causative constructions. Last, she provides a new classification of complex sentences, which is

[11] M. L. Yeh (2016:115) uses the Chinese term *guiquanshi* (規勸式) to refer to hortative constructions in her book.

directly related to this dissertation. In contrast to M. L. Yeh (2000a), schematized in Figure 1.1, M. L. Yeh (2016) proposes four types of complex sentences: serial verb constructions, clausal complementation, modifying constructions and coordination. Figure 1.5 schematizes this classification. Based on a comparison between this figure and Figure 1.1, we know that pivotal, utterance and cognition constructions proposed in M. L. Yeh (2000a), are classified as clausal complements in M. L. Yeh (2016). As for serial verb constructions (SVCs), they are not treated as a subtype of clausal complementation but as an independent category of complex sentences in M. L. Yeh (2016).

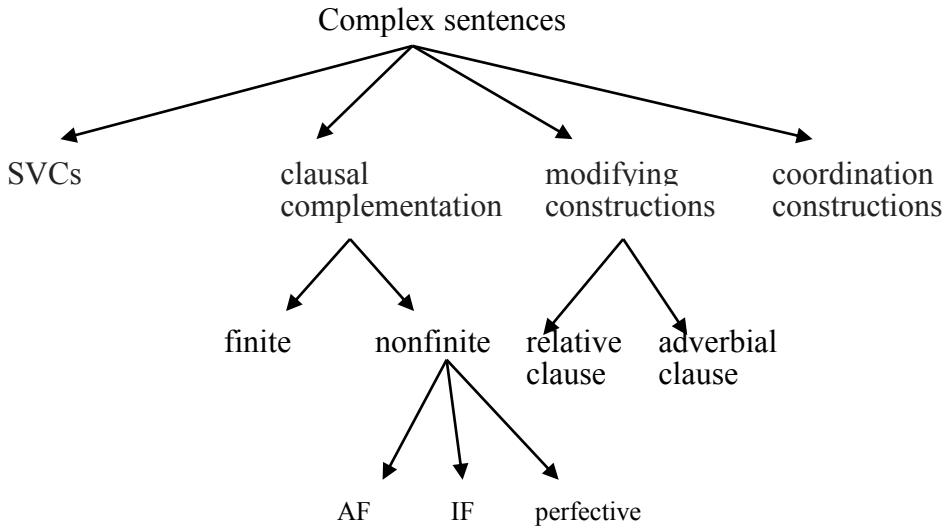


Figure 1.5 Classification of Saisiyat complex sentences in M. L. Yeh (2016)

M. L. Yeh (2016) divides clausal complementation into two main categories: finite and non-finite clauses.[12] Finite clausal complements are able to have

[12] The term finite clause refers to M. L. Yeh's (2016) Mandarin term *wanzheng ziju* literally meaning 'complete clause', and the term non-finite clause refers to her *fei-wanzheng ziju* literally meaning 'incomplete clause'.

independent temporal frame from the matrix clauses. In (1.4a), the complement is independently marked by the perfect <*in*> and change of state =*ila*. In (1.4b), the complement has null aspectual marking.

(1.4) Aspectual marking and modification of temporal adverbs

a. **baki'** **ma'yakai'** **'iakin** **['aro'** **s<om><in>i'ael=ila].**
grandfather AV:tell 1SG.ACC PN <AV><PERF>eat=COS
'Grandfather told me that Aro had eaten (a meal).'

b. **yaba'** **raam** **(komosha:)** **[yako** **s<om>i'ael** **ka** **walo']**.
father know (COMP) 1SG.NOM <AV>drink ACC candy
'Father knows that I ate the candy.'

In (1.5), the temporal adverb can either occur in the clausal complement or not.

(1.5) Modification of temporal adverb

baki' **ma'yakai'** **'iakin** **sia** **(kahia')** **r<om>kep**
grandfather AV:tell 1SG.ACC 3SG.NOM yesterday <AV>catch
ka **'aelaw.**
ACC fish
'Grandfather told me that he caught a fish (yesterday).'

In M. L. Yeh (2016), non-finite clausal complements are divided into clauses in which (i) verbs are marked as AF as in (1.6a), (ii) those which are marked as IF as in (1.6b), and (iii) finally those which are marked by the perfective <*in*> in (1.6c).

(1.6) From M. L. Yeh (2016)

a. **yako k<om>ita' hisia 'am=s<om>i'ael ka pazay.**
1SG.NOM <AF>see 3SG.ACC PROG=<AF>eat ACC rice
'I saw him eat(ing) rice.' (p.186)

b. **hiza korkoring k<om>ita' noka ma'iaeh si-si'ael som'en ka shahab.**
that child <AF>see GEN person IF-eat swallow ACC saliva
'That child saw the person swallow(ing) saliva.' (p.188)

c. **yako tin-hoero: ni 'ataw ki 'iban p<in>a'oe'oe'.**
1SG.NOM listen-remember GEN PN COORD PN <PERF>quarrel
'I hear the sounds of quarrel between Ataw and Iban.' (p.190)

Table 1.7 presents the functions and distribution[13] of clausal complements in M. L. Yeh (2016).

Table 1.7 Saisiyat clausal complements according to M. L. Yeh (2016:191)

Type		**Description**	**Distribution**	**Examples**
finite clausal complement		▪independent temporal frames ▪nominative arguments occurring in clausal complements	narrative verbs, cognition verbs, perceptual verbs (indirect perception)	1.3a-b
non-finite clausal complement	AF-marking	▪ expressing activities ▪ expressing events	perceptual verbs (direct perception), control verbs (co-indexed actors between matrix and embedded clauses)	1.4a
	IF-marking	▪expressing concrete scenery	perceptual verbs (direct perception), control verbs (different actors between matrix and embedded clauses)	1.4b
	perfective-marking	▪expressing concrete scenery and sensuous images e.g., sound and scent	perceptual verbs (direct perception)	1.4c

The <*in*>-marked clause in (1.5c) requires some elaboration. Although M. L. Yeh (2016) treats such clauses as clausal complements with perfective marking, she

[13] M. L. Yeh (2016)'s terminology of **function** indicates both semantic and syntactic features. The term **distribution** refers to the types of matrix verbs and controlled arguments in complements.

considers they might be clausal nominalization on the basis of their semantics and structural traits. This issue will be elaborated in chapter 5 where I discuss complex sentences of core junctures in Saisiyat.

1.3.1.5 Zeitoun (2001)

Zeitoun (2001) proposes an analysis of Saisiyat negators. She classifies Saisiyat negators into three categories: (i) *'oka'*, which is followed by a nominal argument, (ii) *'oka'*, *'izi',* and *'i'ini'*, which can co-occur with a stative or a dynamic verb, and (iii) *kayni'*. She considers that a ligature occurring after *'oka'*, *'izi',* and *'i'ini'* is *'i*, while *k* in *'i-k* is the suffix which function is to express stativity. In Zeitoun et al. (2015), the discussion of negators has been expanded. Chapter 3 will summarize part of these findings.

1.3.1.6 H. Huang (2003)

H. Huang (2003) investigates aspect and mood marking of Tsou and Saisiyat. In the part on Saisiyat, two characteristics are proposed.

— The coding of event time is not manifested on verbs but on temporal adjuncts, aspectual markers or specific sentence patterns.

— The event time is not expressed through verbal inflections such as voice marking

in Saisiyat.

Following Zeitoun et al.'s (1996) analyses, H. Huang considers that voice marking is neutral in terms of temporality in Saisiyat. (1.7) exemplifies this trait. A voice-marked verb carries multiple readings of event time when there is no specific temporal expression mentioned in the sentence.

(1.7) From H. Huang (2003)

a. **sia** **s<om>i'ael** **ka** **'aelaw.**
   3SG.NOM <AV>eat ACC fish
   i 'She/he eats fish.'
   ii 'She/he ate fish.'[14] (p. 88)

b. **hini'** **ka** **'aelaw** **noka** **ngiaw** **si'ael-en.**
   this NOM fish GEN cat eat-UVP
   i 'The fish is eaten by the cat.'
   ii 'The fish was eaten by the cat.'
   iii 'The fish has been eaten by the cat.' (p.88-89)

H. Huang (2003) reports that a future/potential event can be either expressed by the irrealis modal clitic *'am*= 'will' before a predicate in actor voice construction, or expressed by the *ka*- irrealis prefix used in undergoer patient voice constructions. She also observes that Saisiyat has well-established marking of aspect. Her discussion includes the perfective <*in*>, experiential *'ina*=, change of state =*ila*, and the

[14] Huang (2003) states that the sentence (1.5) may also read 'as She/he is eating fish'. Such a reading cannot be obtained in Tungho Saisiyat without the addition of a progressive aspect marker (Zeitoun p.c.). Huang's (2003) discussion covers both Tungho and Taai Saisiyat.

clitic *'ima*=.[15] Their functions are summarized in Table 1.8.

Table 1.8 The functions of aspectual markers in Saisiyat

Transcription	Aspect type	Functions	Notations
<*in*>	perfective	1. Indicating an event which has been initiated or completed with the relevance to the speech time. 2. Denoting the following meanings: (i) resulative, (ii) completive, and (iii) temporal anteriority 3. Introducing a new patient into discourse.	1. It usually occurs in relatives clauses 2. It is differentiated from -*en* in terms of syntactic structures.
'ina=	experiential	1. Indicating an experiential aspect. Signaling a past event which is related to a temporal referent time (not mentioning the result with current relevance).	1. It can co-occur with anterior expressions. 2. It occurs in the preverbal position.
=*ila*	change of state	Signifying the transition of events including: (i) progress so far (ii) change of state (iii) perfective aspect (iv) (announcing) a new state	1. Foregrounding an event in most conditions 2. It can co-occur with other aspectual markers. 3. It appears in a bound situation.
'ima=	current state of state or activity	1. In preverbal position. 2. Indicating a current or past state 3. Indicating a progressive event. 4. Indicating a possessive, habitual or general truth. 5. Referring to possible future states. 6. Implying epistemic certainty.	1. It does not occur within relative clauses. 2. It can occur with a telic verb to denote a resultant state. 3. It occurs in preverbal position

1.3.1.7 Hsieh (2007)

Hsieh (2007) investigates emotion and thinking verbs in Saisiyat and Kavalan, with a focus on complex sentences in which the verbs are marked by *shi*-, i.e. the circumstantial voice or instrumental/benefactive focus. She claims that there are two types of *shi*- constructions in Saisiyat. A *shi*-clause can be an independent clause in which the nominative argument is a transported theme, as shown in (1.8a). It can also

[15] H. Huang (2003) treats most aspectual markers e.g., *'ina, ila* and *'ima* as words. Following Zeitoun et al. (2015), this dissertation treats them as clitics e.g., *'ina=, =ila* and *'ima*=. I will return to this issue in chapter 3.

be a dependent clause which embeds in the main clause when the *shi*-clause acts as the conceptual or perceptual cause of the matrix clauses, as illustrated in (1.8b) and (1.8c) respectively.

(1.8) From Hsieh (2007)

a. **si-sae:h** **[ka** **boay]**$_{\text{Theme}}$.
UVC-fall.over NOM fruit
'The fruits spilled (all over the place).' (p.238)

b. **'oya'**$_{\text{Affectee}}$ **[shi-hangih**$_{\text{Perception}}$ **noka** **korkoring**$_{\text{Affect}}$]$_{\text{Event 1}}$
mother UVC-cry GEN child
rima'$_{\text{Resultant}}$ **k<om>ita'** **'ampoa** **h<oem>angih**$_{\text{Event 2}}$.
go <AV>see why <AV>cry
'Because the child(ren) cried, mother went to see why he/she/they cries/cry.'[16] (p. 254-255)

c. **korkoring**$_{\text{Cognizer}}$ **[shi-pasay=ila**$_{\text{Conception}}$ **ni** **'oya'** **ki** **yaba'**$_{\text{cause}}$]$_{\text{Event 1}}$
child UVC-die=COS GEN mother COM father
['oka'=ila **ka** **rayhil]**$_{\text{Resultant}}$ **['arash-en=ila** **ray** **taipei]**$_{\text{Resultant}}$**]**$_{\text{Event 2}}$.
NEG=COS ACC money take-UVP=COS LOC Taipei
'Because his parents died, the child was penniless and was taken to Taipei.' (p. 261)

Hsieh (2007) claims that the conceptual *shi*-construction is extended from the perceptual *shi*-construction. The main reason for this functional shift is based on the commonality between human perception and conceptual processing. That is to say, the affect of a perceptual *shi*-construction turns into the cause of the conceptual *shi*-construction, and the affectee turns into the cognizer.

[16] Both (1.6b) and (1.6c) are analyzed as causal *shi*- constructions in Zeitoun et al. (2015). For the sake of consistency, the translation of (1.6b) replaces Hsieh's (2007) translation: 'Mother heard the child was crying, so she went to see why the child cried.'

1.3.2 Previous studies on serial verb constructions in Saisiyat

This section focuses on the studies related to serial verb constructions (SVCs, henceforth) of Saisiyat, an issue that will be further explored in a later chapter of this dissertation.[17]

1.3.2.1 L. Huang (1997)

L. Huang (1997) investigates SVCs of nine Formosan languages, including Mayrinax Atayal, Saisiyat, Thao, Tsou, Paiwan, Kavalan, Puyuma, Changpin Amis, and Budai Rukai. Her investigation focuses on the structure whereby single agents or experiencers are shared by two or three verbs in one sentences. This study concludes that these Formosan languages (including Saisiyat) can be treated as serializing languages due to (i) argument sharing: the shared agents only occur once in the SVCs, and (ii) single value of functional categories: serialized verbs share only one functional categories such as aspectual marking. In these SVCs, these functional categories predominantly attach to the initial verbs but not the non-initial verbs in most of languages. However, Saisiyat, Tsou and Kavalan are the exceptions to this constraint.

[17] Although studies in SVCs are abundant and many of them are frequently cited (e.g. Aikhenvald 2006) , I will only review those related to Formosan languages for better highlighting the research questions of this study.

L. Huang (1997) further investigates four traits of SVCs of the nine Formosan languages, including (i) the presence or absence of linkers, (ii) the manifestation of shared agent (or experiencer) in second verbs, (iii) the sharing of the same temporal frame, and (iv) the semantics relations between verbal components. First, Amis, Atayal and Paiwan have SVCs that allow linkers between serialized verbs, while Saisiyat, Thao, Tsou, Rukai, Puyuma and Kavalan do not show this trait. **Second,** most of Formosan languages, except for Saisiyat and Tsou, display the AV-only constraint. That is, the second verb must be marked by the active voice in most of sentences especially in affirmative declarative sentences. By contrast, Saisiyat and Tsou display a constraint of voice harmony: serialized verbs display identical voice marking. Last, these SVCs mainly express five types of semantic relations: phase, temporal, purpose, manner and comitative relations.

1.3.2.2 M. L. Yeh (2000a) and (2016)

As stated in Table 1.4, M. L. Yeh (2000a) introduces SVCs of Saisiyat. In her description, serialized verbs are not intervened by conjunctors and share nominative arguments (subjects). [18] Moreover, they exhibit concordant voice marking as exemplified below in (1.9).

[18] M. L. Yeh (2000a) is presented in Mandarin. She uses the term *zhuyu* 'subject (主語)' to refer to the shared arguments that are encoded by nominative cases. This usage is still adopted in M. L. Yeh (2016).

(1.9) Voice concord in SVCs of Saisiyat

a.	**baki'**	**rima'**	**h<oem>iwa'**	**ka**	**baboy.**
	grandfather	AV.go	<AV>kill	ACC	pig
	'Grandfather went to kill a pig.'				
b.	***baki'**	**rima'**	**hiwa'-en**	**ka**	**baboy.**
	grandfather	AV:go	cut.section-UVP	ACC	pig

M. L. Yeh (2016) presents two further findings regarding SVCs of Saisiyat. First, SVCs are said to denote a single event while bi-clausal structures refer to two events. (1.10) exemplifies this semantic distinction. In (1.10a), there is only a single marker of irrealis, i.e. *'am*=, implying a single-event interpretation. By contrast (1.10b) exhibits two independent irrealis markings, implying a double-event interpretation. Second, serialized verbs do not only exhibit voice concordance but also modality concordance. Observe (1.11).

(1.10) From M. L. Yeh (2016:171)[19]

a.	**yako**	**'am=rima'**	**lamsong**	**baeiw**	**ka**	**tatimae'**.
	1SG.NOM	IRR=go	Nanchuang	buy	ACC	side.dish
	'I will go to Nanchuang to buy side dishes.'					

b.	**yako**	**'am=rima'**	**lamsong(,)**	**yako**[20]	**'am=baeiw**
	1SG.NOM	IRR=go	Nanchuang	1SG.NOM	IRR=buy
	ka	**tatimae'**.			
	ACC	side.dish			
	'I will go to Nanchuang, and I am going to buy side dishes.'				

[19] Unless specified, all the examples discussed in the study are collected myself.

[20] M. L. Yeh (2016) does not account for the repetition of the nominative argument in the second clause in (1.7b). Wang (2012) has reported that this structure is one piece of evidence for a bi-clausal structure analysis. Chapter 6 will elaborate on this part.

(1.11) From M. L. Yeh (2016:174)

a. **pa-wai'** **pa-si'ael** **ka** **pazay** **hi** **lasia**.
CAUS-come CAUS-eat ACC rice ACC 3PL.ACC
'(You) invited them to have a meal.'

b. **lasia** **mam=k<om>oih** **ka** **'aewpir,** **sha'=ila** **tatilhaelhael**
3PL.NOM PROG=<AF>dig ACC sweet.potato go=COS help.IMP
koih-ani!
dig=IMP.IF
'They are digging sweet potatoes. Go help them digging them.'

1.3.2.3 M. Y. Yeh & S. Huang (2009)

M. Y. Yeh & S. Huang's (2009) study involves serialization of double and triple verbs of Saisiyat, Kavalan, Squliq Atayal and Tsou. The paper obtains two major findings. First, four basic types of verbs take place in verbal serialization, namely the verbs denoting modality, emotion, manner and motion. Second, the order of verbal components are restricted. In double verb serialization, the action or motion verbs occur in the position of second verbs in this type of SVCs. For verbs denoting emotion, manner and modality, they occur in the initial position of these types of serialization. This study concludes that the so-called SVCs of the four Formosan languages should not be considered as specific syntactic templates but lexically skewed schemas and formulas. One crucial piece of evidence is that most of the verbs in SVCs come from restricted classes, which indicates the low productivity of serialization.

1.4 Motivations and goals of this study

I have summarized briefly in section 1.3 the main issues that have been discussed on Saisiyat morphosyntax, in particular on serialized verb constructions (SVCs) and complex sentences. Although there have been numeral studies about Saisiyat morphosyntax that provide descriptions on SVCs and other related complex constructions, these juxtaposed verbs still require further investigation. A pilot study (Wang 2012) confirmed this impression that the relations between juxtaposed verbs and SVCs (as well as their syntactic status in complex sentences) cannot be only explained in terms of the grammatical traits discussed in L. Huang (1997), M. L. Yeh (2000a) and M. Y. Yeh & S. Huang (2009).

Wang (2012) adopted interclausal relations of Role and Reference Grammar (Van Valin & LaPolla 1997, Van Valin 2005 and Van Valin 2007) to analyze juxtaposed verbs of Saisiyat that express three semantic relations: manner, sequential and simultaneous relations. The study shows that the targeted juxtaposed verbs cannot be treated as genuine SVCs due to the reason that the proposed SVC-traits themselves may mistakenly induce other types of constructions. For example, the property of **argument sharing** may be also observed in verbal coordination or constructions of verbal modifiers (which will be discussed in chapter 8). That is to say, the syntactic nature of juxtaposed verbs may inadvertently be blurred. To solve this

problem, this study further examines (i) syntactic levels where the verbal units are linked and (ii) methods about how these units are linked. It shows that juxtaposed verbs expressing the manner relation may be better analyzed as the construction of verbal modifier, and those expressing simultaneous and sequential relations are treated as conjoined clauses. None of them may not be qualified as genuine SVCs of Saisiyat. This finding demonstrates the viability of investigating juxtaposed verbs of Saisiyat from the perspective of interclausal relations. It also shows that the methodology of considering grammatical properties and interclausal relations of these complex structures serves as a promising approach to point out the distinction between SVCs and other complex grammatical constructions.

On the basis of the previous studies introduced in section 1.3 (especially in L. Huang 1997, S. Huang & Su 2005, M. L. Yeh 2000a, and M. Y. Yeh & S. Huang 2009) and the pilot study (Wang 2012), one crucial issue stands out, regarding the grammatical nature of juxtaposed verbs of Saisiyat. The previously defined SVCs in Saisiyat (*cf*. the examples 1.10 and 1.11), as discussed in studies of L. Huang (1997), S. Huang & Su (2005), M. L. Yeh (2000a), (2016) and M. Y. Yeh & S. Huang (2009) may not represent true SVCs but rather other types of constructions e.g., verbal coordination, constructions of verbal modifiers or conjoined clauses.

In order to address the issue mentioned above, this dissertation sets forth four specific goals. The first goal is to delineate the semantics of complex events and how they are mapped onto syntactic realizations. The second goal is to provide a distributing pattern of these juxtaposed verbs in their the juncture-nexus combinations which revealing the language idiosyncrasy of Saisiyat. The third goal is to reassess the SVCs of Saisiyat by proposing the SVC-condition that integrate those criteria used in L. Huang (1997), S. Huang & Su (2005), M. L. Yeh (2000a), (2016) and M. Y. Yeh & S. Huang (2009) and the mechanism validated in Role and Reference Grammar. As for the final goal, this study is designated to account for the relations between SVCs and other related complex constructions such as verbal coordination and conjoined clauses in this language.

1.5 Summary of chapter 1

This chapter presents the background information of the Saisiyat language. It also reviews previous studies concerning different points of Saisiyat grammar which are related to the current research. The literature review given in Section 1.3 provides helpful references for this study and we have obtained a fundamental understanding the types and structures of complex sentences in Saisiyat, especially through the contribution made by M. L. Yeh (2000a), (2016) and Hsieh (2007). However, there

are still issues left for further exploration. One is the mapping between semantics and syntax in complex constructions, in particular those expressed by juxtaposed verbs. The other is the relation among these complex constructions. For example, SVCs may structurally akin to constructions of verbal modifiers based on juncture-nexus combinations and their shared properties, but they should not be classified into the same constructions. Role and Reference Grammar serves as the framework for clarifying these two issues. Table 1.9 presents examples of verbs discussed in this study, which are selected based on the interclausal relations discussed in Role and Reference Grammar (Van Valin & LaPolla 1997:441-508, Van Valin 2005:183-224 and Van Valin 2007).

Table 1.9 Examples of verbs discussed in this dissertation

<table>
<tr><td>Semantic relations that are expressed by juxtaposed verbs</td><td colspan="4">Examples of verbs discussed in this dissertation</td></tr>
<tr><td rowspan="2">phasal relation</td><td colspan="2">beginning phase</td><td>continuing phase</td><td>finishing phase</td></tr>
<tr><td colspan="2">pil-’al’alay ‘cook-start’</td><td>tomoa’is ‘continue [AV]’</td><td>sizaeh ‘finish’</td></tr>
<tr><td rowspan="2">modifying subevents</td><td>manner</td><td>motion</td><td>position</td><td>means</td></tr>
<tr><td>’aemoeh ‘quick’</td><td>rima’ ‘go’</td><td>miririi’ ‘stand [AV]’</td><td>rima’+N_{LOC} papama’ka kapapama’an ‘to go to a place by car’</td></tr>
<tr><td>psych-action</td><td colspan="4">mangoip ‘forget [AV]’, shingoip ‘forget [UVC]’</td></tr>
<tr><td>purposive relation</td><td colspan="4">kashre’re’+N tomawbon+N ‘to step onto an object to stomp an object’</td></tr>
<tr><td>direct perception</td><td colspan="4">[bazae’ka ’aehoe’ tomobong ‘hearing a dog barking’</td></tr>
<tr><td>cognition</td><td colspan="4">➢ raam (komosha:) +[$clause_{AV/UVP}$]
➢ shi-V[UVC] ‘to know something’</td></tr>
</table>

simultaneous relation	*maatol hoemlal* 'to sing[AV] and to dance[AV]'
sequential relation	*min'itol somi'ael ka siningo:* 'to wake up [AV] and to eat [AV] porridge'

One notification must be posted before the main body of discussion. Although this study focuses on verbal juxtapositions exemplified in (1.1), a related construction called dislocated structures is also included in the discussion as it is found that two structures are highly related in Saisiyat. (1.12) exemplifies such dislocated structures. The verbs *'aemoeh* 'quick' and *masha.eng* 'sit [AV]' that occur before the other lexical verbs in juxtaposed verbs as in (1.12a) and (1.12b) are now placed after the main clauses in dislocated structures as in (1.12a') and (1.12b'). The two structures express subtle semantic difference.

(1.12) Juxtaposed verbs and their dislocated structures

a. 'oya' 'aemoeh manraan. (juxtaposed verbs)
mother quick AV.walk
'Mother walks quickly.'

a'**. 'oya' manraan, 'aemoeh.** (dislocated structure)
mother AV.walk quick
'Quickly, mother walks.'

b. **yako 'a(m)=masha.eng k<om>ita' ka kinaat**.
1SG.NOM PROG=AV:sit <AV>see ACC book
'I am reading the books while sitting.' (juxtaposed verbs)

b'. **yako k<om>ita' ka kinaat, 'a(m)=masha.eng**.
1SG.NOM <AV>see ACC book PROG=AV:sit
'I read the books while sitting.' (a dislocated structure)

Note that this dissertation does not dioscuss the complex sentences expressing reason, concessive and condition (*cf.* the first three types of complex sentence in Table 1.5) and the *shi*-clauses that are investigated in Hsieh (2007), e.g., (1.5b-c) as these sentences possess obligatory intervening elements in them.

This discussion after chapter 1 is organized as follows. Chapter 2 introduces the details about RRG. Chapter 3 introduces parts of Saisiyat grammar. Chapter 4 discusses juxtaposed verbs of the nuclear juncture. Chapters 5 and 6 deal respectively with juxtaposed verbs of the core juncture and juxtaposed verbs of the clausal juncture. Chapter 7 centers on the issue of serial verb constructions in Saisiyat. Chapter 8 discusses verbal juxtaposition that are diagnosed as verbal coordination. Chapter 9 is my conclusion.

Chapter 2

The framework

Chapter 2 introduces the theoretical aspects of Role and Reference Grammar (henceforth RRG) that are relevant to this dissertation, based on Van Valin & LaPolla (1997) and Van Valin (2005). In this framework, a grammar is viewed as an organization that subsumes three dimensions, namely semantics, syntax and discourse-pragmatics instead of the syntax-central view in the generative approach qqe.g., Government and Binding Theory (Haegeman 1991). This theory serves as a tool for describing linguistic phenomena and as a theoretical machine to account for these descriptions.

Three domains of grammatical representations are distinguished: (i) the representations of syntactic structures, (ii) the semantic representations, and (iii) the representations of information or the focus structure of utterances. These representations interact in the following ways. A syntactic representation is designed to closely correspond to the actual form of the utterance. A semantic representation provides the meaning of the syntactic representation. The information representation accounts for the communication functions of the utterance. The connections between semantic and syntactic representations are explained with linking algorithms.

Pragmatics comes into play and influences the linking process when certain perspectives of representations are profiled.

These three levels of representations (semantics, syntax and discourse-pragmatics) constitute a grammatical organization of a language as illustrated in Figure 2.1.

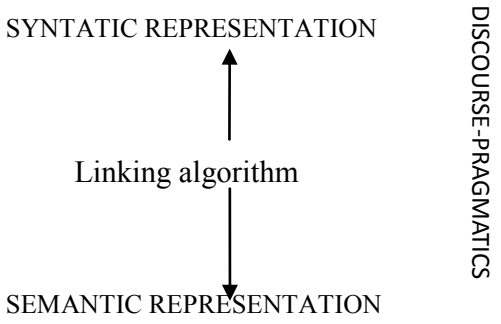


Figure 2.1 General structure of Role and Reference Grammar
(Van Valin 2005:2)

Figure 2.1 shows a direct mapping from semantic representation to syntactic representation. The linking algorithm regulates the mapping. The syntactic derivation is conducted without any bridging abstract syntactic representation like moving or merging. The linking algorithm works bi-directionally and can be influenced by factors or considerations from discourse-pragmatics.

This chapter is organized as follows. Section 2.1 introduces syntactic representations. Section 2.1 introduces semantic representations of logic structures and macroroles. Section 2.3 introduces Grammatical relations. Section 2.4 presents

the representation of interclausal relations in RRG. Section 2.5 is the overall summary. Note that except for the English examples cited from previous works of RRG, I will further provide Saisiyat examples in this chapter for readers to enhance understanding the relation between the framework and the targeted language examined in this study.

2.1 The syntactic representations

There are two fundamental assumptions in RRG. First, a syntactic theory of clausal structure captures all the universal features of clauses without imposing non-evident grammatical features on languages. Second, a syntactic theory provides comparable structures between akin or diverse languages. There are neither abstract underlying syntactic representations nor syntactic derivations such as move and merge as in Government and Binding (Haegeman 1991). In RRG, a syntactic representation reflects the form of an actual utterance.

The RRG notion of clausal structure is the structural segmentation of a clause. It is called the **layered structure of the clause (LSC).** A LSC contains two basic components: predicating elements and non-predicating elements. A predicating element can be either a verbal or a non-verbal unit. A non-predicate element contains two parts: arguments and non-arguments. Figure 2.2 illustrates the syntactic configuration of a LSC.

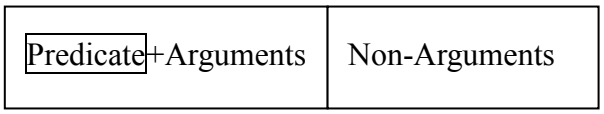


Figure 2.2 Universal oppositions underlying clause structure (Van Valin 2005:4)

The predicate element by itself is called **nucleus.** It stands as the basic unit of a layered structure. A nucleus combines its core arguments into a **core** layer. A core argument is a semantic argument of the semantic representation of the verb e.g., the actor or the patient. The non-core arguments of predicates are called **periphery**, e.g., temporal and locative nouns. The combination of a predicate, its core arguments and periphery forms a **clause**. The layered structure is shown in Figure 2.3.

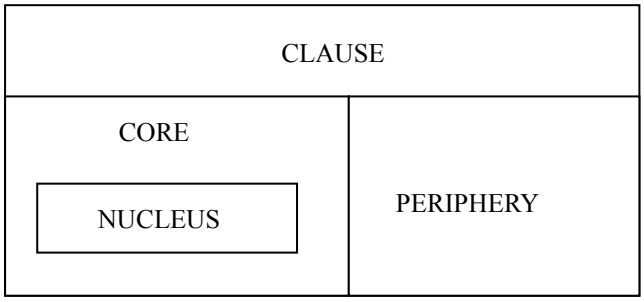


Figure 2.3 Components of the layered structure of the clause (Van Valin 2005:4)

Table 2.1 specifies the correspondence between semantic units and their syntactic ones in LSC. As shown in Table 2.1, each semantic element has a corresponding syntactic unit.

Table 2.1 Layered structure of a clause (LSC) (Van Valin & LaPolla 1997:27)

Semantic element(s)	Syntactic unit
Predicate	Nucleus
Argument in semantic representation of predicate	Core argument
Non-arguments	Periphery
Predicate + Arguments	Core
Predicate + Arguments + Non-arguments	Clause (= Core + Periphery)

The layered structure of a clause includes another crucial feature: the hierarchical modification of operators. Operators are qualitatively different from predicates and arguments. They express grammatical functions such as tense and negation, and they modify clauses and their parts. Operators can be classified into three sets including the nuclear, core and clausal operators as diagrammed in Figure 2.4. The orders of sets are fixed in general but the order of operators in each layer may vary from languages to languages.

Nuclear operators include aspect, lexical negation and directionals. Take English for instance. The perfective and the progressive markers are two major types of nuclear operators. In Saisiyat, the progressive marker *mam*= and the perfective marker <*in*> are examples of nuclear operators. Saisiyat nuclear operators will be formally introduced in Section 3.4.1.

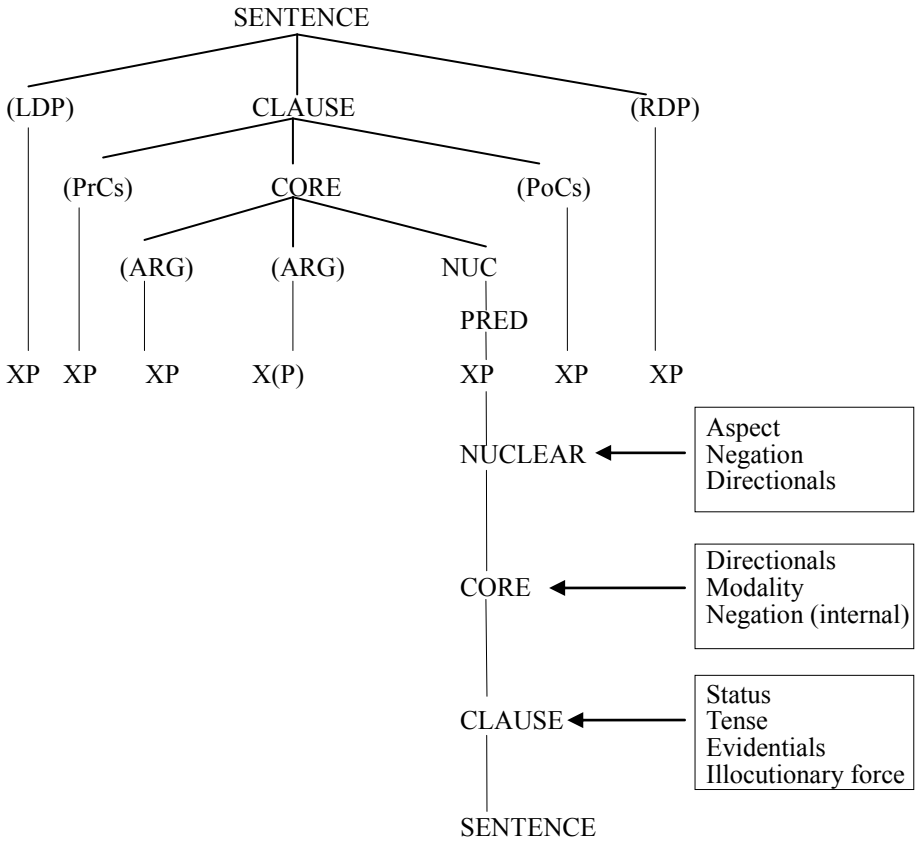


Figure 2.4 The layered structure and operator projections
(Van Valin & LaPolla 1997:49)

Core operators include directionals, modality and internal negation. Take English for example. The negator *not* is a core operator. In Saisiyat, *kayzaeh* 'can (permission)' and negators such as *'okay* 'not' (negator of dynamic verbs) are core operators in Saisiyat. Section 3.4.2 will introduce this part.

Clausal operators include status, tense and illocutionary force. Status includes epistemic modality, propositional negation and categories like realis and irrealis markings. Illocutionary force deals with assertion, question, command and wish of an utterance. For instance, English uses syntactic means to signal illocutionary force i.e.

through the position of tense in matrix clauses (Van Valin & LaPolla 1997:42). In Saisiyat, the interrogative clitic *=ay* is an example of clausal operators. In Section 3.4.3, I will return to this issue. Figure 2.5 illustrates the LSC of an English sentence.

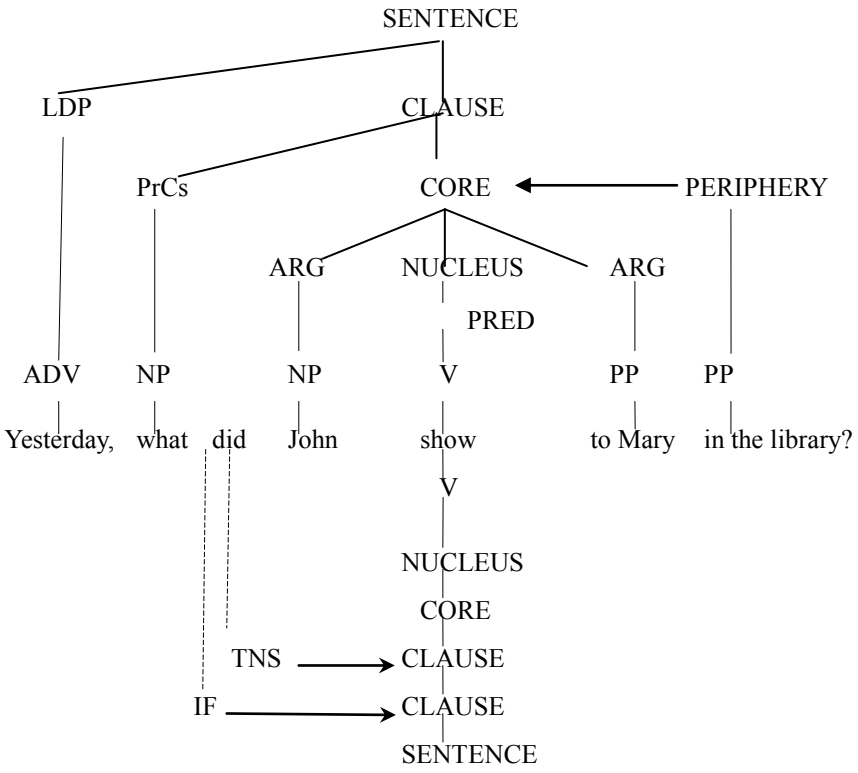


Figure 2.5 The layered structure and operator projections in English
(Van Valin & LaPolla 1997:51)

Language-specific features of grammars can be accounted for in two parts of the layered structure: (i) extra-core slots such as *wh*-words in English, and (ii) detached positions which occur outside the clause such as temporal expressions. These syntactic units may have different linear orders in different languages. An extra-core is inside the clause and outside the core. It can either be in the pre-core slot (PrC) or

the post-core slot (PoC). Take English for example; *wh*-words usually take place in the PrC but not in the PoC, as shown in Figure 2.5. Non-*wh*-constituents or propositional phrases also occur in this position in English such as the shifted object as shown in (2.1a) and the proposed dative as shown in (2.1b).

(2.1) English (based on Van Valin & LaPolla 1997:36)
a. **That book** you put on the table is a classical literature.
b. **To Dana** Pat gave a new watch.

PoCs can be occupied by non-core arguments such as dative NPs in other languages like Japanese. PoCs, like PrCs, are not set off by pause and under the same intonation pattern of the sentence.

A detached syntactic unit is outside the clause and inside the sentence, and it is normally accentuated by intonation breaks form the main clause. A detached position can either be the left-detached position (LDP) or the right-detached position (RDP). Note that the NP of a detached unit is outside the syntactic jurisdiction of the clause. It does not fulfill the argument realization of the clause. The English examples of detached position are presented in (2.2). English has LDP of location expression like *At the park* in (2.2a) and the temporal expression *yesterday* in (2.3b). If the noun phrase in the detached unit functions as a semantic argument in the following clause, there must be a pronoun in the clause that refers to it. Observe English examples in

(2.2c).

(2.2) English (Van Valin & LaPolla 1997:36)
a. At the park, I talked to Leslie.
b. Yesterday, I walked on the beach with Kim.
c. As for Sam, I haven't seen **him** in two weeks.

In a word, detached phrases and extra-core slots belong to non-universal phenomena, and are pragmatically motivated. The layers of nucleus, core, periphery and clause belong to a cross-linguistically universal phenomenon, and this universal aspect is semantically driven.

2.2 Semantic representations

This section introduces two parts of semantic representations in RRG. The first part centers on the semantics of verbs. The second part offers an introduction for the semantic representations of arguments.

RRG adopts a decompositional model to explicate sentential meanings. It is called logical structure in RRG. Logical structure specifies the semantic relationships that hold between a verb and its arguments (Van Valin 2005) or between two verbs in a complex sentence. To account for a logical structure, one needs to consider the classification of verbs (Dowty 1979, Vendler 1967) first.

Vendler (1967) classifies verbs into states, achievements, accomplishments and activities. Two more types are added into the verbal classification of RRG, including semelfactive (Smith 1997) and active accomplishment (Van Valin & LaPolla 1997). States depict static situations, which are inherently temporally unbounded. On the contrary, achievements and accomplishments express change of state. They are inherently temporally bounded. Achievements are instantaneous while accomplishments are non-instantaneous. Activities exhibit dynamic and inherently temporally unbounded features. Semelfactives are punctual events without result state. Active accomplishments are the telic use of activity verbs. (2.3) exemplify the six classes of verbs, with their causative counterparts.

(2.3) Causative counterpart of verb classes (Van Valin 2005:34)

a.	State:	The boy is afraid.
a'.	Causative state:	The dog frightens/scares the boy.
b.	Achievement:	The balloon popped.
b'.	Causative achievement:	The cat popped the balloon.
c.	Semelfactive:	The pencil tapped on the table.
c'.	Causative semelfactive:	The teacher tapped the pencil on the table.
d.	Accomplishment:	The ice melted.
d.'	Causative accomplishment:	The hot water melted the ice.
e.	Activity:	The soldiers marched in the park.
e'.	Causative activity:	The sergeant marched the soldiers in the park.
f.	Activity accomplishment:	The soldiers marched to the park.
f'.	Causative activity accomplishment:	The sergeant marched the soldiers to the park.

The representations of logical structures are presented in Table 2.2. To begin with, state verbs are pure predicates. By contrast, activity verbs are contributed by the element **do'** with **predicate'**. Achievements are represented as a state or activity **predicate'** plus the INGR (ingressive) operator. Semelfactives are states or activities plus the SEML (semelfactives) operator. Accomplishments are represented by a state or activity plus the BECOME operator. Active accomplishments are combined by an activity with INGR. Causative parts of the six classes are denoted by the function CAUSE.

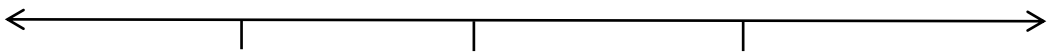
Table 2.2 Logical structures (Van Valin 2005:45**)**

Verb Class	Logical Structure (LS)
State	**predicate'** (x) or (x, y)
Activity	**do'** (x, [**predicate'** (x) or (x, y)])
Achievement	INGR **predicate'** (x) or (x, y), *or* INGR **do'** (x, [**predicate'** (x) or (x, y)])
Semelfactive	SEML **predicate'** (x) or (x, y), *or* SEML **do'** (x, [**predicate'** (x) or (x, y)])
Accomplishment	BECOME **predicate'** (x) or (x, y), or BECOME **do'** (x, [**predicate'** (x) or (x, y)])
Active Accomplishment	**do'** (x, [**predicate$_1$'** (x) or (x, y)]) & INGR **predicate$_2$'** (z, x) or (y)
Causative	α CAUSE β, where α, β are LSs of any type

As for the semantics of arguments, RRG recognizes two levels of semantic roles. The first level accounts for thematic roles (Fillmore 1968) and the other level accounts for the macroroles (Van Valin & LaPolla 1997, Van Valin 2005).

A thematic role associates with specific predicate types regarding its argument position. The argument positions in logical structure define the thematic relations in

the thematic relations continuum. As shown in Figure 2.6, the first argument of an activity predicate, which si denoted by **do'**, can be the thematically be an effector, a mover, etc. The first argument of two-place non-activity predicate indicated by **pred'**, can be a location, perceiver, etc. The second argument *y* of a clause will be theme or stimulus in two-argument predicates (Van Valin 2005:58). When the predicate is a state as in the rightmost of the continuum, the *x* argument will be patient and entity.



Arg of DO	**1st arg. of do' (x, …**	**1st arg. of pred' (x,y)**	**2nd arg. of pred' (x,y)**	**Arg. of state pred' (x)**
AGENT	EFFECTOR	LOCATION	THEME	PATIENT
	MOVER	PERCEIVER	STIMULUS	ENTITY
	ST- MOVER	COGNIZER	CONTENT	
	L-EMITTER	WANTER	DESIRE	
	S-EMITTER	JUDGER	JUDGMENT	
	PERFORMER	POSSERSSOR	POSSESSED	
	CONSUMER	EXPERIENCER	SENSATION	
	CREATER	EMOTER	TARGET	
	SPEAKER	ATTRIBUTANT	ATTRIBUTE	
	OBSERVER	IDENTIFIED	IDENTITY	
	USER	VARIABLE	VALUE	
			PERFORMANCE	
			CONSUMED	
			LOCUS	
			IMPLEMENT	

Figure 2.6 Thematic relations continuum in terms of argument positions
(Van Valin 2005:58)

At the leftmost of the continuum, the argument represents a lexicalized agent e.g., *a murderer*. It is denoted by the function **DO**.[21] A true agent e.g., the *x* argument

[21] The symbol DO refers to predicates of deliberate actions. Actions of inanimate force such as *The typhoon destroyed many houses in the local residential area* are not predicates of DO. On the contrary, the lower case **do'** does not specify the agency of the predicate.

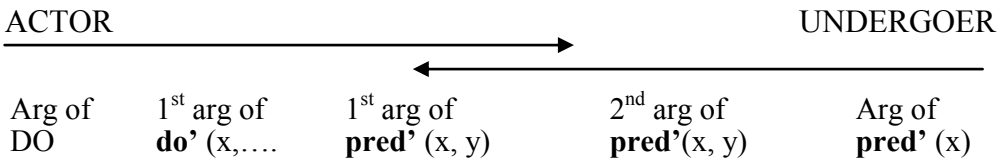
of the predicate *murder*, cannot co-occur with the expressions *intentionally* or *accidentally* as in (2.4b) and (2.4c). A non-agent actor (such as the effector of the predicate *kill*) can co-occur with agency-cancelling expressions in (2.5b), or is profiled by the agentive expressions in (2.5c).

(2.4) English (Van Valin 2005:56)
  a. The man **murdered** his neighbor.
  b.?The man intentionally **murdered** his neighbor.
  c. *The man accidentally **murdered** his neighbor.

(2.5) English (Van Valin 2005:56)
  a. The man **killed** his neighbor.
  b. The man intentionally **killed** his neighbor.
  c. The man accidentally **killed** his neighbor.

Macroroles are generalized thematic roles. There are only two macroroles recognized in RRG: 'actor' and 'undergoer'. Each macro role subsumes a number of specific thematic roles. Take theme and patient for example; each represents different thematic roles but may be treated as undergoers in specific constructions.

The Actor-Undergoer Hierarchy in Figure 2.7 illustrates the relation of the two macroroles. Actors are most agent-like arguments, and undergoers are most patient-like arguments. Actor and undergoer are core arguments of a transitive construction. For intransitive constructions, either one of the macroroles can possibly act as the core argument of the intransitive predicates (Van Valin & LaPolla 1997:146).



[→ = increasing markedness of realization of argument as macrorole]

Figure 2.7 The actor-undergoer hierarchy (Van Valin 2005:61)

2.3 Grammatical relations

Grammatical relations are not universal linguistic phenomena in RRG. To posit grammatical relations in a language, one must obtain evidence of **restricted neutralization.** That is, a semantic or pragmatic relation is neutralized for syntactic purpose, and the neutralization must be restricted for actors and undergoers instead of other arguments. Restricted neutralization can be attested in two aspects. One is the coding property such as verbal agreement. Take English for example. A a verb agrees with a third person actor in a declarative active construction as in (2.6a). A third person undergoer also renders this mechanism in (2.6b). A similar phenomenon is found in the active and passive sentences in (2.7). The constant pattern of agreement is insensitive to the semantic contrast but sensitive to the syntax. Moreover, the neutralization is restricted because (i) the actors and undergoers (i.e. neutralization) trigger the verbal agreement and (ii) only certain semantic roles: non-third person actors and undergoers (i.e. restriction) do not trigger such mechanism.

(2.6) English

a. The hound bites the boar. (Actor agreement)

b. The hound dies. (Undergoer agreement)

(2.7) English (Van Valin & LaPolla 1997:251)

a. John kills the ducklings. (Actor agreement)

b. The ducklings are killed by John. (Undergoer agreement)

Restricted neutralization can also be attested in the behavioral property such as control of the missing argument in a complex construction. The *want*-construction in English is a clear example as shown in (2.8). First, the omitted arguments in the infinitival cores are irrelevant to the contrast of semantic roles, which indicates the neutralization. Second, the missing arguments are restricted to actors (2.8a-b) and undergoers (2.8c-d) instead of other arguments. This is evidence of neutralization because the choice of the missing argument cannot be stated in purely semantic terms (Van Valin 2005:252). The crucial point here is (2.8e) whereby the missing argument cannot be undergoer when the second core is the active construction. This is evidence of restriction.

(2.8) English (my examples)

a. **Chris$_i$ wants ____$_i$ to drink a beer.** [Actor of trans. V]

b. **Chris$_i$ wants ____$_i$ to sing in the park**. [Actor of intrans. V]

c. **Chris$_i$ wants ____$_i$ to be stronger.** [Undergoer of intrans. V]

d. **Chris$_i$ wants to ____$_i$ be interviewed by the journalist.** [Undergoer of trans. V, passive construction]

e.***Chris$_i$ wants the journalist interviews ____$_i$.** [Undergoer of trans. V, active construction]

RRG considers that grammatical relations are construction-specific phenomena, since restricted neutralization found in one construction may not be identical in another construction within a language. One piece of evidence can be drawn from English relative clauses. As shown in (2.9), the heads of English relative clauses display neutralization. Relative pronouns can virtually carry any semantic roles because the heads function as AGENT, PATIENT, RECIPIENT, LOCATION and SOURCE. This pattern, different from the *want*-construction in (2.8), indicates the non-restrictive selection of semantic roles. Accordingly, English relative clauses do not involve grammatical relations.

(2.9) English (Van Valin 1997:253)

Mary talked to the man	(a)	who [AGENT] bought the house down the street.
	(b)	who [PATIENT] the dog bit.
	(c)	to whom [RECIPIENT] Bill sold the house.
Mary looked at the box	(d)	in which [LOCATION] the jewelry was kept.
	(e)	out of which [SOURCE] the jewelry had been taken.

RRG considers that plenty of languages exhibit grammatical relations, but these languages do not exhibit identical pattern of grammatical relations. That is, the notion of subject will not be exactly the same in languages that exhibit grammatical relations. That is to say, the patterns of restricted neutralization vary from languages to languages. Van Valin & LaPolla (1997) use English, Warlpiri, Enga, and Dyirbal to

elaborate this claim. These four languages exhibit different patterns of restricted neutralization in terms of subjecthood. Table 2.3 summaries this part.

Table 2.3 Restricted neutralization of semantic roles

(Van Valin & LaPolla 1997:269)

	Intransitive verbs	Transitive verb	Grammatical relations	'Subjects'
Warlpiri, Enga	Yes	no	yes	[S[22], A]
English	Yes	yes	yes	[S, A, d-s]
Dyirbal	Yes	yes	yes	[S, U, d-s]
Acehnese	No	no	no	d.n.a.

Warlpiri and Enga exhibit restricted neutralization in intransitive verbs but not in transitive verbs. The single argument of an intransitive verb is reserved for either actor or undergoer. By contrast, it is only the actor that acts as the subject of a transitive verb or the missing argument of linked verb as in the *want*-construction.

English and Dyirbal behave alike, since both transitive and intransitive verbs exhibit restricted neutralization. Both languages allow using syntactic mechanism to derive actor or undergoer to be the subject, such as the passive or antipassive constructions.

A crucial point lies in Acehnese. This language does not apply to the notion of 'subject'. Neither intransitive nor transitive verbs exhibit restricted neutralization because the selection of 'subject' is semantically sensitive but not driven by syntax.

[22] The abbreviation S refers to the single argument of a predicate. A refers to actor. The abbreviation d-s refers to a S that is derived through voice constructions e.g., S in antipassive constructions (Van Valin & LaPolla 1997:268-269).

Constructions such as the active clauses only allow actor to be the 'subject', while constructions such as possessor-raising[23] only allow the undergoer to be the 'subject'.

To reiterate RRG's claim of grammatical relations, any study on this issue must consider two fundamental aspects. One is to recognize that they are not linguistically universal. The other is that grammatical relations are not identical across languages. The cross-linguistic diversity of grammatical relations reveals the difficulty to apply the traditional notions 'subject' and 'object' to all languages. Since this topic is not the central issue of this dissertation, I use theoretically more neutral terms such as nominative arguments and genitive arguments, instead of more sensitive terms like 'subject' or 'direct object' in my dissertation.

2.4 Interclausal relations

RRG uses two parameters to analyze the linkage of interclausal relations found in different complex constructions. One is juncture, the levels of unit combination. The other is nexus, the methods of combination. The two parameters will be explained in

[23] Examples of possessor-raising construction of Acehnese are provided in (i).The undergoer in (ia) can be compounded with the main predicate as in (ib), but the actor cannot do so in (ic). This construction is reserved for undergoers only.

(i) Acehnese (from Van Valin & LaPolla 1997:258)

a. **Seunang** **<u>até</u>** **lôn**.
happy liver 1SG
'I am happy.' (lit.: 'My liver is happy.')

b. **Lôn** **seunang-<u>até</u>**.
1SG happy-liver
'I am happy.'

c.* **Gopny** **ka** **<u>aneuk</u>-woe.**
3SG ASP child-return

detail in the following sections.

2.4.1 Juncture

Juncture is used to clarify the levels of linkages in nucleus, core and clause. Defining a juncture is a purely structural task.

2.4.1.1 Nuclear juncture

A nuclear juncture refers to the condition in which nuclear units constitute a single complex predicate. Verbs in a nuclear juncture share the entire set of core arguments. Bril (2004, 2007) further distinguishes three types of nuclear juncture, including (i) argument sharing, (ii) argument fusion, and (iii) argument restructuring.

In argument sharing, verbs share exactly the same argument structure: V1intr.+V2intr., or V1tr.+V2tr. Examples of Mandarin are provided in (2.10). The predicates *da* 'beat' and *ma* 'scold' are transitive verbs which share the entire set of core arguments, i.e. the actor *ta* 'he/she, and the undergoer *xiaohai* 'child'.

(2.10) Nuclear juncture (Mandarin Chinese)

a. **ta$_A$** **changchang** **zai-jia** **da ma** **xiaohai$_U$**.
   3SG often at-home beat scold child
   'He/She often beat and scold the child/children at home.'

b. **ta$_A$** **changchang** **zai-jia** **da** **xiaohai**.
   3SG often at-home beat child
   'He/She often beats the child/children at home.'

c. **ta$_A$** **changchang** **zai-jia** **ma** **xiaohai$_U$.**
3SG often at-home scold child
'He/She often scolds the child/children at home.'

In argument fusion, only one verb determines the argument structure; the other verb does not contribute to the argument structure and fuses with the first verb. Examples from Nêlêmwa and Saisiyat are provided in (2.11). In (2.11a), which is an example of Nêlêmwa, the argument structure is determined by the predicate *diya* 'do'. The stative verb *hââhuux* 'be recent' fuses with the main predicate and does not involve argument structure of the complex predicate. In (2.11b), which is an example of Saisiyat, the argument structure is determined by the predicate *miltamako'* 'to sip tobacco [AV]'. The predicate *mil'al'alay* 'start to sip [AV]' does not determine the argument structure.

(2.11) Argument fusion
a. **hla** **[diya** **hââhuux]-e** **mwa** **eli.**
3PL do be.recent-TR house that
'They built this house recently. (Nêlêmwa, From Bril 2004:177)
b. **sia** **[m-il-'al'alay** **m-il-tamako'].**
3SG.NOM AV-sip-start AV-sip-tobacco
'He/she started smoking.' (Saisiyat)

In argument restructuring, predicates forge a new argument structure which is different from the argument structure of each verb. For example, two intransitive predicates form a transitive causative verb, [SV$_{intr}$V$_{intr}$O], as shown in (2.12). Each

verb is an intransitive verb and they form a transitive verb in nucleus juncture.

(2.12) Mwotlap (From François 2004:119)

ne-lem	**[mi-yip**	**hal-yak]**	**na-kat.**
ART-wind	PFT-blow	fly-away	ART-cards

'The wind blew the cards away.'

2.4.1.2 Core juncture

A core juncture involves the linkage of two or multiple cores, and each core may be internally complex i.e. may contain a nuclear juncture that is composed of core arguments and a predicate (Van Valin & LaPolla 1997:444, Van Valin 2005:189). Linked core share part of argument structure of verbs. In the process of argument sharing, a missing argument between linked cores is ascribed to syntactic control whereby the missing argument is lexically null and co-indexed by one of previous core arguments. The core junctures can be schematized by the formative:

$$[NP_i+V1+NP_j]_{core1}+[\mathbf{NP_{i/j}}+V2+(NP)]_{core2}+[\mathbf{NP_{i/j}}+V3+(NP)]_{coreN}$$

Example (2.13) illustrates this point. The linked cores in (2.13) share single core arguments i.e. they are the undergoers of the first cores and the actors of the second cores. The missing NP (in bald) may refer to NP_i or NP_j, and the missing argument must be lexically null in linguistic reality.

(2.13) Core juncture

a. **[**Chris's militia forced the barbarians]$_{\textbf{core1}}$ [retreat from the battlefield]$_{\textbf{core2}}$.

b. **[ta jiao wo]$_{\textbf{core1}}$ [tan jita]$_{\textbf{core2}}$.**
3SG teach 1SG play guitar
'He/She taught me playing guitar' (Mandarin, my example)

c. **[yaba' '<om>a'ehe: ka korkoring]$_{\textbf{core1}}$ [s<om>i'ael**
father <AV>force ACC child(ren) <AV>eat
ka por'oe']$_{\textbf{core2}}$.
ACC vegetable
'Father forced child(ren) to eat vegetable.' (Saisiyat, my example)

Core junctures can be further distinguished into symmetric linkage and asymmetric linkage. In a symmetric core juncture, units obligatorily share one core argument such as the actor sharing in control sentences e.g., *John promised his wife to wash the windows this afternoon*. The actor *John* is shared by both verbs but the actor must be phonologically null in the second core. In an asymmetric core juncture, an embedded element acts as the argument or modifier of the matrix predicate of nuclear. An English example is *Mary regretted Fred's losing the race* (Van Valin & LaPolla 1997:462) whereby the core unit *Fred's losing the race* acts as the argument of the matrix verb *regret*.

2.4.1.3 Clausal juncture

RRG considers that clausal junctures are the building block of texts and discourse (Van Valin 2005:213). In a clausal juncture, linked clauses are independent of each

other without any argument sharing. Argument omission in clausal junctures is ascribed to coreference in virtue of zero anaphor. It has a similar function with a pronoun that occupies the same position in non-initial clauses. (2.14a) exemplifies a clausal juncture of English. (2.14b) exemplifies a clausal juncture of Saisiyat.

(2.14) Clausal junctures

a. *Robin*$_i$ *drove out of Phoenix this morning and pro*$_i$*/he*$_i$ *will arrive in Atlanta tomorrow.* (Van Valin & LaPolla 1997:468)

b. [**hini korkoring min'itol**]$_{clause1}$ **'isa:** [**s<om>i'ael ka pazay**]$_{clause2}$**.**
this child AV:wake.up then <AV>eat ACC rice
'This child woke up and then (he/she) ate rice.' (Saisiyat, my example)

2.4.2 Nexus

Nexus deals with the methods of combinations regarding complex constructions. Three nexus types are distinguished in RRG: coordination, subordination and cosubordination. Figure 2.8 presents the division of nexus types.

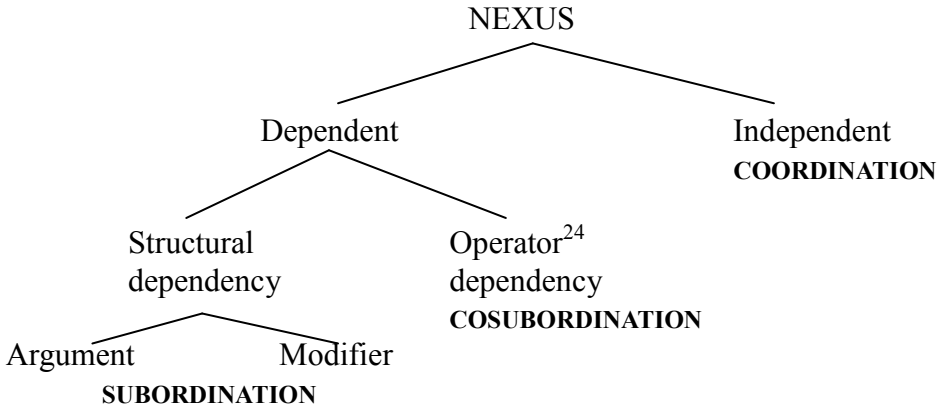


Figure 2.8 Nexus types (Van Valin & LaPolla 1997:454)

[24] I consider that this label should be termed as "structural co-dependency" because operator-dependency is not sufficient evidence for cosubordination (Van Valin 2007:30).

Units in coordination have syntactic independence on their own. For example, verbs of coordination nexus are able to accept different grammatical markings in a clause. (2.15) provides such examples. Syntactic units in coordination as in (2.15a) can stand on their own outside a chain of sequences. Each unit can receive independent operator modification as in (2.15b) whereby only the second core is in the scope of negation.

(2.15) Examples of core coordination

a. Louisa told Bob to close the window. (from Van Valin & LaPolla 1997:455)
b. Louisa told Bob **not to** close the window. (from Van Valin & LaPolla 1997:455)

Units of non-coordination display grammatical dependency. Two types of non-coordination are further distinguished: subordination and cosubordination. Units in subordination exhibit structural dependency. One unit is structurally embedded to the matrix one. Subordination is divided into argument and modifier relations. Argument relation requires an embedded argument of the matrix unit. In a modifier relation, an embedded unit presents inherited attributes of the matrix core that are not explicitly profiled. Structurally, it acts as an adjunct to the matrix unit when the latter has its syntactic autonomy. This is demonstrated in (2.16). (2.16a-c) are examples of clausal subordination in English and Saisiyat. (2.16d-f) are examples of core subordination in

English and Saisiyat.

(2.16) Subordination (English sentences are my own examples)

a. John informed Leon [that Amy had left]. Clausal subordination: argument relation

b. Bill went to the party [after he talked to Mary]. Clausal subordination: modifier relation

c. [**yao** **'am=mil-ha-l** **ka** **ralom** **nanaw**],
1SG.NOM IRR=AV:drink-one-N.times ACC water only
'amkik **'iae-h<in>bo'**.
IRR:NEG:LIG:STAT want-<want>urinate
'(If) I drink water once, I will not need to go to the bathroom.'
(Saisiyat, Zeitoun et.al 2015:266) Clausal subordination: modifier relation

d. David regretted [Amy's losing the race]. Core subordination: argument relation

e. [That Amy lost the race] shocked everyone. Core subordination: argument relation

f. **yako** **k<om>ita'** **[nisia** **ka** **'a-sh<om>bet** **ka** **'aehoe'].**
1SG.NOM <AV>see 3SG.GEN LIG GER-<AV>beat ACC dog
'I saw him/her beat(ing) the dog.'
(Saisiyat, my example) Core subordination: argument relation

The last nexus type in RRG is cosubordination.[25] As Figure 2.8 shows, cosubordination also displays grammatical dependency. However unlike subordination, cosubordination is defined as 'a kind of **dependent coordination**, in which units of equivalent size are joined together in a coordinate-like relation but share some grammatical category (Van Valin 2005:187)'. One crucial piece of evidence of cosubordination is obligatory operator-sharing in which two cosubordinate units share single operators. Van Valin (2007) states that operator sharing may not be the sole criterion because "there appear to be cases of

[25] The notion of cosubordination was firstly proposed in Olson (1981).

cosubordination in which operator sharing is possible but not obligatory (Van Valin 2007:80)". [26] Following the basic definition of cosubordination: dependent coordination, this dissertation will use the notion 'structural codependency' in the discussion of nexus type. Serial verb constructions (SVCs) and switch reference constructions usually exhibit cosubordination in nuclear or core junctures, as shown in Nootka (Jacobsen 1993) and Paamese (Crowley 1987). Units in cosubordination display co-dependent relation to express the semantics of the complex event. Therefore, each member cannot be isolated outside this construction. One diagnostic criterion of cosubordination is the operator-sharing: members obligatorily share an operator. (2.17a) exemplifies an English core cosubordination. Two predicates share the core operator *not* as in (2.17b). (2.17c) shows that the operator modification of the second predicate is ungrammatical. Examples (2.17d-e) are Saisiyat examples. Two cores obligatorily share the core operator *soka'* 'should' in (2.17d). The operator cannot independently modify the second core in (2.17e).

(2.17) Obligatory operator-sharing ((a)-(c) are based on Van Valin & LaPolla 1997:455)

a. Sam sat playing the guitar.
b. Sam didn't **sit playing** the guitar.
c. *Sam sat not playing the guitar.

[26] Evidence of non-obligatory operator sharing in cosubordination is presented in Bickle (2003). Languages such as Belhare (Tibeto-Burman) and Nepali (Indo-European), both spoken in Nepal, whereby the operator of tense may but need not be shared across the two clauses.

d. **yami** **mina=kash-re're'** **ka** **loehoeng**
1PL.NOM should=step.on-tight ACC mortar
t<om>awbon **ka** **(h)o'ol.**
<AV>stomp ACC glutinous.rice
'We should step onto the mortar to stomp the glutinous rice.' (Saisiyat, my example)

e.***yami** **kash-re're'** **ka** **loehoeng**
1PL.NOM step.on-tight ACC mortar
mina=t<om>awbon **ka** **(h)o'ol.**
should=<AV>stomp ACC glutinous.rice (Saisiyat, my example)

Van Valin (2007) considers that clausal subordination includes two types. One is the modifier type in which one clause acts as a modifier that modifies the matrix clause e.g., a clause expressing the reason or a condition. An English example of the former is the *because*-clause (i.e. an adverbial clause) in *Kim berated Pat* [*because she kissed Chris*] (Van Valin 2007:76). The other is the argument type where by one subordinate clause acts as an argument of its matrix clause by occurring outside the matrix clause (i.e. under the sentential juncture). An English examples is *It shocked everyone that she arrived late* (Van Valin 2007:77). Note that this type of clausal subordination should be distinguished from core subordination e.g., [*That she arrived late*] *shocked everyone* (Van Valin 2007:77). In this structure, a larger unit is linked to a smaller unit, i.e. a clause embedded in a core.[27]

[27] Note that Van Valin (2007) considers that the argument type of clausal subordination as symmetric linkage and the argument type of core subordination as asymmetric linkage. The former is commonly observed as an 'preferred option (Van Valin 2007:79)' in many languages. Saisiyat is

2.4.3 Clause-linkage markers (CLMs)

The linkage of complex constructions can be marked by clause-linkage markers. CLMs are drawn from a variety of morphosyntactic categories including free and bound elements, such as adpositions in English, determiners in Lakhota,[28] case markers in Mparntwe Arrernte (Wilkins 1989) and the conjunctive clitic =*o* 'and' of Saisiyat as shown in chapter 3. They function on specific junctures in particular constructions i.e. nuclear, core and clausal junctures. Take English for example. CLMs *to* and *from* explicitly mark linkage of core junctures, while the CLM *that* (the complementizer) marks linkage of clausal junctures (Van Valin & LaPolla 1997, Van Valin 2005).

CLMs do not only reflect structural features but also carry semantic features. Take the English infinitive *to* for instance, its main function is to signify temporal overlap between events instead of defectiveness e.g., *Sam helped his neighbor to build his new barn* (*by pouring the foundation/by loaning him money*) (Van Valin & LaPolla 1997:471). When two cores occur without *to*, the linkage represents interlocking or simultaneous events e.g*., Sam helped his neighbor build his new barn* (*by pouring the foundation/?by loaning him money*) (ibid).

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one of the languages because a semantic argument readily occur outside the matrix clause as shown in the dislocated structure. This fact will be discussed in chapter 6.

[28] It is reported that the determiner *ki* function as the complementizer (as a CLM) and the definite article in Lakhota (Van Valin & LaPolla 1997:476).

2.4.4 Interclausal semantic relations

This section introduces interclausal relations of this theory. The syntactic manifestation of interclausal relations are juncture-nexus combinations, the structural manifestation of semantic relations. In this theory, semantic relations represents meanings of complex sentences . A semantic relation stands for a specific type of event combination. There are numbers of semantic relations (i.e. event types) and they are ranked according to the hierarchy of semantic cohesiveness, which is termed as the interclausal semantic relations. (2.18) lays out each semantic relation with its definition.

(2.18) Interclausal semantic relations (from Van Valin 2005:206-207)

a. **Causative [1]:** bringing about of one state of affairs directly by another state of affairs, usually an event or action.
b. **Phase**: separate verb describes a facet of the temporal envelope of a state of affairs, specifically its onset, its termination, or its continuation.
c. **Modifying subevents**
   1. Manner: manner in which a motion event is carried out, e.g. Bill entered the room skipping.
   2. Motion: motion accompanying another action.
   3. Position: stance while doing an action.
   4. Means: means by which an action is carried out.
d. **Psych-action**: mental disposition regarding a possible action on the part of a participant x in the state of affairs.
e. **Purposive**: action is done with the intent of realizing another state of affairs.
f. **Jussive**: the expression of a command, request or demand.
g. **Causative** [2]: bringing about of one state of affairs through a distinct action or event.
h. **Direct perception**: an unmediated apprehension of some act, event or situation through the senses.

i. **Indirect perception**: deduction of some act, event or situation from evidence of it.
j. **Propositional attitude**: expression of a participant's attitude, judgment or opinion regarding a state of affairs.
k. **Cognition**: expression of knowledge or mental activity.
l. **Indirect discourse**: expression of reported speech.
m. **Direct discourse**: direct quotation of a speech event.
n. **Reason**: motivation or cause for an action or event.
o. **Conditional**: expression of what consequence would hold, given the conditions in a particular state of affairs.
p. **Concessive**: content of the main clause holds unexpectedly, given the content of the subordinate clause.
q. **Temporal**
   1. Simultaneous states of affairs: state of affairs is temporally coterminous with another.
   2. Sequential states of affairs: state of affairs follows another temporally, with or without any temporal overlap.
r. **Temporally unordered states of affairs**: the temporal relation between states of affairs is unexpressed.

The interclausal semantic hierarchy is configured according to the four approximations of semantic factors (Van Valin 2005). (2.19) states these four semantic hierarchies.

(2.19) Initial approximations of the four hierarchies (Van Valin 2005:211)
   a. Temporal hierarchy: phases of a single event > simultaneous events > sequential events > unspecified
   b. Causal hierarchy: physical > verbal > underspecified [non-defeasible] > inferred [defeasible]
   c. Participant's mental disposition: intention > perception > belief > knowledge
   d. Necessarily shared participant hierarchy: Yes > No

2.4.5 Mappings in interclausal relations hierarchy

RRG uses interclausal relations hierarchy (IRH) to demonstrate the mapping between

juncture-nexus combinations and semantic relations. The mapping between these two representations is not randomly aligned. The iconicity principle of clause linkages (Silverstein 1976, Givón 1990) is adopted to explain the mapping. That is, semantic cohesiveness reflects structural tightness. In terms of interclausal relations, Van Valin & LaPolla (1997:480) claim: "the closer the semantic relationship between two propositions is, the stronger the syntactic link joining them is". In IRH, shown in Figure 2.9 there are twenty-two particularized semantic relations which range from the loosest combination of distinctive events to the closest single event (Van Valin 2005).

The mapping in IRH is a many-to-one pattern: it is possible that various relations share a single juncture-nexus combination. For example, in English, the core cosubordination is reserved for the aspectual, psych-action and purposive relations and the core coordination represents the jussive, direct perception and propositional attitude (Van Valin & LaPolla 2001:481).

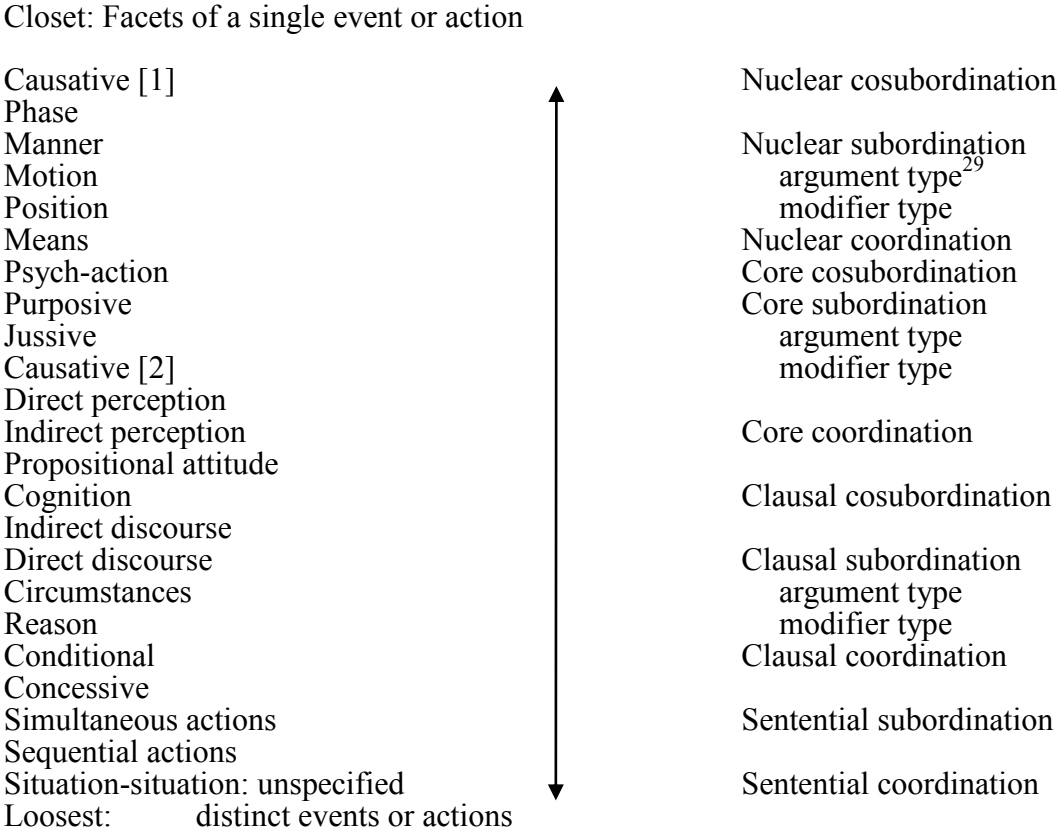

Figure 2.9 Interclausal relations hierarchy (Van Valin 2005:209)

2.4.6 Constructions and juncture-nexus combinations

A juncture-nexus combination represents dynamic linkage of syntactic units, and it shall not be directly equal to a grammatical construction. The numbers of constructional types may be various in a language but the numbers of juncture-nexus combinations are well-defined. Juncture-nexus combinations demonstrate the relations among constructions, rather than simply aligning them in continuum of structural tightness. Jacobsen's (1993) study is a decent work as a helpful reference. He demonstrates the relations of eight complex constructions in Nookta by using

[29] Note that the terms **argument type** and **modifier type** used in Figure 2.9 replace the terms **daughter** and **periphery** used in Van Van (2005:209).

juncture-nexus combinations. The linkage is presented in Table 2.4. SVCs are structurally close to preposition clauses and sentence-connectives in Nookta; but SVCs locate apart from independent clauses.

Table 2.4 Nookta nexus-juncture linkage (Jacobsen 1993:257)

	Cosubordination	**Subordination**	**Coordination**
Nucleus	SVCs	NA	NA
Core	Preposition clauses and sentence-connectives	Nominalization with article	NA
Clause	Asolutive clauses	Paradigmatic subordination, Subordination particle	Independent clauses

Note that the numbers of grammatical constructions may (or would) outnumber the juncture-nexus combinations in a given language. For example, English has seven juncture-nexus combinations (Van Valin & LaPolla 1997; Van Valin 2005) and Nootka has six (Jacobsen 1993). This asymmetrical distribution between juncture-nexus combinations and constructional types is also attested in Saisiyat, which will be presented in chapter 9.

2.5 Summary of chapter 2

This chapter presents the theory of Role and Reference Grammar. The presentation introduces the layered structures, macroroles and juncture-nexus combinations. The notion of macroroles is adopted in my description of Saisiyat data. This dissertation will not directly address to the issue of grammatical relations in Saisiyat. For

describing arguments that involve the coding and behavioral properties in complex sentences, I use theory-neutral labels of case markings e.g., nominative arguments and accusative arguments. Note that this framework does not totally abandon using the traditional terms such as subject and object. The restricted neutralization is an appeal that grammatical relations vary from languages to languages and constructions to constructions due to linguistic diversity. For example, the clausal complements in the preverbal positions are mentioned as subject complements in Van Valin & LaPolla (1997:485-491, 505-506) for ease of reading comprehension.

Interclausal relation hierarchy (IRH) is the main focus of this dissertation. I use this framework to illustrate the syntactic structures and the semantics of complex constructions in Tungho Saisiyat. The major discussion that is presented from chapters 4 to 6 centers on two parts: (i) specific grammatical properties that are observed in each type of juxtaposed verbs and (ii) juncture-nexus combinations of these investigated juxtaposed verbs. For the second part, this study accounts for the syntactic levels whereby juxtaposed verbal units (i.e. juncture) are combined in nuclear, core or clausal junctures. At the same time, the study points out the methods how juxtaposed verbs are linked (i.e. nexus) through coordination, subordination or cosubordination. It is shown that complex constructions can be well explained in terms of juncture-nexus combinations together with the semantic relations they

represent.

This chapter concerns the usage of the term ‘complementation’ discussed within this framework. Van Valin & LaPolla (1997:481-483) adopt a broad sense for complementation and consider it may refer to (i) non-subordinated units as the English *to*-infinitives or (ii) subordinated units as gerunds and *that*-complements. This dissertation follows this definition. Furthermore, I will use specific terms such as gerundive constructions or finite or non-finite clausal complements in my discussion of complex sentences, in order to differentiate specific types of complements.

As stated in Van Valin & LaPolla (1997), Role and Reference Grammar is a typologically oriented theory that proposes criteria of typological adequacy. However due to linguistic diversity, Saisiyat exhibits at least three linguistic idiosyncrasies worthy of elaboration regarding this theory.

The first one concerns clausal structures involving argument omission in complex constructions. In this language, a predicate may occur along without its core arguments in conjoined clauses as exemplified in (2.20). A predicate that follows the first clause (i) is separated by an intonation break, (ii) can exhibit independent aspectual marking, (iii) acts as a finite verb with voice marking, and (iv) expresses a clausal proposition.

(2.20) Argument omission in Saisiyat (as a language idiosyncrasy)

a. [**'obay manae' ka walishan**], [**<u>shohoero(:)-en</u>**], [**<u>masay</u>=ila**].
PN AV:shoot ACC boar AV:hit.at.target-UVP AV.die=COS
'Obay (tried to) shot the boar and (then) it was hit, and it had died.'

b. [**'oya' sh<om>bet ka korkoring**], [**(hini (h)owaw) <u>sizaeh</u>=ila**].
mother <AV>beat ACC child this matter finish=COS
'Mother (was) beat(ing) the child, and it/this matter is finished now.'

From the perspective of this theory, (2.20a) can be explicated in terms of argument coreference in clausal junctures. The omitted nominative arguments *walishan* 'boar' of the second and third predicates can be realized for a pragmatic purpose such as emphasizing the undergoer. By contrast, the omitted nominative argument, *hini (h)owaw* 'this matter' in (2.20b) does not have a antecedent of the previous clause.

(2.20b) may be explained by the notion of **adjunct modifiers**, i.e. periphery constituents that modify every level of the clause (Van Valin 2007:74). Adjunct modifiers can be gerunds that modify core units e.g., in *Chris spoke to his broker* [*before buying more stock*] (Van Valin 2007:77), or be adverbial clauses that modify the matrix clausal units e.g., the clauses expressing a condition and the reason in *Kim berated Pat* [*after they arrived at the party*]$_{\text{confition}}$ [*because she kissed Chris*]$_{\text{reason}}$ (Van Valin 2007:76). However, Saisiyat exhibits a different pattern. This succeeded clause of (2.20b) neither acts as a gerund nor as an adverbial clause expressing a condition and the reason. By contrast, it is a linkage of two clauses. The second clause describes

the finishing phase of the previous clause, and two clauses express semantically tight relation that is are expressed by a syntactically loose juncture: clausal juncture.

The second theoretical discrepancy is related to the CLM =*o* 'and'. As mentioned in Section 2.4.3, a CLM functions in a specific juncture e.g., the English prepositions *to* and *from* that mark linkage of core junctures. However, the Saisiyat CLM =*o* 'and' displays a different pattern: it takes place in three junctures and mark linkage of three types of nexus, with certain limits upheld in its usage. The unique characteristics of =*o* will be introduced in Section 3.5.1 and discussed from chapters 4 to 6.

The third theoretical discrepancy involves syntactic manifestation of semantic relations. In Saisiyat, a semantic relation may not be expressed in complex constructions that are composed of nuclear-juncture combinations. Instead, they are expressed in the domain of simple clauses. The phasal relation is one of the examples. This part will be discussed in chapter 4. Before presenting the main body of my analyses, I briefly introduce the grammar of Tungho Saisiyat that is related to the study in chapter 3. This chapter is also dedicated to describe language idiosyncrasy that need to be specifically elaborated on when I use **Interclausal Relations** to analyze the language data. This is the purpose of chapter 3.

Chapter 3

A Sketch of Saisiyat Grammar

This chapter introduces Saisiyat grammar, with focus on the parts that are relevant to complex sentences. The introduction of Saisiyat grammar is mostly based on Zeitoun et al. (2015), M. L. Yeh (1991, 2000a, 2016). Section 3.1 introduces the case marking and the voice systems of Saisiyat. Section 3.2 introduces declarative affirmative sentences and Section 3.3 discusses complex sentences. Section 3.4 introduces Saisiyat operators, i.e. functional categories. Section 3.5 introduces Saisiyat clause-linkage markers. Section 3.6 is the summary.

3.1 Saisiyat case marking and voice systems

Section 3.1 presents the case marking and voice systems of Saisiyat. These two parts are directly related to my discussion of complex sentences. The case marking is presented in Section 3.1.1. The voice system is presented in Section 3.1.2.

3.1.1 Saisiyat case marking

According to M. L. Yeh (2000a, 2016), the main function of Saisiyat case marking is to signify the thematic roles of arguments. According to Zeitoun et al. (2015), Saisiyat

has seven cases, including nominative, accusative, genitive, dative, possessive, locative and comitative Table 3.1 summarizes this division. Saisiyat cases can be divided into two major sets: (i) case markers for common nouns and (ii) case markers for personal nouns. The second set is further divided into singular and plural sets.

Table 3.1 Saisiyat case marking system (From Zeitoun et al. 2015:202)

		Nom	Acc	Gen	Dative	Loc	Com	Poss
Personal nouns	+plur	**Ø, hi-l**	**Ø, hi-l**	**na**	**'ini-na**	**kala**	**ki-l**	**'an-a=…=a** **'in-a=…=a**
	±plur	**Ø, hi**	**Ø, hi**	**ni**	**'ini**	**kan**	**ki**	**'an=…=a** **'in=…=a**
Common nouns		**Ø, ka**	**Ø, ka**	**noka**	**no**	**ray, 'ay, kan**	**ki**	**'inoka=…=a**

Table 3.1 shows that cases can be distinguished in terms of argument realizations. First, the nominative, accusative, genitive and dative cases code core arguments. The accusative cases also code core arguments in ditransitive sentences that contain verbs such as *tomortoroe'* 'teach [AV]' as shown in (3.2a). Second, the locative and comitative cases code adjuncts. As for possessive cases, they mark the possessors in possessive constructions. The following part accounts for the cases together with the examples.

Nominative cases code the 'subject'-like or the most syntactically prominent argument in a clause. According to M. L. Yeh (2016), a nominative argument represents various thematic roles, including (i) typical actors e.g. agent or experiencer,

(ii) typical undergoers e.g. patient and theme and (iii) other roles of instrument or location. In AV constructions, nominative arguments are zero-marked in clause-initial position. There is a syncretism of case forms between the nominative and accusative cases (M. L. Yeh 1991, 2016, Zeitoun et al. 2015), as signified in the shaded cells of Table 3.1. Consequently, the word order of $A_{Nominative}$+V+$U_{Accusative}$ has become a remedy to disambiguate a nominative from an accusative NP in AV constructions (M. L. Yeh 1991). (3.1) exemplifies this structure.

(3.1) Case marking

baki'$_{NOM}$	**baeiw**	**[ka**	**nashi']**	**'ini**	**kalih.**
grandfather	buy	ACC	pear	DAT	PN

'Grandfather bought a pear/pears for Kalih.'

The accusative case does not only mark the patient argument but also the recipient argument in a ditransitive construction as in (3.2a). The recipient cannot be encoded by the dative case *no* but by the accusative *ka* in (3.2b).

(3.2) Case marking

a. **baki' parain kama=t<om>ortoroe' ka ka'alnoshayshiat**
grandfather PN HAB=<AV>teach ACC Saisiyat.language
[ka shay-kabih-no-(w)asal]$_{RECIPIENT}$.
ACC from-beside-DAT-sea
'Grandfather Parain usually teaches the foreigner the Saisiyat language.'
(Zeitoun et al. 2015:204)

b.***baki' parain kama=t<om>ortoroe' ka ka'alnoshayshiat**
grandfather PN HAB=<AV>teach ACC Saisiyat.language
[**no shay-kabih-no-(w)asal**]$_{\text{RECIPIENT}}$.
DAT from-beside-DAT-sea

The genitive cases code actors in undergoer voice (UV) constructions as exemplified in (3.3). The genitive *noka* encodes either the actor in (3.3a) or the instrument as in (3.3b). A genitive argument is able to occur in clause-initial position as in (3.3c). There is no fixed order of a nominative argument and a genitive argument in undergoer patient voice (UVP) constructions.

(3.3) Case marking

a. **baboy [ni 'aro']**$_{\text{ACTOR}}$ **hiwa'-en.**
pig GEN PN cut.section-UVP
'Aro killed the pig.'

b. **['aro']**$_{\text{ACTOR}}$ **[noka malat]**$_{\text{INST}}$ **h<oem>iwa' [ka baboy]**$_{\text{PATIENT}}$**.**
PN GEN machete <AV>kill ACC pig
'Aro used machete to kill a pig.' (Zeitoun et al. 2015:204)

c. [**ni 'obay**]$_{\text{ACTOR}}$ **boay potoy-on**.
GEN PN fruit wrap-UVP
'Obay wrapped the fruit.'

Dative cases mainly mark non-core arguments such as reason, cause, and beneficiary. Observe (3.4a-b). Dative cases also encode the target of emotion verbs as shown in (3.4c).

(3.4) Case marking

a. **yako** **baeiw** **ka** **walo'** **['ini'** **korkoring]**$_{\text{BENIFICARY}}$.
1SG.NOM buy ACC clothes DAT child
'I bought candies for the child.'

b. **tiwash** **ki** **maya'** **ma-ka-k-be'e:** **[no** **rayhil]**$_{\text{REASON}}$.
PN COM PN AV-RED-STAT-angry DAT money
'Tiwash and Maya are angry with each other because of money.'
(Zeitoun et al. 2015:205)

c. **kalih** **mam=be'e:** **['iniman]**$_{\text{TARGET}}$.
PN PROG=angry 1SG.DAT
'Kalih is angry at me.'

The last part of this section discusses Saisiyat personal pronouns, as shown in Table 3.2. Personal pronouns have seven cases, on a par with case markers. Saisiyat pronouns can be distinguished in terms of person and number. The first person plural pronouns can exhibit the exclusive/non-exclusive distinction, e.g. *'ita'* 'we (you and I)' vs. *yami* 'we (S/he and I but not you)' (Zeitoun et al. 2015:214).

Table 3.2 Saisiyat personal pronouns (from Zeitoun et al. 2015:213)

	Nom	Acc	Gen	Loc	Dat	Com	Poss
1S	**yako** **yao**	**yakin**	**ma'an**	**kanman**	**'iniman**	**kiakin**	**'anmana'a** **'inmana'a**
2S	**sho'o**	**'isho'on**	**nisho'**	**kansho'**	**'inisho'**	**kisho'on**	**'anshoa'a** **'inshoa'a**
3S	**sia**	**hisia**	**nasia**	**kansia**	**'inisia**	**kisia**	**'ansia'a** **'insia'a**
1PI	**'ita'**	**'inimita'**	**mita'**	**kayta'** **kanmita'**	**'inimita'**	**kil'ita**	**'anmita'a** **'inmita'a**
1PE	**yami**	**'inia'om**	**nia'om**	**kayami**	**'inia'om**	**kilyami**	**'ania'oma** **'inia'oma** **'aniami'a** **'iniamia'a**
2P	**yami**	**'inimon**	**nimon**	**kamoyo**	**'inimon**	**kilmoyo**	**'anmoyo'a** **'inmoyo'a**
3P	**lasia**	**hilsia**	**nasia**	**kalasia**	**'inilasia**	**kilasia** **kilsia**	**'anasia'a** **'inasia'a**

To summarize, Section 3.1.1 introduces the case marking of Saisiyat. It shows that case marking specifies thematic roles of arguments in sentences. The nominative case is syntactically prominent because it formally agrees with the voice marking of verbs. Section 3.1.2 accounts for this part.

3.1.2 Saisiyat voice system

Voice marking signifies the agreement between the nominative argument and the main predicate in a clause. Two major sets of voices are distinguished in Saisiyat. One is the actor voice (AV) and the other is the undergoer voice (UV). The undergoer voice is further divided into undergoer patient voice (UVP), undergoer locative voice (UVL) and undergoer circumstantial voice (UVC).

A predicate which is encoded by AV marking selects an actor as its nominative argument. Observe (3.5). According to Zeitoun et al. (2015:268-269), AV markings have five morphological realizations.[30] They are (i) the *m-* form e.g., *m-wai'* 'come', (ii) the <*om*> form e.g., *s*<*om*>*i'ael* 'eat [AV]', (iii) the *ma-* form e.g., *ma-ngoip* 'forget [AV]', (iv) the *mo-* form such as *mo-bay* 'give [AV]', (v) the bare form e.g., *baeiw* 'buy [AV]'.

[30] Three types of AV marking display fusional morphology, i.e. the boundary between roots and AV markers is not clear-cut. Zeitoun et al. (2015) have demonstrated the alternations between AV-marked forms and their dependent forms in detail. Three alternations are recognized: (i) *m~p: maaatol* 'sing [AV]*'~paatol* 'sing (dependent form)', (ii) *m~': marash* 'bring [AV]'~*'arash* 'bring (dependent form)', and (iii) *m~k: marma'* 'steal [AV]'~ *karma'* 'steal (dependent form)'.

(3.5) AV marking

a. **[sia]**$_{\text{ACTOR}}$ **kahia'** **r<om>a'oe(:)=ila** **ka** **'io'.**
3SG.NOM yesterday <AV>drink=COS ACC medicine
'He took the medicine.'

b. **['obay]**$_{\text{ACTOR}}$ **ma-ngoip** **r<om>a'oe:** **ka** **'io'.**
PN AV-forget <AV>drink ACC medicine
'Obay forgot to take medicine.'

A predicate which is marked by UVP selects a patient or a theme as the nominative argument as in (3.6).

(3.6) UVP marking

a. [**mita'** **p<in>'a'apol** **tatimae']**$_{\text{patient}}$ **nisho'** **si'ael-<u>en</u>=ila.**
1PL.GEN <NMLZ>share=COS vegetable 2SG.GEN eat-UVP=COS
'The vegetable that we shared, you have already eaten them.'

b. [**hini** **taew'an]**$_{\text{THEME}}$ **kayzaeh** **kita'-<u>en</u>.**
this house good see-UVP
'This house is beautiful.'

A verb that is marked by UVL or UVC marking exhibits the following functions. A non-core argument (e.g. location or instrument) is promoted as a core argument. In a UV construction, this core argument is encoded by the nominative case. (3.7a) and (3.7b) exemplify the structures of UVL and UVC markings. (3.7a') and (3.7b') exemplify the usage of AV constructions for a comparison with their counter examples of these UVL and UVC constructions. Note that a verb marked as UVC

assigns a variety of semantic role to the nominative argument including instrument, beneficiary, reason, cause…etc.

(3.7) UVC marking

a. **raahib**$_{\text{LOCATION}}$ **ma'an**$_{\text{A}}$ **k<in>ash-ha-l-<u>an</u>,** **masay=ila.**
cockroach 1SG.GEN <PERF>step.on-one-n.times-UVL AV:die=COS
'The cockroach was stepped on once and died.' (Zeitoun et al. 2015:562)

a' **yako** **kash-ha-l,** **sia** **kash-poshal.**
1SG.NOM step.on-one-n.times 3SG.NOM step.on-two
'I took one step and he took two.'

b. **nasia**$_{\text{A}}$ **['inoka=shayshiat=a** **kayba.en]**$_{\text{INSTRUMENT}}$ **<u>shi</u>-p-raawak**.
3PL.GEN POSS=Saisiyat=POSS clothes UVC-DYN-dance
'They dress with traditional Saisiyat garments to dance.'

b'.**yami'** **raawak** **ray** **kakishkaatan**.
1PL.NOM dance LOC school
'We danced hand in hand together at school.'

To summarize, this section introduces the mechanism of voice marking in Saisiyat. Although M. L. Yeh (2003) and Hsieh (2007) mention the inactiveness of *-an* marking (UVL), this usage is observed in Saisiyat in Zeitoun et al. (2015).

3.2 Affirmative simple clauses[31]

Saisiyat exhibits three types of affirmative simple clauses. They are (i) clauses with verbal predicates, (ii) clauses with nominal predicates and (iii) clauses with locative

[31] The negative counterparts will be discussed in section 3.4.

predicates. Table 3.3 summarizes the types of simple clauses. As for negative constructions, they are introduced in Section 3.4.2.2, when I introduce core operators.

Table 3.3 The types of affirmative simple clauses in Saisiyat

Types of the predicates	Positions of the predicates	Constructions
(i) Verbal predicate 1. Actor voice	➢ After actors$_{NOM}$	Affirmative clauses
2. Undergoer voices: i. Patient voice ii. Locative voice iii. Circumstantial voice	➢ Non-fixed ➢ Non-clausal initial ➢ Non-clausal initial	
3. Stative	➢ After undergoer NPs ($U_{NOM}V$)	
4. Existential	➢ Either V initial or after undergoers (UV)	
5. Possessive	➢ After actors (the possessor)	
(ii) Nominal predicate	➢ After nominative arguments (NP+$N_{Pred)}$	Identification and possessive clauses
(iii) Locative predicate	➢ N_{theme}+ *ray*$_{locative}$+$N_{location}$	Locative clauses

Type (i) is divided into five categories. They are predicates marked as actor voice, and undergoer voice, stative predicates, existential predicates and possessive predicates. UV-marked predicates can be further divided into undergoer patient, locative and circumstantial. Predicates generally occur after nominative arguments or genitive NPs, as exemplified in (3.8). However, UVP verbs do not have fixed positions. UVC- and UVL-marked verbs do not occur in clause-initial position.

(3.8) Positions of predicates

a. **yako$_A$**	**s<om>i'ael=ila**$_{PRED}$	**ka**	**pazay$_U$**.	(AV)
1SG.NOM	<AV>eat=COS	ACC	rice	

'I have eaten the rice.'

b. **pazay**$_{U}$ **<u>si'ael-en=ila</u>**$_{PRED}$ **ma'an**$_{A}$. (UVP)
rice eat-UVP=COS 1SG.GEN
'I have eaten the rice.'

c. [**'inoka=shayshiat=a ka-pashta'ay-an]**$_{U}$ **ma'an**$_{A}$ **(**UVL**)**
POSS=Saisiyat=POSS REAL-pashta'ay.ritual-NMLZ 1SG.GEN
<u>k<in>asha'-an</u>$_{PRED}$.
<PERF>ignore-UVL
'I ignore where the Saisiyat hold the Pasha'tay ritual.' (Zeitoun et al. 2015:288)

d. **koko'**$_{beneficiary}$ **ni 'aro'**$_{A}$ **<u>shi-talek</u>**$_{PRED}$ **ka pazay**$_{U}$. (UVC)
grandmother GEN PN UVC-cook ACC rice
'Aro cooked a rice/meal for Grandmother.'

"Verb-initial" is not a dominated word order in Saisiyat. One exception is the existential predicate *hayza:* 'have'. It occurs in clause-initial position as shown in (3.9).

(3.9) Existential predicate

a. **<u>hayza:</u>**$_{PRED}$ **[rosha' talobong]**$_{U}$ **ray talka: babaw**.
have two cup LOC table above
'There are two cups on the table.'

b. **sho: rima' '<oem>alop**, **<u>pa-k-hayza:</u>**$_{PRED}$ **[ka linasho']**$_{U}$.
if AV:go <AV>hunt CAUS-STAT-have ACC lunch.box
'You need to bring a lunch box when you go hunting.' (from M. L. Yeh 2000:105)

Nominal predicates are used in identification clauses as demonstrated in (3.10a), and possessive clauses in (3.10b). A locative predicate is composed of the

locative case *ray* and a noun of location. It occurs after an undergoer (theme) as shown in (3.10c).

(3.10) Nominal predicates

a. **hako'**$_{PRED}$ **hiza**. (= 3.9a)
muntjac that.
'That is a muntjac.'

b. **yako**$_{A}$ **hayza:** **[too'** **korkoring]**$_{U}$. (possessive clause)
1SG.NOM have three child
'I have three children.'

c. **[korkoring]**$_{U}$ **[ray** **ka-kishkaat-an]**$_{PRED}$. (locative clause)
child LOC RED-study-NMLZ
'The children are at school.'

3.3 Saisiyat complex sentences

This section introduces Saisiyat complex sentences that contain multiple predicates. It discusses four main types of complex sentences, including complement constructions, nominalized modifiers,[32] adverbial clauses, and coordination constructions.

3.3.1 Complement constructions of Saisiyat

A complement construction is composed of a main clause and an embedded clause as it complement (Foley & Van Valin 1984). In my discussion of Saisiyat, a complement

[32] Apart from chapter 1, this chapter uses the term 'nominalized modifiers' to refer to relativizers in Yeh (2000a) for the following reasons. First, the so-called relativizer *kama=* and *'ima=* are productive nominalizers and aspectual markers (Zeitoun et al. 2015) instead of relatizivers. Second, C. Li (2010) also argues against the relativizer-analysis by claiming *kama=* and *'ima=* as auxiliaries for their sensitivity to tense/mood/aspect/voice in tense projection node.

acts as an argument of the matrix syntactic unit or a modifiee unit to a modifier unit. A complement can be either a finite clause or a nonfinite clause in Saisiyat. M. L. Yeh (2016) points out that finite clausal complements may have independent aspect and mood values from their matrix clauses. In addition, they may be introduced by the complementizer *komosha*: (M. L. Yeh 2000c).[33] The matrix verbs are usually cognitive verbs e.g., *raam* 'know' or perceptual verbs e.g., *bazae'* 'hear' as in (3.11a) and (3.11b).

(3.11) Clausal complements

a. **yaba' raam (komosha:) yako r<om>a'oe: ka pinobaeaeh.**
father know (COMP) 1SG.NOM <AV>drink ACC wine
'Father knew that I had drunk wine.'

b. **yako bazae' (komosha:) kalih 'am=lobih walo'.**
1SG.NOM hear (COMP) PN IRR=return Tungho
'I heard that Kalih will come back to Tungho.'

Another type of finite complements is quotative constructions. The complements include imperative clauses as in (3.12a), direct quotations as in (3.12b) and indirect quotations as in (3.12b'). Note that in direct quotation constructions, quoted clauses cannot occur before the matrix clauses as in (3.12c).

[33] The complementizer *komosha*: will be introduced in section 3.5.4.

(3.12) Quotative constructions

a. **baki'** **'<oem>oe'oe:** **hisia,** **"'osha'** **lamsong!"**
grandfather <AV>call 3SG.ACC go.IMP Nanchuang
'Grandfather called him and said: 'You do to Nanchuang!''

b. **koko'** **ma'yakai'** **(komosha:)** **"yako** **'am=rima'** **kansho'".**
grandmother AV:say (COMP) 1SG.NOM IRR=AV.go 2SG.LOC
'Grandmother said: "I will go to your home."'

b'. **koko'** **ma'yakai'** **(komosha:)** **'am=rima'** **kansho'**.
grandmother AV:say (COMP) IRR=AV.go 2SG.LOC
'Grandmother says she will go to your home.'

c.***"yako** **'am=rima'** **kansho'"**, **koko'** **ma'yakai'.**
1SG.NOM IRR=AV.go 2SG.LOC grandmother AV:say

Nonfinite complements include gerundive constructions and *shi*-marked clauses. Gerundive complements are marked by the prefix *'a-*/*'am-* or through AV markings[34] as shown in (3.13). According to Zeitoun et al. (2015:489-492), a gerund displays several key features. It occupies an argument position (as either the subject or the object) as in (3.13a). It may be modified by another noun or a possessive pronoun as in (3.13b). It may take an accusative argument as in (3.13c).

(3.13) Nonfinite complements

a. **'oya'** **sizaeh** **'am-mata:waw,** **lobih=ila**.
mother IRR=finish GER.IRR-AV:WORK return=COS
'Mother finished working and has returned home.'

b. **yako** **bazae'** **ni** **'okay** **(ka)** **'a-maatol**.
1SG.NOM hear GEN PN LIG GER.IRR-sing
'I heard Okay's song.' (from Zeitoun et al. 2015:485)

[34] The AV-infix <*om*> may undergo reduplication when it functions as a gerundive marker e.g., *tomnon* 'weave (AV)' ~ *tomnon/totomnon* 'weaving' (Zeitoun et al. 2015:489).

c. **yako** **k<om>ita'** **[ni** **'oya'** **sh<om>bet** **ka** **'aehoe']**.
1SG.NOM <AV>see GEN mother <GER.AV>beat ACC dog
'I saw mother beating the dog(s)'

In a *shi*-marked clause, the actor is realized as the genitive arguments and the verb is marked by the undergoer circumstantial voice *shi-* or undergoer locative voices *-an*. It may act as the argument of its matrix verb as shown in (3.14a) and (3.14b). The matrix verbs are usually perceptual verbs and jussive verbs. A *shi*-clause may also act as a clausal modifier of the matrix clause in clausal juncture (3.14c).

(3.14) *shi*-clauses as complements

a. **baki'** **'<oem>oe'oe:** **[shi-'osha'** **<u>nisia</u>** **lamsong].**
grandfather <AV>call UVC-go 3SG.GEN Nanchuang
'Grandfather asked him to go to Nanchuang.'

b. **hini'** **'okik** **[ka-karma'-an** **noka** **korkoring** **ka** **walo']**.
this NEG.LIG.STAT REAL-steal-LOCNMLZ GEN child ACC candy
'This is not the place where children steal candies.' (Zeitoun et al. 2015:402)

c. **'oya'** **[shi-hangih** **noka** **korkoring]**$_{\text{EMBEDDED CLAUSE}}$
mother UVC-cry GEN child
rima' **k<om>ita'** **'ampoa'** **h<oem>angih.**$_{\text{MAIN CLAUSE}}$
go <AV>see why <AV>cry
'Because the child(ren) cried, mother went to see why he/she/they cries/cry.' (Hsieh 2005:261) (= 1.6b)

When these *shi*-clauses act as complements of the matrix verbs as in (3.15a), they exhibit the following characteristics. First, they can be independently negated as in (3.15b). Second, verbs in complements cannot exhibit independent aspectual marking as in (3.15c). Third, they can have independent temporal frame as in (3.15d).

Moreover, they cannot be modified by epistemic modality as in (3.15e).

(3.15) *shi*-clauses act as complements

a. **yako raam [ni ’ataw shi-’alop ka hako’]**.
1SG.NOM know GEN PN UVC-hunt ACC muntjac
‘I know that Ataw hunted a muntjac/muntjacs.’

b. **yako raam [ni ’aro’ ’okay ’osha’-i ’alop-ani]**.
1SG.NOM know GEN PN NEG:LIG go-UVP hunt-UVC
‘I know that Aro did not go hunting.’

c.***yako raam [ni ’ataw shi-’alop=ila ka hako’]**.
1SG.NOM know GEN PN <UVC>hunt=COS ACC muntjac

d. **yako raam [ni ’ataw kahia’ shi-’alop ka hako’]**.
1SG.NOM know GEN PN yesterday <AV>hunt ACC muntjac
‘I know that Ataw hunted a muntjac/muntjacs yesterday.’

e.***yako raam [ni ’ataw ka-sh-’<in>alop=a=tomal ka hako’]**.
1SG.NOM know GEN PN REAL-UVC-<PERF>hunt=LIG=certainly ACC muntjac

Counter examples are provided in (3.16). The finite clauses can undergo negation in (3.16b), have independent temporal frame in (3.16c), exhibit independent aspectual marking of the verb in the complement clause in (3.16d), and independent marking of epistemic marking on the verb in the complement clause as in (3.16e).

(3.16) Own fieldnotes

a. **yako raam [’ataw ’<oem>alop ka hako’]**.
1SG.NOM know PN <AV>hunt ACC muntjac
‘I know Ataw hunted a muntjac/muntjacs.’

b. **yako raam [’ataw ’okay ’alop ka hako’]**.
1SG.NOM know PN NEG.LIG hunt ACC muntjac
‘I know Ataw did not hunt a muntjac/muntjacs.’

c. **yako raam ['ataw <u>kahia'</u> '<oem>alop<u>=ila</u> ka hako']**.
1SG.NOM know PN yesterday <AV>hunt=COS ACC muntjac
'I know Ataw has hunted a muntjac/muntjacs yesterday.'

d. **yako raam ['ataw '<oem>alop<u>=ila</u> ka hako']**.
1SG.NOM know PN <AV>hunt=COS ACC muntjac
'I know Ataw has hunted a muntjac/muntjacs.'

e. **yako raam ['ataw 'ina='<oem>alop=a=tomal ka hako']**.
1SG.NOM know PN EXP=AV-hunt=LIG=certainly ACC muntjac
'I know Ataw certainly hunted a munjac/munjacs.'

To summarize, though *shi*-mark complements behave like a nominalized unit in certain aspect e.g., impossibility of receiving aspectual marking and epistemic marking, they cannot be considered as nominalized clauses. M. L. Yeh (2016) considers that this type of *shi*-marked clause could be clausal nominalization, but she does not further reasons for this claim. If she was correct on this analysis, two possible answers may support it. First both lexical nominalization[35] and *shi*-clause denote the outcome of an event and occupy the object position in the SVO configuration. (i) exemplifies the structure of lexical nominalization. Second, the lexical nominalization and the genitive argument *ma'an* (1SG.GEN) are connected by the ligature *ka* (the ligature *ka* will be introduced in section 3.5.5), which is evidence of nominal constructions.

[35] An Example of lexical nominalization in Saisiyat is providen below in (i).
(i) Lexical nominalization (from M. L. Yeh 2016:190; originally written in Mandarin; English translation and glossing is mine)
sho'o talam [<u>ma'an ka</u> t<in>alek], bangih=ay?
2SG.NOM try.IMP 1SG.GEN LIG <NMLZ>cook salty=Q
'(Please) taste (the dish) that I cooked. Is it salty (enough)?'

3.3.2 Serial verb constructions (SVCs)

In a SVC, serialized verbs share single nominative arguments (according to M. L. Yeh 2000a, 2016 and L. Huang 1997) Example (3.17a) shows that the nominative argument *sho'o* 'you (singular)' is shared by the two verbs. These verbs may share a single aspect or mood value as in (3.17b). There are two types of SVCs on the basis of their linear structure. One is the contiguous type as shown in (3.17a). The other is the non-contiguous type as in (3.17c). Following Aikhenvald (2006), I term them switch-function SVCs. Chapter 7 will discuss the grammatical features of SVCs of Saisiyat in depth.

(3.17) SVCs

a. **sho'o** **ma-hoero:** **lobih** **(ray)** **taew'an**.
2SG.NOM AV-remember return LOC house
'You remember going home.'

b. **sho'o** **mina=ma-hoero:** **lobih** **(ray)** **taew'an**!
2SG.NOM should=AV-remember return LOC house
'You should remember going home!'

c. **korkoring** **bazae'** **hi** **'oya'** **h<oem>angih** **ray** **taew'an**.
child(ren) hear ACC mother <AV>cry LOC house
'The child(ren) heard mother cry at home.'

3.3.3 Adverbial clauses

Adverbial clauses are composed of a matrix clause and an adverbial embedded clause. Adverbial clauses are the modifiers of the matrix clauses. An embedded clause

denotes various semantic functions such as reason, concessive condition, hypothetical condition or temporal condition. The embedded clause may be introduced with a clause-linkage marker (CLMs) such as *naw* 'if' as in (3.18a), or without any CLMs as in (3.18b).

(3.18) Adverbial clauses

a. **sho'o** **kin=s<om>i'ael,** **sho'o** **naw** **komosha:** **baboy**,
2SG.NOM CONT=<AV>eat 2SG.NOM if COMP pig
ka-hiwa'-en=ila.
IRR-slaughter-UVP=COS
'You are always eating. If you were a pig, you would be slaughtered by now. '

b. **hini** **korkoring** **basang** **'aewhay=ila,** **kama=maamasa'**.
This child body bad HAB=stay.up.late
'The child is in poor health because he/she often stays up late.'

3.3.4 Coordination constructions

Coordination constructions include verbal and nominal coordination. This section focuses on verbal coordination. In verbal coordination, verb phrases are connected by the conjunctor =*o* 'and'. (3.19a) and (3.19b) exemplify the structure. The coordination of two clauses is demonstrated in (3.19c). Note that coordination of two full-fledged clauses is rarely used when two clauses share arguments. The shared arguments are usually elided in subsequent clauses.

(3.19) Coordination

a. **lasia** **mam=maatol=o** **h<oem>lal** **ray** **taew'an.**
3PL.NOM PROG=AV:sing=CONJ <AV>dance LOC house
'They are singing and dancing at home.'

b. **tati'ish** **nisia$_{Ai}$** **[sipsip-in]=o** **[shi-ti'ish=ila** **ka** **talka:]**.
wiper 3SG.GEN fold-UVP=CONJ UVC-wipe=COS ACC table
'He folded the wiper and wiped the table.'

c. [**yaba'$_{Ai}$** **shoe'-ha-l-en** **noka** **wawatos** **ka** **walishan]=o**
father shoot-one-n.times-UVP GEN gun ACC boar=CONJ
[**(walishan)** **masay=ila]**.(rare usage)
boar AV:die=COS
'Father shot the boar once and it died.'

3.3.5 Dislocated structures

The term **dislocated structure** used in this study refers to the following syntactic pattern: $[[N+V+(N)]_{clausal\ complement/modifiee}+,+V_{matrix/modifier}]_{sentence}$. It has a similar meaning to its structural variation of verbal juxtaposition whereby the $V_{matrix/modifier}$ occurs before $V_{complement/modifiee}$ in a clause, schematized as: $[V_{matrix/modifier} +V_{complement/modifiee}]$.[36]

As indicated above, a dislocated structure contains two major constituents in a sentence: an initial clause and a verb that follows it (V2, henceforth). The V2 is separated from the initial clause by an intonation break. Semantically, it represents a state of affair that delineates a certain facet of the initial clause, including its finishing

[36] The term "dislocated structure" shall not be equated to the term "dislocation" discussed in Lambrecht (2001), which performs specific pragmatic function and exhibits s series of diagnostic criteria. Whether a Saisiyat dislocated structure also carries such specific pragmatic function or fits the diagnostic features mentioned by Lambrecht is an issue that I leave for further research. Here I simply focus on its syntax and semantics as compared with its juxtaposed verbal variation.

phase, manner, position, psych-action or even a cognition status. In other words, dislocated structures represent structural embedment expressing specific semantic relations. Such relations involve (i) the predicate-argument structures as exemplified in (3.20) and (ii) modifier-modifiee structures as exemplified in (3.21).

(3.20) Dislocated structures: the predicate-argument structures

a. [**sia sh<om>bet ka korkoring]$_i$, (hini (h)owaw)$_i$ sizaeh=ila**.
3SG.NOM <AV>beat ACC child this matter finish=COS
'He/She (was) beat(ing) the child, and it/this matter is finished now.' (the finishing phase)

b. [**'aehoe' t<om>obong ray taew'an latar]$_i$,**
dog <AV>bark LOC house outside
(koko') bazae'=ila Ø$_i$.
grandmother hear=COS
'The dog barks outside the house, and (Grandmother) heard it.' (direct perception)

(3.21) Dislocated structures: modifier-modifiee structures

a. **korkoring k<om>ita' ka kinaat, 'a(m)=miririi'**.[37]
child <AV>see ACC book PROG=AV:stand
'The child reads books, by standing.' (position relation)

b. **korkoring s<om>i'ael ka pazay, 'aemoeh**.
child <AV>eat ACC rice quick
Literally means: 'The child ate the rice, quickly.' (manner relation)

[37] A nominative argument of the V2 can occur in this type of sentences as shown in (i). However the structure and meaning are different from the dislocated structure (E. Zeitoun pc.), e.g., (3.21a). It represents a linkage between two full-fledged clauses that expresses a meaning of circumstance instead of a stance meaning.

(i) **korkoring k<om>ita' ka kinaat, korkoring 'a(m)=miririi'**.
child <AV>see ACC book child PROG=AV:stand
Literally means: 'The child reads books, and he/she is standing.'

In the predicate-argument structure, the V2 has an undergoer argument that co-indexes to the entire initial clause. The indexed argument is syntactically the nominative argument of the initial clause as shown in (3.20a) or the non-nominative argument (i.e. object) in (3.20b). In a modifier-modifiee structure, a V2 plays the role of a modifying event of the initial clause. The V2 does not involve co-indexation with the previous clause as illustrated in (3.21). Further discussion of these structures will be presented in later chapters, especially in section 6.4.

To summarize, section 3.3 introduces complex sentences of Saisiyat. Chapters 4 to 6 will elaborate their juncture-nexus combinations. Section 3.4 accounts for the division of Saisiyat operators, i.e. functional categories that modify junctures. Complex sentences may be linked by clause-linkage markers such as the complementizer *komosha:* or the conjunctor *'isa:* 'then'. Section 3.5 accounts for this part.

3.4 Saisiyat operators

As introduced in chapter 2, **operators** are functional categories that modify different layers in a clause. They can be differentiated into three sets, including nuclear, core and clausal operators. In studies on complex sentences in RRG, the modifying scope of operators is a clue to identify types of nexus. This section presents the

morphological realizations and syntactic functions of Saisiyat operators, which will be crucial in the discussion of nexus types in chapters 4 to 6.

3.4.1 Saisiyat nuclear operators

The nuclear operators express the internal grammatical properties of a predicate itself, without reference to event participants (Van Valin & LaPolla 1997:45). Aspectual markers and lexical negators are such operators.

According to Zeitoun et al. (2015), aspect in Saisiyat are divided into perfective aspect and imperfective aspect. Perfective aspectual markers include the perfective marker <*in*>, the experiential clitic[38] *'ina*= and the change of state marker =*ila*. The perfective <*in*> only modifies the <*om*>-marked verbs as in (3.22a). It encodes bounded events but not unbounded events as in (3.22b). The experiential clitic *'ina*= indicates either unbounded or bounded events in the past as in (3.22c).

(3.22) Aspectual marking

a. **lasia** **baabaaw** **s<om><in>i'ael** **ka** **'aewpir**,
3PL.NOM just <AV><PERF>eat ACC sweet.potato
(h)onghai' **'<oem>tot=ila.**
later.on <AV>fart=COS
'They just ate sweet potato(es), and after a while they farted.'

[38] Clitics are defined as follows in this dissertation, on a par with Zeitoun et al. (2015). In general, a clitic is found in the syntactic domain while an affix appears in the morphological domain. Firstly, clitics attach to phrases or predicates but affixes attach to stems or roots. Second, clitics are able to attach to nouns, verbs or pronouns, but affixes have selective restriction of stem/root types. Third, clitics only convey grammatical functions such as *mam*= 'progressive' and clause-linkage marker such as =*o* 'and', but affixes denote lexical meanings or convey grammatical functions. Fourthly, Saisiyat cliticization undergo resyllabification and liaison, but it does not induce a number of phonological processes that are attested in affixation (Zeitoun et al. 2015:99-100).

b.* **lasia** **s<om><in>i'ael**.[39]
3PL.NOM <AV><PERF>eat

c. **lasia** **baabaaw** **'ina=s<om>i'ael** **(ka** **pazay)**
3PL.NOM just EXP=<AV>eat ACC rice
'They have eaten (their meal) a moment ago.'

The change of state *=ila* profiles the transition between two events. It is a productive marking in Saisiyat. *=ila* can attach to a verbal predicate as in (3.23a), a non-verbal predicate as in (3.23b) or a pronoun as in (3.23c).

(3.23) Change of state

a. **ka** **tawmo'** **'arash-en=ila** **ni** **'oya'.**
NOM banana bring-UVP=COS GEN mother
'Mother has brought the banana.'

b. **yako** **tatini'=ila.**
1SG.NOM old.man=COS
'I am old now.'

c. **sho'o=ila** **si'ael.**
2SG.NOM=COS eat
'It's your turn to eat.'

As reported in Zeitoun et al. (2015), imperfective markers include habitual, continuative marker, the repetitive marking and progressive. The morphological forms of aspectual marking are presented as follows.

[39] This sentence becomes grammatical when the adverb *baabaaw* 'just' is present in the clause as shown in (i).

(i) **lasia** **baabaaw** **s<om><in>i'ael(=ila)**.
3PL.NOM just <AV><PERF>eat(=COS)
'They have just eaten.'

The habitual aspect is encoded by the clitic *kama*=, as shown in (3.24a). The continuative aspect is encoded by the clitic *kin*= as in (3.24b). The repetitive aspect is encoded by the reduplication of the base as shown in (3.24c). The progressive aspectual markers form a large family in Saisiyat. They are <*in*>, *ka*-<*in*>, CV reduplication, *'a*-, *'am*=, *mam*=, and *'ima*=. According to Zeitoun et al.'s (2015) analysis, these progressive markings mainly differ in morphological environments. (3.24d) exemplifies the progressive marking in Saisiyat.

(3.24) Aspectual marking

a. **korkoring basang 'aewhay, kama=mamaasa'**.
child body bad HAB=stay.up.late
'The child has unhealthy condition because he/she often stays up late.'

b. **Obay kin=maatol ray taew'an, kin=t<om>o-za:zih**.
PN CONT=<AV>sing LOC house INTENS=<AV>bark-noisy
'Obay keeps on singing at home. He is very noisy.'

c. **haw baki' masay=ila, nasia shi-p-hae-hangih=ila**.
that grandfather die=COS 3PL.GEN UVC-DYN-RED-cry=COS
'That Grandfather died, and this is the reason of their crying.' (Zeitoun et al. 2015:339)

d. **'oya' mam=mata:waw ray pinatiay**.
mother PROG=AV:work LOC rice.field
'Mother is working in the rice field.'

3.4.2 Saisiyat core operators

Core operators express the grammatical properties that involve the relations between core arguments and nucleus (Van Valin and LaPolla 1997:45). In Saisiyat, core

operators include (i) the deontic modals that express ability, permission and obligation, (ii) negative modality, and (iii) negators (negating predicates). The following sections introduce the core operators in details.

3.4.2.1 Deontic modality

Deontic modals include *kayzaeh* 'can, may', *soka'* 'should' and *kayni'* 'do not want to, to refuse'. First of all, the operator *kayzaeh* 'can, may' expresses affirmative deontic modality as in (3.25a). It is grammaticalized from the stative verb *kayzaeh* 'good' (Zeitoun et al. 2015:354-356). Second, the operator *soka'* 'should' expresses an obligation a speaker strongly expects or requires the addressee to do. *soka'* is used in deontic sentences, as shown in (3.25b). Third, *kayni'* 'do not want to' denotes negative volitional modality. *kayni'* occurs before predicates and it can attract the interrogative clitic =*ay* as in (3.25c).

(3.25) Deontic modals

a. **korkoring 'isahini kayzaeh k<om>ita' ka 'inalingo'.**
child now can <AV>watch ACC television
'The child can watch television programs now.'

b. **sho'o soka' min'itol.**
2SG.NOM should AV:wake.up
'You should wake up now.'

c. **'aro' maatol kayzaeh baeza'-en, moyo kayni'=ay paatol-on**?
PN AV:sing good listen-UVP 2PL.NOM refuse=Q sing-UVP
'Aro has a good voice. Don't you want to hear him singing?'

3.4.2.2 Negation of verbal predicates

According to Zeitoun et al. (2015:371-378), a negation device is constituted of a negator *'oka'* 'not', *'izi'* 'Don't!' and *'i'ini'* 'not yet' and the ligature =*'i*. The negators and the ligatures can be contracted without affecting their semantics. (3.26) exemplifies the structure of Saisiyat negators, taking *'oka'* as an illustration.

(3.26) Negation

korkoring	**'oka'-'i/'okay**	**si'ael**	**ka**	**walo'.**
child	NEG-LIG/NEG:LIG	eat	ACC	candy

'The child(ren) did not eat candies.'

As mentioned in Zeitoun et al. (2015), for AV dynamic predicates which are not overtly marked such as *tatpo'* 'wear a hat', the ligature is followed by morpheme *-p*. Observe (3.27a). When a stative predicate is not marked for state, the ligature is suffixed by *-k*. Observe (3.27b).

(3.27) Negation

a. **yaba' 'oka'-'i-p/'okip tatpo'.**
father NEG-LIG-DYN/ NEG:LIG:DYN wear.a.hat
'Father did not wear a hat.' (from Zeitoun et al. 2015:392)

b. **'oya' 'oka'-'i-k/'okik sharara' ka kabinao'.**
mother NEG-LIG-STAT/NEG:LIG:STAT like ACC young.woman
'Mother does not like the young woman.'

Zeitoun et al. (2015) observe a restructuring of syllables in certain environments of negation. When the ligature is followed by a C*e*/*o*CVC stem such as *shebet* 'beat', the first consonant will be attracted to the ligature to form a cluster of *'i*-C. At the same time, the vowel *e*/*o* drops. Observe (3.28).

(3.28) Negation

a. **korkoring** **k<om>-si'ael=ila.**
child eat<AV>-eat=COS
'The child has eaten lunch.'

b. **korkoring** **'i'ini-'i-k** **si'ael**.
child NEG-LIG-part.of.the.root (eat) eat
'The child has not eaten lunch yet.'

Verbal predicates after the negation occur in dependent forms in AV constructions as shown (3.29a). The negated verbs are explicitly marked by *-i* in the UVP constructions as in (3.29b), by *-an* in the nominalized UVL constructions as in (3.29c), and by *-ani* in the UVC constructions as in (3.29d).

(3.29) Negation

a. **koko'** **kahia'** **'okay** **talek** **ka** **pazay**.
grandmother yesterday NEG.LIG cook ACC rice
'Grandmother does not cook rice yesterday.'

b. **kinaat** **ni** **korkoring** **'okay** **kita-i**.
book GEN child NEG:LIG see-UVP.NEG
'The child did not read the book.'

c. **ni** **'aro'** **'okik** **ka-pae'rem-<u>an</u>** **taew'an.**
GEN PN NEG REAL-sleep-LOCNMLZ house
'Aro did not sleep in the house.'

d. **ni** **yaba'** **'okay** **boay-<u>ani</u>** **ka** **rayhil** **'iniman**.
GEN father NEG:LIG give-UVC.NEG NOM money 1SG.DAT
'Father did not give me money.'

According to Zeitoun et al. (2015), Saisiyat has negative bound forms *kay*=, *kip*= and *kik*=. They are the abridged forms of *'okay*, *'okik* and *'okip*. Observes (3.30).

(3.30) Negation

a. **korkoring** **'ayaeh** **<u>kay</u>=si'ael** **ka** **pazay**.
child sick NEG:LIG=eat ACC rice
'The child(ren) is/are sick, and does not eat.'

b. **yako** **<u>kik</u>=kama=wai'** **rini'.**
1SG.NOM NEG:LIG:STAT=HAB=come here
'I do not come here often.'

c. **ralom** **'ia'zaw=a=tomal** **kayzaeh** **<u>kip</u>=ranaw**.
water cold=LIG=very can NEG:LIG=bathe
'The water is very cold (so) I cannot bathe.' (from Zeitoun et al. 2015:380)

These abridged forms are not nuclear operators because they are equal to Saisiyat negative prefixes *'oki:*- and *ki*:-.[40] First, *kay*=, *kip*= and *kik*= are clitics for

[40]Saisiyat has two negative prefixes *'oki:*- and *ki*:-, which must attach to bound content words. These negated verbs usually occur after the word *kayzaeh* 'can' (Zeitoun et al. 2015:381). (i) exemplifies the structures.

(i) Negative Prefixes

a. **yako** **manraan** **raawash,** **kayzaeh** **<u>'oki:-</u>rang**.
1SG.NOM AV:walk far can NEG:LIG-sweat
'Though I walk(ed) far, I was/am not sweating.' (From Zeitoun et al. 2015:381)

b. **yako** **manraan** **raawash,** **kayzaeh** **<u>ki:-</u>rang**.
1SG.NOM AV:walk far can NEG:LIG-sweat

they attach to free contents words instead of roots (Zeitoun et al. 2015), as already shown in (3.30). Second, the abridged forms may attach to aspectual clitics, which is not a typical trait of prefixes. Observe (3.31). The free form *'okik* and the bound form *kik=* occur before the habitual clitic *kama=* as in (3.31a) and (3.31b). On the contrary, the negative prefix *ki:-* must do so as shown in (3.31c). It cannot occur before *kama=* (*cf*. 3.31c') as *'okik* and *kik=* do.

(3.31) Negation

a. **yako** **'okik** **kama=wai'** **rini'.**
1SG.NOM NEG:LIG:STAT HAB=come here
'I do not come here often.'

b. **yako** **kik=kama=wai'** **rini'.** (=3.28b)
1SG.NOM NEG:LIG:STAT=HAB=come here
'I do not come here often.'

c. **sho'o** **kama=ki:-rang**.
2SG.NOM HAB=NEG:LIG-sweat
'You never sweat.' (from Zeitoun et al. 2015:382)

c'.***sho'o** **ki:-kama=rang**.
2SG.NOM HAB= NEG:LIG-sweat

3.4.3 Saisiyat clausal operators

As introduced in chapter 2, clausal operators modify entire propositions of clauses, including categories like illocutionary force and status. As mentioned in chapter 2, illocutionary force conveys assertion, question, command and wish of an utterance. Status accounts for the distinction of realis/irrealis of a clause. Section 3.4.3.1

'Though I walk(ed) far, I was/am not sweating.' (From Zeitoun et al. 2015:381)

introduces the Saisiyat interrogative marker =*ay.* Section 3.4.3.2 introduces the Saisiyat marking of status.

3.4.3.1 The interrogative clitic =*ay* (illocutionary force)

The interrogative =*ay* acts as a post-clitic. It exhibits various host positions to phrasal units and clausal units. Observe (3.32). It either attaches to an entire clause as in (3.32a), or to a verb as in (3.32b). It may attach to a verb of an embedded clause. In this structure, =*ay* expresses the interrogative meaning of the embedded clause but not the matrix clause. Observe (3.32c). When =*ay* attaches to a matrix verb in complex constructions e.g. subordination or dislocated structures, it modifies the entire sentences. (3.32c-d) exemplify this trait by using clausal subordination for instance. Further discussion is provided in chapter 6 on the modifying scope of =*ay* in clausal junctures.

(3.32) Illocutionary force

a. **nisho'** **yaba'** **ray** **taew'an=ay**?
   2SG.GEN father LOC house=Q
   'Is your father at home?'

b. **'obay** **min'itol=ila=ay**?
   PN AV:wake.up=COS=Q
   'Had Obay waken up?'

c. **baki'** **s<om>ingozaw** **ka** **korkoring** **rim'an**
grandfather <AV>ask ACC child tomorrow
'am=rima'=ay **lamsong**?
IRR=come=Q Nanchuang
'Grandfather asked the children whether he would go to Nanchuang tomorrow or not.'

d. **baki'** **s<om>ingozaw=ay** **ka** **korkoring** **rim'an**
grandfather <AV>ask=Q ACC child tomorrow
'am=rima' **lamsong**?
IRR=come Nanchuang
'Did grandfather asked the children whether he would go to Nanchuang tomorrow or not?'

3.4.3.2 Realis/irrealis (status)

Realis marking is encoded on voice marking in Saisiyat. It refers to past or present situations if a clause does not have any temporal expressions to specify the temporal frame.

According to Zeitoun et al. (2015), irrealis of affirmative clauses is expressed through (i)*'am*= in AV constructions, (ii) *ka*- in UVP, UVC and UVL constructions and (iii) *nom*=/*no*- in UVC constructions (for dynamic verbs). Note that in UVC constructions, verbs that are marked by <*om*> will undergo C**a**-reduplication for irrealis marking e.g., *s*<*om*>*i'ael* 'eat [AV]'~ ***sa-si'ael*** 'eat (IRR.UVC)' (Zeitoun et al. 2015:331). Some examples of irrealis marking are provided in (3.33).

(3.33) Irrealis marking

a. **’obay** **rim’an** **raamen** **’am=rima’** **walo’.**
PN tomorrow probably IRR=go[AV] Tungho
‘Obay will probably go to Tungho tomorrow.

b. **ma’an** **raawaeh** **mak’aehae’** **ka-ngoip-in**.
1SG.GEN key sometimes IRR-forget-UVP
‘Sometimes I forget my keys.’ (from Zeitoun et al. 2015:326)

c. **nisho’** **kano’** **sa-si’ael/nom=s<om>i’ael** **ka** **pazay?**
2SG.GEN what IRR.UVC-eat/ IRR.UVC=<AV>eat ACC rice
‘What will you use to eat?’ (from Zeitoun et al. 2015:331)

Section 3.4 introduces three sets of Saisiyat operators. Nuclear operators include aspectual markers. Core operators include negators and deontic modality markers. Clausal operators include the interrogative marker =*ay* and the realis/irrealis marking. Table 3.4 summarizes the division of Saisiyat operators.

Table 3.4 The division of Saisiyat operators

Layers	**Types of operators**		**Representations of operators**
Nuclear layer	Aspects	Perfective	<***in***> ‘perfective’; ***’ina***= ‘experiential’; =***ila*** ‘change of state’
		Imperfective	***kama***= ‘habitual’; **reduplication of the base** ‘repetitive’ or ‘continuative’; ***kin***= ‘continuative’; <***in***>, ***ka***<***in***>, **CV-**, ***’a***, ***’am***=, ***mam***=, ***’ima***= ‘progressive’
Core layer	Negators	Contracted forms	***’okay, ’okik, ’okip, ’oki*C** ‘do/did not’; ***’izi’, ’izik, ’izip, ’izi*C** ‘Don’t!’; ***’i’ini’, ’i’inik ’i’inip, ’i’ini*C** ‘not yet’
		Abridged form	***kay=, kip***= *and* ***kik***= ‘do/did not’
	Deontic modality		***kayzaeh*** ‘can (permission)’, ***mina***= ‘should’
Clausal layer	Interrogative		=***ay***
	Status	Realis	Voice marking
		Irrealis	***’am***= (in AV constructions) ***ka***- (in UVP, UVC, UVL constructions)

3.5 Clause-linkage markers (CLMs)

CLMs mark the linkage in complex constructions. Zeitoun et al. (2015:165-174) elaborate on types of linking elements in Saisiyat. This section focuses on Saisiyat CLMs that are directly related to the discussion of complex sentences in this dissertation.

3.5.1 The conjunctor =*o* 'and'

The CLM =*o* is a clitic which exhibits various host positions (Zeitoun et al.. 2011). In the realm of complex constructions, it functions as a conjunctor in the core and clausal junctures. =*o* connects syntactic units that are morphosyntactically equivalent in terms of word classes, voice marking and syntactic status (e.g., as predicates). As shown in (3.34a) and (3.34b), two conjuncts exhibit the same word class. (3.34c-c') and (3.34d-d') further demonstrate this constraint. In (3.34c), the connected verbs occur in nonfinite form (i.e. without voice marking). In (3.34c'), the second conjoined verb (i.e. *somi'ael* 'eat[AV]') is marked in actor voice, which violates the constraint of morphosyntactic equivalence. (3.34d) and (3.34d') further show that =*o* does not connect a verb and an argument since these two syntactic units belong to different syntactic constituents.

(3.34) Conjunction of *=o*

a. **lasia** **mam=[maatol]=o** **[h<oem>lal]** **ray** **taew'an.**
3PL.NOM PROG=AV:sing=CONJ <AV>dance LOC house
'They are singing and dancing at home.'

b. **tati'ish** **nisia$_{Ai}$** **[sipsip-in]=o** **[shi-ti'ish=ila** **ka** **talka:]**.
wiper 3SG.GEN fold-UVP=CONJ UVC-wipe=COS ACC table
'He folded the wiper and wiped the table.'

c. **korkoring** **kin=k<om>ita'** **ka** **kinaat,** **'okay** **pae'rem=o**
child CONT=<AV>see ACC book NEG:LIG sleep=CONJ
si'ael **ka** **pazay.**
eat ACC rice
'The child keeps reading the books, and he/she does not sleep and eat anything.'

c'.***korkoring** **kin=k<om>ita'** **ka** **kinaat,** **'okay** **[pae'rem=o**
child CONT=<AV>see ACC book NEG:LIG sleep=CONJ
s<om>i'ael **ka** **pazay].**[41]
<AV>eat ACC rice
Intended for: 'The child keeps reading, and (he/she) neither sleeps nor eats (anything).'

d. **koko'** **'i'ini'i** **si'ael** **ka** **pazay.**
grandmother NEG:LIG eat ACC rice
'Grandmother hasn't eat yet.'

d'.***koko'** **'i'ini'i** **si'ael=o** **ka** **pazay.**
grandmother NEG:LIG eat=CONJ ACC rice

The conjunctor *=o* functions on two levels of junctures: clausal and core junctures. In clausal junctures, *=o* connects an initial clause and a subsequent clause as in (3.35a). The shared actor and instrument arguments are omitted in the second clause. *=o* 'and' connects two cores in core junctures as in (3.35b).

[41] To express the intended meaning, this sentence needs to be modified as in (i), in which the negator *'okay* is repeated twice before each verb:

(i) **korkoring** **kin=k<om>ita'** **ka** **kinaat,** **['okay** **pae'rem]=o**
child CONT=<AV>see ACC book NEG:LIG sleep=CONJ
['okay **s'iael** **ka** **pazay].**
NEG:LIG eat ACC rice
'The child keeps reading, and (he/she) neither sleeps nor eats (anything).'

(3.35) Conjunction of =*o*

a. [**ta-ti'ish nisia sipsip-in**]$_{CLAUSE}$**=o** [**shi-ti'ish=ila ka talka:**]$_{CLAUSE}$.
RED-wipe 3SG.GEN fold-UVP=CONJ UVC-wipe=COS ACC table
'He folded the cleaning rag and used it to clean the table.'

b. **'aro [m<in>iririi']**$_{CORE}$**=o [k<om>ita' ka kinaat]**$_{CORE}$.[42]
PN AV:<PROG>stand=CONJ <AV>see ACC book
'Aro is reading books by standing.'

The CLM =*o* exhibits two restrictions. First, it does not formulate a transitive complex predicate (in nuclear juncture) that contains two transitive verbs of the same argument structure. In other words, Saisiyat does not exhibit the formation: ARG_1+[$V1_{transitive}$=***o***+$V2_{transitive}$]$_{nuclear\ juncture}$+ARG_2. This restriction shows that =*o* does not link nuclear units. (3.36a) demonstrates this point. Second, the occurrence of =*o* is not grammatical at the clausal level of linkage if nominative arguments are repeated in subsequent clauses, as shown in (3.36b). Alternative structures are presented from (3.36b'-c). In (3.36b'), two connected clauses have their own nominative arguments that are not co-referential. In (3.36c), in which =*o* connects a full-fledged clause and a verb phrase with sharing of the nominative argument *'obay* 'Obay(person name)'. The other verbsal unit is modified by =*ila* in (3.36c), indicating 'change of state' of the

[42] This example is not a clausal conjunction since neither the shared nominative argument nor the clausal conjunctor '*isa*: 'then' occurs in the second cores as (ia) and (ib). This issue will be further discussed in chapter 5.

(i) Clausal conjunction

a.***'obay [m<in>iririi']**$_{CLAUSE}$ **['obay k<om>ita' ka kinaat]**$_{CLAUSE}$.
PN AV:<PROG>stand PN <AV>see ACC book
Intended for: 'Obay is reading books by standing.'

b.***'aro m<in>iririi' 'isa: k<om>ita ka kinaat**.
PN AV:<PROG>stand then <AV>see ACC book

entire sentence. In (3.36d), the two clauses juxtapose without the CLM =*o*.

(3.36) Conjunction

a***'obay** **[potoy=o** **marash]** **ka** **tawmo'.**
PN AV:wrap=CONJ AV.bring ACC banana

b.*[**'obay$_i$** **potoy** **ka** **tawmo']=o,** **['obay$_i$** **marash** **ka** **tawmo'].**
PN AV:wrap ACC banana=CONJ PN AV.bring ACC banana

b'.[**'obay** **potoy** **ka** **tawmo']=o,** **['aro'** **marash** **ka** **tawmo'].**[43]
PN AV:wrap ACC banana=CONJ PN AV.bring ACC banana
'Obay wrapped the bananas and Aro took it away.'

c. **'obay** **potoy** **ka** **tawmo'=o** **marash=ila**.
PN AV:wrap ACC banana=CONJ AV.bring=COS
'Obay wrapped the bananas and took it away.' (E. Zeitoun p.c.)

d. **'obay** **potoy** **ka** **tawmo'**, **marash=ila.**
PN AV:wrap ACC banana AV.bring=COS

Semantically speaking, the CLM =*o* does not necessarily imply the meaning 'and then' as shown in (3.37a). By contrast, the clausal chain (*cf.* 3.37b) and *'isa:* (*cf.* 3.7) express the intended meaning of (3.37a). In (3.37b), two clauses are linked in a sentence with an intonation break between two clauses. The linked clauses denote the sequential relation or the purposive relation. In (3.37c), the clausal level CLM *'isa:* 'then' serves this function instead, as in (3.37b).

[43] Further examples are provided as shown in (i), whereby =*o* connects two full-fledged clauses.

(i) The clausal conjunction of =*o*

a. **sho'o** **paatol=o** **yako** **ta-sapal**.
2SG.NOM sing=CONJ 1SG.NOM OPT-sing.chorus
'You sing (the song) and I will sing the chorus part.'

b. **sho'o** **paatol=o** **yako** **'amkay** **s<om>apal**.
2SG.NOM sing=CONJ 1SG.NOM IRR.NEG <AV>sing.chorus
'You sing (the song) but I will not the chorus part.'

(3.37) The =*o* conjunction

a.***yako** **[mahioe']=o** **[kishkaat].**
1SG.NOM AV:turn.on.light=CONJ AV.read
Intended for: 'I turned on the light and then read (book(s)/homework).'

b. **yako** **[mahioe'](,)** **[kishkaat].**
1SG.NOM AV:turn.on.light AV.read
'I turned on the light and read (book(s)/homework).' (sequential relation)
'I turned on the light in order to read my book(s)/homework).' (purposive relation)

c. **yako** **mahioe'** **'isa:** **kishkaat.**
1SG.NOM AV:turn.on.light then AV.read
'I turned on the light and then read (book(s)/homework).' (sequential relation)

3.5.2 The CLMs *kayzaeh* 'and then' and *'aewhay* 'otherwise'

The CLMs *kayzaeh* 'and then' is a subordinator. It introduces a subordinate clause that expresses the temporal consequence from the previous clause. For example in (3.38a), good health (subordinate clause) is the consequence of stopping drinking (matrix clause). On the contrary, *'aewhay* 'otherwise' introduces a subordinate clause which expresses an adverse outcome, if the first event expressed by the matrix clause has taken place. In (3.38b), the lack of strength (subordinate clause) is the outcome of accompaniment (matrix clause).

(3.38) From Zeitoun et al. (2015:172)

a. **sho'o** **boloe'** **ka** **pinobaeaeh!** **['izi'='i** **ra'oe:!]**
2SG.NOM abandon.IMP.AV ACC wine NEG.IMP=LIG drink
kayzaeh **[wa'isan** **ka** **basang**].
and.then strong NOM body
'Give up your drinking habits! Stop drinking and you will be in a good health.'

b. **ma'an** **korkoring** **shi-shae'-pit-'aelaw**
1SG.GEN child UVC-on.the.sly-fish.by.stabbing-fish
shi<om>inkalaway **kosha'-en,** **"['izi='i** **wai'],** **'aewhay**
<AV>insist.on.following say-UVP NEG.IMP=LIG come otherwise
[sho'o **ki-k=wa'isan.]"**
2SG.NOM NEG-LIG-STAT=strong
'The child wanted to follow me to fish stabbing, but I told him: "Don't come along, or you won't have the strength to walk." '

3.5.3 The CLM *'isa:*

The clause-linkage marker *'isa:* 'then' serves multiple functions in syntactic and discourse domains. M. L. Yeh (2010) identifies five functions of *'isa:* including (i) a demonstrative, (ii) a spatial/temporal deictic expression, (iii) a clausal connective, (iv) a copula and (v) an interpersonal expression.[44] Zeitoun et al. (2015) analyzes *'isa:* 'then' as an emphatic demonstrative.

This dissertation focuses on two functions of *'isa:* in complex sentences. One function is the clausal conjunctor and the other is the spatial/temporal deictic expression. When acting as a clausal conjunctor , *'isa:* connects two temporally or sequentially subsequent clauses. Concordance data suggests that the two function are

[44] M. L. Yeh (2010) uses the term 'sentential connectives'.

the main usage of *'isa:*. Wang's (2010) corpus study examines the syntactic concordance of *'isa:* in narration data (Formosan Language Archive). The results, as demonstrated in Table 3.5, show that *'isa:* mainly occurs (i) between two clauses as clausal connectives and (ii) in sentence-initial position as a spatial/temporal deictic expression.

Table 3.5 Structural concordance of the CLM *'isa:* 'then' (Wang 2010)

No.	Type of combination	Frequency	Percentage
1	Conjunctions of complete clauses or clauses with argument omission	56	30.94%
2	Clause-initial position (topic succession or topic change)	56	30.94%
3	Inside the clause i.e. (i) PSA+*'isa:*+predicate+NP, (ii) verb+*'isa:*+NP	43	23.76%
4	Between two nouns in identification sentences	4	2.21%
5	Deictic expression	4	2.21%
6	Demonstrative	0	0.00%
7	Structurally-unclear instances	10	5.52%
8	Repetition of verbs	8	4.42%
	Total	181	100%

The examples in (3.39) illustrate the function of *'isa:* as a clausal conjunctor. In (3.39a), two clauses are juxtaposed in a sentence. The juxtaposition of the two verbs *maatol* 'sing [AV]' and *hoemlal* 'dance(AV)' denote a simultaneous relation. In (3.39b), the two clauses are inserted by the CLM *'isa:*. This sentence denotes sequential relation since *'isa:* explicitly marks the temporal sequence.

(3.39) Conjunction of *'isa*:

a. **'aro' maatol h<oem>lal**.
PN AV:sing <AV>dance
'Aro sings and dances.'

b. **'aro' maatol <u>'isa:</u> h<oem>lal**.
PN AV:sing then <AV>dance
'Aro sang and then danced.'

When functioning as spatial/temporal deictic expression, *'isa:* acts as a discourse marker whose job is to signify topic succession or topic change. The clauses introduced by *'isa:* may or may not have **direct** temporal iconicity from previous clauses. Example (3.40) illustrates this usage. In (3.40a), *'isa:* marks the succession of the topic i.e. hunting routine. The entire paraphrase that is introduced by *'isa:* accounts for the post-phase of hunting in hunting routine. The other example (*cf.* 3.40b) shows that *'isa*: introduces an imperative clause in quotation. It also signifies topic succession between two sentences.

(3.40) The functions of *'isa*:

a. **<u>'isa:</u> [lasia pa-'apol 'isa: t<om>alek ka ma'asay]**
then 3P.NOM CAUS-share then <AV>cook ACC internal.organ
ri-saza hara ka 'ina=ray wareng ka nangesh.
at-right.there for.example ACC EXP=LOC neck LIG skin
'They would cook internal organs right there after they had been given away, even the skin of the head could be cooked.' (from Formosan Language Archive)

b. **yaba' be'e: t<om>rong 'isho'on "'<u>isa</u>: pata:waw=ila"**.
father angry <AV>command 2SG.ACC=COS then work=COS
'Father is angry and commands you: ' Then, start working!'.

3.5.4 The CLM *komosha:*

The functional word *komosha*: plays many roles, and the role that involves juncture-nexus combinations is the complementizer. It introduces a subordinate clause in core junctures. (3.41) illustrates the structure. According to Chao (2013), *komosha*: usually co-occurs with verbs of utterance (3.41a), the verb *bazae'* 'hear' (3.41b) and verbs of cognition (3.41c). It can be omitted in these constructions.

(3.41) The CLM *komosha:*

a. **koko' ma'yakai' (komosha:) ['am=rima' kansho']**.
grandmother AV:speak (COMP) IRR=go 2SG.LOC
'Grandmother said she will go to your place.'

b. **kin=bazae' (komosha:) ['ibaabaw ka rae'ish ma'iaeh liabo']**.
INTEN=hear (COMP) high LIG foreheadperson rich
Literally mean.: '(I) heard that that people who have high forehead are wealthy'
'It is said that people who have high forehead are wealthy.' (from Chao 2013:26)

c. **sia raam (komosha:) [yako s<om>i'ael ka 'ayam]**.
3SG.NOM know (COMP) 1SG.NOM <AV>drink ACC pork
'He knew that I ate the pork.'

When acting as a subordinator, the CLM *komosha*: faces two constraints. It cannot occur in juxtaposed verbs in the nuclear junctures, as shown in (3.42).[45]

[45] This part will be further elaborated in chapter 4.

(3.42) The CLM *komosha:*

a. **yako** **[m-il-'al'alay** **m-il-tamako']**$_{\text{nuclear juncture}}$**=ila**.
1SG.NOM AV-sip-start AV-sip-tobacco=COS
'I have started smoking.'

b.***yako** **[m-il-'al'alay** **<u>komosha:</u>** **m-il-tamako']=ila**.
1SG.NOM AV-sip-start COMP AV-sip-tobacco=COS

komosha: cannot intervene between a perceptual/psych-action verb and its complement, as illustrated in (3.43b) and (3.44b).[46]

(3.43) The restriction of *komosha*:

a. **lalo'** **bazae'** **ka** **korkoring** **hangih-in**
PN hear ACC child cry-UVP
ray **taew'an** **latar**.
LOC house outside
'Lalo heard the child(ren) crying outside the home (due to some reason).'

b.***lalo'** **bazae'** **ka** **korkoring** **<u>komosha:</u>**
PN hear ACC child COMP
hangih-in **ray** **taew'an** **latar**.
cry-UVP LOC house outside
'Lalo heard the child(ren) crying outside the home (due to some reason).'

(3.44) The restriction of *komosha*:

a. **yako** **ma-ngoip** **r<om>a'oe:** **ka** **'io'**.
1SG.NOM AV-forget <AV>drink ACC medicine
'I forgot to take medicine.'

b'.***yako** **ma-ngoip** **<u>komosha</u>:** **r<om>a'oe:** **ka** **'io'**.
1SG.NOM AV-forget COMP <AV>drink ACC medicine

To summarize, this section elaborates on the functions and structures of Saisiyat clause-linkage markers (CLMs). These clause-linkage markers connect clausal and

[46] The main piece of evidence of core cosubordination here is the obligatory sharing of core operators. This structure will be discussed in chapter 5.

phrasal units. Additionally, in Saisiyat, the CLMs *'isa:* 'then' and =*o* 'and' generally connect clauses with omission of nominative arguments. By contrast, connecting two full-fledged clauses with these two CLMs is not as frequent as the former structure.

3.6 The ligature *ka*

The ligature *ka* connects nominal units in Saisiyat. According to Zeitoun et al. (2015), it has three types of distribution: (i) connecting two nouns as in (3.45), (ii) connecting a demonstrative and a noun and (iii) connecting a numeral and a noun. Moreover, *ka* also connects a genitive argument and a noun or a nominal phrase, as shown in (3.45d).

(3.45) The linkage of *ka* (from Zeitoun et al. 2015)

a. [**noe-h<m>iwa'** **ka**[47] **kaehoey]** **pa-'ila'ino'-on=ila**?
UVC.IRR-<AV>saw LIG wood CAUS-go:where-UVP=COS
Lit.:'Where has gone what will be used to saw wood?'
'Where has the saw gone?' (p.168)

b. [**hiza (ka) [korkoring ma'an sh<in>bet-an]]**
that LIG child 1SG.GEN <PERF>beat-LOCNMLZ
mam=h<oem>angih.
PROG=<AV>cry
'That child that I beat is crying.' (p.169)

c. **kahia' yako baeiw ['aehae' ka halapaw]**.
yesterday 1SG.NOM buy one ACC bed
'I bought a bed yesterday.' (p. 169)

[47] Note that the ligature *ka* in (3.38a) and (3.38c) cannot be omitted (Zeitoun et al. 2015:168-169).

d. [**nisia** **(ka)** **minkoringan]** **'aemoeh** **t<om>alek** **ka** **tatimae'**,
2S.GEN LIG wife quick <AV>cook ACC side.dish
kayzaeh.
good
'Your wife cooks at rapid speed, and this is good.' (Own field notes)

3.7 Overall summary

This chapter presents a sketch of Saisiyat grammar with the focus on the parts that are related to the discussion of complex sentences from chapters 4 to 8. Saisiyat uses verbal agreement and case marking to signify the grammatical correspondences between the predicates and their nominative nouns in the clausal domain. The introduction of Saisiyat grammar centers on semantics and structures of mono-clausal structures and complex sentences. This chapter also introduces two essential components for investigating complex sentences: operators and CLMs in sections 3.4 and 3.5 respectively.

Though syntactic features and classification of complex constructions have been laid out in section 3.3, the relations between syntax and semantics of these complex constructions are underspecified. As I inaugurate this dissertation in chapter 1, these Saisiyat juxtaposed verbs requires exhaustive investigation in terms of interclausal relations. On the one hand, this investigation needs to demonstrate the juncture (i.e. levels of syntactic combination) and the nexus (i.e. the methods of syntactic combination) of the complex sentences. On the other hand, this study needs to

delineate the mapping between structures and meanings of complex constructions in the interclausal relation hierarchy (IRH). The enterprise of this work is carried out from chapters 4 to 6 to elaborate on the juncture-nexus combinations of juxtaposed verbs in Saisiyat.

Tables 3.6 and 3.7 summarize criteria for identifying a level of juncture and a specific type of nexus, according to chapter 2. Following each criterion, the relevant morphosyntactic features of Saisiyat are listed, regarding the language specificity presented in chapter 3. These features serve as diagnostic indicators for discussing juncture-nexus combinations of the targeted juxtaposed verbs in chapters 4, 5 and 6.

Table 3.6 Criteria of identifying juncture types in Saisiyat

Types of junctures	**Criteria**	**Relevant Saisiyat morphosyntactic features**	
Nuclear juncture	**Argument sharing**: Linked Vs share the entire set of argument structure.	AV constructions	Linked Vs share identical (i) **nominative actor** (and accusative undergoer), and (ii) numbers of arguments.
		UV constructions	Linked Vs share identical (i) **nominative undergoer** (and genitive actor), (ii) numbers of arguments.
	Argument fusion: Only one Vs determines the argument structure.	AV constructions	Only one V determines the **nominative actor** and the accusative undergoer, and (ii) the numbers of arguments.
		UV constructions	Only one V determines (i) **nominative undergoer** and genitive actor, and (ii) the numbers of arguments
	Argument restructuring: Linked Vs forge a new argument structure which is different from the argument structure of either verb.	Vs differ in types (or numbers) of arguments	The V has a nominative actor and accusative undergoer, i.e. A_{NOM}+V1+V2+A_{ACC}
			The V has nominative undergoer and genitive actor, i.e. U_{NOM}+A_{GEN}+V1+V2
Core juncture	➢ **Argument sharing**: Linked cores share part of their argument structure; .an omitted argument is controlled by a core argument of the first core and lexically null. ➢ A linked unit serves as argument of matrix core.	**Switch-subject type**	The shared argument simultaneously acts as U of V1 and A of V2, and is encoded as N_{ACC}.
		Same-subject type	The shared argument acts as A shared by both Vs, and is encoded as N_{NOM} i.e.
		Complementation	The V2 unit is the argument of matrix core unit (V1) ; it appears as a gerund, a *shi*-clause (UVC constructions) or a finite clause.
Clausal juncture	➢ Two clauses are linked in a sentence. ➢ **Argument coreference:** Argument omission is ascribed to coreference under pragmatic influence.	➢ Intervention between two clauses by an intonation break, the clausal CLMs *'isa:* 'then' or *komosha:* 'complementizer' ➢ A shared argument can be realized in the second clause by (i) taking the subject position (predominately being in the clause-initial position) and (ii) encoded in U_{NOM} or $A_{NOM.}$	

Table 3.7 Criteria of identifying nexus types in Saisiyat

Types of nexus	Criteria	Relevant Saisiyat morphosyntactic features	
Coordination	Syntactic independence: ➢ Coordinated units display equal size and status. ➢ Each unit of the clauses has the independent form of main clauses.	1. **Voice alternation**: Coordinated units are able to have different voice marking, e.g. AV+UVP. 2. **Non-fixed order**: Coordinated units are able to switch their positions. 3. **Equivalent forms**: Coordinated units must be equally finite or nonfinite forms. 4. **Independent operator marking**: Coordinated units allow independent marking of operators or functional categories. 5. **Ellipsis**: Either one of coordinated units can be elided.	
Cosubordination	Dependent coordination (or *structural co-dependency*): ➢ Units of **equivalent size** are *joined together* in a coordinate-like relation. ➢ Units share the same grammatical categories.	1. **Voice harmony:** Cosubordinate units have identical voice marking. 2. **Fixed order**: Cosubordinate units do not switch positions. 3. **Equivalent forms**: Cosubordinate units must be equally finite or nonfinite forms. 4. **Operator sharing**: Cosubordinate units obligatorily share operators. 5. **Coexistence**: Cosubordinate units must be presented concurrently.	
Subordination	Structural embedment: ➢ One unit is dependent on the other for expression of grammatical marking ➢ Embedded units function either as an argument, as in complementation, or as a modifier, as in adverbial subordinate clauses.	1. **Restricted ellipsis:** only a $V_{MODIFIER}$ or a $V_{COMPLEMENT}$ can be elided in clauses. 2. **Fixed order**: A $V_{MODIFIER/MATRIX}$ occurs before $V_{MODIFIEE/COMPLEMENT}$ inside clauses. 3. **Dislocated structure**: A $V_{MODIFIER/MATRIX}$ can be moved after the clause that contains.	**The modifier type:** ➢ A modifier verb cannot stand alone as a simple answer. ➢ An operator falls on either verb. **The argument type:** A matrix verb can stand alone as a simple answer. ➢ The V2 unit can be (i) a non-finite verbal unit (as a gerund or the UVC-marked V in a *shi*-clause), or (ii) a finite clause (marked as AV or UVP). ➢ A finite clause can be introduced by the complementizer *'isa:*. ➢ The scope of operators falls on a matrix verb.

Chapter 4

Interclausal relations in the nuclear juncture

This chapter discusses the interclausal relations of juxtaposed verbs in the nuclear juncture.[48] Such verbs include two types of verbs showing two types of phasal relations (i.e. verbs showing the beginning and continuing phases) and verbs expressing a type of modifying subevents (i.e. verbs showing the manner relation). Juxtaposed verbs encoding these relations exhibit tight semantic cohesiveness according to interclausal semantic relations (*cf.* (2.18) in section 2.4.4, and Van Valin 2005:205-9). Section 4.1 discusses juxtaposed verbs showing the beginning and continuing phases. Section 4.2 discusses juxtaposed verbs expressing the manner relation.[49]

4.1 Juxtaposed verbs expressing two phasal relations

Phasal relations describe facets of the temporal envelopes of events including onset, continuation or termination (*cf.* (2.18) in section 2.4.4) as exemplified in (4.1).

[48] There are two writing conventions that need to be mentioned at this point. When using the determiner *the* before a semantic relation, I refer to the "subtype" of a semantic relation, e.g., ***the*** *beginning phase of phasal relation*. Moreover the terms V1 and V2 simply refer to V1 as the initial verb and V2 as the subsequent verb in a verbal juxtaposition.

[49] Note that juxtaposed verbs expressing the finishing phase and the other three types of modifying events (i.e. motion, position and means) are discussed in chapter 5 since they belong to core junctures.

(4.1) English (Van Valin 2005:206)

a. Chris started crying. (Onset)

b. Fred kept singing. (Continuation)

c. Kim finished writing the chapter. (Termination)

In this dissertation, onset is called the beginning phase. Continuation is called the continuing phase. Termination is called the finishing phase. Juxtaposed verbs expressing the first two phasal relations are found to show the same juncture-nexus type in Saisiyat as we will see in the following discussion.

4.1.1 Grammatical properties of juxtaposed verbs expressing the beginning and continuing phases

In verbal juxtaposition, verbs that denote onsets are composite verbs in Saisiyat. Such a verb contains two morphological units: (i) the base *'al'alay* 'start', and (ii) a lexical prefix that semantically agrees with the non-phasal verb, as illustrated in (4.3a-a'). The order of the two verbs is fixed: V_{begin}+V2. The two verbs must be marked as AV, as shown in (4.2a), while (4.2b-c) display ungrammatical voice alignment.

(4.2) Schema of juxtaposed verbs expressing the beginning phase and related structures — Examples

a. $Actor_{NOM}$	+	[prefix-*'al'alay*]$_{AV}$	+	V_{AV}	(4.3a-a')
b. *$Actor_{NOM}$	+	[prefix-*'al'alay*]$_{AV}$	+	V_{UVP}	(4.3b)
c. *$Undergoer_{NOM}$	+	[prefix-*'al'alay*]$_{UVP}$	+	V_{UVP}	(4.3c)
d. *$Undergoer_{NOM}$	+	[prefix-*'al'alay*]$_{UVP}$	+	V_{AV}	(4.3d)

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e. *'am*=Undergoer$_{NOM}$=*ila* (4.3e)

f. Actor$_{NOM}$ + *'am*=V$_{AV}$=*ila* (4.3f)

Examples are provided in (4.3) to illustrate this point. The sentences (4.3a-a') display the pattern: AV+AV.[50] In (4.3a), the affix cluster *tomay-* 'start doing [AV]' semantically agrees with the verb *mata:waw* 'work[AV]'. This agreement can be observed in (4.3a'): *min-* 'become/in the state of'+ *hoemangih* 'cry [AV]'. (4.3b) is ungrammatical because juxtaposed verbs exhibit the AV+UVP pattern. UVP+UVP marking in (4.3c) and UVP+AV marking in (4.3d) are also ungrammatical patterns.

(4.3) Juxtaposed verbs expressing the beginning phase

a. **'oya'** **pil-'al'alay** **t<om>alek** **ka** **pazay.**
mother cook-start <AV>cook ACC rice
'Mother starts to cook rice.'

a'. **korkoring** **min-'al'alay** **h<oem>angih.**
child AV:become-start <AV>cry
'The child start(s) crying.'

b.* **korkoring** **min-'al'alay** **hangih-in.**
child AV:become-start cry-UVP
Intended for: 'The child start(s) crying.'

c.* **pazay** **ni** **'oya'** **pil-'al'alay-in** **talek-en**.
rice GEN mother cook-start-UVP cook-UVP

d.* **pazay** **ni** **'oya'** **pil-'al'alay-in** **t<om>alek**.
rice GEN mother cook-start-UVP <AV>cook

[50] The prefix *pil-* 'cook' does not display explicit AV marking e.g., *m-* or <*om*> when it occurs in AV constructions. It has UVP marking *-en* as in (i).

(i) Adapted from Zeitoun et al. (2015:577)
'aelaw **ma'an** **pil-kasnaw-en**.
fish 1SG.GEN cook-soup-UVP
'I cooked the fish as soup.'

e. **’am=pash-baki’=ila**.
IRR=worship-old.man=COS
‘(It’s time to) start to worship the ancestors.’

f. **’oya’ ’am=t<om>alek=ila ka pazay.**
mother IRR=<AV>cook=COS ACC rice
‘Mother is going to start to cook rice.’

Note that Saisiyat does not only rely on verbal juxtaposition but also two related structures to express the beginning phase (E. Zeitoun p.c.), as represented in (4.2e) and (4.2f). In (4.2e), the undergoer is attached by the irrealis clitic *’am=* and by the a change of state clitic *=ila*. This structure expresses a beginning stage of an event. In (4.2f), the clitics *’am=* ‘irrealis’ and *=ila* ‘the change of state’, attach to a lexical verb while the verb expressing the beginning state does not occur as it is in (4.2a).

Juxtaposed verbs showing the continuing phase are composed of (i) a verb which denotes the continuing phase and (ii) a non-phasal verb. The verb *toa’is* ‘continue’ must precede the other verbs as schematized in (4.4a-b), and it can be marked in AV or UVP with the condition that two verbs share identical voice marking. Note that two related structures, as shown in (4.4e-f), also express a continuing relation, whereby the continuative clitic *kin=* attaches to a verb without the occurrence of the verb *toa’is* ‘continue’.

(4.4) Schema of juxtaposed verbs expressing the continuing phase and related structures — Examples

a.	$Actor_{NOM}$	+	$[tomoa'is]_{AV}$	+	V_{AV}	(4.5a)
b.	$Undergoer_{NOM}$	+	$[toa'isin]_{UVP}$	+	V_{UVP}	(4.5b)
c.	$Actor_{NOM}$	+	$*[tomoa'is]_{AV}$	+	V_{UVP}	(4.5c)
d.	$Undergoer_{NOM}$	+	$*[toa'isin]_{UVP}$	+	V_{AV}	(4.5d)
e.	$Actor_{NOM}$	+	*kin*=V_{AV}			(4.5e)
f.	$Undergoer_{NOM}$	+	*kin*=V_{UVP}			(4.5f)

The schema of (4.4) is exemplified in (4.5).[51]

(4.5) Juxtaposed verbs expressing the continuing phase

a. **toanay**$_{NOM}$ **t<om>oa'is** **s<om>ingozaw** **hisia.**
sister-in-law <AV>continue <AV>ask.question 3SG.ACC
'The sister-in-law keeps asking him/her questions.'

b. **sia**$_{NOM}$ **ni** **toanay** **toa'is-in** **singozaw-en.**
3SG.NOM GEN sister-in-law continue-UVP ask.question-UVP
'The sister-in-law keeps asking him/her questions.'

c. ***toanay**$_{NOM}$ **t<om>oa'is** **singozaw-in** **hisia.**
sister-in-law <AV>continue ask.question-UVP 3SG.ACC

d. ***sia**$_{NOM}$ **ni** **toanay** **toa'is-in** **s<om>ingozaw**.
3SG.NOM GEN sister-in-law continue-UVP <AV>ask.question

e. **toanay**$_{NOM}$ **kin=s<om>ingozaw** **hisia.**
sister-in-law CONT=<AV>ask.question 3SG.ACC
'The sister-in-law keeps asking him/her questions.'

f. **sia**$_{NOM}$ **ni** **toanay** **kin=singozaw-en.**
3SG.NOM GEN sister-in-law CONT=ask.question-UVP
'The sister-in-law keeps asking him/her questions.'

[51] The verb *toa'is* 'continue' in (4.5a) and the clitic of continuative aspect *kin*= as in (ia) are not grammatically identical, even though they may be semantically related. Two items play different roles: *toa'is* 'to continue' is a verb and *kin*= is a morphological unit. They are not in complementary distribution, since the clitic *kin*= attaches to the verb *t<om>oa'is* 'continue (AV)' in a clause, as shown in (ib).

(i) a. **toanay** **kin=s<om>ingozaw** **hisia.** (*kin*=VAV)
sister-in-law CONT=<AV>ask.question 3SG.ACC
'The sister-in-law kept asking him/her questions.'

b. **toanay** **kin=t<om>oa'is** **sh<om>bet** **ka** **korkoring.**
sister-in-law CONT=<AV>continue <AV>beat ACC child
'The sister-in-law kept beating the child.'

Juxtaposed verbs showing the beginning and continuing phases display further grammatical properties. First of all, they have a fixed order of verbs; that is, verbs that express the beginning and continuing phases must precede the other verbs (i.e. the non-phasal verbs). This trait is demonstrated in (4.6), in which the examples (4.6a) and (4.6b) exhibit the sequence: $V_{beginning/continuing}$ + $V_{non\text{-}phasal}$. The examples (4.6a') and (4.6b') exhibit the ungrammatical sequence *$V_{non\text{-}phasal}$+$V_{beginning/continuing}$.

(4.6) Fixed order of juxtaposed verbs showing beginning and continuing phases

a. **'aro' t<om>ay-'al'alay(=ila) mata:waw.**
PN <AV>do-start(=COS) AV:work
'Aro (has) started working.'

a'. ***'aro' mata:waw t<om>ay-'al'alay(=ila).**
PN AV:work <AV>do-start(=COS)

b. **toanay t<om>oa'is s<om>ingozaw hisia.**
sister-in-law <AV>continue <AV>ask.question 3SG.ACC
'The sister-in-law kept asking him/her questions.' = (4.3a)

b'. ***toanay s<om>ingozaw t<om>oa'is hisia.**
sister-in-law <AV>ask.question <AV>continue 3SG.ACC

Second, the CLM =*o* 'and' cannot occur between the two verbal units in a juxtaposed verb showing these two relations as shown in (4.7a) and (4.8a), as opposed to the grammatical examples in (4.7a') and (4.8a'),[52] whereby =*o* is able to connects two juxtaposed verbs. Third, the CLM *'isa*: 'then' cannot take place between a phasal verb and the non-phasal verb as shown in (4.7b) and (4.8b), as

[52] I do not have an example of the =*o* insertion in juxtaposed verbs expressing the continuing phase in this case.

opposed to the grammatical examples shown in (4.7b') and (4.8b'), whereby the CLM *'isa*: 'then' intervenes between two juxtaposed verbs. The adverb *baabaaw* 'just' cannot occur between the two verbal units that are juxtaposed as in (4.7c). By contrast, it is allowed in the example in (4.7c') whereby the adverb shows up outside the verbal juxtaposition. The same pattern is observed in (4.8c) for the verbs showing a continuing a relation. The adverb *naehan* 'still, again' cannot occur between two verbal units but can appear outside the verbal juxtapositions as in (4.8c').

(4.7) Juxtaposed verbs expressing the beginning phase

a.***'aro' t<om>ay-'al'alay=o mata:waw.**
PN <AV>do-start=CONJ AV:work

a'.**'aro' t<om>ay-'al'alay mata:waw=o m-il-'al'alay**
PN <AV>do-start AV:work=CONJ AV-sip-start
m-il-tamako'.
AV-sip-tobacco
'Aro starts working and smoking.'

b.***'aro' t<om>ay-'al'alay 'isa: mata:waw.**
PN <AV>do-start then AV:work

b'.**'aro' t<om>ay-'al'alay mata:waw=ila, 'isa: lobih maksha'**
PN <AV>do-start AV:work=COS then return at.once
'Aro has started working but he goes home right away.'

c.***'aro' t<om>ay-'al'alay baabaaw mata:waw.**
PN <AV>do-start just AV:work

c'.**'aro' baabaaw [t<om>ay-'al'alay mata:waw].**
PN just <AV>do-start AV:work
'Aro just starts working.'

(4.8) Juxtaposed verbs expressing the continuing phase

a.***toanay t<om>oa'is=o s<om>ingozaw hisia.**
sister-in-law <AV>continue=CONJ <AV>ask.question 3SG.ACC

b.***toanay** **t<om>oa'is** **'isa:** **s<om>ingozaw** **hisia.**
sister-in-law <AV>continue then <AV>ask.question 3SG.ACC

b'. **toanay** **t<om>oa'is** **s<om>ingozaw** **hisia,** **'isa:** **lobih=ila.**
sister-in-law <AV>continue <AV>ask.question 3SG.ACC then return=COS

'The sister-in-law keeps asking him/her question and then comes home.'

c.***toanay** **t<om>oa'is** **kahia'** **s<om>ingozaw** **hisia.**
sister-in-law <AV>continue yesterday <AV>ask.question 3SG.ACC

c'. **toanay** **kahia'** **[t<om>oa'is** **s<om>ingozaw** **hisia].**
sister-in-law yesterday <AV>continue <AV>ask.question 3SG.ACC

'The sister-in-law keeps asking him/her question yesterday.'

Grammatical properties of juxtaposed verbs showing the beginning and the continuing phases are summarized in Table 4.1.

Table 4.1. Grammatical properties of juxtaposed verbs showing the beginning and continuing phases

Types / Grammatical properties	Beginning phase	Continuing phase
Voice harmony	✓(AV+AV)	✓(AV+AV;UVP+UVP)
Order of verbs	$V_{beginning+}V_{lexical}$	$V_{continuing}+V_{lexical}$
Insertion of the CLM *=o* 'and'	✗	✗
Insertion of the CLM *'isa:* 'then'	✗	✗
Insertion of adverbs	✗	✗

4.1.2 Juncture-nexus combinations of juxtaposed verbs expressing the beginning and continuing phases

Based on the diagnostic criteria that are set forth in Tables 3.6 and 3.7, the analysis of the juncture-nexus combinations of juxtaposed verbs is laid out in this section. The discussion of juncture is presented in section 4.1.2.1, and the discussion of nexus is

presented in section 4.1.2.2.

4.1.2.1 Junctures of juxtaposed verbs expressing the beginning and continuing phases

Juxtaposed verbs showing these two phasal relations belong to the nuclear juncture on the basis of **argument fusion**. The argument structure is mainly determined by a non-phasal verb (usually occurring in the V2 position of verbal juxtaposition) only. In general, the verbs denoting the two phasal meanings show no effect on the argument structure, and they do not subcategorize any argument in mono-clausal structures.[53] The examples of question-and-answer dialogues from (4.9) to (4.10) illustrate this point. That is, the verbs denoting these two phasal relations do not take argument. This is an indication that they fuse with the other verbs.

In (4.9), the argument structure of the juxtaposed verbs is identical to the verb *tomalek* 'cook[AV]', as shown in (4.9a-b). In (4.9c), the V1 *min'al'alay* 'start to cry'

[53] Certain verbs denoting beginning phases e.g., *kish'al'ay* 'start to read' and *pil'al'alay* 'start to cook' can take single undergoers and then express phasal relations as in (ia) and (iia). In this construction, they do not require co-occurrence of non-phasal verbs, as in (ib) and (iib). Unlike the verb *kish'al'ay* 'start to read', the verb *kishkaat* 'to read; to study' cannot take the undergoer *kinaat* as shown in (ic).

(i) The phasal relations in mono-clausal structures

a. **maya'** **baabaaw** **kish-'alay** **ka** **kinaat.**
PN just read-start ACC book
'Maya has just started to read the book.'

b.?**maya'** **baabaaw** **kish-'alay** **kishkaat.**
PN just read-start study

c.***maya'** **kishkaat** **ka** **kinaat.**
PN read ACC book

(ii) The phasal relations in mono-clausal structures

a. **'oya'** **pil-'al'alay** **ka** **pazay.**
mother cook-start ACC rice
'Mother starts to cook the rice.'

b.***'oya'** **pil-'al'alay** **t<om>alek** **ka** **pazay.**
mother cook-start <AV>cook ACC rice

cannot occur by itself as the answer to (4.9a), with or without the occurrence of the nominative argument *korkoring* 'child'.

(4.9) Argument fusion

Question:	a.	**korkoring**	**min-'al'alay**	**h<oem>angih=ay.**
		child	AV:become-start	<AV>cry=Q
		'Do the child start crying?'		
Answer:	b.	**'ihi',**	**korkoring**	**h<oem>angih.**
		yes	child	<AV>cry
		'Yes, the child cried.'		
	c.	***'ihi',**	**(korkoring)**	**min-'al'alay.**[54]
		yes	child	AV:become-start

In (4.10), the juxtaposed verbs of (4.10a) and the verb *'oemangang* 'scold [AV]' of (4.10b) exhibit the same argument structure: the verb *tomoa'is* 'continue [AV]' does not occur alone as a simple answer, with or without the nominative argument *toanay* 'sister-in-law ', as seen in (4.10c).

(4.10) Argument fusion

Question:	a.	**toanay**	**t<om>oa'is**	**'<oem>angang**	**ka**
		sister-in-law	<AV>continue	<AV>scold	ACC
		korkoring=ay?			
		child=Q			
		'Does the sister-in-law keep scolding the child?'			

[54] Certain phasal verbs such as *pil'al'alay* 'start to cook' can stand alone in imperative constructions as shown below in (i).

(i) **pil-'al'alay=ila!**
cook-start=COS
'Start to cook (the meal)!'

Answer: b. **'ihi', toanay kin='<oem>angang ka korkoring**.
yes sister-in-law PROG=<AV>scold ACC child
'Yes, the sister-in-law is scolding the child.'
c.***'ihi', (toanay) t<om>oa'is.**
yes sister-in-law <AV>continue
Intended for: 'Yes, the sister-in-law kept doing it (scolding the child).'

To summarize, the discussion hitherto shows that the verbs denoting beginning and continuing meanings are syntactically bounded to the verbs in the formation of verbal juxtaposition. The major reason of this analysis is that they do not subcategorize any argument. The two phasal verbs exhibit the following structural properties in (4.11), which indicates that these verbal juxtapositions exhibit argument fusion, i.e. a feature of a nuclear juncture.

(4.11) Nuclear juncture

a. $V_{begin\ (no\ argument,\ do\ not\ occur\ alone)} + [V]_{arg=2} \rightarrow [VV]_{arg=2}$

a'. $V_{begin\ (no\ argument,\ do\ not\ occur\ alone)} + [V]_{arg=1} \rightarrow [VV]_{arg=1}$

b. $V_{continue(no\ argument,\ do\ not\ occur\ alone)} + [V]_{arg=2} \rightarrow [VV]_{arg=2}$

b'. $V_{continue\ (no\ argument,\ do\ not\ occur\ alone)} + [V2]_{arg=1} \rightarrow [VV]_{arg=1}$

The bounded status of the two types of phasal verbs only reveals half picture of the juncture-nexus combinations i.e. as a nuclear juncture. It does not tell us their methods of combination, i.e. nexus types. Section 4.1.2.2 addresses this issue.

4.1.2.2 Nexus of juxtaposed verbs expressing the beginning and continuing phases

As mentioned in chapter 2, syntactically dependent or bounded verbs exhibit two kinds of **structural dependency**. One is the argument type and the other is the modifier type. This section discusses the type of structural dependency exhibited in the two phasal relations, as represented in Figure 4.1a.

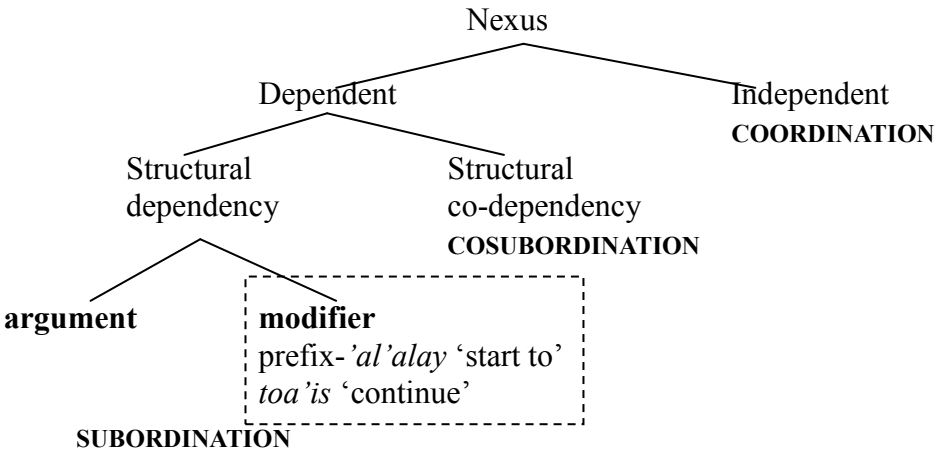

Figure 4.1a Nexus types of juxtaposed verb showing the beginning and continuing phases

Based on Figure 4.1a and the examples previously provided section 4.1.1, I represent Figure 4.1b to show that verbs denoting the beginning and continuing phases exhibit neither (i) syntactic independence nor (ii) structural co-dependency (i.e. co-dependent units with syntactically equal weight, *cf*. section 2.4.2). These lack of the two features excludes the nexuses coordination and cosubordination. Further evidence is given below the figure.

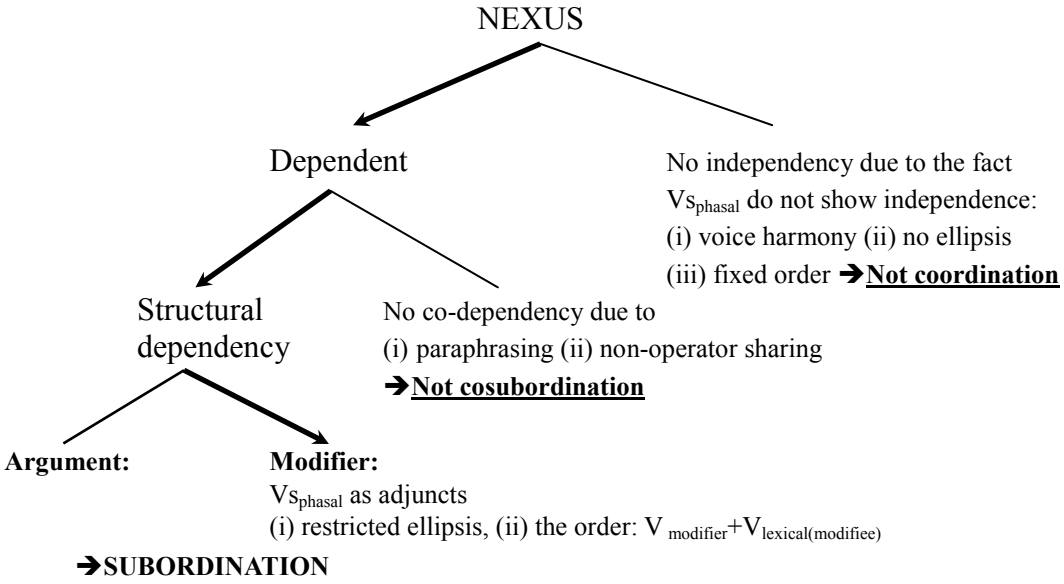

Figure 4.1b The rationale of the subordination analysis

There are at least three reasons to reject coordination analysis. The first one is the voice harmony shown in these juxtaposed verbs as previously exemplified in (4.3) for the beginning type and (4.5) for the continuing type. That is, two linked predicates (i.e. nuclei) do not display syntactic independence on their own in terms of voice marking. The second reason is no ellipsis of phasal verbs. In coordination, the two conjoined verbs have similar syntactic behavior and can occur independently; in other words, one should expect the feasibility to elide either of the conjoined verbs. However, when in the juxtaposed verbs with these two phasal relations, non-phasal verbs cannot be elided but the verbs denoting phasal meanings can. I use juxtaposed verbs expressing the continuing phase for an illustration in (4.12a) . The verb *somingozaw* 'ask [AV]' cannot be elided in (4.12b), while the phasal verb *tomoa'is*

'continue [AV]' can in (4.12c).[55]

(4.12) Restricted ellipsis in juxtaposed verbs expressing the continuing phase

a.	**toanay**	**t<om>oa'is**$_{phase}$	**s<om>ingozaw**	**hisia.**
	sister.in.law	<AV>continue	<AV>ask.question	3SG.ACC
	'The sister in law kept asking him question.'			
b.	***toanay**	**t<om>oa'is**.		[omitting $V_{lexical}$]
	sister.in.law	<AV>continue		
c.	**toanay**	**s<om>ingozaw**	**hisia.**	[omitting V_{phase}]
	sister.in.law	<AV>ask.question	3SG.ACC	

The third reason is based on the fixed order of juxtaposed verbs, as demonstrated in section 4.1.1 (*cf.* (4.3a) and (4.5a)). If two verbs are in coordination relation, they should be allowed to switch positions. However, this is not the case and thus the coordination analysis is ruled out.

As for the possibility of cosubordination, the evidence shows that juxtaposed verbs showing these two phasal relations cannot be considered as this type, because they do not conform to the criterion of codependency, or dependent coordination (*cf.* section 2.4.2 and Van Valin 2005:186-189). As mentioned in section 2.4.2, cosubordinate units must be symmetrical in a dependent relation such as verbs in switch-reference constructions. Nonetheless, the juxtaposed verbs expressing phasal relations are not syntactically equivalent. One piece of evidence is that such verbs can

[55] Note that (4.12c) does not have the continuing meanings. If there was one, it would be derived by discourse factors.

be paraphrased by mono-clausal structures that contains only the non-phasal verbs, and this trait means that two verbs are not obligatorily required in order to express a phasal meaning. This is exemplified in (4.13b), in which the non-phasal verbs can be used alone.

(4.13) Juxtaposed verbs expressing the beginning phase

a. **korkoring** **<u>min</u>-'al'alay** **h<oem>angih.**
child AV:become-start <AV>cry
'The child start(s) crying.'

≈

b. **korkoring** **h<oem>angih=ila.**
child <AV>cry=COS
i. 'The child start(s) crying.'
ii. 'The child has cried.'

Another piece of evidence is that operator sharing does not suffice to prove the cosubordination in these two types of verbal juxtaposition. Nuclear operators such as aspectual markers can occur before the phasal verbs as shown in (4.14a) and does not occur between two juxtaposed verbs as in (4.14b), which assuming obligatory operator sharing. However, further examination of other aspectual marking shows that the continuing aspect marker *kin*= can independently attach to the non-phasal verbs as shown in (4.14c).[56] This structural restriction rejects the cosubordination analysis, since it exhibits independently modifying scope on the V2 unit (the non-

[56] When operators independently modify V2s, they may have a different information structure from the structure: **operator-[V1V2]** in discourse level. This part requires a further investigation.

phasal verbal unit).

(4.14) Independent operator modification

a. **toanay** **<u>mam</u>=t<om>oa'is** **sh<om>bet** **ka** **korkoring.**
sister-in-law PROG=<AV>continue <AV>beat ACC child
'The sister-in-law is beating the child.'

b.***toanay** **[t<om>oa'is** **<u>mam</u>=sh<om>bet]** **ka** **korkoring.**
sister-in-law <AV>continue PROG=<AV>beat ACC child
'The sister-in-law is beating the child.' (E. Zeitoun pc.)

c. **toanay** **[t<om>oa'is** **<u>kin</u>=sh<om>bet]** **ka** **korkoring.**
sister-in-law AV>continue CONT=<AV>beat ACC child
'The sister-in-law keeps beating the child.'

The main point of this section is as follows. I will argue that juxtaposed verbs showing the beginning and continuing phases exhibit **structural dependency**. In other words, they belong to subordination. This analysis is borne out by two pieces of evidence. The first one is restricted ellipsis as previously exemplified in (4.12) and (4.13), whereby a phasal verb can be omitted but the non-phasal one cannot. This restriction demonstrates syntactically boundedness shown between the two verbs. The second piece of evidence is the specific order of $V_{modifier}+V_{lexical(modifiee)}$. Examples have been presented in (4.6), repeated below in (4.15).

(4.15) Fixed order of juxtaposed verbs showing the beginning and continuing relation =(4.6)

a. **’aro’** **t<om>ay-’al’alay**$_{modifier}$**(=ila)** **mata:waw.**
PN <AV>do-start(=COS) AV:work
‘Aro (has) started working.’

a’. ***’aro’** **mata:waw** **t<om>ay-’al’alay**$_{modifier}$**(=ila).**
PN AV:work <AV>do-start(=COS)

b. **toanay** **t<om>oa’is**$_{modifier}$ **s<om>ingozaw** **hisia.**
sister-in-law <AV>continue <AV>ask.question 3SG.ACC
‘The sister-in-law kept asking him/her questions.’ = (4.3a)

b’.***toanay** **s<om>ingozaw** **t<om>oa’is**$_{modifier}$ **hisia.**
sister-in-law <AV>ask.question <AV>continue 3SG.ACC

Note that the subordination analysis is further supported by the lexical correspondence between verbs denoting the beginning phase and the other verbs (as previously shown in 4.3). A further example is provided in (4.16) below, whereby the prefix of V1 i.e. *pil-* ‘cook[AV]’ of (4.16a) cannot be replaced by the prefix *tomay-* ‘do[AV]’ in (4.16b). Such correspondence can be viewed as manifestation of structural dependency.

(4.16) Lexical correspondence between the two verbs in juxtaposed verbs showing the beginning phase

a. **koko’** **pil-’al’alay** **t<om>alek** **ka** **pazay.**
mother cook-start <AV>cook ACC rice
‘Grandmother start to cook rice.’

b.***koko’** **t<om>ay-’al’alay** **t<om>alek** **ka** **pazay.**
mother <AV>do-start <AV>cook ACC rice

Specifically speaking, juxtaposed verbs expressing the beginning and continuing relations belong to the modifier type of subordination. The non-phasal verbs cannot be denoted by the gerundive form, i.e. a form denoting an argument, which indicates they are not arguments of the phasal verb. Rather, the phasal verbs act as adjuncts attaching to the non-phasal verbs. Relevant examples are presented in (4.17) and (4.18).

(4.17) Juxtaposed verbs expressing the beginning phase

a. **koko'** **baabaaw** **pil-'al'alay** **t<om>alek** **ka** **pazay.**
grandmother just cook-start <AV>cook ACC rice
'Grandmother just starts cooking rice.'

b.* **koko'** **pil-'al'alay** **'am-t<om>alek** **ka** **pazay.**
grandmother cook-start GER-<AV>cook ACC rice

(4.18) Juxtaposed verbs expressing the continuing phase

a. **toanay** **t<om>oa'is** **sh<om>bet** **ka** **korkoring.**
sister-in-law <AV>continue <AV>beat ACC child
'The sister-in-law keeps beating the child.'

b.***toanay** **t<om>oa'is** **'am-sh<om>bet** **ka** **korkoring.**
sister-in-law <AV>continue GER-<AV>beat ACC child

One thing deserves a further comment. These two types of phasal relations do not exhibit the structural alternation between verbal juxtaposition and dislocated structures (*cf.* section 3.3.5). Observe (4.19) as an illustration. Nevertheless, such an alternation is allowed for juxtaposed verbs expressing the finishing phase (i.e. the last type of phasal relation). I will further discuss this issue in section 5.1.

(4.19) Impossible structural alternation of dislocated structures with juxtaposed verbs showing beginning and continuing relations

a.*	**koko'**	**t<om>alek**	**ka**	**pazay,**	**pil-'al'alay.**
	grandmother	<AV>cook	ACC	rice	cook-start
b.*	**toanay**	**sh<om>bet**	**ka**	**korkoring,**	**t<om>oa'is.**
	sister-in-law	<AV>beat	ACC	child	<AV>continue

4.1.3 Interim summary

This section demonstrates that juxtaposed verbs showing the beginning and continuing phases belong to **nuclear subordination (the modifier type)**. These two phasal relations represent a tight semantic cohesion (Van Valin & LaPolla 1997, Van Valin 2005) and it would derive syntactic tightness according to the iconicity principle (Givón 1990, Silverstein 1976). In Saisiyat, the structural tightness of these two types of juxtaposed verbs is only observed at the level of the linkage (i.e. nuclear juncture) but not through the nexus: they exhibit the subordination that we have found, instead of cosubordination i.e. the tightest type of nexus.

Though phasal verbs are typologically claimed to act as complement-taking verbs (Payne 1997), Saisiyat exhibits its idiosyncrasy. The beginning and continuing phases are not expressed through complementation (indicating the argument type of subordination). As shown in section 4.1.2.2, they exhibit the modifier type of subordination which corresponding to the construction of verbal modifier instead of

complementation.[57] Moreover, certain phasal relations are even expressed through two types of mono-clausal structures including (i) a non-phasal verb with aspectual marking (as previsouly exemplified in (4.3e-f) for the beginning type and (4.5e-f) for the continuing type), and (ii) a phasal verb occurs by themselves to denote phasal meanings without co-occurrence of non-phasal verbs, as mentioned in footnote 53.

Figures 4.2a and 4.2b depict the layered structure of juxtaposed verbs expressing the beginning and continuing phases. Only the non-phasal verbs are projected to the core, and the verbs denoting the beginning and continuing meanings act as ad-nuclear elements to the nuclear junctures.

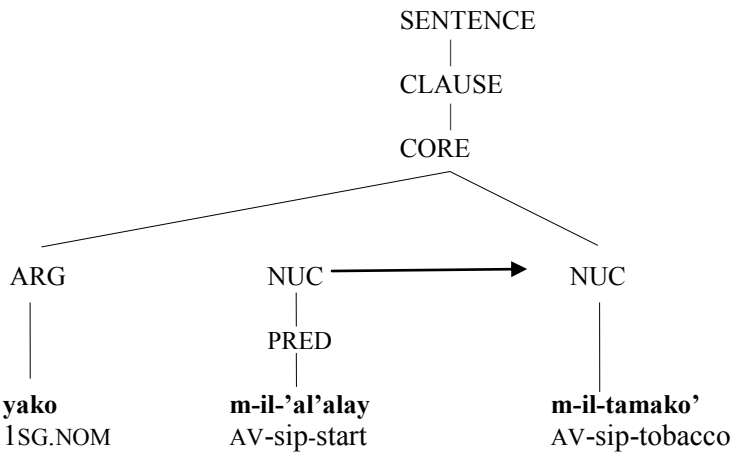

Figure 4.2a The layered structure of juxtaposed verbs expressing the beginning phase in Saisiyat

[57] Section 8.2 will provide an elaboration for the construction of verbal modifiers.

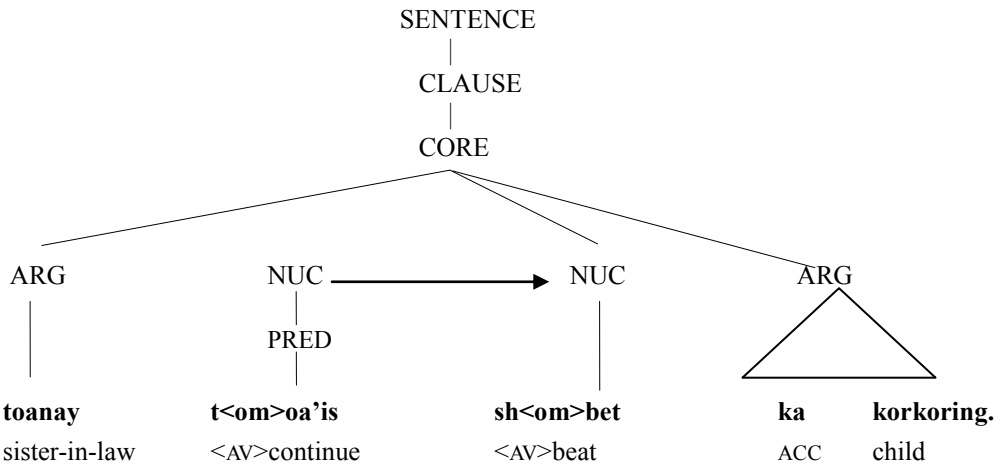

Figure 4.2b The layered structure of juxtaposed verbs expressing the continuing phase in Saisiyat

4.2 Juxtaposed verbs expressing the manner relation

In RRG, the modifying subevents subsume four modifying types: a manner, a motion, a position and a means. In Saisiyat, only the juxtaposed verbs expressing the first type take place in nuclear juncture. This section discusses the first type. The other three will be discussed in the chapter about core juncture. A manner relation is defined as 'the manner in which a motion event is carried out' such as *Bill entered*$_{\text{motion}}$ *the room skipping*$_{\text{manner}}$ (Van Valin 2005:206)'. Section 4.2.1 elaborates on grammatical properties of this type of juxtaposed verbs in Saisiyat.

4.2.1 Grammatical properties of juxtaposed verbs expressing the manner relation

Juxtaposed verbs expressing manner relations exhibit the following properties. The ordering of verbal units abides to the following parameter: the verb that expresses the

manner meaning precedes the other verb in a clause. (4.20) schematizes the structure.

(4.20) Schema of juxtaposed verbs expressing the manner relation and related structures

						Examples
a.	$Actor_{NOM}$	+	$V_{manner.AV}$	+	V_{AV}	(4.21a)
b.	*$Actor_{NOM}$	+	$V_{manner.UVP}$	+	V_{AV}	(4.21b)
c.	*$Undergoer_{NOM}$	+	$V_{manner.AV}$	+	V_{UVP}	(4.21c)
d.	$Undergoer_{NOM}$	+	$V_{manner.UVP}$	+	V_{UVP}	(4.21d)
e.	$Undergoer_{NOM}$	+	$V_{manner.UVP}$	+	V_{GER}	(4.21e)
f.	[$Actor_{NOM}$	+	$V_{AV}]_{CLAUSE}$,	+	$V_{manner.AV}$	(4.23a, b)

Juxtaposed verbs expressing the manner relation conform to the constraint of voice harmony. (4.21) exemplifies this restriction. Both alignments of AV+AV and UVP+UVP are observed as in (4.21a) and (4.21b), but the alignments of AV+UVP and UVP+AV are ungrammatical as shown in (4.21c) and (4.21d). A UVP marked V1 also takes a gerundive V2, as shown in (4.21e).

(4.21) Voice harmony

a. **'aro' t<om>amemesh '<oem>osa: ka bato'.**
PN <AV>use.strength <AV>throw ACC stone
'Aro hurled the stone.'

b. **bato'** **ni** **'aro'** **tamemesh-en** **'oesa(:)-en**.[58]
stone GEN PN use.strength-UVP throw-UVP
'Aro hurled the stone.'

c.***bato'** **ni** **'aro'** **tamemesh-en** **'<oem>osa:.**
stone GEN PN use.strength-UVP <AV>throw

d.***'aro'** **t<om>amemesh** **'oesa(:)-en** **ni** **bato'.**
PN <AV>use.strength throw-UVP GEN stone

e. **bato'** **ni** **'aro'** **tamemesh-en** **'am-'<oem>osa(:)-en.**
stone GEN PN use.strength-UVP IRR.GER-<AV>throw
'Aro hurled the stone.'

The verbs denoting the manner meaning of (4.22a) and (4.22b) cannot appear after the other verbs as shown in (4.22c) and (4.22d). Note that (4.22c) does not have an intonation break between two verbs, ruling out the possibility of a bi-clausal structure.

(4.22) Fixed order of juxtaposed verbs

a. **sia** **'aemoeh**$_{manner}$ **manraan.**
3SG.NOM quick AV.walk
'He/she walked home quickly.'

b. **'aro'** **'aemoeh**$_{manner}$ **s<om>i'ael** **ka** **pazay.**
PN quick <AV>eat ACC rice
'Aro ate the rice quickly.'

[58] A further example is provided below in (i), in which the V2 occurs in gerundive form. Note that the V2 does not occur in UVP form here.

(i) Gerundive V2s in juxtaposed verbs expressing manner relation

a. **yako** **mimiawa'** **s<om>i'ael** **ka** **'ayam.**
1SG.NOM AV:slow <AV>eat ACC pork
'I eat the pork slowly.'

b. **'ayam** **ma'an** **'iawa'-en** **'am-s<om>i'ael/*si'ael-en**.
pork 1SG.GEN slow-UVP IRR.GER-<AV>eat/*eat-UVP
Lit. 'The pork is eaten by me slowly.'
'I eat the pork slowly.'

c.***sia** **manraan** **<u>'aemoeh</u>**$_{manner}$**.** (without an intonation break)
3SG.NOM AV.walk quick
Intended for: 'Aro walk quickly.'

d.***'aro'** **s<om>i'ael** **'aemoeh**$_{manner}$ **ka** **pazay.**
PN <AV>eat quick ACC rice

Note that the manner verbs like *'aemoeh* 'quick' *ma'ngal* 'slow[AV]' can occur after a clause in the dislocated position, as shown in (4.23). In this structure, the manner verbs give a comment or evaluation to the clauses. There is a clear intonation break before the manner verbs. This structure will be discussed in section 6.4 for the issue of clausal juncture.

(4.23) Manner verbs in dislocated structures

a. **sia** **manraan,** **<u>'aemoeh</u>**$_{manner}$**.**
3SG.NOM AV.walk quick
'Quickly, he/she walked home.'

b. **'aro'** **s<om>i'ael** **ka** **pazay,** **<u>'aemoeh</u>**$_{manner}$**.**
PN <AV>eat ACC rice quick
'Quickly, Aro ate the rice.

c. **yako** **kal-'aish** **kala** **'okay** **naehan,**
1SG.NOM pass.through-in.passing PL:LOC PN for.a.while
<u>ma-'ngel</u>$_{manner}$**=ila.**
STAT-slow=COS
'I stopped by Okay's home for a while and was late.' (from Zeitoun et al. 2015:272)

These juxtaposed verbs exhibit a degree of structural tightness regarding the insertion of CLMs and adverbs between the verbs. Neither adverbs such as *naehan* 'again' nor the CLM *'isa*: 'then' can occur between a manner verb and the other verb

of (4.24a). This restriction is demonstrated in (4.24b) and (4.24c). In (4.24c'), the CLM *'isa*: connect a justaposed verb expressing manner relation and another verb phrase. By contrast, the CLM *=o* 'and' is able to occur between two verbs as in (4.24d), indicating that two juxtaposed verbs exhibit morphosyntactic equivalence.

(4.24) Structural tightness shown in juxtaposed verbs expressing manner relations

a. **korkoring** [**'aemoeh** **ma'ayakai'**] **naehan** **ray** **kakishkaatan**.
child quick AV:speak again LOC school
'The child speak(s) fast at school again.'

b. ***korkoring** **'aemoeh** **naehan** **ma'ayakai'** **ray** **kakishkaatan**.
child quick again AV:speak LOC school

c. ***korkoring** **'aemoeh** **'isa:** **ma'ayakai'** **ray** **kakishkaatan**.
child quick then AV:speak LOC school

c'. **korkoring** **'aemoeh** **ma'ayakai'** **ray** **kakishkaatan,** **'isa:,**
child quick AV:speak LOC school then
'anga'-en **noka** **kamatortoroe'.**
scold-UVP GEN teacher
'The child talked fast at school, and was/were scolded by the teacher.'

d. **korkoring** **'aemoeh=o** **ma'ayakai'** **ray** **kakishkaatan**.[59]
child quick=CONJ AV:speak LOC school
'The child often speak(s) fast at school.'

These grammatical properties of juxtaposed verbs showing the manner relation are summarized in Table 4.2. The juxtaposed verbs exhibit a fixed order and voice harmony. Adverbs and the clause-linkage marker (CLM) *'isa:* 'then' cannot occur between two juxtaposed verbs, but the conjunctor *=o* 'and' can.

[59] There is a incontinent judgment between informants for this structure. The old generation of informants allow linking of *=o* between juxtaposed verb showing manner relation. The other informants do not allow the insertion of *=o*. This dissertation adopt the usage of the old generation.

Table 4.2 Grammatical properties of juxtaposed verbs showing manner relation

Types / Grammatical Properties	The manner relation
Order of verbs	$[V_{manner}+V_{non\text{-}manner}]_{clause}$
	$[[\text{second verb}]_{core}, V_{manner}]_{clause}$
Voice harmony	✓:AV+AV; UVP+UVP
Insertion of adverbs	✗
Insertion of the CLM *'isa*: 'then'	✗
Insertion of the CLM =*o* 'and'	✓

4.2.2 Juncture-nexus combinations of juxtaposed verbs expressing the manner relation

This section is divided into two directions of discussion. Section 4.2.2.1 deals with the juncture and section 4.2.2.2 deals with nexus.

4.2.2.1 Juncture of juxtaposed verbs expressing the manner relation

Juxtaposed verbs expressing the manner relation belong to the **nuclear juncture**, judging from the evidence of **argument fusion** as provided in (4.25). In (4.25a), the juxtaposed verbs expressing a manner relation takes an actor *nisia (ka) yanay* 'daughter-in-law' as its core argument, which is identical to the argument structure of the other verb as shown in (4.25b).[60] By contrast, the manner verb *'aemoeh* 'fast' does not take an undergoer in a clause in (4.25c), indicating it must be accompanied by a matrix verb as in juxtaposition. Thus, the entire structure of juxtaposed verbs in (4.25a) exhibits a set of arguments that is based on the argument structure of the non-

[60] The locative noun is an adjunct but not a core argument.

manner verb (i.e. V2); the manner verb fuses into the complex structure.

(4.25) Nuclear juncture

a. **nisia** **(ka)** **yanay** **'aemoeh** **t<om>alek** **ka** **tatimae'**,
2S.GEN LIG daughter.in.law quick <AV>cook ACC side.dish
kayzaeh.
good
'Your daughter-in-law cooks fast, and this is good.'

b. **nisia** **(ka)** **yanay** **kin=t<om>alek** **ka** **tatimae'**.
2S.GEN LIG daughter.in.law PROG=<AV>cook ACC side.dish
'Your daughter-in-law is cooking.'

c.***nisia** **(ka)** **yanay** **'aemoeh.**
2S.GEN LIG daughter.in.law quick
Intended for: 'Your daughter-in-law is agile (in cooking).'

(4.26) summarizes the nuclear juncture of this type of verbal juxtaposition.

(4.26) Nuclear juncture

a. $verb_{manner\ (no\ argument,\ do\ not\ occur\ alone)}$ + $[V]_{arg=2}$ → $VV_{arg=2.}$

b. $verb_{manner\ (no\ argument,\ do\ not\ occur\ alone)}$ + $[V]_{arg=1}$ → $VV_{arg=1}$

4.2.2.2 Nexus of juxtaposed verbs expressing the manner relation

The previous section shows that the manner verbs are syntactically bound to the non-manner verbs, which suggests these juxtaposed verbs might be subordination. Further evidence is required to validate this analysis, since syntactic boundedness of a verb only reveals the status of nuclear juncture instead of a specific nexus type (i.e. a bounded verb could be a cosubordinate constituent if it obligatorily shares operators with the other verb). This section deals with this issue.

To begin with, juxtaposed verbs expressing the manner relation containing the manner verbs of *'aemoeh* 'quick/fast' and *ma'ngel* 'slow [AV]' is attested as the modifier type of **subordination**. Figure 4.3a visualizes this analysis.

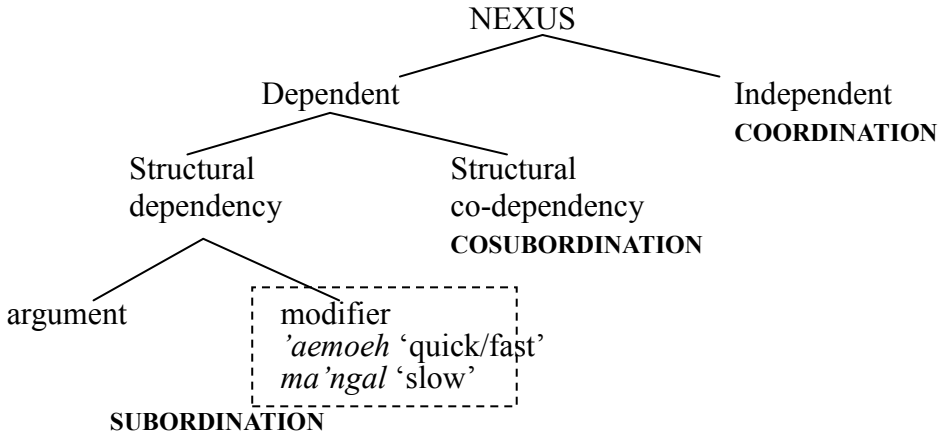

Figure 4.3a The nexus type of juxtaposed verbs expressing the manner relation

Figure 4.3b specifies the rationale of this analysis and elaborates on the reasons as follows. The cosubordination analysis is elaborated in following discussion.

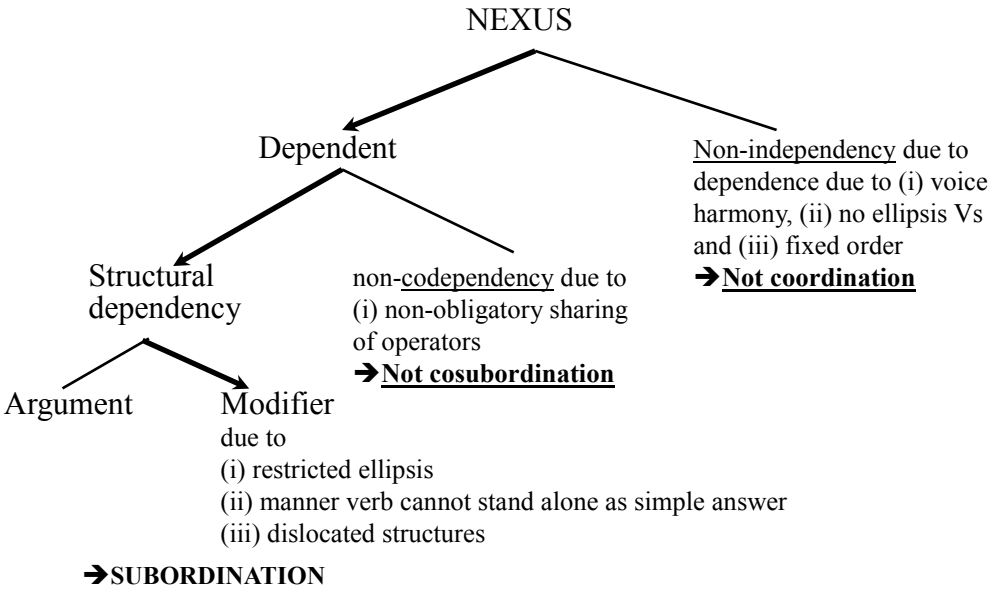

Figure 4.3b The rationale of the subordination analysis

As Figure 4.3b delineates, the possibility of coordination is ruled out because the juxtaposed verbs do not equally exhibit syntactic independency. One piece of evidence is found in ellipsis. If two verbs exhibit syntactical independency, then each of them shall equally undergo ellipsis. Evidence shows that verbs denoting the manner meaning (V1s) can be omitted but the second verbs (V2s) cannot. An example is provided below in (4.27), in which the nuclear juncture in (4.27a) can undergo the ellipsis of the V1 in (4.27b). By contrast, the structural pattern is not observed for the omitting the non-manner verb as shown in (4.27c).

(4.27) Nuclear juncture

a. **korkoring** **<u>ma-'ngel</u>** **<u>lobih</u>** **(ray** **taew'an)**.
child STAT-slow return LOC house
'The child came home late.'

b. **korkoring** **<u>lobih</u>** **(ray** **taew'an)**.
child return LOC house
'The child returned home.'

c.***korkoring** **<u>ma-'ngel</u>**.
child STAT-slow
Intended for: 'The child is very slow/sluggish.'

Another piece of evidence that rejects coordination is the fixed orders of juxtaposed verbs. As demonstrated in (4.28), the manner verb must precede the other verbs, indicating that the two verbs do not exhibit equivalent **independency**. In (4.28a) and (4.28a'), the manner verb *ma'ngel* 'slow [AV]' must occur before the other verbs *maatol* 'sing[AV]'. By contrast, the verb *maatol* 'sing[AV]' exhibits alternative

position as shown in (4.28b) and (4.28b'). Following this vein of thinking, the other verbs exhibits independency but the manner verb does not.

(4.28) Fixed order of juxtaposed verbs expressing the manner relation

a. **korkoring** **ma-'ngel** **<u>maatol</u>**.
child STAT-slow AV:sing
'The child sing(s) slowly.'

a'.* **korkoring** **<u>maatol</u>** **ma-'ngel**
child AV:sing STAT-slow

b. **korkoring** **<u>maatol</u>** **h<oem>lal** **ray** **taew'an.**
child AV:sing <AV>dance LOC house
'The child sing(s) and dance(s) at home.'

b'. **korkoring** **h<oem>lal** **<u>maatol</u>** **ray** **taew'an.**
child <AV>dance AV:sing LOC house
'The child dance(s) and sing(s) at home.'

Manner verbs and the other verbs do not exhibit cosubordination since operators are not obligatorily shared. (4.29) and (4.30) exemplify this trait. In (4.29a) and (4.29c), the nuclear operators *mam*= 'progressive' and *kin*= 'continuative' attach to the manner verb *'aemoeh* 'quick' and *tomamemesh* 'use strength[AV]' and independently modifies the verb. Note that in the examples (4.29b) and (4.29d), the nuclear operators cannot intervene between the juxtaposed verbs by attaching to the non-manner verb. The restriction, implying the schema: operator+[V_{manner}+$V_{non\text{-}manner}$], seems to suffice to claim this type of juxtaposed verbs as cosubordination.

(4.29) Nuclear operator modification

a. **sia** **<u>mam</u>=’aemoeh** **manraan**.
3SG.NOM PROG=quick AV:walk
‘He is walking quickly.’

b.***sia** **’aemoeh** **<u>mam</u>=manraan**.
3SG.NOM quick PROG=AV:walk
Intended for: ‘He is walking quickly.’

c. **’aro’** **<u>kin</u>=t<om>amemesh** **’<oem>osa:** **ka** **bato’**.
PN CONT=<AV>use.strength <AV>throw ACC stone
‘Aro kept hurling the stone.’

d.***’aro’** **t<om>amemesh** **<u>kin</u>=’<oem>osa:** **ka** **bato’.**
PN <AV>use.strength CONT=<AV>throw ACC stone
‘Aro kept hurling the stone.’

Additionally, the scope of operator modification only falls on the manner verbs. That is, the cosubordination analysis is not supported by restricted modifying scope of core operators. As shown in (4.30) the core operator *’okik* ‘negator[state]’ modifies the manner verbs but not the entire juxtaposed verbs. In (4.30a), the non-manner verb occurs in the AV form (i.e. *manraan* ‘walk [AV]’) but not in the dependent form (i.e. *panraan*) as shown in (4.30b). That is, these two verbs do not obligatorily share the core operator.

(4.30) Restricted modification of core operators

a. **sia** **<u>’okik</u>** **’aemoeh** **manraan**.
3SG.NOM NEG:LIG:STAT quick AV:walk
‘He did not walk quickly.’

b. ***sia** **<u>’okik</u>** **’aemoeh** **panraan**.
3SG.NOM NEG:LIG:STAT quick walk
‘He did not walk quickly.’

The discussion hitherto indicates that juxtaposed verbs expressing manner relations belong to **the modifier type of subordination**. The non-manner verbs are structurally embedded to the manner verbs by acting as adjuncts. One reason for this analysis is the restricted ellipsis as shown in (4.31). In (4.31a) and (4.31b), the manner verbs can be omitted without leading ungrammaticality, indicating the manner verbs syntactically act as adjuncts. As opposed to these two examples, (4.31a') and (4.31b') show that the omission of non-manner verbs gives rise to ungrammaticality since the propositions of entire clauses become incomplete and ill-formed.

(4.31) Restricted ellipsis

a. **'oya' ('aemoeh) t<om>alek ka pazay.**
mother quick <AV>cook ACC rice
'Mother cooked the rice (quickly).'

a'. **'oya' 'aemoeh (*t<om>alek ka pazay).**
mother quick <AV>cook ACC rice
'Mother cooked the rice quickly.'

b. **baki' noka korkoring (tamemesh-en) 'ehoe(h)-en.**
grandfather GEN child use.strength-UVP pull-UVP
'The child pulled the grandfather (forcefully).'

b'. **baki' noka korkoring tamemesh-en (*'ehoe(h)-en).**
grandfather GEN child use.strength-UVP pull-UVP
'The child pulled the grandfather forcefully.'

The second reason resides in the fixed order: $V_{modifier}$ +$V_{modifiee}$, indicating structural embedment. Observe (4.32) for an illustration.

(4.32) Fixed order of juxtaposed verbs expressing a manner relation

a.	**'aro'**	**'aemoeh**$_{manner}$	**s<om>i'ael**	**ka**	**pazay.**
	PN	quick	<AV>eat	ACC	rice
	'Aro ate the rice quickly.' =(4.22b)				
b.*	**'aro'**	**s<om>i'ael**	**'aemoeh**$_{manner}$	**ka**	**pazay.**
	PN	<AV>eat	quick	ACC	rice =(4.22d)

The crucial point in this section is to demonstrate that manner verbs serve as adjuncts in nuclear junctures (i.e. the modifier type) instead of matrix verbs (i.e. the argument type). As specified in Table 3.7, a manner verb, unlike a matrix verb, does not have a V2 as its argument. A crucial reason is that the V2 unit of a manner verb is always a finite verb instead of a gerund or non-finite clause marked by the *shi-* marking (the UVC voice).[61] Take (4.33) for an illustration. The V2 unit (i.e. the non-manner verb, the modifiee) in (4.33a) cannot occur in the gerundive form in (4.33b), as it does in the subject position shown in (4.33b').

(4.33) The restricted V2 type of manner verbs

a.	**lasia**	**'aemoeh**$_{manner}$	**<u>ma-sha-shbet</u>.**
	3PL.NOM	quick	AV-RED-beat
	'They fight with each others quickly.'		
b.*	**lasia**	**'aemoeh**$_{manner}$	**<u>ma-sha-shbet</u>.**
	3PL.NOM	quick	GER.AV-RED-beat

b'.	**<u>ma-sha-shbet</u>**	**'aehay**	**kita'-en,**	**pa-k-tikot**.
	GER.AV-RED-beat	bad	see-UVP	CAUS-STAT-afraid
	'Fighting is not good to see; it is frightful.' (from Zeitoun et al. 2015:490)			

[61] This structure of the matrix-argument relation will be discussed in section 5.1, when I discuss juxtaposed verbs expressing the finishing phase, representing the argument type of subordination.

An interesting point here concerns the dislocated structures. As exemplified in (4.34), the manner verb *ma'ngel* 'slow [AV]' occurs in the pre-verbal position in (4.34a), or in the post-clausal position as in (4.34b). By contrast, in the juxtaposed verbs expressing a beginning or continuous phase, such a phasal verb does not take place in the post-clausal position, as exemplified in (4.34c-d).

(4.34) Dislocated structures

a. **ma'an 'oya <u>ma-'ngel</u> t<om>alek ka tatimae'.**
1SG.GEN mother STAT-slow <AV>cook ACC side.dish
'My mother cooks lunch slowly.'

b. **ma'an 'oya t<om>alek ka tatimae', <u>ma-'ngel.</u>**
1SG.GEN mother <AV>cook ACC side.dish STAT-slow
'Slowly, my mother cooks lunch.'

c. **'oya' <u>pil-'al'alay</u> t<om>alek ka pazay.** =(4.3a)
mother cook-start <AV>cook ACC rice
'Mother starts to cook rice.'

d.***'oya' t<om>alek ka pazay, <u>pil-'al'alay</u>(=ila)**.
mother <AV>cook ACC rice cook-start(=COS)

To summarize, juxtaposed verbs expressing manner relations belong to **the modifier type of nuclear subordination** in Saisiyat. They are nuclear junctures because of argument fusion. They belong to such the type of subordination on the basis of (i) restricted ellipsis of verbal modifiers (i.e. manner verbs) and (ii) fixed order and (iii) the restricted V2 type as finite verbs.

Figure 4.4 depicts the layered structure of juxtaposed verbs expressing a manner relation. The juxtaposed verbs *'aemoeh* 'quick' acts as the adjunct that attaches to the nuclear juncture. The CLM =*o* 'and' is able to intervene between the two juxtaposed verbs.[62]

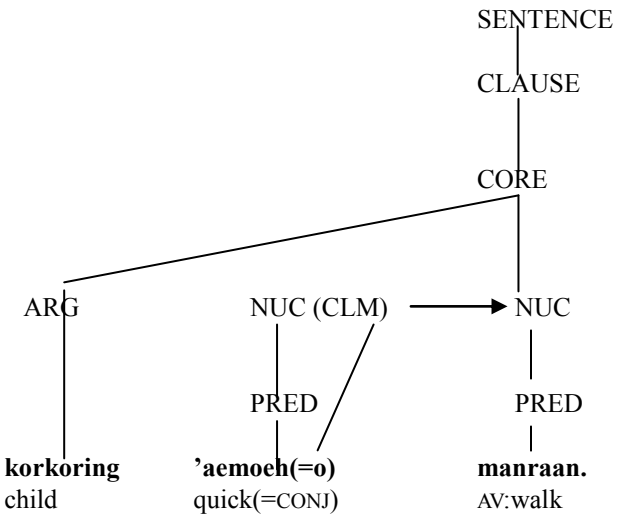

Figure 4.4 The layered structure of juxtaposed verbs expressing manner relation in Saisiyat

4.3 Overall Summary

This chapter discusses the semantics and structure of juxtaposed verbs showing the beginning and continuing phases and those expressing the manner elation. These juxtaposed verbs are nuclear juncture due to the fact of argument fusion. The two types of phasal verbs and the manner verbs stand as modifiers to the other verbs (V2s, the nonphasal verbs) and do not contribute to argument structure in the nuclear

[62] This structure is different from the juxtaposed verbs expressing the juxtaposed verbs expressing the beginning and continuing phases (*cf.* Table 4.1 and Figure 4.2a and 4.2b).

juncture.

One crucial issue subsequent to this point is the syntactic role of these verbal modifiers. It is plausible that they may be operators due to semantics (for describing or profiling the event structures of the V2s) and syntax (e.g., fixed order, voice harmony and ellipsis). This study do not treat them as nuclear operators since they still exhibit essential properties of verbs and cannot be taken as grammaticalized function words. One main reason is that these verbs exhibit (i) voice alternations between AV and UVP and (ii) contribute lexical semantics to sentential proposition (*cf*. (4.34b), dislocated structures with manner verbs).

This juncture-nexus type indicates a fact: two verbal units compose a single complex predicate in a single clause. Table 4.3 summarizes the juncture-nexus combinations of juxtaposed verbs of nuclear juncture.

Table 4.3 Nexus of juxtaposed verbs in nuclear junctures

Semantic relations of juxtaposed verbs in Saisiyat	**Nexus types**	
	subordination	cosubordination
The beginning phase	✓: modifier type	–
The continuing phase	✓: modifier type	–
The manner relation	✓: modifier type	–

In this case, Saisiyat does not violate the iconicity principle proposed by (Givón 1990; Silverstein 1976), in the interclausal relation hierarchy (Van Valin & LaPolla

1997 and Van Valin 2005). That is, three types of semantic relations do not exhibit a cross-over pattern when they are different in semantic tightness. Figure 4.5 represents this pattern of mapping.

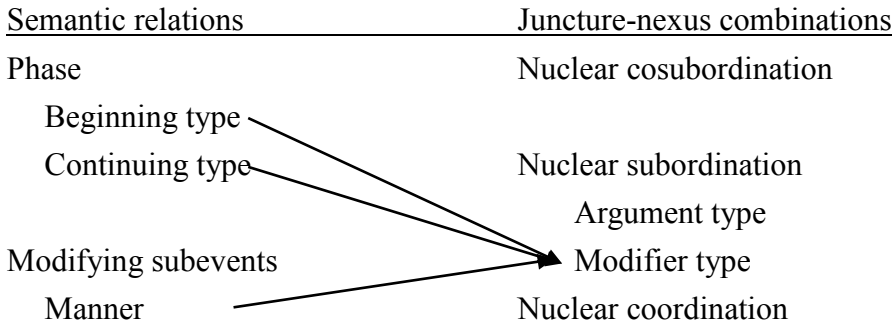

Figure 4.5 The interclausal relation hierarchy of juxtaposed verbs expressing phasal and manner relations

Compared with other languages, Saisiyat exhibits a different pattern. Hsieh's (2012) analysis on multiple verb constructions in Paiwan suggests that those multiple verb constructions expressing the manner relation are **cosubordination**. In Wari' (Chapakuran family of Brazil and Bolivia), Everett (2008) reports that their juxtaposed verbs expressing the motion relations are also analyzed as **nuclear cosubordination**. Similar treatment is proposed in Modern Irish by Nolan (2014), whereby the author concludes that complex verbal constructions that express phasal relations and modifying subevents also belong to such the juncture-nexus type.

Saisiyat further displays a feature that few relations are manifested in nuclear junctures. By contrast, most of the semantic relations are manifested in core and clausal junctures. Chapters 5 will present a discussion of juxtaposed verbs that belong to core junctures, including juxtaposed verbs expressing other modifying relations, and relations of psych-action, purposive and direct perception. As for those juxtaposed in the clausal junctures, it will be discussed in chapter 6.

Chapter 5

Interclausal relations in the core juncture

This chapter discusses the juncture-nexus combinations of juxtaposed verbs in the core juncture. The semantic relations that are manifested in the core juncture include (i) the finishing phase, (ii) the other three types of modifying subevents (i.e. motion, position and means), (iii) psych-action, (iv) purposive, and (v) direct perception. The discussion complies with the method adopted in chapter 4: it presents grammatical properties of juxtaposed verbs, and discusses their juncture-nexus combinations.

The organization of this chapter is arranged as follows. Section 5.1 discusses the juxtaposed verbs showing the finishing phase. Section 5.2 deals with the juxtaposed verbs showing modifying subevents of motion, position and means. Section 5.3 deals with juxtaposed verbs showing psych-action relation. Section 5.4 discusses juxtaposed verbs expressing purposive relation. Section 5.5 discusses juxtaposed verbs expressing direct perception relation. Section 5.6 is an overall summary.

5.1 Juxtaposed verbs expressing the finishing phase

Section 4.1 has shown juxtaposed verbs expressing the beginning and continuing

phases involve nuclear junctures. As for those showing the finishing phase, they are expressed in the core juncture. Before discussing their juncture-nexus combinations, I introduce relevant grammatical properties of them in section 5.1.1.

5.1.1 Grammatical properties of juxtaposed verbs expressing the finishing phase

Juxtaposed verbs showing the finishing phase are expressed through the following sequence: a stative verb *sizaeh* 'finish'[63] precedes the other verb (i.e. a V2). These V2s can be structurally realized in two ways. One is a verbal unit marked by AV or UVP voice marking, as schematized in (5.1a-b). The other one is a gerund marked by *'a-* or *'am-* 'irrealis gerundive', which acts as a core argument of the finish verb as (5.1c) represents. In this structure, the verb *sizaeh* 'finish' can take an undergoer as the sole argument in a clause as shown in (5.1d).

In Saisiyat, there are two related structures performed by the verb *sizaeh* 'finish', which do not involve the structure of juxtaposition. As shown in (5.1d), it takes a nominative undergoer as core argument to indicate the finishing phase of the event with the undergoer. Another related structure is schematized in (5.1e) (i.e. a dislocated structure), in which the verb *sizaeh* 'finish' occurs after a clause.

[63] The verbs that can denote the finishing phase also include *'aemet* 'finish' and *pata'as* 'put aside, stop for a while' (E. Zeitoun pc.). They behave similarly with *sizaeh* 'finish' discussed in this study in terms of juncture-nexus combinations with their following verbs. .

(5.1) Schema of juxtaposed verbs expressing the finishing phase and related structures

					Examples
a. $Actor_{NOM}$	+	[*sizaeh*]	+	V_{AV}	(5.2a)
b. $Undergoer_{NOM}$	+	[*sizaeh*]	+	V_{UVP}	(5.2b)
c. $Actor_{NOM}$	+	[*sizaeh*]	+	V_{GER}	(5.2c)
d. $Undergoer_{NOM}$	+	[*sizaeh*](=*ila*)			(5.2d)
e. $Actor_{NOM}$/$Undergoer_{NOM}$+V+(NP),	+	(*hini howaw*)	[*sizaeh*](=*ila*)		(5.2e,e')

(5.2) exemplifies juxtaposed verbs expressing the finishing phase.

(5.2) Juxtaposed verbs expressing the finishing phase and the related structures

a. **baki'** **sizaeh** **sh<om>bet** **ka** **korkoring**.
grandfather finish <AV>beat ACC child
'Grandfather stopped beating the child.'

b. **pazay** **sizaeh=ila** **h<in>aop.**
rice finish=COS <PERF.UVP>winnow
'The rice has already been winnowed.' (Zeitoun et al. (in preparation))

c. **baki'** **sizaeh** **'am-sh<om>bet** **ka** **korkoring**.
grandfather finish GER.IRR-<AV>beat ACC child
'Grandfather stopped beating the child.'

d. **hini (h)owaw** **sizaeh=ila.**
this matter finish=COS
'This matter is already over.'

e. **yako** **t<om>awbon** **ka** **(h)'o'ol,** **(hini (h)owaw)** **sizaeh=ila.**
1SG.NOM <AV>pound ACC glutinous.rice this matter finish=COS
'I am pounding the glutinous, and this matter has been over.'

e'. **(h)'o'ol** **ma'an** **tawbon-on,** **(hini (h)owaw)** **sizaeh=ila.**
glutinous.rice 1SG.GEN pound-UVP this thing finish=COS
'I am pounding the glutinous, and this thing has been over.'

One might have a doubt about the analysis of the gerundive analysis of (5.1c), and treats V2 as a finite verb that is modified by the irrealis clitic *'am*= 'will, be

going to'. Consequently (5.2c) might represent the juxtaposed verbs paralleling to (5.2a). However, the proposal schema of (5.1c) is borne out by the following facts. The *'am-/'a-* marked verb acts as the argument of the verb *sizaeh* 'finish', since it occurs at the object position in AV constructions, i.e. the post-verbal position, as in (5.3a). The same gerund also takes place in the same position in another AV construction of (5.3b). The verb *tikot* 'fear' of (5.3b) takes a nominal argument in this position, as shown in (5.3c).

(5.3) Post-verbal positions of a gerund and a nominal argument

a. **sia** **sizaeh** **'a-'inola'.**
3SG.NOM finish GER.IRR-compete
'He/she finished the competition.'

b. **sia** **tikot** **'a-'inola'.**
3SG.NOM fear GER.IRR-compete
'He/she is afraid of joining a competition.'

c. **sia** **tikot** **ma'an yaba'.**
3SG.NOM fear 1SG.GEN father
'He/she is afraid of my father.'

Moreover, a gerundive argument of this structure as (5.2c) or (5.3a) can be modified by a numeral and a genitive, as shown in (5.4a) and (5.4b). Instead, a finite V2 of juxtaposition cannot involve such two modification as in (5.4a') and (5.4b').

(5.4) Numeral and genitive modifications of a gerund

a. **sia** **sizaeh=ila** **['aehae'** **'a-'inola'].**
3SG.NOM finish=COS one GER.IRR-compete
'He/she has finished one game.'

a'.***baki'** **sizaeh** **'aehae' sh<om>bet** **ka** **korkoring**.
grandfather finish one <AV>beat ACC child

b. **ni** **'aro'** **sizaeh=ila** **[nisia** **'a-mata:waw]**.
GEN PN finish=COS 3SG.GEN GER.IRR-work
'Aro has finished his work.'

b'.***ni** **'aro'** **sizaeh=ila** **[nisia** **mata:waw]**.
GEN PN finish=COS 3SG.GEN AV:work

Another reason is that a gerund argument of the verb *sizaeh* 'finish' cannot be negated by the predicate negator *'okay* 'do not/did not [for dynamic verbs]' or *'okik* 'do not/did not' [for stative verbs], as opposed to the negation of a true verb as in (5.5b) (*cf.* section 3.4.2.2).

(5.5) Restriction of negation of a gerundive argument

a.***baki'** **sizaeh** **'okay/'okik** **'a-mata:waw.**
grandfather finish NEG:LIG/NEG:LIG:STAT GER.IRR-AV:work

b. **baki'** **'ayaeh,** **'okay** **pata:waw.**
grandfather sick NEG:LIG work
'Grandfather is sick, and he does not (go to) work.'

Juxtaposed verbs showing the finishing phase also display the following grammatical properties. First of all, these juxtaposed verbs have a fixed order of verbs: verbs that denote the finishing meaning must precede the other verbs. Observe (5.6) for an illustration. The example of (5.6b) exhibits the ungrammatical sequence *$V2+V_{finishing\ phase}$.

(5.6) Fixed order of juxtaposed verbs expressing a finishing phase

a. **baki'** **sizaeh** **sh<om>bet** **ka** **korkoring**.
grandfather finish <AV>beat ACC child
'Grandfather stopped beating the child.' = (5.2a)

b.***baki'** **sh<om>bet** **sizaeh** **ka** **korkoring**.[64]
grandfather <AV>beat finish ACC child

Moreover, this type of juxtaposed verbs involves certain degree of structural tightness. The conjunctor =*o* 'and' cannot occur between two verbs as shown in (5.7a), as opposite to a different sentence in (5.7a'), whereby juxtaposed verbs expressing sequential relation can have the intervening conjunctor. In addition, neither the CLM *'isa*: 'then' nor the adverb *naehan* 'still' can occur inside the verbal juxtaposition as shown in (5.7b) and (5.7c), as opposed to different sentences shown in (5.7b') and (5.7c'), where *'isa*: 'then' and *naehan* 'still' can show up outside the juxtaposition.

(5.7) Juxtaposed verbs expressing the finishing phase

a.***baki'** **sizaeh=o** **'a-mata:waw.**
grandfather finish=CONJ GER.IRR-AV:work

a'. **baki'** **sizaeh** **'a-mata:waw=o** **lobih=ila**
grandfather finish GER.IRR-AV:work=CONJ return=COS
'Grandfather has finished working and came home.'

b.***baki'** **sizaeh** **'isa:** **'a-mata:waw.**
grandfather finish then GER.IRR-AV:work

[64] When the verb *sizaeh* 'finish' occurs after the second clause, as in (i), the sentence is a bi-clausal structure, with two different nominative NPs.

(i) **[baki'** **sh<om>bet** **ka** **korkoring],** **(hini** **(h)owaw)** **sizaeh=ila**.
grandfather <AV>beat ACC child this matter finish=COS
'Grandfather (was) beat(ing) the child, and it/this matter is finished now.'

b'. **baki'** **[sizaeh** **'a-mata:waw]** **'isa:** **lobih=ila.**
grandfather finish GER.IRR-AV:work then return=COS
'Grandfather has finished working and then he came home.'

c. ***baki'** **sizaeh** **naehan** **'a-mata:waw.**
grandfather finish still GER.IRR-AV:work

c'. **baki'** [**sizaeh** **'a-mata:waw**] **naehan.**
grandfather finish GER.IRR-AV:work again
'Grandfather finished working again.'

These afore-introduced grammatical properties are summarized in Table 5.1, revealing structurally tightness between the juxtaposed verbs. Even though the verb *sizaeh* 'finish' does not exhibit voice alternation, voice marking of V2s is constrained: it is controlled by their nominative arguments. That is, a nominative actor induces an AV-marked V2 (as in 5.2a) and a nominative undergoer takes a UVP-marked V2 (as in 5.2b). Moreover, two juxtaposed verb can not be intervened by the CLMs and the adverb *naehan* 'still'.

Table 5.1. Grammatical properties of juxtaposed verbs showing the finishing phase

Types / Grammatical properties	Finishing phase	
Restricted voice marking of V2s	✓	$Actor_{NOM}$+*sizaeh*+V_{AV}
		$Undergoer_{NOM}$+*sizaeh*+V_{UVP}
Order of verbs	$V_{finishing+}V_{lexical/gerundive}$	
Insertion of the CLM =*o* 'and'	✗	
Insertion of the CLM *'isa:* 'then'	✗	
Insertion of the adverb *naehan* 'still'	✗	

5.1.2 Juncture-nexus combinations

The previous section 5.1.1 has introduced properties of this type of juxtaposed verbs. This section discusses their juncture-nexus combinations. Section 5.1.2.1 focuses on the part of juncture, and section 5.1.2.2 the part of nexus.

5.1.2.1 Junctures of juxtaposed verbs expressing the finishing phase

This type of juxtaposed verbs is realized in the core juncture on the basis of argument sharing. That is, each core is composed of a predicate and its core arguments; hence the entire core juncture shares only part of their argument structures, instead of the entire set of arguments (as seen for juxtaposed verbs in the nuclear juncture). This analysis is exemplified in (5.8) and (5.9).

The verb *sizaeh* 'finish' in (5.8a) exhibits its own argument structures. In (5.8b), *sizaeh* 'finish' takes two arguments: the nominative actor and the gerund. In (5.8c), the other verb *shombet* 'beat [AV]' displays a different argument structure by taking an actor and an undergoer encoded by the accusative case *ka*. Therefore, it is obvious that two cores share part of their argument structures in (5.8a) (i.e. the actor), which proves that they belong to the core juncture.

(5.8) Argument sharing in core junctures (AV construction)

a. **baki'** **sizaeh** **sh<om>bet** **ka** **korkoring**.
grandfather finish <AV>beat ACC child
'Grandfather stopped beating the child.' = (5.2a)

b. **baki'** **sizaeh** **'am-sh<om>bet** **ka** **korkoring**.=(5.2c)
grandfather finish GER.IRR-<AV>beat ACC child
'Grandfather stops beating the child.'

c. **baki'** **sh<om>bet** **ka** **korkoring**
grandfather <AV>beat ACC child
'Grandfather beat the child.'

A UVP construction also exhibits the identical pattern as exemplified below in (5.9a). The examples of (5.9b) and (5.9c) further show that two verbs display different types of arguments (though the numbers of argument are identical), which indicates that they only share part of argument structures in (5.9a). In (5.9b), the verb *sizaeh* 'finish' takes the argument *(h)owaw* 'matter' instead of the argument *pazay* 'rice' as in (5.9b'). In (5.9c), the non-phasal verb *hinaop* **'**winnow [PERF.UVP]' takes a nominative undergoer *pazay* 'rice' and a genitive actor *'oya'* 'mother'. This core juncture can be specifically illustrated by the configuration (5.9d).

(5.9) Argument sharing in core junctures (UVP construction)

a. **pazay** **sizaeh** **h<in>aop.**
rice finish <PERF.UVP>winnow
'The rice is winnowed.'

b. **hini** **(h)owaw** **sizaeh=ila.**
this matter finish=COS
'This matter is already over.' (=5.2d)

b'.***pazay** **sizaeh=ila**
rice finish=COS
c. **pazay** **(ni 'oya')** **h<in>aop.**
rice GEN mother <PERF.UVP>winnow
'The rice is winnowed (by mother).'

d. $\left\{\begin{array}{l}[\text{Argument}_i+V_{\text{FINISHING}}] \\ + \\ [\text{Argument}_j+(\text{Argument}_{\text{GEN}})+V_{\text{UVP}}]\end{array}\right\} \rightarrow [\text{Argument}_j+V_{\text{FINISHING}}+V_{\text{LEXICAL(UVP)}}]$

(5.10) schematizes the juncture of juxtaposed verbs expressing the finishing phase.

(5.10) Core juncture of juxtaposed verbs expressing the finishing phase

$V_{\text{finishing (arg=1)}}$ $\left\{\begin{array}{lll} + & [V]_{\text{arg=2}} & \rightarrow [VV]_{\text{arg=2}} \\ + & [V]_{\text{arg=1}} & \rightarrow [VV]_{\text{arg=1}} \\ + & [V]_{\text{GERarg=2}} & \rightarrow [VV]_{\text{arg=2}} \\ + & [V]_{\text{GERarg=1}} & \rightarrow [VV]_{\text{arg=1}} \end{array}\right.$

5.1.2.2 Nexus of juxtaposed verbs expressing the finishing phases

In this section, I am going to discuss the nexus of juxtaposed verbs expressing the finishing phase. As represented in Figure 5.1a, two verbs are linked in terms of the subordination. Moreover, they exhibit the matrix-argument relation (i.e. the argument type of subordination).

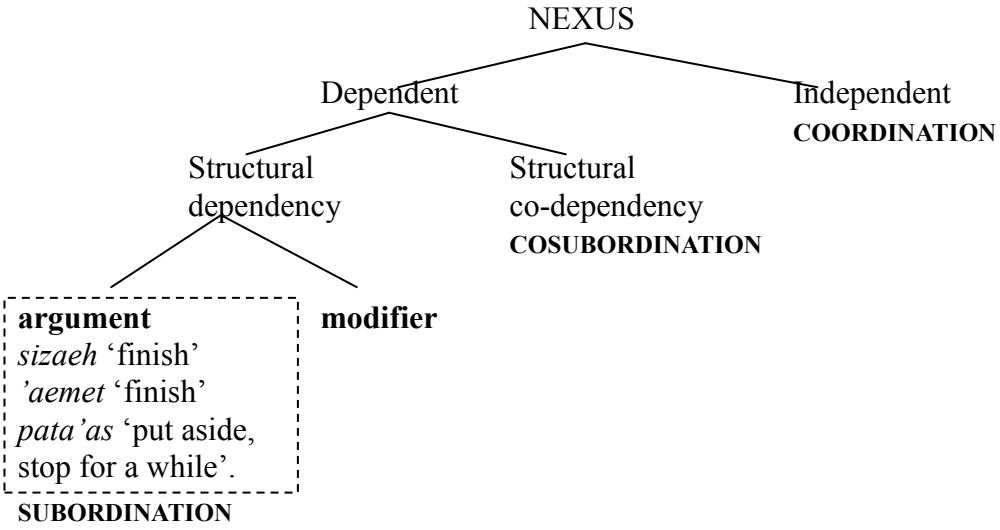

Figure 5.1a Nexus types of juxtaposed verbs showing the finishing phase

The following discussion provides an explanation for the subordination analysis. Unlike the verbs denoting beginning and continuing meanings, which are adjuncts of the other verbs in nuclear junctures, the verb *sizaeh* ‘finish’ acts as a matrix verb that takes the other verbal unit as its complement.

Based on the examples given in the previous section, I diagram my rationale for the proposal in Figure 5.1b. The juxtaposed verbs expressing the finishing phase neither exhibit syntactic independence nor display syntactical co-dependency. This excludes cosubordination and coordination. Instead, they show the nexus type of subordination. The evidence is given below.

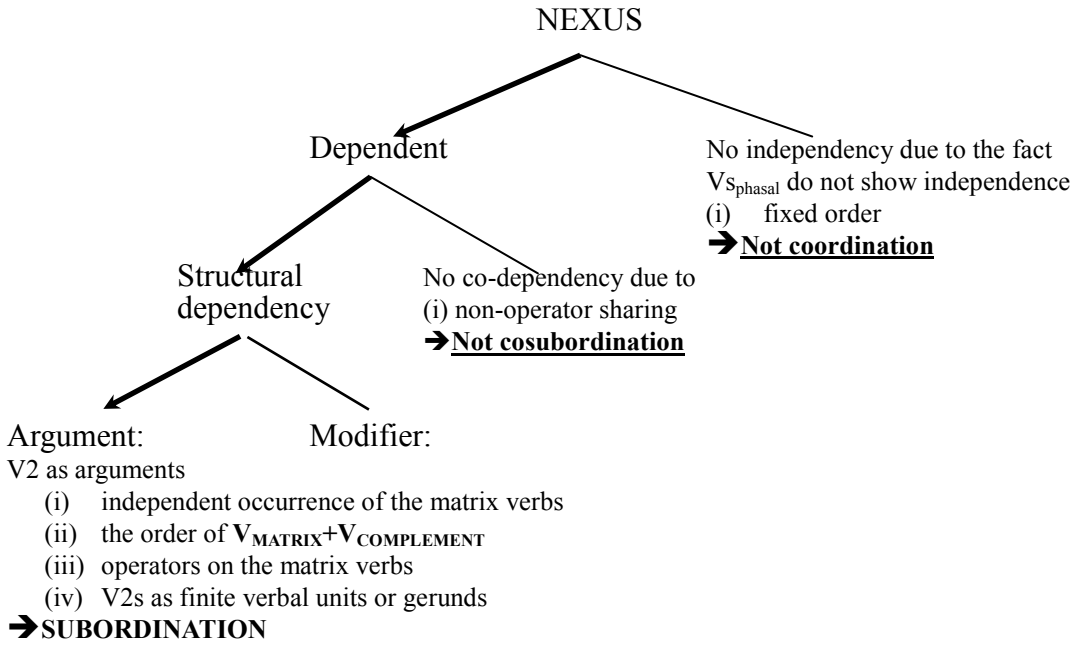

Figure 5.1b The rationale of the subordination analysis

To begin with, this type of juxtaposed verbs cannot be considered as coordination since they lack syntactic independence. The major reason is the fixed order of such juxtaposed verbs. If two verbs are in coordination relation, they should be able to switch positions without causing ungrammaticality. However, this is not the case as we observe in (5.11), whereby the verb *sizaeh* 'finish' neither occurs after the non-phasal verb in (5.11b) nor after the verb phrase in (5.11c).

(5.11) Fixed order of juxtaposed verbs expressing a finishing phase

a.	**baki'**	**sizaeh**	**sh<om>bet**	**ka**	**korkoring**.
	grandfather	finish	<AV>beat	ACC	child
	'Grandfather stopped beating the child.'				= (5.2a)
b.*	**baki'**	**sh<om>bet**	**sizaeh**	**ka**	**korkoring**.
	grandfather	<AV>beat	finish	ACC	child =(5.4b)
c.*	**baki'**	**sh<om>bet**	**ka**	**korkoring**	**sizaeh**.
	grandfather	<AV>beat	ACC	child	finish

These juxtaposed verbs cannot be treated as cosubordination, either, because they do not conform to the criterion of co-dependency (i.e. cosubordinate units must be syntactically equal in a dependent relation). Evidence is the non-sharing of core operators as shown in (5.12). The negators only have scope on the V1s but not the V2s, since the V2s do not occur in their non-finite forms after the negator (*cf.* section 3.4.2.2), which means only the V1 follows the structural requirement of non-finiteness after the negator, but the V2 does not.

(5.12) Non-sharing of the negators

a. **'aro** **'i'ini'** **'i-k** **sizaeh** **'a-mata:waw/*pata:waw.**
PN NEG LIG-STAT finish GER.IRR-AV:work/work
'Aro has not finish working.'

b. **'oya'** **'okik** **sizaeh** **mata:waw/*pata:waw.**
mother NEG:LIG:STAT finish AV:work/work
'Mother has not finished work.'

In the following I will argue that juxtaposed verbs showing the finishing phase exhibit structural dependency i.e. subordination. Specifically speaking, their nexus type belongs **to the argument type of a subordination**.

This analysis of subordination is borne out by three pieces of evidence, including (i) independent occurrence of the matrix verbs, (ii) the order of V_{MATRIX}+$V_{COMPLEMENT}$ and (iii) the restricted modifying position of operators on the matrix verbs. As for the matrix-complement analysis, it is explained by the structural

manifestations of V2s involving the forms of gerunds and finite verbs. These facts will be presented below.

The first piece of evidence concerns the syntactical boundedness of the argument (i.e. the non-phasal verb) of the matrix verb (i.e. the verb denoting a finishing phase). This is proven by the independent occurrence of the matrix verbs that designate the whole event. That is, the verb *sizaeh* 'finish' can occur by itself to indicate the completeness of an event even when the non-phasal verbs are elided. On the contrary, such a completeness reading is not obtained when only the non-phasal verbs show up. This contrast is shown in the question-and-answer extract of (5.13).

The answer (5.13b) is a UVP construction with the matrix verb taking place by itself. In (5.13c), the V2 unit occurs by itself but does not directly imply a finishing stage of the child-beating event. These examples demonstrate that *sizaeh* 'finish' plays the role of a matrix verb that expresses a proposition, while its non-phasal verb acts like an embedded argument in a verbal juxtaposition that expresses finishing phase.

(5.13) Restricted ellipsis in juxtaposed verbs expressing the finishing phase

Question**:**	a.	**baki'**	**sizaeh=ay**	**sh<om>bet**	**ka**	**korkoring?**
		grandfather	finish=Q	<AV>beat	ACC	child
		'Does Grandfather stop beating the child?'				
Answer**:**	b.	**'ihi',**	**(*baki')**	**<u>sizaeh</u>.**		
		yes	grandfather	finish		
		'Yes, it is finished.'				

c. **'ihi', baki' sh<om>bet ka korkoring.**
yes grandfather <AV>beat ACC child
'Yes, Grandfather beat the child.' (no implication of its finishing phase)

The second piece of evidence is based on the specified order of $\mathbf{V_{MATRIX}+V_{COMPLEMENT}}$ shown in this type of juxtaposed verbs. The previous examples in (5.11) demonstrate this trait. Another example is provided below in (5.14). In a verbal juxtaposition, the verb *sizaeh* 'finish' occurs before the UVP-marked verb as shown in (5.14a) but not after it as in (5.14b) .

(5.14) The specific order of verbal units

a. **pazay ni 'oya' sizaeh h<in>aop.**
rice GEN mother finish <PERF.UVP>winnow
'The rice is already winnowed by mother.'

b.***pazay ni 'oya' h<in>aop sizaeh.**
rice GEN mother <PERF.UVP>winnow finish
Intended for: 'The rice is already winnowed by mother.'

The last piece of evidence of subordination is based on **constrained modifying positions of operators**. Operators fall on the matrix verbs in juxtaposed verbs expressing finishing phases. As exemplified in (5.15), the aspectual marking *=ila* 'change of state' only attaches to the matrix verb. It neither attaches to the V2 as shown in (5.15b) nor does it appear twice in each verb as in (5.15c).

(5.15) Constrained modifying positions of operators

a. **’oya’** **sizaeh=ila** **mata:waw.**
mother finish=COS AV:work
‘mother has finished working.’

b. ***’oya’** **sizaeh** **mata:waw=ila**.
mother finish AV:work=COS

c. ***’oya’** **sizaeh=ila** **mata:waw=ila**.
mother finish=COS AV:work=COS

The above-stated discussion has shown that this type of juxtaposed verbs represents subordination nexus. The follow-up discussion further specifies them to be the argument type. Evidence is based on the structural alternations of V2 units as either cores or gerunds, as exemplified in (5.2a-c).[65] The examples of (5.16) below further illustrate this feature, whereby the V2 unit can be either a UVP verb or a gerund.

(5.16) V2 units as complements

a. **pazay** **ni** **’oya’** **sizaeh=ila** **h<in>aop.**
rice GEN mother finish=COS <PERF.UVP>winnow
‘The rice is already winnowed by mother.’

b. **pazay** **ni** **’oya’** **sizaeh=ila** **’am-h<om>aop.**
rice GEN mother finish=COS GER-<AV>winnow
‘The rice is already winnowed by mother.’

[65] By contrast, the juxtaposed verbs expressing the beginning and continuing relations are identified as the modifier type. Their V2s do not exhibit the structural alternation between gerunds and finite verbs because they are the main verbs of the clauses. As for the V1s (i.e. verbs denoting the beginning and continuing meanings), they act as adjuncts that are attached to the other verbs.

5.1.3 Interim summary

To sum up, juxtaposed verbs showing the finishing phase structurally represent **core subordination** in Saisiyat. This type of verbal juxtaposition is not as structurally tight as the other two types of phasal relations (i.e. the beginning and the continuing phases that occur in the nuclear juncture). The verb denoting the finishing phase in Saisiyat behaves more like what Payne (1997) has stated that phasal verbs typologically act as complement-taking verbs; such the statement does not apply to the other two phasal relations discussed in the previous chapter. Figures 5.2 depicts the layered structure of juxtaposed verbs expressing the finishing phase. The verb *sizaeh* 'finish' takes an argument (i.e. the non-phasal verb) under the core layer.

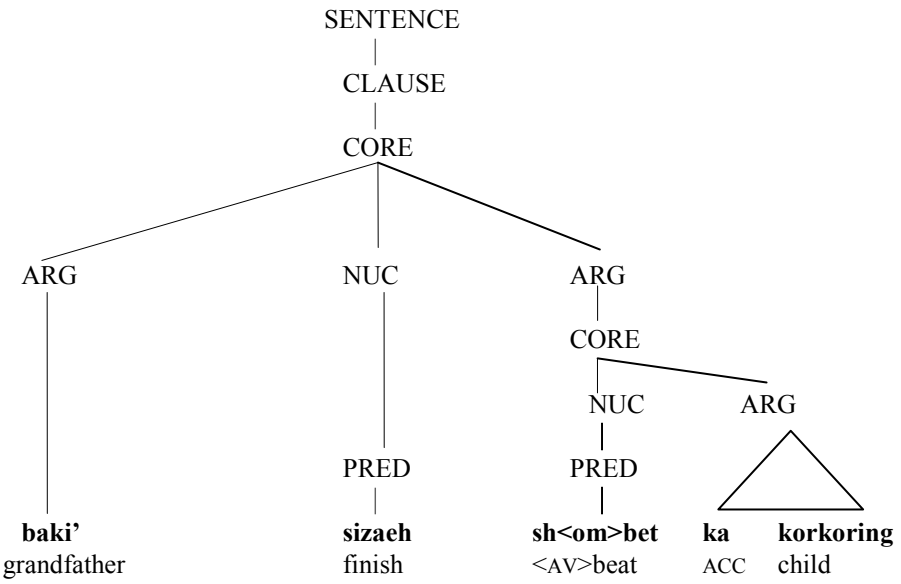

Figure 5.2 The layered structure of juxtaposed verbs expressing the finishing phase in Saisiyat

5.2 Juxtaposed verbs expressing motion, position and means relations

In RRG, modifying subevents subsume four subtypes: manner, motion, position and means relations. Juxtaposed verbs expressing a manner relation belong to nuclear juncture1 in Saisiyat, as reported in section 4.2. By contrast, juxtaposed verbs expressing motion, position and means relations belong to core junctures, which will be discussed in the following part of this section.

A motion relation is defined as 'motion accompanying another action', such as an example of Mparntwe Arrernte: *angk*$_{\text{action}}$-*tyantye*$_{\text{motion}}$- (speak-go.upwards) 'speak while going up' (Wilkins 1991, cited from Van Valin 2005:206). A position relation is defined as 'stance while doing an action' e.g. *Kim sat*$_{\text{stance}}$ *reading*$_{\text{action}}$ *a book* (Van Valin 2005:197). A means relation is defined as 'the means by which an action is carried out', e.g. *Sam opened*$_{\text{action}}$ *the box by slicing*$_{\text{mean}}$ *it with a knife* (Van Valin 2005:206).

5.2.1 Grammatical properties of juxtaposed verbs expressing motion, position and means relations

Juxtaposed verbs expressing a motion relation can be interpreted by the following structural schema as shown in (5.17). They are composed of a motion verb such as *rima'* 'go' or *mwai'*. 'come[AV]' and an action verb or another motion verb.[66] Voice

[66] M. Yeh and S. Huang (2009) have observed this structure in Saisiyat in their study of serial verbs in four Formosan languages.

marking is AV+AV as shown in (5.17a), and is exemplified in (5.18a). Other voice alignments are not observed for (5.17a): motion verbs and the other verbs (action or motion verbs) e.g., *lalangoy* 'swim' and do not have UVP forms in this type of verbal juxtapositions. (5.17b) represents this restriction: when both verbs can occur in UVP forms when are prefixed by the causative *pa-*. (5.17c) shows a different structure that is composed of a nominative actor and an UVP-marked action verb. (5.17d) shows the structure that motion verbs can occur in UVP by itself, when a location argument acts as the nominative argument and the theme the genitive argument.

(5.17) Schema of juxtaposed verbs expressing a motion relation and related structures — Examples

a.	$\text{Actor}_{\text{NOM}}$	+	$[\text{V}]_{\text{motion.AV}}$	+	$\text{V}_{\text{action/motion.AV}}$	(5.18a)
b.	$\text{Actor}_{\text{NOM}}$	+	*pa*-$[\text{V}]_{\text{motion.UVP}}$	+	*pa*-$\text{V}_{\text{motion/action.UVP}}$	(5.18b)
	---					
c.	$\text{Actor}_{\text{NOM}}$	+	*pa*-$[\text{V}]_{\text{action.UVP}}$			(5.18c)
d.	$\text{Undergoer}_{(\text{LOCATION})\text{NOM}}$	+	$[\text{V}]_{\text{motion.UVP}}$	+	$\text{undergoer}_{\text{GEN}}$	(5.18d)

(5.18) exemplifies the schema of (5.17).

(5.18) Examples of juxtaposed verbs expressing motion relation and related structures

a. **hini** **'alaw** **<u>rima'</u>**$_{\text{motion}}$ **<u>lalangoy</u>**$_{\text{action}}$ **kabih-no-baala'.**
this fish go swim next.to-DAT-river
'This fish swims to the other side of the river.'

b. **hini** **'alaw** **<u>pa-'osha-en</u>** **<u>pa-lalangoy-on</u>** **kabih-no-baala'.**
this fish CAUS-go-UVP CAUS-swim-UVP next.to-DAT-river
'This fish was made to the other the other side of river (for being affected by an abrupt event).'

c. **hini** **'alaw** **<u>pa-lalangoy-on</u>**$_{action}$ **kabih-no-baala'.**
this fish CAUS-swim-UVP next.to-DAT-river
'This fish was made to swim to the other the other side of river (for being affected by an abrupt event).'

d. **hini** **baala'** **<u>'osha'-en</u>**$_{motion}$ **noka** **'aroma'** **'alaw**.
this river go-UVP GEN other fish
'There are other species of fish entering this river.'

A juxtaposed verb expressing a stance relation is composed of a stance verb and a verb following it, as schematized in (5.19a). Voice marking is AV+AV. Stance verbs neither exhibit UVP forms in (5.19b) nor can they be causativized in verbal juxtapositions as in (5.19d). Note that the non-stance verb cannot have AV form when the stance verb occur in UVP form, as schematized in (5.19c). The stance verb can occur after a clause with a pause between them, as shown in (5.19e). In this structure, the dislocated stance verb must be marked by the progressive clitics *'a*(*m*)= or *'ima*=.

(5.19) Schema of juxtaposed verbs expressing position relation and a related structure — Examples

a.	$Actor_{NOM}$	+ $[V]_{stance.AV}$	+	$V_{action.AV}$	(5.20a)
b.*	$Undergoer_{NOM}$	+ $[V]_{stance.UVP}$	+	$V_{action.UVP}$	(5.20b)
c.*	$Undergoer_{NOM}$	+ $[V]_{stance.UVP}$	+	$V_{action.AV}$	(5.20b')
d.*	$Undergoer_{NOM}$	+ *pa*-$[V]_{stance.UVP}$	+	*pa*-$V_{action.UVP}$	(5.20c)
e	$[Actor_{NOM}$	+ $V_{action.AV}]_{clause}$	+	PROG=$[V]_{stance.AV}$	(5.20a')

(5.20) exemplifies the schema of (5.19).

(5.20) Saisiyat juxtaposed verbs expressing a position relation and the related structure

a. **’aro** **<u>miririi’</u>**$_{\text{stance}}$ **<u>k<om>ita’</u>**$_{\text{action}}$ **ka** **kinaat**.
PN AV:stand <AV>see ACC book
‘Aro is reading books standing.’

a’.[**’aro’** **<u>k<om>ita’</u>**$_{\text{action}}$ **ka** **kinaat]**$_{\text{clause}_2}$ **<u>’a(m)=miririi’</u>**$_{\text{stance}}$.
PN <AV>see ACC book PROG=AV:stand
‘Aro reads books while he is standing.’

b.***kinaat** **ni** **’aro’** **<u>’irii’in-in</u>** **<u>kita’-en</u>**.
book GEN PN stand-UVP see-UVP

b’.***kinaat** **ni** **’aro’** **<u>’irii’in-in</u>** **<u>k<om>ita’</u>**.
book GEN PN stand-UVP <AV>see

c.***kinaat** **ni** **’aro’** **<u>pa-’irii’in-in</u>** **<u>kita’-en</u>**.[67]
book GEN PN CAUS-stand-UVP see-UVP

Juxtaposed verbs expressing a mean relation can be represented by the schema in (5.21). They are composed of a verb denoting means and the other verb that is carried out by the means, with the voice marking of AV+AV in (5.21a). Note that the juxtaposed verb expressing a motion relation cannot exhibit the UVP+UVP pattern as schematized in (5.21b).

[67] Note that when a stance verb is causativized, it occurs in infinite form. The sentence does not carry a stance meaning but expresses a sequential meaning. (i) exemplifies this point.

(i) **kinaat** **ni** **’aro’** **pa-’iririi’(*-in),** **’am=k<om>ita’**.
book GEN PN CAUS-stand(-UVP) IRR=<AV>see
‘Aro sets a book upright and wants to read the book.’

(5.21) Schema of juxtaposed verbs expressing a means relation Examples

a.	$Actor_{NOM}$	+	$[V]_{AV}$	+	$V_{means.AV}$ (5.22a)
b.*	$Undergoer_{NOM}$	+	$[V]_{UVP}$	+	$V_{means.UVP}$ (5.22b)

(5.22) exemplifies the schema of (5.21).

(5.22) Juxtaposed verbs expressing a means relation

a. **korkoring [rima' ray kakishkaatan**]$_{action}$ **[pa-pama' ka kapapama'an**]$_{means}$**.**
child go LOC school RED-carry.on.back ACC vehicle
'The child goes to school by cars (implying *bus*).'

b.***papama'an ni korkoring** [**'osha'-en ray kakishkaatan**] [**pa-pama'-en**].
vehicle GEN child go-UVP LOC school RED-carry.on.back-UVP

These juxtaposed verbs display following grammatical properties regarding interclausal relations. First, the CLM *=o* 'and' cannot occur inside juxtaposed verbs expressing the relations of motion and means in (5.23a-b), but can inside juxtaposed verbs expressing a position relation, as exemplified in (5.23c).

(5.23) Insertion of *=o* 'and'[68]

a.***hini 'alaw rima'=o lalangoy kabih-no-baala'.** (motion)
This fish go=CONJ swim next.to-DAT-river
Intended for 'This fish swam to the other the other side of river.'

[68] There is an inconsistent judgment between informants for this structure. The old generation of informants allow linking of *=o* between juxtaposed verb showing manner, position and means relation. The other informants do not allow the insertion of *=o*. This dissertation adopt the usage of the old generation.

b.***korkoring** **rima'** **ray** **kakishkaatan=o**
child go LOC school=CONJ
pa-pama' **ka** **kapapama'an.** (means)
RED-carry.on.back ACC vehicle
Intended for: 'The child goes to school by car (implying *bus*).
Unless means: 'The child went to school and took car to somewhere (sequential relation).'

c. **'aro'** **miririi'=o** **k<om>ita'** **ka** **kinaat**. (position)
PN AV:stand=CONJ <AV>see ACC book
'Aro stood up and starting reading it.'

Second, the CLM *'isa:* 'then' cannot occur between two juxtaposed verbs, as exemplified in (5.24a). By contrast, it occurs outside the entire verbal juxtaposition and connects the juxtaposition with another verb, as shown in (5.24a'). The adverb *naehan* 'again' cannot intervene between the verbal juxtaposition in (5.24b), but occurs after the entire juxtaposition as in (5.24b').

(5.24) Juxtaposed verbs expressing position relation

a.***'aro'** **miririi'** **'isa:** **k<om>ita'** **ka** **kinaat**.
PN AV:stand then <AV>see ACC book

a'. **'aro'** **miririi'** **k<om>ita'** **ka** **kinaat,** **'isa:** **sh<om>a.eng**.
PN AV:stand <AV>see ACC book then <AV>sit.down
'Aro read a book/books standing and then sat down.'

b.***korkoring** **rima'** **naehan** **'ae'ae'aw** **ray** **'oes'oeso'an**.[69]
child go again run LOC mountain

[69] Note that the test of the adverb *naehan* 'again' is inapplicable to juxtaposed verbs expressing position relations as shown in (i).

(i) The adverb *naehan* 'again' cannot occur between juxtaposed verbs expressing position.

a.***'aro'** **miririi'** **naehan** **k<om>ita'** **ka** **kinaat**.
PN AV:stand again <AV>see ACC book
Intended for: 'Aro is reading books, in the position of standing again.'

b.***'aro'** **m<in>iririi'** **k<om>ita'** **ka** **kinaat** **naehan.**
PN AV.<PROG>stand <AV>see ACC book again
Intended for: 'Aro is reading books standing again.'

b'. **korkoring** **rima'** **'ae'ae'aw** **ray** **'oes'oeso'an** **<u>naehan</u>**.
child go run LOC mountain again
'The child ran to the mountain again'

Third, juxtaposed verbs of these three types exhibit fixed orders as being previously demonstrated in (5.18a), (5.20a) and (5.22a). Below I present further discussion. For juxtaposed verbs expressing a position and motion relations. Stance and motion verbs must precede the other verbs as exemplified in (5.25a), displaying the sequence: $V_{stance/motion}$+V_{action}. In (5.25b), when a stance or motion verb follows an action verb, this sequence represents a clausal juncture. The stance or motion event provides an additional supplementary for action event (in the first clause). The evidence is that the nominative argument of the non-motion/stance verbs and the clausal CLM *'isa*: 'then' are able to occur between juxtaposed verbs. Section 6.4 will elaborate on dislocated structures of Saisiyat.

(5.25) Fixed order

a. **'aro'** **miririi'**$_{stance}$ **k<om>ita'**$_{action}$ **ka** **kinaat**.(=5.20a)
PN AV:stand <AV>see ACC book
'Aro is reading books standing.'

b. **'aro'** **[k<om>ita'**$_{action}$ **ka** **kinaat],** **<u>('isa:) ('aro')</u>** **[miririi']**$_{action}$.
PN <AV>see ACC book (then) (PN) AV:stand
'Aro read a book and he was in the status of standing (temporally unordered states of affairs).'[70]
Does not mean: 'Aro read a book and then he stood (up).'

[70] This sentence cannot be interpreted as sequential relation since it does not express temporal iconicity.

Juxtaposed verbs expressing a means relation have different order pattern. A verbal unit which denotes means must follow an action verb in the sequence: V_{action}+V_{means} as exemplified in (5.26a). When the verb denoting means precedes the action verb, the juxtaposed verbs expresses a purposive relation in (5.26b) or a sequential relation as shown in (5.26c).

(5.26) Fixed order

a. **korkoring [rima' ray kakishkaatan]**$_{action}$ **[pa-pama' ka kapapama'an]**$_{means}$**.**
child go LOC school RED-carry.on.back ACC vehicle
'The child went to school by bus.' (=5.22a)

b. **korkoring [pa-pama' ka kapapama'an]**$_{prerequisite}$
child RED-carry.on.back ACC vehicle
[rima' ray kakishkaatan]$_{purposive}$**.**
go LOC school
'The child took the bus in order to go to school.' (purposive relation)[71]

c. **korkoring [pa-pama' ka papama'an], 'isa: (korkoring) [rima' ray kakishkaatan].**
child RED-carry.on.back ACC vehicle then child
go LOC school
'The child took the bus and then went to school.' (sequential relation)

[71] When this sentence shows purposive reading, it is core juncture whereby the clausal CLM *'isa:* 'then' cannot occur between two verbal units. This sentence shows sequential reading. In this case, it is a clausal juncture whereby *'isa:* intervenes in between. Observe the contrast below in (i).

(i) The distinction between purposive and sequential relation

a. **korkoring [pa-pama' ka kapapama'an]**$_{prerequisite}$ **(*'isa:)**
child RED-carry.on.back ACC vehicle then
[rima' ray kakishkaatan]$_{purposive}$**.**
go LOC school
'The child took the bus in order to go to school.' (purposive relation)

b. **korkoring [pa-pama' ka kapapama'an]**$_{prerequisite}$ **('isa:)**
child RED-carry.on.back ACC vehicle then
[rima' ray kakishkaatan]$_{purposive}$**.**
go LOC school
'The child took the bus and then he/she went to school.' (sequential relation)

Table 5.2 summarizes properties of juxtaposed verbs expressing motions, position and means relation. They exhibit fixed order of verbs, cannot be intervened by the adverb *naehan* 'again' and the clausal CLM *'isa:* '(and) then'. The CLM =*o* 'and' cannot occur between two verbs.

Table 5.2 Grammatical properties of juxtaposed verbs expressing motion, position and means relations

Types / Grammatical Properties	**Motion**	**Position**	**Means**
Order of verbs	V_{motion}+$V_{action/motion}$	V_{stance}+V_{action}[72]	V_{action}+V_{means}
Voice harmony	AV+AV	AV+AV	AV+AV
Insertion of the adverb *naehan* 'again or still'	✗	NA	✗
Insertion of the CLM *'isa*: 'then'	✗	✗	✗
Insertion of the CLM =*o* 'and'	✗	✓	✗

5.2.2 Juncture-nexus combinations

This section presents juncture-nexus combinations of juxtaposed verbs expressing motion, position and means relations. The analysis of juncture is discussed in section 5.2.2.1. The nexus is discussed in section 5.2.2.2.

5.2.2.1 Junctures of juxtaposed verbs expressing motion, position and means relations (modifying subevents)

These juxtaposed verbs belong to **core** junctures because the verbs share part of their argument structures, instead of sharing the entire set of argument structures.

[72] Juxtaposed verbs expressing position can be paraphrased by the dislocated structure: $[V_{action}]_{clause,}$ $[V_{stance.PROG}]$. This part will be explained in section 6.4.

This feature excludes nuclear junctures, which must share the entire set of arguments. The identical nominative argument of juxtaposed verbs is shared on the basis of argument-control: the omitted nominative argument of the other verbs is controlled by the nominative argument of the first verb. That is to say it is obligatorily omitted and cannot be repeated under pragmatic influence.

(5.27) exemplifies core junctures. (5.27a) is an example of juxtaposed verbs showing motion relation. This core juncture contains two arguments: a nominative argument i.e. the actor *kalih* 'Kalih (person name)' and a location *lamsong* 'Nanchuang (place name)'. Note that the location noun phrase cannot be omitted in this sentence (i.e. with the verb *rima'* 'go' as the main predicate).[73] (5.27b) and (5.27c) show that the action verb *'ae'aeaew* 'run' and the motion verb *rima'* 'go' exhibit their own argument structures in monoclausal structures. (5.27b') is the crucial point of core juncture: the motion verb does not exhibit the same argument structure with the action verb since the former cannot take a location argument in the mono-clausal structure. The examples (5.27a-c) prove that two verbs share part of the argument structure instead of the entire set of arguments. Additionally, this type of juxtaposed verbs is not clausal juncture as well, since an omitted actor in the second core cannot be repeated for pragmatic purpose, as shown in (5.27d).

[73] The verb *rima'* 'go' must take a locative noun phrase in a monoclausal structure.

(5.27) Argument structures of juxtaposed verbs expressing motion relation

a. **kalih** **rima'**$_{motion}$ **'ae'aeaew**$_{action}$ ***(ray** **lamsong).**[74]
PN go run LOC Nanchuang
'Kalih runs to Nanchuang.'

b. **kalih** **rengreng** **<u>'ae'aeaew</u>**$_{action}$ **ririm'anan**.
PN often run morning
'Kalih often jogs in the morning.

b'. ***kalih** **<u>'ae'aeaew</u>** **(ray)** **lamsong.**
PN run LOC Nanchuang

c. **kalih** **<u>rima'</u>**$_{motion}$ **(ray)** **lamsong=ila.**
PN go LOC Nanchuang=COS
'Kalih has gone to Nanchuang.'

d. ***<u>kalih</u>** **'ae'aeaew**$_{action}$ **<u>kalih</u>** **rima'**$_{motion}$ **ray** **lamsong.**
PN run PN go LOC Nanchuang

Juxtaposed verbs expressing a position relation exhibit similar structures in core junctures. (5.28) illustrates this point. Juxtaposed verbs share an identical actor but not the accusative arguments in (5.28a). Evidence is based on the fact that each verb exhibits its own argument structure, as presented in (5.28b) and (5.28c). The omitted actor of the other verbs in (5.28a) is controlled by the nominative actor of the first core. It neither refers to another participant nor it is repeated under pragmatic influence as (5.28d) shows.

(5.28) Juxtaposed verbs expressing a position relation

a. [**<u>'aro'</u>**$_{A}$ **miririi'**]$_{core1}$ [**k<om>ita'** **ka** **kinaat**]$_{core2}$.
PN AV:stand <AV>see ACC book
'Aro reads books standing.'

[74] Locative nouns such as *taew'an* 'house, home' and *lamsong* 'Nanchuang' do not obligatorily require presence of the locative case *ray*.

b. **<u>'aro'</u>** **miririi'** **ray** **taew'an** **latar.**
PN AV:stand LOC house outside
'Aro stands outside the house.'

c. **<u>'aro'</u>** **k<om>ita'** **ka** **kinaat**.
PN <AV>see ACC book
'Aro reads the book.'

d.*[**<u>'aro'</u>**$_A$** **miririi'**]$_{core1}$ **<u>'aro'</u>**$_A$ [**k<om>ita'** **ka** **kinaat**]$_{core2}$.
PN AV:stand PN <AV>see ACC book

(5.29) illustrates the core juncture of juxtaposed verbs expressing means relation. The juxtaposed verbs in (5.29a) share the actor but not the accusative argument, *kapapama'an* 'vehicle'. Evidence is provided in (5.29b) and (5.29c), in which the verbs of (5.29a) exhibit different argument structures. Like the other two types discussed above, this type of juxtaposed verbs are not clausal juncture. (5.29d) shows that the shared actor cannot be repeated before the other verbs (i.e. the second core).

(5.29) Juxtaposed verbs expressing means relation

a. [**korkoring** **rima'** **ray** **kakishkaatan**]$_{core1}$
child go LOC school
[pa-pama' **ka** **papama'an**]$_{core2}$. (=5.6a)
RED-carry.on.back ACC vehicle
'The child went to school by bus.'

b. **<u>korkoring</u>** **rima'=ila** **ray** **kakishkaatan.**
child go=COS LOC school
'The child has gone to school.'

c. **<u>korkoring</u>** **pa-pama'** **ka** **kapapama'an.**
child RED-carry.on.back ACC vehicle
'The child took the car.'

d.*[**korkoring** **rima'** **ray** **kakishkaatan**]$_{core1}$ [**korkoring**
child go LOC school child
pa-pama' **ka** **kapapama'an**]$_{core2}$.
RED-carry.on.back ACC vehicle

Another reason to reject the analysis of clausal juncture for these juxtaposed verbs is the impossible insertion of the clausal CLM *'isa:* 'then'. This restriction indicates that there is no clausal boundary between two juxtaposed verbal units. Examples have been provided in section 5.1.1. Further examples are provided below in (5.30).

(5.30) No-insertion of the clausal CLM *'isa*: 'then'

a.***korkoring** **rima'** **ray** **kakishkaatan,** **'isa:**
child go LOC school then
pa-pama' **ka** **kapapama'an**.
RED-carry.on.back ACC vehicle
Intended for: 'The child goes to school and then takes a car (implying *bus*).'

a'. **korkoring** **rima'** **ray** **kakishkaatan** **pa-pama'** **ka**
child go LOC school RED-carry.on.back ACC
kapapama'an, **'isa:** **kishkaat.**
vehicle then study
'The child goes to school by car (implying *bus*) and then studies.'

b.***kalih** **'ae'aeaew** **'isa:** **rima'** **ray** **lamsong.**
PN run then go LOC
Nanchuang
Intended for:'Kalih runs and then go to Nanchuang.'

b'.**kalih** **'ae'aeaew** **rima'** **ray** **lamsong,** **'isa:** **baeiw**
PN run go LOC Nanchuang then buy
ka **tawmo'.**
ACC banana
'Kalih ran to Nanchuang and then bought bananas.'

(5.31) schematizes the core juncture of these three types of juxtaposed verb. The representations in (5.31) show that the argument structures of these juxtaposed verbs are the sum of argument structures of each verb.

(5.31) Core juncture of juxtaposed verbs expressing motion, position and means relations

					Examples
a. $V_{motion/position\ (arg=1)}$	+	$[V]_{arg=2.}$	→	$V1V2_{arg=2}$	(5.20a)
b. $V_{motion/position\ (arg=1)}$	+	$[V]_{arg=1}$	→	$V1V2_{arg=1}$	(5.18a)
c. $[V]_{arg=2}$	+	$V_{means(arg=2)}$	→	$V1V2_{arg=2}$	(5.22a)
d. $[V]_{(arg=1)}$	+	$V_{means(arg=1)}$	→	$V1V2_{arg=1.}$	(5.31e)

e. **korkoring** **rima'** **manraan** **ray** **kakishkaatan** .
child go AV:walk LOC school
'The child walks to school.'

5.2.2.2 Nexus of juxtaposed verbs expressing motion, position and means relations

Figure 5.3a specifies the division of nexus of juxtaposed verbs expressing the three types of relations. Juxtaposed verbs expressing motion and means relations belong to cosubordination, and those showing a position relation are subordination.

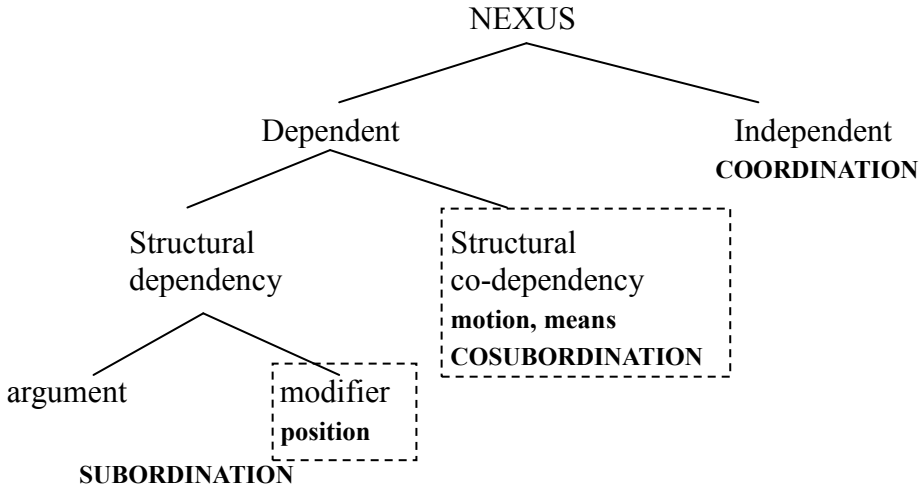

Figure 5.3a Nexus types of juxtaposed verbs showing motion, position and means relations

The following discussion provides an explanation on the dichotomy of the three types of juxtaposed verbs, as specified in Figure 5.3b and discusses as follows.

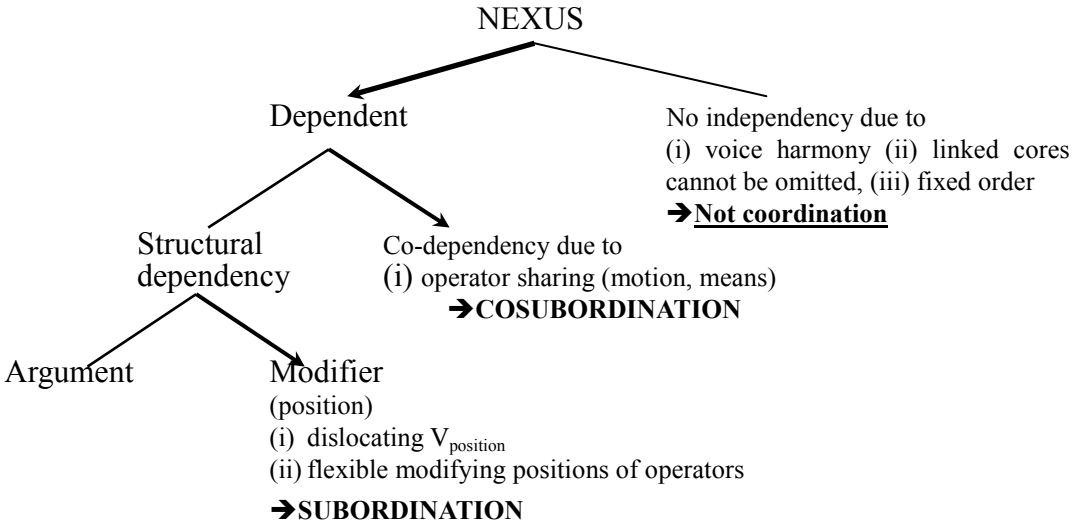

Figure 5.3b The rationale of (co)subordination analyses

Figure 5.3b shows that juxtaposed verbs expressing the motion and means relations exhibit **cosubordination** because they obligatorily share core operators. Those showing the position relation are **subordination** because of structural

embedment. There are two pieces of evidence for this analysis: (i) the structure of dislocating the matrix verbs and (ii) possible insertion of negators.

To begin with, these three types of juxtaposed verbs cannot be treated as coordination because they do not exhibit structural independence. The crucial reason is the voice harmony as reported in section 5.2.1. That is, two cores do not show syntactic independence in terms of voice marking. The second reason is fixed order of verbal units (i.e. linked cores) also exhibit the nature of non-independency as specifically demonstrated in the previous examples of (5.25). Another reason is semantic-based: both cores are required to be presented in order to denote a intact proposition of position, means and manner relations. Unlike juxtaposed verbs expressing sequential and simultaneous relations in clausal junctures, omission of either core unit will result in a change of their original meanings.

This analysis is laid out as follows. For juxtaposed verbs expressing motion and means relations, the operator sharing is obligatory, as demonstrated in (5.32) and (5.33). In these two examples, the negator *'okay* 'do/did not' i.e. the core operator, modifies both cores by occurring before the two verbal units (i.e. two linked cores) Observe (5.32a) and (5.33a) for this constraint. The core operator cannot independently modify the other verbs by occurring before it, as shown in (5.32a'). The negator has modifying scope on both verbs as shown in (5.32b-b'), whereby

the V2 cannot occur in AV, but has to appear as the dependent form. Note that (5.33b), if acceptable, shows temporally unordered states of affairs (*cf.* Van Valin 2005:207).[75]

(5.32) Obligatorily sharing of core operators (motion)

a. **yako** **'okay** **'osha'** **lalangoy** **kabih-no-baala'.**
1SG.GEN NEG.LIG go swim next.to-DAT-river
'I do not swim to the other side of river.'

a'. ***yako** **rima'** **'okay** **lalangoy** **kabih-no-baala'.**[76]
1SG.GEN go NEG.LIG swim next.to-DAT-river

b. **korkoring** **'okay** **'osha'** **panraan** **ray** **kakishkaatan.**
child NEG.LIG go walk LOC school
'The child walked to school.'

b'. ***korkoring** **'okay** **'osha'** **manraan** **ray** **kakishkaatan.**
child NEG.LIG go AV.walk LOC school

(5.33) Obligatorily sharing of core operators (means)

a. **korkoring** **'okay** **'osha'** **ray** **kakishkaatan**
child NEG:LIG go LOC school
pa-pama' **ka** **kapapama'an.**
RED-carry.on.back ACC vehicle
'The child did not go to school by bus.'

[75] Temporally unordered states of affairs are defined as follows in RRG: the temporal relation between states of affairs is unexpressed, e.g. *Tyrone talked to Tanisha, and Yolanda chatted with Kareem* (Van Valin 2005:207).

[76] This example can be adapted as follows in (i).

(i) Negation

a. **yako** **rima'** **kabih-no-baala',** **'okay** **lalangoy.**
1SG.NOM go next.to-DAT-river NEG:LIG swim
'I went to the other side of the river, but I did not swim there (temporally unordered states of affairs).'

b. **yako** **rima'** **kabih-no-baala',** **'okik** **'am=lalangoy.**
1SG.NOM go next.to-DAT-river NEG:LIG:STAT IRR=swim
'I went to the other side of the river, but not for swimming there.'

b.***korkoring** **rima'** **ray** **kakishkaatan**
child go LOC school
'okay **pa-pama'** **ka** **kapapama'an.**
NEG:LIG RED-carry.on.back ACC vehicle
Unless it means: 'The child goes to school and he/she does not take bus (temporally unordered states of affairs).'

Juxtaposed verbs expressing the position relation cannot be considered as cosubordination, because the two verbs do not obligatorily share the same operators. Negators can independently modify the second verbs as in (5.34a) and (5.34b). When a negator occurs before a position verb, it only modifies the first core. However, the second core is not negated as shown in (5.34a') and (5.34b'). Evidence is based on the voice marking of the second verb. As introduced in chapter 3, negated verbs must occur in nonfinite forms. If the two verbs were negated, both of them would occur in nonfinite forms. However the examples of (5.34) show that only the first verb (i.e. the position verb as verbal modifier) occurs in nonfinite form, while the second verb remains in AV marking, revealing the sequence: $[\text{NEG+ V1}_{\text{NONFINITE}}]\text{+ [V2]}_{\text{AV}}$.

(5.34) Scope of negators
a. **'aro'** **miririi'** **'okay** **kita'** **ka** **kinaat**.
PN AV:stand NEG:LIG see ACC book
'Aro stands and does not read books.'
a'. **'aro'** **'okay** **'iririi'** **k<om>ita'** **ka** **kinaat**.
PN NEG:LIG stand <AV>see ACC book
'Aro does not stand reading books.'

b. **lasia** **masha.eng=ila** **<u>'okay</u>** **paehraehrang**.
3PL.NOM AV:sit=COS NEG:LIG discuss
'They are sitting and do not discuss.'

b'. **lasia** **<u>'okay</u>** **pasha.eng** **maehraehrang**.
3PL.NOM NEG:LIG sit AV.discuss
'They did not discuss sitting.'

Therefore, juxtaposed verbs expressing a position relation belong to **subordination** because the verbs denoting position meanings display structural dependency to the seconds verbs, exhibiting the sequence $V_{position(modifier)}+V_{action(modifiee)}$. In this structure, the position verbs act as verbal modifiers that describes further facets of the other verbs. This analysis is substantiated by three reasons. First, the position verbs can be dislocated after a clause when it is cliticized, indicating they are subordination. Examples have been demonstrated in (5.20a-a') and are repeated below in (5.35).[77] Second, the other verbal unit cannot appear in the dislocated position with the marking of progressive as in (5.35b).[78] This restriction indicates that the other verbs does not function as a modifier but as a modifiee. Third, this type of juxtaposed verbs exhibit flexible modifying positions of operators: a negator can occur between

[77] Another example of this structure is provided as follows in (i).
(i) A dislocated structure of position verbs
a. **lasia** **masha.eng** **maehraehrang**.
3PL.NOM AV:sit AV.discuss
'They discuss things sitting (position relation).'
b. [**lasia** **maehraehrang**]$_{clause}$, **'ima=masha.eng** .
3PL.NOM AV.discuss PROG=AV:sit
'They discuss things and are sitting (simultaneous relation).'
*'They discuss things sitting (position relation).'

[78] (5.35b) denotes a simultaneous relation instead of a position relation.

two cores as shown in (5.35c).[79] This structure further shows that they involve the modifier-modifiee structure.

(5.35) Dislocated structures

a. **'aro'** **miririi'**$_{stance}$ **k<om>ita'**$_{action}$ **ka** **kinaat**.=(5.20a)
PN AV:stand <AV>see ACC book
'Aro is reading a book standing.'

a'.[**'aro'** **k<om>ita'**$_{action}$ **ka** **kinaat]**$_{clause}$, **'ima=miririi'**$_{stance}$.
PN <AV>see ACC book PROG=AV:stand
'Aro reads a book while he is standing.'

b.**'aro'** **miririi'**, **'ima=k<om>ita'**$_{action}$ **ka** **kinaat**.[80]
PN AV:stand PROG=<AV>see ACC book
'Aro stands and he is reading a book.' (simultaneous relation)
Does not mean: 'Aro is reading books standing.'

c. **'aro'** **[miririi']**$_{core1(modifier)}$ **'okay** **[kita'** **ka** **kinaat]**$_{core2(modifiee)}$
PN AV:stand NEG:LIG see ACC book
'Aro stands and does not read a book.'

5.2.3 Interim summary

Summing up, juxtaposed verbs expressing position are **core subordination** and juxtaposed verbs expressing motion and means are **core cosubordination**. The mapping between semantic relations and juncture-nexus combinations gives rise to an interesting issue. Although motion and means verbs are semantically modifiers based

[79] This structure indicates that this type of juxtaposed verbs is not in the predicate-argument structure, since a negator cannot occur before an object argument in Saisiyat as shown in (ia-b).

(i) Negation
a.***'aro'** **k<om>ita'** **'okay** **ka** **kinaat.**
PN <AV>see NEG:LIG ACC book
b. **'aro'** **'okay** **kita'** **ka** **kinaat.**
PN NEG:LIG see ACC book
'Aro does not read a book.'

on RRG's definitions introduced in section 5.2, their syntactic manifestation does not reflect such a semantic nature. The juxtaposed verbs have equal syntactic weight and are combined under a co-dependent relation (i.e. cosubordination). As for juxtaposed verbs expressing position relations, their juncture-nexus combinations reflect their semantic nature: the position verbs act as syntactic modifiers of the other verbs, exhibiting subordination.

Figure 5.4a depicts the layered structure of juxtaposed verbs expressing motion relation. The juxtaposed verbal units constitute cosubordinate core juncture. The core operator *'okay* 'not (negator)' modifies the cosubordinate core.

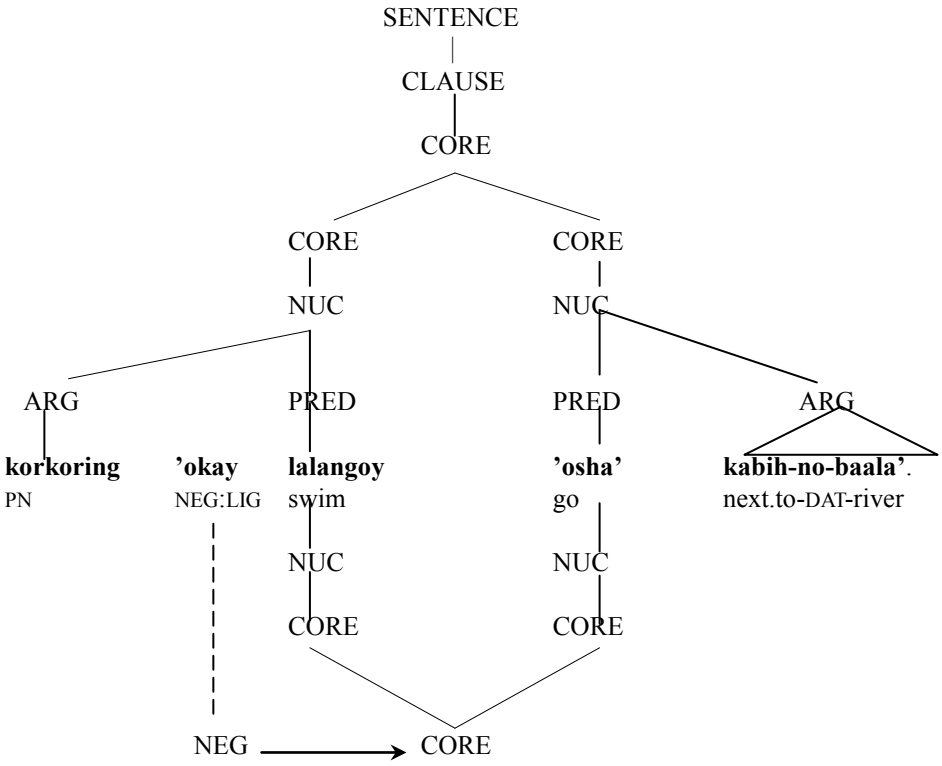

Figure 5.4a The layered structure of juxtaposed verbs expressing the motion relation

Figure 5.4b depicts the layered structure of juxtaposed verbs expressing means relation. The juxtaposed verbal units constitute cosubordinate core juncture. The core operator *'okay* 'not (negator)' modifies the cosubordinate core.

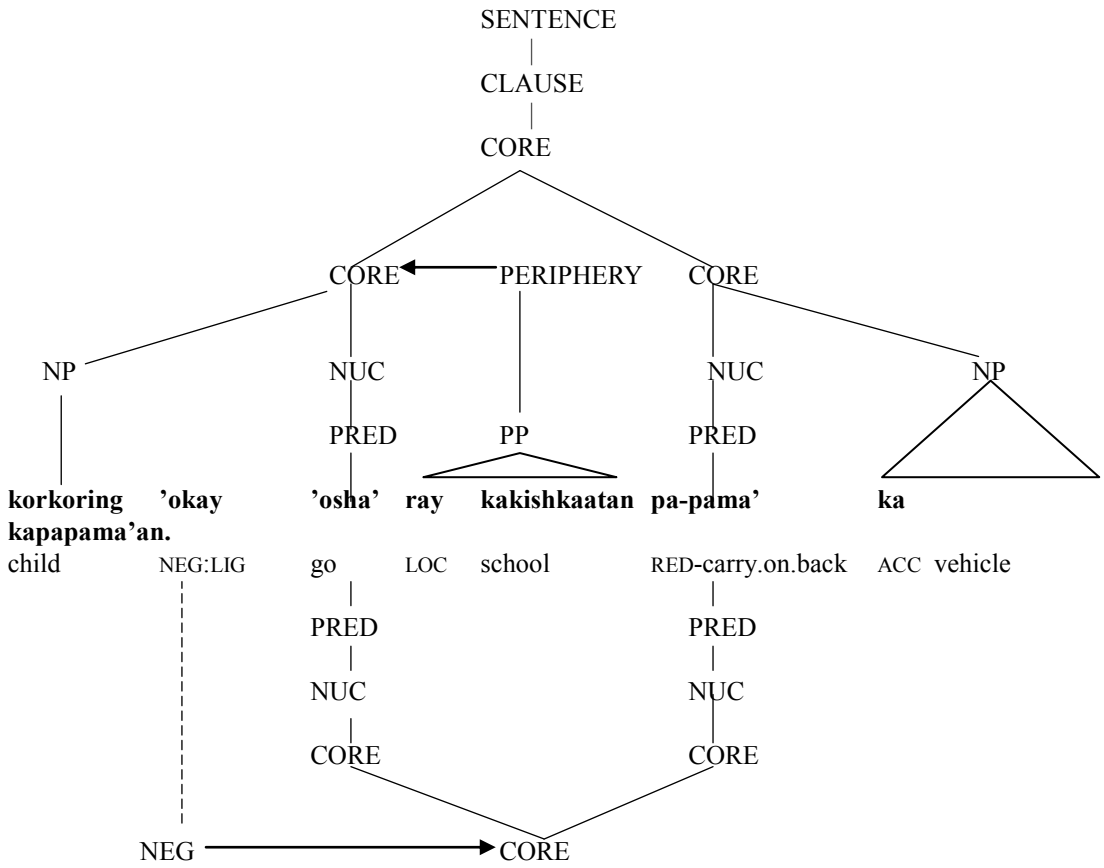

Figure 5.4b The layered structure of juxtaposed verbs expressing the means relation

Figure 5.4c depicts the layered structure of juxtaposed verbs expressing position relation. The second core unit *maehraehrang* 'discuss [AV]' is a core that modified by the core *masha.eng* 'sit [AV]'. The shared argument of the second is syntactically controlled by the same argument in the first core, and is obligatorily

omitted. Note that the negator *'okay* modifies the first core and indicates the meaning: "being not standing" in the verbal juxtaposition.

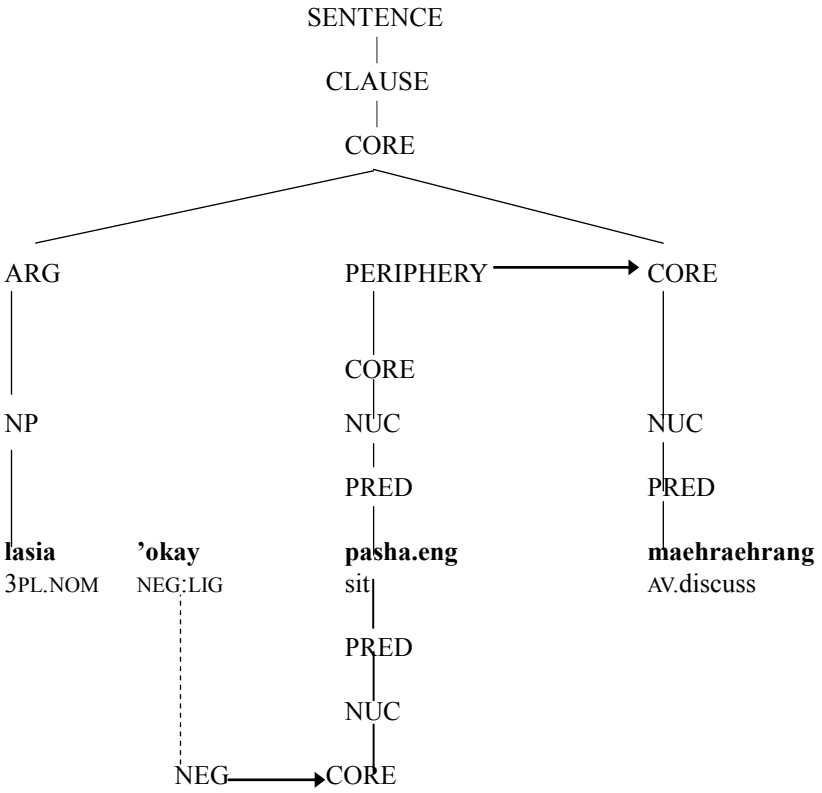

Figure 5.4c The layered structure of juxtaposed verbs expressing the position relation

The periphery unit is typologically special but common in Formosan languages (not only in Saisiyat but also in Kavalan and Seediq). Semantically speaking, it is a modifier, but syntactically it involves operator modification that does not function on the other verb. This dissertation treats them as constructions of verbal modifiers. Chapter 8 further elaborates on this part together with their relation with other grammatical relations.

5.3 Juxtaposed verbs expressing psych-action relation

In RRG, a psych-action relation is defined as 'a mental disposition regarding a possible action on the part of a participant *x* in the state of affairs, e.g. *Max decided to leave; Sally forgot to open the window,* (Van Valin 2005:206)'. In Saisiyat, there are various monoclausal structures (in core junctures) to express this semantic relation. Section 5.3.1 elaborates on grammatical properties of this semantic relation.

5.3.1 Grammatical properties of juxtaposed verbs expressing psych-action relation

A psych-action relation in Saisiyat is denoted by a psych-action verb (V1) describing a mental state e.g., *mangoip* 'forget [AV]' or *shingoip* 'forget [UVC]' and the other verb denoting an action.[81] (5.36) schematizes the type of juxtaposed verbs. The two verbs can be both AV-marked verbs: AV+AV as schematized in (5.36a). They cannot have the alignment of AV+UVP as in (5.36b). The psych-action verbs do not occur in UVP form in verbal juxtaposition but can occur in UVC marking as shown in (5.36c). In this construction, the other verbs must occur in the form of gerunds instead of AV

[81] As introduced in Zeitoun et al. (2015), psych-action verbs *mangoip* 'forget[AV]' and *ma:hoero*: 'remember[AV]' are not stative verbs because they do not exhibit two basic features of stative verbs. They neither exhibit the *ma-~ka-* alternation as indicated in (ib), nor are negated by *'okik* 'not (the negator for stative verbs)' as indicated in (ic).

(i) a. **yako** **ma-ngoip** **baeiw** **ka** **tawmo'**.
1SG.NOM AV-forget buy ACC banana
'I forget to buy banana.'

b. ***yako** **'okay** **kangoip** **baeiw** **ka** **tawmo'**.
1SG.NOM NEG:LIG forget buy ACC banana

c. **yako** **'okay/*'okik** **ngoip** **baeiw** **ka** **tawmo'.**
1SG.NOM NEG:LIG/NEG:STAT:LIG forget buy ACC banana
'I did not forget to buy banana.'

or UVP, as represented in (5.36d-e). Note that a psych-action verb can take a clausal complement as its argument in (5.36f). A psych-action verb can occur in a dislocated structure as in (5.36g).

(5.36) Schema of juxtaposed verbs expressing the psych-action relation and related structures

						Examples
a.	$Actor_{NOM}$	+	$[V]_{psych.AV}$	+	V_{AV}	(5.37a)
b.*	$Actor_{NOM}$	+	$[V]_{psych.AV}$	+	V_{UVP}	(5.37b)
c.*	$Undergoer_{NOM}$	+	$[V]_{psych.UVC}$	+	$V_{AV/UVP}$	(5.37c-d)
	---					
d.	$Actor_{NOM}$	+	$[V]_{psych.AV}$	+	V_{GER}	(5.37e)
e.	$Undergoer_{NOM}$	+	$[V]_{psych.UVC}$	+	V_{GER}	(5.37f)
f.	$Actor_{NOM}$	+	$[V]_{psych.AV}$	+	$[CLAUSE]_{AV/UVP}$	(5.37g-h)
g.	$[CLAUSE]_{AV/UVP}$**,**	+	$Actor_{NOM}$	+	$[V]_{psych.AV}$	(5.41a')

The schema of (5.36) is exemplified in (5.37) and (5.41a') as follows.

(5.37) Examples of juxtaposed verbs expressing the psych-action relation

a. **yako kahia' [ma-ngoip]$_{psych}$ [r<om>a'oe: ka 'io'].**
1SG.NOM yesterday AV-forget <AV>drink ACC medicine
'I forgot to take (my) medicine yesterday.'

b.***'aro' kahia' [ma-ngoip]$_{psych}$ [ra'oe(:)-en ka 'io'].**
PN yesterday AV-forget drink-UVP ACC medicine

c.***'io' ma'an [shi-ngoip]$_{psych}$ [ra'oe(:)-en].**
medicine 1SG.GEN UVC-forget drink-UVP

d.***'io' ma'an [shi-ngoip]$_{psych}$ [r<om>a'oe:].**
medicine 1SG.GEN UVC-forget <AV>drink

e. **yako kahia' [ma-ngoip]$_{psych}$ 'am-[r<om>a'oe: ka 'io'].**
1SG.NOM yesterday AV-forget GER-<AV>drink ACC medicine
Lit.: 'I forgot the matter of taking medicine yesterday.'
'I forgot to take (my) medicine yesterday.'

f. **’io’** **ma’an** **[shi-ngoip]**$_{psych}$ **[’am-r<om>a’oe:].**
medicine 1SG.GEN UVC-forget GER.IRR-<AV>drink
‘I forgot to took the medicine.’

g. **yako** **ma-ngoip** **[korkoring** **r<om>a’oe:=ila** **ka** **’io’]**$_{CLAUSE}$.
1SG.NOM AV-forget child <AV>drink=COS ACC medicine
‘I forgot that the child has already taken the medicine.’

h. **yako** **ma-ngoip** **[’io’** **noka** **korkoring** **ra’oe(:)-en=ila]**$_{CLAUSE}$.
1SG.NOM AV-forget medicine GEN child drink-UVP=COS
Lit. ‘I forget that the medicine has been taken by the child.’
‘I forgot that the child has already taken the medicine.’

The gerundive analysis for V2s in (5.37e) and (5.37f) are ascribed to two pieces of evidence.[82] Gerunds cannot be negated by predicate negators e.g., *’okay* ‘not [NEG:LIG]’ as in (5.38), indicating that they are not finite verbs.

(5.38) Non-negated gerundive V2s

a. **yako** **’okay** **ngoip** **’am-r<om>a’oe:** **ka** **’io’.**
1SG.NOM NEG:LIG forget GER.IRR-<AV>drink ACC medicine
‘I did not forget to take the medicine.’

a’.***yako** **ma-ngoip** **’okay** **’am-r<om>a’oe:** **ka** **’io’.**
1SG.NOM AV-forget NEG:LIG GER.IRR-<AV>drink ACC medicine

b. **’io’** **ma’an** **’okay** **ngoip** **’am-r<om>a’oe:.**
medicine 1SG.GEN NEG:LIG forget GER.IRR-drink
‘I did not forget to take the medicine.’

b’.***’io’** **ma’an** **shi-ngoip** **’okay** **’am=ra’oe:.**
medicine 1SG.GEN UVC-forget NEG:LIG IRR=drink

Moreover, gerunds do not take an actor as argument as shown in (5.39b-c). By contrast, a clausal complementation allows the nominative actor of a V2 to occur in

[82] The tests for Saisiyat gerunds follows the analysis proposed in Zeitoun et al. (2015:489-490) whereby a detailed discussion of Saisiyat gerunds is rendered.

(5.39a). These two traits suggest that a gerundive V2 acts as the argument of the psych-action verb (V1).

(5.39) No genitive actor for a gerundive V2

a. **yako ma-ngoip [’aro’ r<om>a’oe:=ila ka ’io’]**$_{\text{CLAUSE}}$**.**
1SG.NOM AV-forget PN <AV>drink=COS ACC medicine
‘I forgot Aro has taken the medicine.’

b.***yako ma-ngoip ni ’aro’ ’am-r<om>a’oe: ka ’io’.**
1SG.NOM AV-forget GEN PN GER.IRR-<AV>drink ACC medicine

c.***yako ma-ngoip ’aro’ ’am-r<om>a’oe: ka ’io’.**
1SG.NOM AV-forget PN GER.IRR-<AV>drink ACC medicine

It is worth mentioning that juxtaposed verbs expressing psych-action relations can be approximately paraphrased by bi-clausal constructions as shown in (5.40). In (5.40a), the event: NOT TAKING MEDICINE is realized in the second clause. In (5.40b), the event: TAKING MEDICINE also exhibits a similar structure. This construction belongs to clausal cosubordination, and it will be discussed in chapter 6.

(5.40) Bi-clausal structures expressing the psych-action relation

a. **[yako kahia’ ma-ngoip=ila]**$_{\text{CLAUSE1}}$**,**
1SG.NOM yesterday AV-forget=COS
[’okay ra’oe: ka ’io’]$_{\text{CLAUSE2}}$**.**
NEG:LIG drink ACC medicine
‘Yesterday I forgot, and didn’t take (my) medicine.’

b. **[yako kahia’ ma-ngoip=ila]**$_{\text{CLAUSE1}}$**,**
1SG.NOM yesterday AV-forget=COS
[r<om><in>a’oe:=ila ka ’io’]$_{\text{CLAUSE2}}$**.**
<AV><PERF>drink=COS ACC medicine
‘I forgot that I has taken medicine yesterday.’

Juxtaposed verbs showing a psych-action relation further display the following properties. First, order of juxtaposed verbal units is fixed: a psych-action verb must precede the other verbs in monoclausal structures, as previously exemplified in (5.37a) and (5.37d). Reverse order is ungrammatical as demonstrated in (5.41a) and (5.41b). When the other verbs precedes its psych-action verb, the sentence is a bi-clausal structure, as shown in (5.41a') and (5.41b').

(5.41) Grammatical properties of juxtaposed verbs expressing the psych-action relation

a.***yako** **kahia'** **r<om>a'oe:** **ka** **'io'** **ma-ngoip.**
1SG.NOM yesterday <AV>drink ACC medicine AV-forget
Intended for: 'I forgot to take the medicine yesterday.'

a'.**yako** **kahia'** **<u>'am=/mina=</u>r<om>a'oe:** **ka** **'io',**
1SG.NOM yesterday IRR=/should=<AV>drink ACC medicine
(yako) **ma-ngoip=ila.**[83]
1SG.NOM AV-forget=COS
'I wanted to take /should have taken (my) medicine yesterday, but I forgot.'

b.***'io'** **ma'an** **['am-r<om>a'oe:]** **[shi-ngoip]**$_{psych}$**.**
medicine 1SG.GEN GER.IRR-<AV>drink UVC-forget

b'.**'io'** **ma'an** **[ka-ra'oe(:)-en],** **'isa:** **[shi-ngoip=ila]**$_{psych}$**.**
medicine 1SG.GEN IRR-drink-UVP then UVC-forget=COS
'I wanted to take (my) medicine yesterday, but I forgot it.'

Second, juxtaposed verbs expressing psych-action relation exhibit certain degrees of structural tightness between the two verbs, since the adverb *naehan*

[83] Note that in this structure, the irrealis marker *'am*= 'will' or the deontic marker *mina*= 'should' are required to occur before the second verb. Both functional words only have scope on V2s.

‘again’, the CLMs *’isa*: ‘then’ and conjunctor =*o* ‘and’ cannot occur between the two verbs. Observe (5.42) for such the restriction.

(5.42) Non-insertion of adverbs and CLMs (=*o* ‘and’ and *’isa*: ‘then’)

a.***yako** **ma-ngoip** **naehan** **r<om>a’oe:** **ka** **’io’.**
1SG.NOM AV-forget again <AV>drink ACC medicine

a’. **yako** **ma-ngoip** **r<om>a’oe:** **ka** **’io’** **naehan.**
1SG.NOM AV-forget <AV>drink ACC medicine again
‘I forget to take (my) medicine again.’

b.***korkoring** **ma-ngoip** **’isa:** **r<om>a’oe:** **ka** **’io’.**
child AV-forget then <AV>drink ACC medicine

b’.**korkoring** **ma-ngoip** **r<om>a’oe:** **ka** **’io’** **’isa:**
child AV-forget <AV>drink ACC medicine then
’ayaeh=ila.
sick=COS
‘The child does not take (my) medicine and then becomes sick.’

c.***yako** **ma-ngoip=o** **r<om>a’oe:** **ka** **’io’.**
1SG.NOM AV-forget=CONJ <AV>drink ACC medicine

c’. **yako** **ma-ngoip** **po-ralom** **ka** **por’oe’=o**
1SG.NOM AV-forget pour-water ACC vegetable=CONJ
s<om>apoeh **ka** **pongpongaehan.**
<AV>sweep ACC garden/flower.bed
‘I forget to sprinkle the vegetables and sweep the garden.’

Table 5.3 summarizes the grammatical properties of juxtaposed verbs expressing the psych-action relation in Saisiyat. Order of verbal units is fixed. The CLMs *’isa:* ‘then’, =*o* ‘and’ and the adverb *naehan* ‘again’ cannot occur between psych-action verbs and the other verbal units. Moreover, this type of juxtaposed verbs conforms to constraint of voice harmony because the voice alignment is relatively

restricted.

Table 5.3 Grammatical properties of juxtaposed verbs expressing psych-action relation

Grammatical properties \ Types	Juxtaposed verbs expressing psych-action relation	
Order of verbal units	$V_{psych}+V_{action}$	
Insertion of the adverb *naehan* 'again'	✗	
Insertion of the CLM *'isa*: 'then'	✗	
Insertion of the CLM *=o* 'and'	✗	
Voice harmony	✗	AV+AV/VGER
		UVC+VGER

5.3.2 Juncture-nexus combinations

Section 5.3.2.1 accounts for juncture of juxtaposed verbs expressing psych-action relation, and section 5.3.2.2 discusses their nexus.

5.3.2.1 Juncture of juxtaposed verbs expressing psych-action relation

Juxtaposed verbs showing psych-action relation belong to core juncture because verbs share part of argument structures. (5.43) exemplifies this structure. In (5.43a), the psych-action verb *mangoip* 'forget [AV]' and the action verb *roma'oe:* 'drink [AV]' share the same actor but not the undergoer *'io'* 'medicine'. The reason of this claim is that these verbs do not exhibit identical argument structure as demonstrated in (5.43b-c).

(5.43) Core juncture

a. **koko'** **ma-ngoip** **r<om>a'oe:** **ka** **'io'.**
grandmother AV-forget <AV>drink ACC medicine
'Grandmother forgot to take (her) medicine.'

b. **koko** **ma-ngoip** **hisia.**
grandmother AV-forget 3SG.ACC
'Grandmother forgot him/her.'

b'. ***koko'** **ma-ngoip** **ka** **'io'**.
grandmother AV-forget ACC medicine

c. **koko'** **r<om>a'oe:** **ka** **'io'.**
grandmother <AV>drink ACC medicine
'Grandmother took (her) medicine.'

(5.44) also exhibits a similar pattern of argument sharing, in which two verbs only share the actor *korkoring* 'the child', but not the undergoer *tatini'* 'old (wo)man'.

(5.44) Core juncture

a. **korkoring** **ma-hoero:** **lobih.**
child AV-remember return
'The child remembers to come home.'

b. **korkoring** **ma-hoero:** **ka** **tatini'.**
child AV-remember ACC old.(wo)man
'The child recognizes the old man/woman.'

c. **korkoring** **lobih=ila.**
child return=COS
'The child has come home.'

The UVC+GER pattern also involves a similar structure of core juncture as exemplified in (5.45a). The UVC psych-action verb *shingoip* 'forget[UVC]' and the other verbs *'a(m)mari'* 'take[IRR.GER]' share the nominative undergoer *kinaat* 'book'.

These two verbs do not show the same set of argument structure, which is demonstrated in (5.45b-d) as follows. (5.45b-b') indicate that the UVC verb *shingoip* 'forget[UVC]' takes the undergoer as the argument.[84] (5.45c-d) indicates that the gerundive verb *'a(m)-mari'* 'take[GER]' takes the undergoer *kinaat* 'book' as argument.

(5.45) Core juncture (UVC+GER)

a. **kinaat** **ma'an** **shi-ngoip** **'a(m)-mari'=ila**.
book 1SG.GEN UVC-forget IRR.GER-AV.take=COS
'I forget to bring the book.'

b. [**ma'an** **(ka)** **kinaat**]$_{undergoer}$ **shi-ngoip=ila.**
1SG.GEN (LIG) book UVC-forget=COS
Lit. 'My book was forgotten.'
'I forgot my book.'

b'. **kinaat** **ma'an** **shi-ngoip=ila.**
book 1SG.GEN UVC-forget=COS
'I forgot the book.'

c. ***kinaat** **ma'an** **'a(m)-mari'=ila**.
book 1SG.GEN IRR.GER-AV.take=COS
'I take the book with me.'

d. **yako** **ma-ngoip** [**'a(m)-mari'** [**ka** **kinaat**]].
1SG.NOM AV-forget IRR.GER-AV.take ACC book
'I forget to bring the book.'

Juxtaposed verbs expressing psych-action relation cannot be treated as nuclear juncture because they do not share an entire set of argument structure or undergo argument fusion. They are not clausal juncture because the argument sharing in

[84] Note that the actor is not shared since the gerundive verb do not take an genitive actor as argument as shown in (5.29c).

juxtaposition is ascribed to argument control instead of coreference. The omitted argument (i.e. the actor of V2) cannot be repeated before the second core, when two cores are in the AV+AV pattern as exemplified in (5.46).

(5.46) Non-clausal juncture

a. **koko'** **ma-ngoip** **r<om>a'oe:** **ka** **'io'**. =(5.21a)
grandmother AV-forget <AV>drink ACC medicine
'Grandmother forgot to take the medicine.'

b.***koko'** **ma-ngoip** **<u>koko'</u>** **r<om>a'oe:** **ka** **'io'.**
grandmother AV-forget grandmother <AV>drink ACC medicine

When two cores exhibit the UVC+GER pattern, the controlled argument is the nominative undergoer as in (5.47a). The controlled nominative undergoer cannot be repeated in the second core as shown in (5.47b). The genitive actor cannot be repeated as well as in (5.47c).

(5.47) Non-clausal juncture

a. **'io'** **ma'an** **shi-ngoip** **'a(m)-mari'=ila.**
medicine 1SG.GEN UVC-forget GER.IRR-AV.take=COS
'I forgot to took the medicine.'

b.***'io'** **ma'an** **shi-ngoip** **<u>'io'</u>** **'a(m)-mari'=ila.**
medicine 1SG.GEN UVC-forget medicine GER.IRR-AV.take=COS

c.***'io'** **ma'an** **shi-ngoip** **<u>ma'an</u>** **'a(m)-mari'=ila.**
medicine 1SG.GEN UVC-forget 1SG.GEN GER.IRR-AV.take=COS

(5.48) summarizes the core juncture of juxtaposed verbs expressing psych-action relation. It shows that the argument structures of these juxtaposed verbs are not

simply the sum of their arguments, because two verbs share part of their arguments and form a new argument structure in core junctures.

(5.48) Juxtaposed verb denoting psych-action relations in core junctures Examples

a. $verb_{psych.AV(arg=2)}$ + $[V]_{(arg=2)}$ → $V_{psych}V_{lexical(arg:2)}$ (5.43a)

b. $verb_{psych.AV(arg=2)}$ + $[V]_{(arg=1)}$ → $V_{psych}V_{lexical(arg:1)}$ (5.24a)

c. $verb_{psych.UVC(arg=2\ or\ 1)}$ + $[V]_{(arg=2)}$ → $V_{psych}V_{lexical(arg=2)}$ (5.45a)

5.3.2.2 Nexus of juxtaposed verb denoting psych-action relation

Juxtaposed verbs expressing the psych-action relations belong to **subordination**. In the structure of subordination, the V2 units are embedded complements of psych-action verbs (i.e. the matrix verbs). Figure 5.5a specifies the division of nexus of juxtaposed verbs expressing psych-action relation.

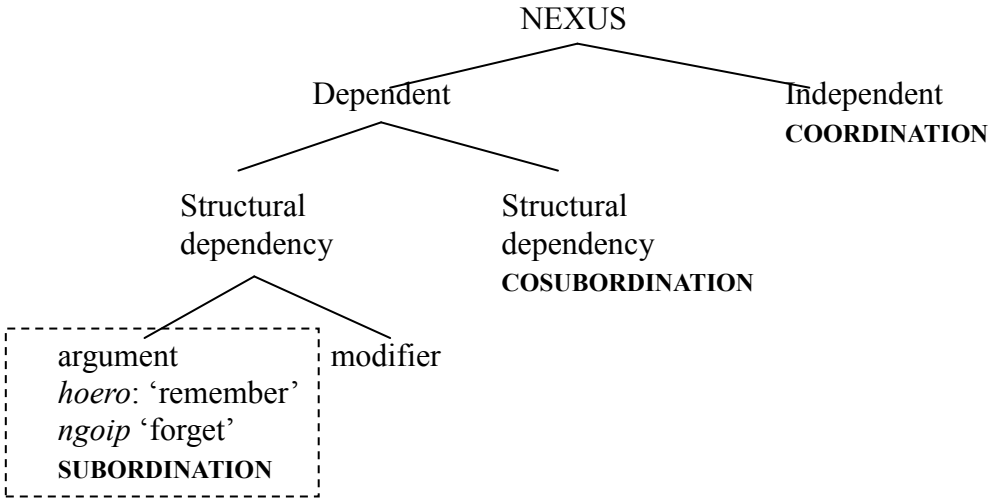

Figure 5.5a Nexus types of juxtaposed verbs expressing psych-action relation

The following discussion provides an explanation on the dichotomy of the two types, as schematized in Figure 5.5b. This type of juxtaposed verbs is **subordination** because of structural embedment. This analysis can be rendered as follows.

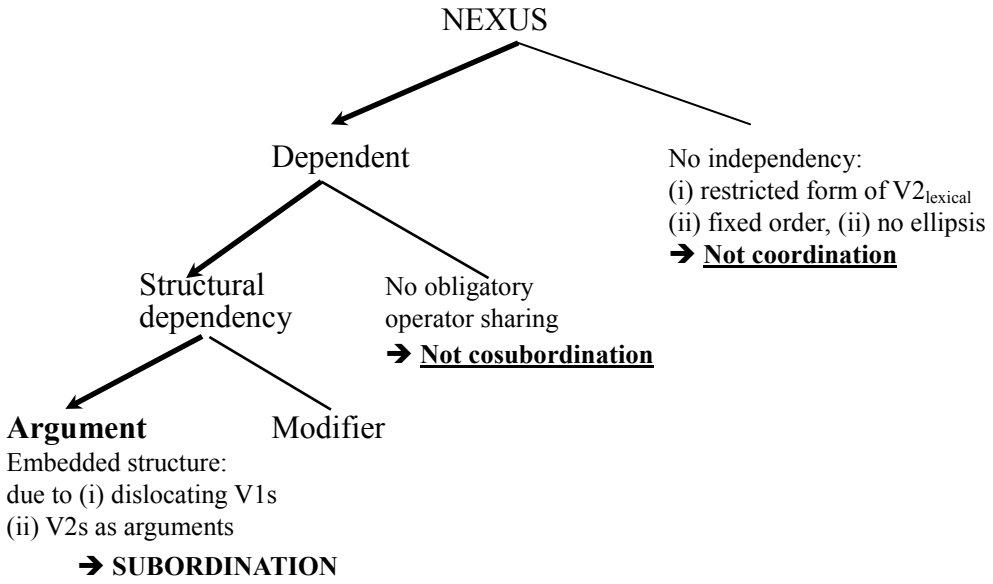

Figure 5.5b The rationale of the subordination analysis

As pointed out in Figure 5.3b, this type of juxtaposed verbs cannot be treated as coordination. The main reason is that fixed order of juxtaposed verbal units, which has been introduced in section 5.3.1. If two cores are coordinated, each core should have equal right to occur in the initial position of the core juncture. In fact, this is not the case in this type of juxtaposed verbs. Observe (5.49) for this trait.

(5.49) Fixed order

a. **yako** **kahia'** **[ma-ngoip]**$_{psych}$ **[r<om>a'oe:** **ka** **'io'].**
1SG.NOM yesterday AV-forget <AV>drink ACC medicine
'I forgot to take (my) medicine yesterday.' =(5.37a)

b.***yako** **kahia'** **[r<om>a'oe:** **ka** **'io']** **[ma-ngoip]**$_{psych}$.
1SG.NOM yesterday <AV>drink ACC medicine AV-forget
Intended for: 'I forgot to take the medicine yesterday.' =(5.41a)

Furthermore, juxtaposed verbs expressing psych-action relation cannot be treated as cosubordination. The crucial point is that core operators such as negators can independently modify the second cores as shown in (5.50a-b). The negator only negates a psych-verb as in (5.50c) since verbs in the second core do not change into the nonfinite forms. Other examples are provided in (5.50d-d'). They show that the deontic *mina=* 'should' i.e. the core operator which either modifies the entire core juncture in (5.50d), or independently modifies the second core in (5.50d').

(5.50) No obligatory sharing of core operators
a. **'aro' kaysa'an ma:-hoero:** **<u>kayni'</u>** **rima'** **ray** **'oes'oeso'an.**
PN today AV-remember NEG:MOD go LOC mountain
'Aro remembers not go to mountain today (to avoid bad weather condition).'
b. **yaba'** **hae:wan** **ma:-hoero:** **<u>'okay</u>** **ra'oe:** **ka** **pinobaeaeh.**
father night AV-remember NEG:LIG drink ACC wine
'Father remembers do not drink wine at night.'
c.**'aro'** **<u>'okay</u>** **hoe-hoero:** **'am-rima'** **mataawaw.**[85]
PN NEG:LIG think-remember IRR=go AV:work
'Aro does not remember to go to work.'
≈ c'.**'aro'** **ma-ngoip:** **<u>rima'</u>** **<u>mataawaw.</u>**
PN AV-forget go AV:work
'Aro forgets to go to work today.'

[85] Note that the psych-action verbs must occur in redulpication forms ***hoe**hoero:* in this structure, instead of nonfinite form *hoero:* as in the example (i).
(i) ***'aro'** **<u>'okay</u>** **hoero:** **rima'** **mata:waw.**
PN NEG:LIG remember go work

d. **sho'o** **<u>mina=</u>[he-hoero:** **ra'oe:** **ka** **'io']**[86]**core juncture!**
2SG.NOM should=think-AV-remember drink ACC medicine
'You should remember taking the medicine!'

d'.[**sho'o** **he-hoero:]**core1 **<u>mina=</u>[ra'oe:** **ka** **'io']**core 2**!**[87]
2SG.NOM think-remember should=drink ACC medicine
'Remember take the medicine!'

One might argue that juxtaposed verbs containing the psych-action verb *mangoip* 'forget[AV]' might be cosubordination in AV+AV construction. One reason for this analysis is that core operators like negators must occur before the entire core junctures in (5.51a) and cannot intervene between the two cores as shown in (5.51b). However these examples do not suffice to make such a claim. The fixed position of negators before the entire core juncture is ascribed to semantics instead of syntax: it is semantically uncommon to deliberately forget one thing.

(5.51) Restricted scope of core operators

a. **yako** **kahia'** **<u>'okay</u>** **ngoip** **r<om>a'oe:** **ka** **'io'.**
1SG.NOM yesterday NEG:LIG forget <AV>drink ACC medicine
'I didn't forget take (my) medicine yesterday.'

b.***yako** **kahia'** **ma-ngoip** **<u>'okay</u>** **ra'oe:** **ka** **'io'.**
1SG.NOM yesterday AV-forget NEG:LIG drink ACC medicine

[86] Note that (5.50d-d') are imperative constructions and psych-action vrebs cannot exhibit AV marking in this case.

[87] The deontic operator *mina=* 'should' does not occur before V2 in (iv).

(iv) a. **sho'o** **<u>mina=</u>ma:-hoero:** **rima'** **ray** **kakishkaatan.**
2SG.NOM should=AV-remember go LOC school
'You should remember going to school!'

b.***sho'o** **ma:-hoero:** **<u>mina=</u>rima'** **ray** **kakishkaatan.**
2SG.NOM AV-remember should=go LOC school

The discussion presented so far is evident to assert that this type of juxtaposed verbs is subordination. The reason for this analysis is the dislocated structures of psych-action verbs, acting as matrix verbs (*cf*. section 6.4). As reported in the section 5.3.1 together with the examples (5.41a') and (5.41b'), the psych-action verbs can be dislocated in subsequent clauses and take the clauses containing the other verbs as arguments. Observe (5.52) for evidence: psych-action verbs take core and clausal units as argument that occur in the object position i.e. SVO. In (5.52a) and (5.52b), the psych-action verbs take cores as object arguments In (5.52a') and (5.52b'), psych-action verbs take clauses as complements. These examples indicate that psych-action verbs function as matrix verbs instead of being verbal modifiers in verbal juxtaposition.

(5.52) Psych-action verbs in dislocated structures

a. **kalih kahia' ma-ngoip [r<om>a'oe: ka 'io']$_{core}$.**
PN yesterday AV-forget <AV>drink ACC medicine
'Kalih forgets to take (her) medicine yesterday. '

a'. **[kalih kahia' 'am=r<om>a'oe: ka 'io']$_{clause}$, ma-ngoip=ila.**
PN yesterday IRR=<AV>drink ACC medicine AV-forget=COS
'Kalih wanted to take the medicine yesterday but he forgot.'

b. **'obay ma:-hoero: [po-ralom ka por'oe']$_{core}$.**
PN AV-remember pour-water ACC vegetable
'Obay remembers to sprinkle vegetables.'

b'. [**'obay 'am=po-ralom ka por'oe'**]$_{clause}$, **ma:-hoero:=a=tomal.**[88]
PN IRR=pour-water ACC vegetable AV-remember=LIG=very**.**
'Obay wants to/will sprinkle water on vegetables, and he really remembers.'

The UVC+GER pattern of juxtaposed verbs can also undergoes dislocated structures. It shows that the psych-action verbs act as matrix verbs taking embedded cores and clauses as complements. In (5.53a), the *shi*-marked psych verb *shingoip* 'forget[UVC]' takes a core argument which is composed the actor, undergoer and a gerundive verb. In (5.53b), the *shi*-marked psych verb occurs in the sentential-final position, and it takes a non-finite clause as argument which contains (i) the same set of core arguments (of 5.53a) and (ii) a verb marked as irrleais UVP: *ka*-V-*en*. In the structure of (5.53b), the *shi*-marked psych verb provides an evulation for the clausal argument or comments on it. These two structures further indicate that juxtaposed verbs like (5.53a) exhibit subordination.

(5.53) Psych-action verbs in dislocated structure
a. **'io'** **ma'an** [**shi-ngoip**] **'am-r<om>a'oe:.**
medicine 1SG.GEN UVC-forget GER.IRR-<AV>drink
'I forget to take (my) medicine.'

[88] This example can be paraphrased by the subsequent bi-clausal structure as in (i) below. In this structure, the first clause becomes the antedecent of the nominative argument of the second clause. This structure will be discussed in chapter 6.
(i) **['obay 'am=po-ralom ka por'oe'], hini (h)owaw ni 'obay shi-hoer.**
PN IRR=pour-water ACC vegetable this thing GEN PN UVC-remember
'Obay wants to sprinkle vegetables (and) he remembers this matter.'

b. **’io’** **ma’an** **ka-ra’oe(:)-en,** [**shi-ngoip**]**=ila.**
medicine 1SG.GEN IRR-drink-UVP UVC-forget=COS
‘I want to take (my) medicine, but I forgot.’

Specifically speaking, this type of juxtaposed verbs exhibits the argument type of subordination rather than the modifier type. The main reason is that the V2 units exhibit the structural alternations between finite forms (as in (5.37a)), and non-finite forms of gerund as in (5.37e-f).

5.3.3 Interim summary

Juxtaposed verbs expressing psych-action relation are **core subordination** in Saisiyat. The linked verbal units share part of their argument structures, indicating the core junctures. The psych-action verbs function as matrix verbs that take embedded verbal units as their arguments, indicating subordination. Figure 5.6 depicts the layered structure of juxtaposed verbs expressing psych-action relation in Saisiyat.

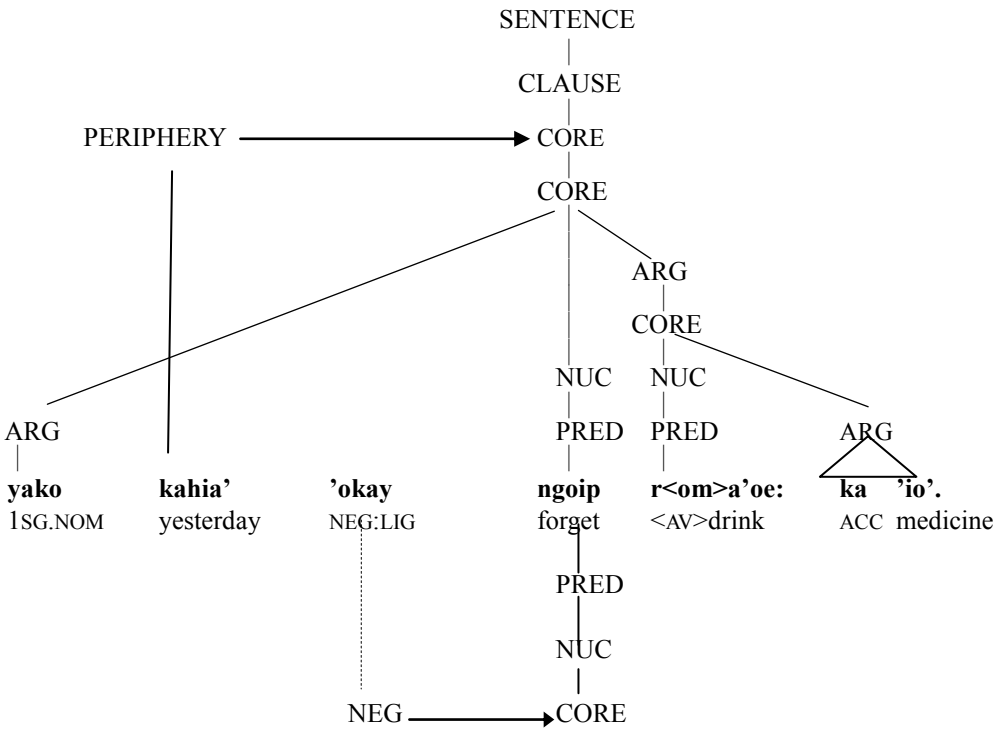

Figure 5.6 The layered structure of juxtaposed verbs expressing psych-action relation

As this figure shows, the core unit *roma'oe: ka 'io'* 'to take (one's) medicine'. The core operator *'okay* 'not' modifies the matrix verb and has the scope on the matrix verb *ngoip* 'forget'.

5.4 Juxtaposed verbs expressing purposive relation

In Role and Reference Grammar, a purposive relation is defined as 'one action is done with the intent of realizing another state of affairs, e.g. *Juan went to the store to buy milk*, or *Susan brought the book to read*' (Van Valin 2005:206). In these two English examples, the first actions: GO TO STORE and BUY BOOK are the intent of fulfilling the second events: BUY MILK and READ BOOK, i.e. the purposes. Section

5.4.1 elaborates on grammatical properties of juxtaposed verbs expressing purposive relation in the perspective of interclausal relations.

5.4.1 Grammatical properties of juxtaposed verbs expressing purposive relation

In Saisiyat, a purposive relation can be expressed through the combination of juxtaposed verbs in a single clause. A first verbal unit (V1) acts as a prerequisite of its second verbal unit (V2), and V2 serves as the purpose of its V1. (5.54) schematizes the structure of juxtaposed verbs expressing purposive relation.

(5.54) Schema of juxtaposed verbs expressing purposive relation — Examples

a.	$\text{Actor}_{\text{NOM}}$	+	$\text{V}_{\text{prerequisite.AV}}$	+	$\text{V}_{\text{purpose.AV}}$	(5.55a)
b.*	$\text{Actor}_{\text{NOM}}$	+	$\text{V}_{\text{prerequisite.AV}}$	+	$\text{V}_{\text{purpose.UVP}}$	(5.55b)
c.	$\text{Undergoer}_{\text{NOM}}$	+	$\text{V}_{\text{prerequisite.UVP}}$	+	$\text{V}_{\text{purpose.UVP}}$	(5.55c)
d.*	$\text{Undergoer}_{\text{NOM}}$	+	$\text{V}_{\text{prerequisite.UVP}}$	+	$\text{V}_{\text{purpose.AV}}$	(5.55d)

(5.54) exemplifies the schema of (5.55).

(5.55) Juxtaposed verbs expressing purposive relation

a. **lasia** **[kash-re're'** **ka** **loehoeng]**$_{\text{prerequisite}}$
3PL.NOM step.on-tight ACC mortar
[**t<om>awbon** **ka** **(h)o'ol]**$_{\text{purposive}}$.
<AV>stomp ACC glutinous.rice
'They step onto the mortar to stomp the glutinous rice.'

b.***lasia** **[kash-re're'** **ka** **loehoeng]**$_{\text{prerequisite}}$
3PL.NOM step.on-tight ACC mortar
[**(h)o'ol** **tawbon-on]**$_{\text{purposive}}$.
glutinous.rice stomp-UVP

c. **nisia** **kaklang** **hiwa'-en** **paehila(:)-en.**
3SG.GEN calamus cut.section-UVP dry.in.the.sun-UVP
'S/He slice the calamus to make it dry under the sun.'

d.***nisia** **kaklang** **hiwa'-en** **mae-hila:.**
3SG.GEN calamus cut.section-UVP AV-dry.in.the.sun

These juxtaposed verbs can be divided into two subtypes according to the subcategorization of V1s (i.e. the prerequisite events) for their V2s (i.e. the purposive events), though they share similar structure. In Type 1, the second state of affair is a culturally or cognitively pre-established purpose of the first action. That is, the subcagorization of the V1 for its V2 is limited. It is termed the **limited type of purposive relation**. (5.56) exemplifies this type. In (5.56a), two events exhibit presumably inter-selecting relation: STEP ON MORTAR + STOMP GLUTINOUS RICE. This relational presumption is revealed by (5.56b), whereby the two events STEP ON MORTAR + MAKE RICE CAKE do not concur with each other, in order to convey a purposive relation.

(5.56) The limited type of purposive relation

a. **lasia** **[kash-re're'** **ka** **loehoeng]**$_{\text{prerequisite}}$
3PL.NOM step.on-tight ACC mortar
[**t<om>awbon** **ka** **(h)o'ol]**$_{\text{purpose}}$.
<AV>stomp ACC glutinous.rice
'They stepped onto the mortar to stomp the glutinous rice.'

b.***lasia** **[kash-re're'** **ka** **loehoeng]**$_{\text{prerequisite}}$
3PL.NOM step.on-tight ACC mortar
[pas-kayzaeh **ka** **tinawbon]**$_{\text{purpose}}$
make-good ACC rice.cake
Intended for: 'They stepped onto (the edge of) the mortar in order to make rice cake.'

In Type 2, a second state of affair will not be the sole or culturally pre-established purpose of its first action. The subcagorization of V1 (i.e. the prerequisite) for its V2 (i.e. the purpose) is not limited and is termed the **unlimited type of purposive relation**. (5.57) exemplifies this structure, in which the prerequisite: RAISE FUND can have three different purposes.

(5.57) The unlimited type of purposive relation

a. **yami** [**sheme:** **ka** **rayhil**]$_{\text{prerequisite}}$ [**pash-baki'**]$_{\text{purpose}}$.
1PL.NOM<AV>raise.funds ACC money hold.a.ritual-old.man
'We raised funds to perform the ritual of commemorating ancestors.'

b. **yami** [**sheme:** **ka** **rayhil**]$_{\text{prerequisite}}$ [**pas-kayzaeh** **ka** **taew'an**]$_{\text{purpose}}$.
1PL.NOM<AV>raise.funds ACC money make-good ACC house
'We raised funds money to build a house.'

c. **yami** [**sheme:** **ka** **rayhil:**]$_{\text{prerequisite}}$ [**baeiw** **ka** **p<in>atabil**]$_{\text{purpose}}$.
1PL.NOM <AV>raise.funds ACC money AV:buy ACC <NMLZ>worship
'We raise funds to buy offerings.'

Juxtaposed verbs expressing purposive relation exhibit at least the following grammatical properties. First of all, the order of verbal units is fixed: V1 precedes V2, resulting in the sequence: $V_{prerequisite}$+$V_{purpose}$ as previously shown in (5.56a) and (5.57a).[89] The reverse order is ungrammatical as shown in (5.58a-b).

(5.58) Reverse order

a.***lasia**	**[t<om>awbon**	**ka**	**(h)o'ol]**	**[kash-re're'**	**ka**	**loehoeng].**
3PL.NOM	<AV>stomp	ACC	glutinous.rice	step.on-tight	ACC	mortar
b.***yami**	**[pash-baki']**		**[sheme:**	**ka**	**rayhil]**.[90]
1PL.EXCL.NOM	hold.a.ritual-old.man		<AV>raise.funds	ACC	money

Second, the juxtaposed verbs do not allow the insertion of the clausal CLM *'isa:* and the adverb *naehan* 'again' between two verbal units. These two restrictions show that this type of juxtaposed verbs represents a tight structure. In (5.59a), the adverb *naehan* 'again' only occurs in clausal final position and modifies both verbs, but it cannot occur between two verbs and modifies V1 only as in (5.59b) unless it denotes

[89] Zeitoun et al. (2015:69-70) have discussed this structural trait: the purpose clauses (either share the same subject or have different subjects between two clauses) tend to take place in "the second part of the sentence" (page 69) as shown in (i).

(i) Purpose clause-same subject condition (from Zeitoun et al. 2017:69)

a. **yami ki yaba' rima' 'oes'oeso'an [Ø pash-raromaeh]**.
1PL.NOM COM father go mountain Ø chop-bamboo
'I went with Father to the mountain to chop bamboo.'

b. **boay 'iakin ka taba' ka-kay-ha-l ka ralom!**
give.IMP.AV 1SG.ACC ACC ladel IRR.UVC-ladel-one-N.times ACC water
'Give me a glass so that I can ladel a glass of water.'

[90] This example becomes grammatical when it denotes a reason relation as demonstrated below in (i). The sentence is a bi-clausal structure in which the clausal CLM *'isa*: 'and then' is able to occur between two clauses. The two clauses share the identical actor *yami* 'we', which is omitted in the second clause.

(i) **yami 'am=[pash-baki'], ('isa:) [sheme: ka rayhil].**
1PL.EXCL.NOM IRR=hold.a.ritual-old.man (then) <AV>raise.funds ACC money
'Because we want to perform the ritual, (and then) we raise funds (for it).'

sequential relation instead of purposive relation. The CLMs *'isa:* 'and then' and *=o* 'and' cannot occur between two verbs as in (5.59c-d).

(5.59) Insertion of *naehan* 'again' and CLMs

a. **lasia** **[kash-re're'** **ka** **loehoeng]**
3PL.NOM step.on-tight ACC mortar
[t<om>awbon **ka** **(h)o'ol]** **<u>naehan</u>.**
<AV>stomp ACC glutinous.rice again
'They step onto the mortar to stomp the glutinous rice <u>again</u>.'

b. **lasia** **[kash-re're'** **ka** **loehoeng]** **<u>naehan,</u>**
3PL.NOM step.on-tight ACC mortar again
[t<om>awbon **ka** **(h)o'ol].**
<AV>stomp ACC glutinous.rice
Does not mean: 'They stepped onto the mortar to stomp the glutinous rice again .'(purposive relation)
'They stepped onto the mortar again, and started stomping the glutinous rice (sequential relation).'

c. **lasia** **[kash-re're'=ila** **ka** **loehoeng],** **<u>'isa</u>:** **<u>lasia</u>**
3PL.NOM step.on-tight=COS ACC mortar then 3PL.NOM
[t<om>awbon **ka** **(h)o'ol].**
<AV>stomp ACC glutinous.rice
Does not mean: 'They stepped onto the mortar to stomp the glutinous rice then .' (purposive relation)
'They stepped onto the mortar, and then they started stomping the glutinous rice.' (sequential relation)

d. **lasia** **[kash-re're'** **ka** **loehoeng]<u>=o</u>**
3PL.NOM step.on-tight ACC mortar=CONJ
[t<om>awbon **ka** **(h)o'ol].**
<AV>stomp ACC glutinous.rice
*'They step onto the mortar to stomp the glutinous rice .'(purposive relation)
'They step onto the mortar, and started stomping the glutinous rice .'(sequential relation)

Table 5.4 summarizes these grammatical properties of juxtaposed verbs expressing purposive relation. Both types of them show the fixed verbal order and follow the voice harmony constraint along with the pattern AV+AV and UVP+UVP. However, they do not involve the insertion of the CLMs =*o* 'and' and *'isa:* 'then'. A crucial piece of evidence for this claim has been presented in (5.59), in which the whole sentence turns to sequential relations when *'isa:* 'then' intervenes between two verbal units. In this case, the purposive reading does no hold.

Table 5.4 Grammatical properties of juxtaposed verbs expressing purposive relation

Types / Grammatical properties	Type 1: limited purposive relation		Type 2: unlimited purposive relation	
Restriction of voice harmony	✓	AV+AV UVP+UVP	✓	AV+AV UVP+UVP
Order of verbs	Fixed: V1+V2		Fixed: V1+V2	
Insertion of the CLM *'isa:* 'then'	✗		✗	
Insertion of the adverb *naehan* 'again'	✗		✗	
Insertion of the CLM =*o* 'and'	✗		✗	

5.4.2 Juncture-nexus combinations

Section 5.4.2.1 discusses the juncture of Juxtaposed verbs that express purposive relation in Saisiyat. Section 5.4.2.2 discusses their nexus.

5.4.2.1 Juncture of juxtaposed verbs expressing purposive relation

Juxtaposed verbs denoting purposive relation belong to core junctures, since they

share part of argument structure of each verb instead of (i) sharing entire set of argument structure or (ii) exhibit clausal boundary between verbal units, i.e. clausal juncture.

Juxtaposed verbs expressing purposive relation do not constitute the nucleus juncture because they neither share the entire set of argument structure nor undergo argument fusion. I used the limited type as an illustration in (5.60) and (5.61).

(5.60) Core juncture (the limited type: AV+AV)

a. **yami** **[kash-re're'** **ka** **loehoeng]**
1PL.NOM step.on-tight ACC mortar
[t<om>awbon **ka** **(h)o'ol].**
<AV>stomp ACC glutinous.rice
'We stepped onto the mortar to stomp the glutinous rice.'

b. **yami** **kash-re're'** **ka** **loehoeng.**
1PL.NOM step.on-tight ACC mortar
'We stepped onto the mortar to stomp the glutinous rice .'

c. **yami** **t<om>awbon** **ka** **(h)o'ol.**
1PL.NOM <AV>stomp ACC glutinous.rice
'We stomped the glutinous rice .'

(5.61) Core juncture (the limited type: UVP+UVP)

a. **nisia** **kaklang** **<u>hiwa'-en</u>** **<u>paehila(:)-en.</u>** =(5.55c)
3SG.GEN calamus cut.section-UVP dry.in.the.sun-UVP
'S/He sliced the calamus to make it dry under the sun.'

b. **nisia** **kaklang** **leket-en.**
3SG.GEN calamus cut.into.sections-UVP
'He/She cut the calamus into pieces.'

c. **nisia** **kaklang** **<u>paehila(:)-en.</u>**
3SG.GEN calamus dry.in.the.sun-UVP
'He/She made calamus dry in the sun.'

In the examples (5.60) and (5.61), the juxtaposed verbs share the identical nominative arguments. The nominative arguments of the second cores co-refer while the ones in the first cores and are obligatorily omitted. This structure indicates that verbal juxtaposition exhibits argument control, as a defining feature of core junctures.

These verbal juxtapositions cannot be treated as clausal juncture. There are two reasons for this claim. First, the CLM *'isa:* 'then' does not intervene between the two cores as previously demonstrated in (5.59c) when verbal juxtaposition denotes purposive relation. Second, the controlled argument cannot be repeated in the core juncture as demonstrated in (5.62b) as follows. By contrast, the example (5.62c) represents a bi-clausal structure in which the co-referred nominative argument is repeated in the second clause. Nevertheless, this sentence conveys a sequential relation instead of a purposive relation.

(5.62) Structural tightness

a. **[sia rima' ray katalekan]**$_{core1}$ **[t<om>alek ka kasnaw]**$_{core2}$.
3SG.NOM go LOC kitchen <AV>cook ACC soup
'He went to kitchen to cook soup.'

b.***sia rima' ray katalekan sia t<om>alek ka pazay.**
3SG.NOM go LOC kitchen 3SG.NOM <AV>cook ACC rice

c. **[sia rima' ray katalekan]**$_{clause1}$**, (h)onghai'**
3SG.NOM go LOC kitchen later.on
[sia t<om>alek ka pazay]$_{clause2}$**.**
3SG.NOM <AV>cook ACC rice
'He/she went to the kitchen and after a while he/she started to cook.'

To summarize, juxtaposed verbs expressing purposive relation are core juncture. They exhibit the following schema of core juncture regarding argument structures in (5.63).

(5.63) Juxtaposed verb denoting purposive relations in core junctures Examples

a. $V_{presquisite(arg=2)}$ + $[V]_{purpose(arg=2)}$ → $VV_{(arg=2)}$ (5.55a,c)
b. $V_{presquisite(arg=1)}$ + $[V]_{purpose(arg=1)}$ → $VV_{(arg=1)}$ (5.63)
c. $V_{presquisite(arg=1)}$ + $[V]_{purpose(arg=2)}$ → $VV_{(arg=2)}$ (5.62a)
d. $V_{presquisite(arg=2)}$ + $[V]_{purpose(arg=1)}$ → $VV_{(arg=2)}$ (5.57a)

e. **sia** **rima'** **ray** **'oes'oeso'an** **mata:waw**.
3SG.NOM go LOC mountain AV:work
'He/She went to mountains to work.' (purposive reading, implying not for sightseeing)

5.4.2.2 Nexus of juxtaposed verbs expressing purposive relation

The two types of juxtaposed verbs expressing purposive relation exhibit the nexus of **cosubordination**, even though they display semantic difference as introduced in the previous section. The major reason for this analysis is that they exhibit structural codependency. Figure 5.7a delineates this division of nexus.

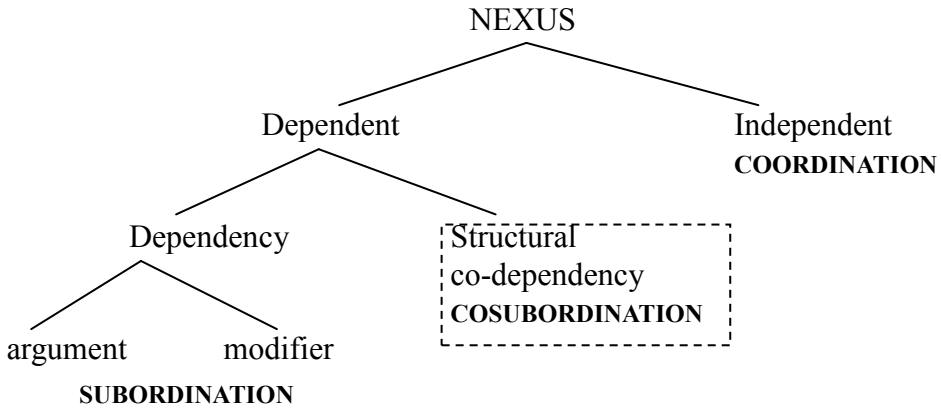

Figure 5.7a Nexus types of juxtaposed verbs expressing purposive relation

Figure 5.7b elaborates on the cosubordination analysis. The following discussion provides an explanation on the analysis for this dichotomy in nexus.

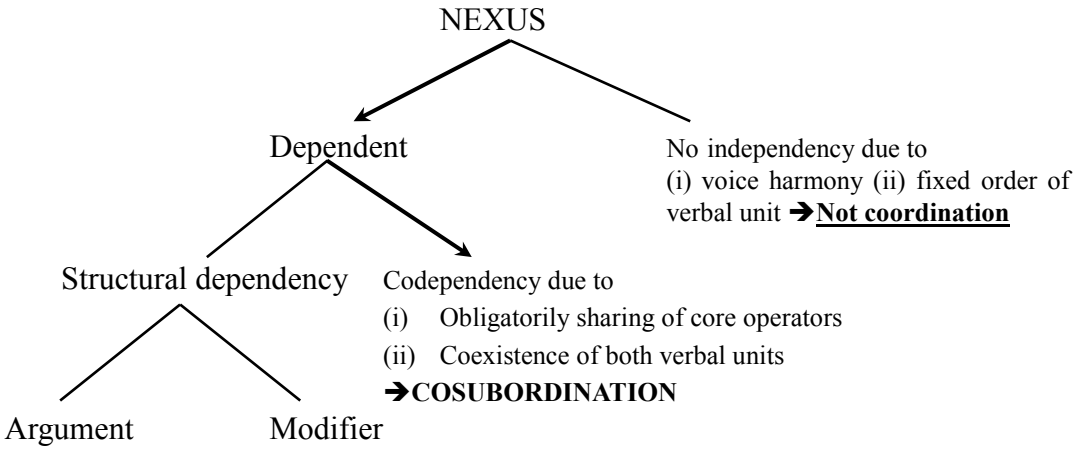

Figure 5.7b The rationale of the cosubordination analysis

Frist of all, all of the juxtaposed verbs expressing purposive relations do not exhibit the nexus of coordination. If the two cores were in the coordination relation, each should (i) have equal weight to occur in initial position (as V1), and (ii) do not display voice harmony. In fact, this is not the case in juxtaposed verbs expressing

purposive relation in Saisiyat, so that is the basis for rejecting the possibility of coordination. In fact, two core units exhibit fixed order as previously shown in (5.55a) and (5.55c). Additionally, they involve the structural dependence of voice harmony as already shown in (5.55b) and (5.55d).

They belong to **cosubordination**: linked cores exhibit structural co-dependency on the basis of (i) coexistence and (ii) obligatorily sharing of core operators. For the first reason, the linked core are required to be present in order to express the full purposive relations. For the second reason, core operators are obligatorily shared in core junctures. Observe (5.64) and (5.65) for this trait. In (5.64a) and (5.65a), *mina=* occurs before the juxtaposed verbs (i.e. cosubordinate cores) and modifies the entire core junctures.[91]

Three crucial points indicate the cosubordination analysis. The first one is that *mina=* cannot occur before a V2 (i.e. the second core) in the limited type, as shown in (5.64b) and (5.65b). If *mina=* occur before the V2, this sentence turns into a bi-

[91] When the negator *'okay* 'not' occurs before the first core, it may negate the entire core as in (ia) whereby the V2 must occur in AV form. The negator may negate the first verbal unit of a clausal juncture expressing sequential relation as (ib) shows. The reason that the V2 must occur in AV form may be due to the AV-only constraint in Formosan languages (L. Huang 1997).

(i) Negation of juxtaposed verbs expressing purposive relation

a. **lasia** **'okay** **kash-re're'** **ka** **loehoeng,** **t<om>awbon** **ka** **ho'ol**.
3PL.NOM NEG:LIG step.on-tight ACC mortar <AV>stomp ACC millet
'They didn't step onto the mortar in order to stomp the millet.'

b. **lasia** **'okay** **kash-re're'** **ka** **loehoeng,** **'isa:** **t<om>awbon** **ka** **ho'ol**.
3PL.NOM NEG:LIG step.on-tight ACC mortar then <AV>stomp ACC millet
'They didn't step onto the mortar and then stomp the millet (which is dangerous). (sequential reading not purposive reading)

clausal structure that expressing sequential relation, whereby the co-referred nominative arguments are elided under pragmatically influence. Thus, this syntactic manifestation gives rise the sequence: $[NP_i+V1+(NP)]_{clause1}$, + (*'isa:*) + $[(NP_i)$ + *mina* =V2+NP$]_{clause2}$. Observe this structure in (5.64c-c') and (5.65c-c').

(5.64) Obligatory sharing of the core operator: deontic modality

a. **lasia** **mina=kash-re're'** **ka** **loehoeng**
3PL.NOM should=step.on-tight ACC mortar
t<om>awbon **ka** **(h)o'ol.**
<AV>stomp ACC glutinous.rice
'They should step onto the mortar (in order) to stomp the glutinous rice.'

b.***lasia** **kash-re're'** **ka** **loehoeng**
3PL.NOM step.on-tight ACC mortar
mina=t<om>awbon **ka** **(h)o'ol.**
should=<AV>stomp ACC glutinous.rice

c. **lasia** **kash-re're'=ila** **ka** **loehoeng,** **(lasia)**
3PL.NOM step.on-tight=COS ACC mortar 3PL.NOM
mina=t<om>awbon **ka** **(h)o'ol.**[92]
should=<AV>stomp ACC glutinous.rice
'They have stepped onto the mortar, and they should start stomping glutinous rice.' (sequential relation)

c'. **lasia** **kash-re're'=ila** **ka** **loehoeng** **'isa:**
3PL.NOM step.on-tight=COS ACC mortar then
mina=t<om>awbon **ka** **(h)o'ol.**
should =<AV>stomp ACC glutinous.rice
'They have stepped onto the mortar and should stomp glutinous rice .'(sequential reading)

[92] There are one further piece of evidence to treat juxtaposed verbs expressing the limited type of purposive relation as cosubordination. That is, verbal units obligatorily share the illucotionary force of imperative and hortative markings as exemplified as follows in (vii) whereby two verbs must be marked by the hortative marking.

(ii) Obligatorily sharing of illocutionary force
ta-kash-re're' **ka** **loehong** ***(ta)-tawbon** **ka** **ho'ol!**
HORT-step.on-tight ACC mortar HORT-stomp ACC glutinous.rice
'Let us step onto the mortar (in order) to stomp the glutinous rice!'

(5.65) Obligatory sharing of the core operator: deontic modality

a. **nisho' kaklang <u>mina=</u>hiwa'-en shi-paehila:=ila.**
2SG.GEN calamus should=cut.sections-UVP UVC-dry.in.the.sun=COS
'You should cut the calamus into pieces to make it dry in the sun.'

b.***nisho' kaklang hiwa'-en <u>mina=</u>shi-paehila:.**
2SG.GEN calamus cut.section-UVP should=UVC-dry.in.the.sun

c. **nisho' kaklang hiwa'-en=ila, hini kaklang <u>mina=</u>shi-paehila:.**
2SG.GEN calamus cut.section-UVP=COS this calamus should=UVC-dry.in.the.sun
'You have cut the calamus into pieces, and you should made it dry in the sun.'

c'. **nisho' kaklang hiwa'-en=ila, 'isa: <u>mina=</u>shi-paehila:, 'am=kayzaeh.**
2SG.GEN calamus cut.section-UVP=COS then should=UVC-dry.in.the.sun IRR=good
'You have cut the calamus into pieces, and then you should make it dry in the sun. This will be a proper procedure (literally means: this will be good).'

As for the unlimited type, they also exhibit sharing of core operators. As shown in (5.66a) and (5.67a), the core operators modify both cores in terms of deontic modality and negation. The sharing condition is similar to the limited type. The second cores is able to be modified by core operators as in (5.66b) and (5.67b). In this structure, the intonation breaks between two units merge and the propositions of the two sentences turn into sequential relations. [93]

[93] These juxtaposed verbs should not be analyzed as the modifier type of subordination (i.e. V1s are modifiers while V2s are main verbs), even if they exhibit two features of such the nexus: (i) modifying position of core operators on V2 units; (ii) these V2 units are finite marking instead of gerunds. In fact, neither V1 nor V2 units are main verbs since they are not syntactically independent as shown below in (ib) and (ic), whereby the first and the second core of (ia) cannot occur by itself. (id) exemplifies the argument structure of the verb *mobay* 'give[AV]'in a monoclausal structure.

Note that I will not consider the matrix-argument analysis here, due to the reasons of alternative modifying position of operators and fitness of the V2s.

(5.66) Obligatory sharing of doentic marking (unlimited purposive relation)

a. **sho'o mina=[ti-rosha' ka 'ayam boay ka minayti'].**
2SG.NOM should=split-two ACC pork give ACC young.sibling
'You must split (cut) the pork into two pieces and should/must give it to (your) younger brother and sisters.'

b. **sho'o ti-rosha' ka 'ayam=ila, (sho'o) mina=boay ka minayti'**.
2SG.NOM split-two ACC pork=COS 2SG.NOM should=give ACC young.sibling
'After you have cut the pork into pieces, you must give it to (your) younger sister and brother.' (sequential reading)

(5.67) Obligatory sharing of negators (unlimited purposive relation)

a. **yako kayni' [t<om>i-rosha ka 'ayam mobay hi yaba']**.
1SG.NOM NEG.MOD <AV>split-two ACC pork AV:give ACC father
'I do not want split the pork into two pieces to give it to father.'

b. **yako t<om>i-rosha' ka 'ayam, [kayni' mobay hi yaba']**.
1SG.NOM <AV>split-two ACC pork NEG.MOD AV:give ACC father
'I split the pork into two pieces and do not want give it to father (for his healthy).'(sequential reading)

5.4.3 Interim summary

To summarize, juxtaposed verbs expressing purposive relation can be categorized into two subtypes on the basis of the subcategorization for the second cores. The limited type displays juncture-nexus combination: **core cosubordination** for the

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(i) Linked cores as co-dependent units

a. **yako kayni' [t<om>i-rosha ka 'ayam] [mobay hi yaba'].**
1SG.NOM NEG.MOD <AV>split-two ACC pork AV:give ACC father
'I do not want split the pork into two pieces to give it to Father.'

b.***yako kayni' mobay hi yaba'**.
1SG.NOM NEG.MOD AV:give ACC father
Intended for: 'I do not want to give (the half of) pork to Father.'

c.***yako kayni' mobay ka 'ayam**.
1SG.NOM NEG.MOD AV:give ACC pork
'I do not want to give pork (to anyone).'

d. **yako kayni' mobay ka 'ayam hi yaba'.**
1SG.NOM NEG.MOD AV:give ACC pork ACC father
'I do not want to give Father the pork.'

juxtaposed verbal units exhibit structural codependency i.e. obligatory sharing of core operators. Figure 5.8a and 5.8b depict the layered structure, in which the linked core are cosubordinate under a higher core. The core operator *mina*= 'should' modifies the cosubordinate core.

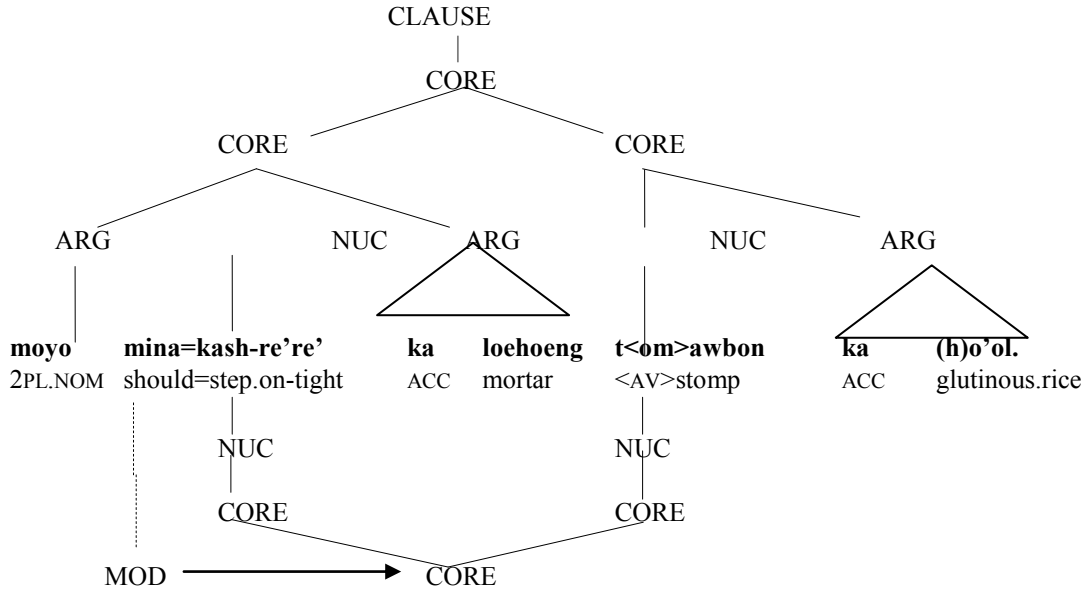

Figure 5.8a The layered structure of juxtaposed verbs expressing the limited type of purposive relation

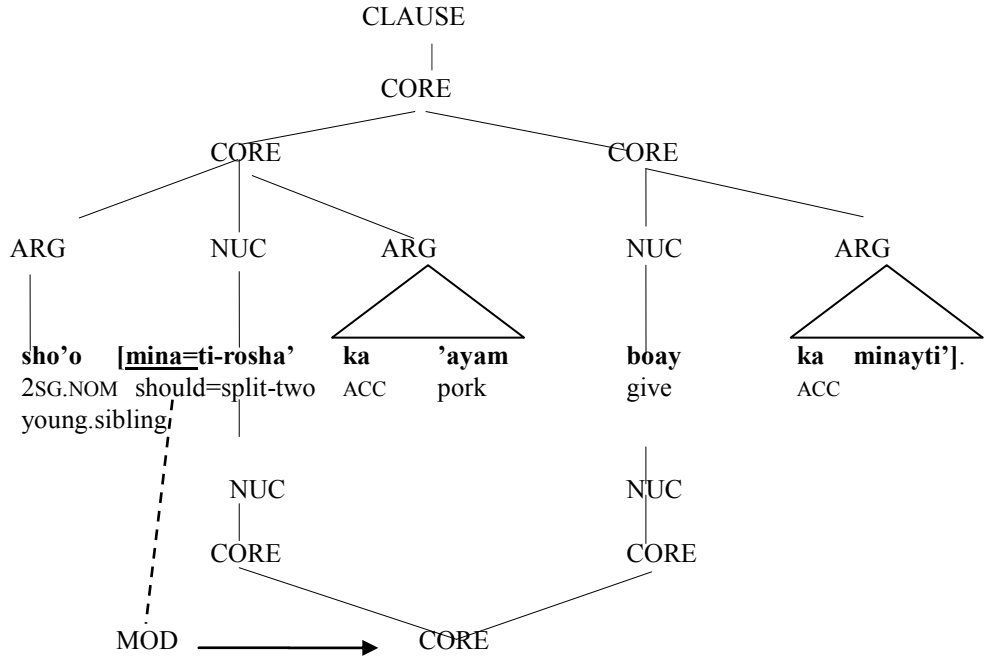

Figure 5.8b The layered structure of juxtaposed verbs expressing the unlimited type of purposive relation

5.5 Juxtaposed verbs expressing direct perception relation

In Role and Reference Grammar, a direct perception relation is defined as 'an unmediated apprehension of some action, event or situation through senses, e.g. *Rex saw the child open the door, Yolanda heard the guests arrive* (Van Valin 2005:206).' In Saisiyat, the meaning of direct perception is encoded in the verbs such as such as *komita'* 'see[AV]' and *bazae'* 'hear'. Section 5.4.1 elaborates on structures and grammatical properties of these juxtaposed verbs.

5.5.1 Grammatical properties of juxtaposed verbs expressing direct perception relation

A direct perception relation in Saisiyat can be expressed with the combination of two juxtaposed verbs in a monoclausal structure. A V1 is a perceptual verb such as *komita'* 'see[AV]' and *bazae'* 'hear', and a V2 denotes an perceived action that can be a lexical verb marked by AV or a stative verb, exhibiting the pattern of AV+AV/STAT as (5.68a) schematizes. The other voice patterns are not observed in this type of juxtaposed verbs, as schematized in (5.68b-d). Note that the verbal units denoting a perceived event can be a nonfinite *shi*-marked clause, as schematized in (5.68e). Additionally, a structural alternation of dislocated structure is also observed as shown in (5.68f). In this structure, the perceived event is manifested in a AV finite clause and occurs before the perceptual verb which evulates the status of that clause.

(5.68) Schema of juxtaposed verbs expressing perceptual relation and related structures — Examples

a. $Actor_{NOM}$ + $V_{perceptual.AV}$ + NP_{ACC} + $V_{perceived.AV/STAT}$ (5.69a-b)

b.*$Actor_{NOM}$ + $V_{perceptual.AV}$ + NP_{ACC} + $V_{perceived.UVP}$ (5.69c)

c.*$Undergoer_{NOM}$ + $V_{perceptual.UVP}$ + NP_{ACC} + $V_{perceived.UVP}$ (5.69d)

d.*$Undergoer_{NOM}$ + $V_{perceptual.UVP}$ + NP_{ACC} + $V_{perceived.AV}$ (5.69e)

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e. $Actor_{NOM}$ + $V_{perceptual.AV}$ + [NP_{GEN} + *shi*-$V_{perceived}$] (5.69f)

f. [$Actor_{NOMi}$+$V_{perceived(AV)}$]$_{CLAUSE}$, + ($Actor_{NOMj}$)+ $V_{perceptual.AV}$ (5.70b-b')

(5.69) and (5.70b-b') exemplify the schema of (5.68).

(5.69) Juxtaposed verbs expressing direct perception relation

a. **yako** **[<u>bazae'</u>]**$_{perception}$ **ka** **'aehoe'** **<u>t<om>obong</u>**$_{perceived.action}$
1SG.NOM <AV>hear ACC dog <AV>bark
ray **kabih-no-baala'.**
LOC next.to-DAT-river
'I hear the dog barking at the other side of the river.'

b. **lalo'** **[<u>k<om>ita'</u>]**$_{perception}$ **ka** **korkoring** **<u>lobih</u>**$_{perceived.action}$ **ray** **taew'an.**
PN <AV>see ACC child return LOC house
'Lalo saw the child coming home.'

c.***yako** **[<u>k<om>ita'</u>]** **ka** **'aehoe'** **<u>'arash-en</u>=ila.**[94]
1SG.NOM <AV>see ACC dog take-UVP=COS
Intended for: 'I saw the dog being taken away.'
Unless it means: 'I saw the dog, and it was taken away .'(sequential relation)

d.***'aehoe'** **ma'an** **<u>kita'-en</u>** **<u>'arash-en</u>=ila.**
dog 1SG.GEN see-UVP take-UVP=COS
'I saw the dog being taken away.'
Lit. : 'The dog was seen taking away.'
Unless it means: 'The dog was seen and it was taken away.' (construed as a bi-clausal structure)

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[94] This structure is a bi-clausal structure, since the linkage can be separated by the temporal adverb *kikraami'* 'suddenly' together with a pause. Observe the example below in (i).

(i) **yako** **k<om>ita'** **ka** **'aehoe',** **<u>kikraami</u>** **'arash-en=ila.**
1SG.NOM <AV>see ACC dog suddenly take-UVP=COS
'I saw a dog and suddenly it was taken away.'

e.***’aehoe’ ma’an kita’-en marash=ila ray kabih-no-baala’.**
dog 1SG.GEN see-UVP AV:take=COS LOC next.to-DAT-river
Intended for: ‘I saw the dog being taken away.’
Unless it means: ‘I saw the dog, and it was taken away.’ (sequential relation)

f. **yako k<om>ita’ [noka korkoring shi-shbet ka ’aehoe’]**.
1SG.NOM <AV>see GEN child UVC-beat ACC dog
‘I saw the child beat the dog.’

Juxtaposed verbs expressing direct perception relation exhibit the following properties. First, the order of verbs is fixed: a perceptual verb must occur before the other verbs (perceived event), following the sequence: $V_{perceptual}$+$V_{perceived}$. In this case, it reflects iconicity: one perceives an event and then processes the perceived event. Observe (5.70) for this structural restriction. (5.70a) denotes direct perception relation: the actor directly perceives the dog’s barking. By contrast, the action occurs before the perceptual verb in (5.70b-b’). These two propositions are slightly differently from (5.70a): the examples of (5.70b-b’) are bi-clausal structures and may not denote immediate direct perception since the adverb (*h*)*onghai’* ‘later on’ can intervene between two syntactic units for indicating a temporal lapse between two events as shown in (5.70b’). All in all, the structures of verbal juxtaposition and the dislocated structure express the semantic relation of direct perception in general.

(5.70) Fixed order

a. **[yako bazae'**$_{\text{perceptual}}$ **ka 'aehoe'] [t<om>obong**
1SG.NOM hear ACC dog <AV>bark
ray taew'an latar]$_{\text{perceived}}$.
LOC house outside
'I heard a dog barking outside the house.'

b. **['aehoe' t<om>obong ray taew'an latar]**$_{\text{perceived}}$**,**
dog <AV>bark LOC house outside
[(yako) bazae'=ila]$_{\text{perceptual}}$.
1SG.NOM hear=COS
'The dog barks outside the house, and I heard it.'

b'. **['aehoe' t<om>obong ray taew'an latar]**$_{\text{perceived}}$**, <u>(h)onghai'</u>**
dog <AV>bark LOC house outside later.on
[yako bazae'=ila]$_{\text{perceptual}}$**.**
1SG.NOM hear=COS
'The dog barks outside the house, but I heard it later on.'

Second, this type of juxtaposed verbs exhibit structural tightness regarding insertion of CLMs. Neither the conjunctor *=o* nor the conjunctor *'isa*: 'then' can occur between the two verbal units as shown in (5.71a') and (5.71-b'), together with a comparsion to (5.71a) and (5.71b). Noreover, the adverb *naehan* 'again' cannot occur before a V2 as shown in (5.71c'). Rather, it occurs after the entire sentence as in (5.71c).

(5.71) Structural tightness

a. **yako bazae' ka 'aehoe' t<om>obong ray kabih-no-baala'.**
1SG.NOM hear ACC dog <AV>bark LOC next.to-DAT-river
'I heard the dog barking at the other side of the river.'

a'. ***yako bazae' ka 'aehoe'<u>=o</u> t<om>obong ray kabih-no-baala'.**
1SG.NOM hear ACC dog=CONJ <AV>bark LOC next.to-DAT-river

b. **yako** **bazae'** **ka** **'aehoe'** **t<om>obong**
1SG.NOM hear ACC dog <AV>bark
ray **kabih-no-baala'la',** **'isa:** **ra:iw=ila.**
LOC next.to-DAT-river then escape=COS
'I saw a dog barking at the other side of the river and then it ran away.'

b'.***yako** **bazae'** **ka** **'aehoe'** **'isa:** **t<om>obong**
1SG.NOM hear ACC dog then <AV>bark
ray **kabih-no-baala'.**
LOC next.to-DAT-river

c. **yako** **k<om>ita'** **ka** **'aehoe'** **t<om>obong**
1SG.NOM <AV>see ACC dog <AV>bark
ray **kabih-no-baala'** **naehan.**
LOC next.to-DAT-river again
'I see the dig barking on the other side of the river again.'

c'.***yako** **k<om>ita'** **ka** **'aehoe'** **naehan** **t<om>obong**
1SG.NOM <AV>see ACC dog again <AV>bark
ray **kabih-no-baala'.**
LOC next.to-DAT-river

Table 5.5 summarizes the introduced grammatical properties of juxtaposed verb expressing direct perceptual relation.

Table 5.5 Grammatical properties of juxtaposed verbs expressing direct perception relation

Grammatical properties \ Type	Direct perception relation
Restriction of voice harmony	✓: AV+AV; (*UVP+UVP)
Order of verbs	Fixed: $V1_{perception}$+$V2_{perceived\ action}$
Insertion of the adverb *naehan* 'again'	✗
Insertion of the CLM =*o* 'and'	✗
Insertion of the CLM *'isa:* 'then'	✗

5.5.2 Juncture-nexus combinations

Section 5.5.2.1 discusses the juncture of juxtaposed verb denoting direct perception. In section 5.5.2.2, I discuss the nexus of this type of juxtaposed verbs.

5.5.2.1 Juncture of juxtaposed verbs expressing direct perception

Juxtaposed verbs expressing direct perception relation belong to **core juncture,** because two verbs share part of the argument structure, as shown in (5.72). In (5.72a), there are three core arguments: *yako* 'I (the actor)', *korkoring* 'the child' and *'aehoe'* **'**the dog'. The argument *korkoring* 'the child' plays dual roles: actor of the second core and undergoer of the first core. Syntactically it belongs to the first core because it cannot be marked by the genitive case or nominative case as in (5.72b-b'). In other words, it controls the omitted actor argument of the second core. (5.72c) and (5.72d) illustrates the dual role of the controlled argument as being the actor and the undergoer at the same time in this type of verbal juxtaposition.

(5.72) Core juncture: sharing part of argument structures

a. **[yako$_i$ k<om>ita' ka korkoring$_j$]$_{CORE1}$ [Ø$_{*i/j}$**
1SG.NOM <AV>see ACC child
sh<om>bet ka 'aehoe']$_{CORE2}$.
<AV>beat ACC dog
'I saw the child beat the dog.'

b.*[**yako k<om>ita'] [noka korkoring sh<om>bet ka 'aehoe'].**
1SG.NOM <AV>see GEN child <AV>beat ACC dog

b'.*[**yako k<om>ita'] [korkoring sh<om>bet ka 'aehoe'].**
1SG.NOM <AV>see child <AV>beat ACC dog

c. **yako** **k<om>ita'** **ka** **korkoring**$_{U.}$
1SG.NOM <AV>see ACC child
'I saw the child.'

d. **korkoring**$_{A}$ **sh<om>bet** **ka** **'aehoe'.**
child <AV>beat ACC dog
'The child beat the dog.'

Juxtaposed verbs expressing direct perception are not clausal juncture. In (5.73), the controlled argument *korkoring* 'child' of (5.73a) cannot be repeated in the second core as in (5.73b). By doing so, the sentence denotes a simultaneous relation instead of direct perception as in (5.73c).

(5.73) Non-clausal juncture

a. **yako** **k<om>ita'** **ka** **korkoring**$_{U/A}$ **sh<om>bet** **ka** **'aehoe'.**
1SG.NOM <AV>see ACC child <AV>beat ACC dog
'I saw the child beat the dog.'

b.***yako** **k<om>ita'** **ka** **korkoring** **korkoring** **sh<om>bet** **ka** **'aehoe'.**
1SG.NOM <AV>see ACC child child <AV>beat ACC dog

c. **yako** **k<om>ita'** **ka** **korkoring,** **hini** **korkoring**
1SG.NOM <AV>see ACC child this child
('am=)sh<om>bet **ka** **'aehoe'.**
(PROG=)<AV>beat ACC dog
'I saw the child and he is beating/beat the dog.'

Juxtaposed verbs expressing direct perception are not nuclear juncture, either. Two juxtaposed verbs do not form a single complex predicate because juxtaposed verbs showing direct perception relation, neither occur adjacent to each other as the

formative: NP+[V1V2]$_{predicate}$+NP; nor do they share the whole set of argument structure. (5.74) schematizes their core juncture in terms of argument structures.

(5.74) Juxtaposed verb denoting direct perception in core junctures Examples

a. $V_{perceptual(arg=2)}$ + $V_{perceived(arg=2)}$ → $VV_{(arg=2)}$ (5.71a)

b. $V_{perceptual(arg=2)}$ + $V_{perceived(arg=1)}$ → $VV_{(arg=2)}$ (5.72a)

5.5.2.2 Nexus of juxtaposed verbs expressing direct perception

Juxtaposed verbs expressing direct perception relation exhibit the nexus of **subordination** because they exhibit structural dependency. That is, the perceptual verbs (V1s) act as the matrix verbs and the other verbs (V2s) are the complements of V1s. There are two reasons for this analysis. One is the dislocated structure of matrix verbs and the other is the scope of the negator. Figure 5.9a delineates this analysis of nexus.

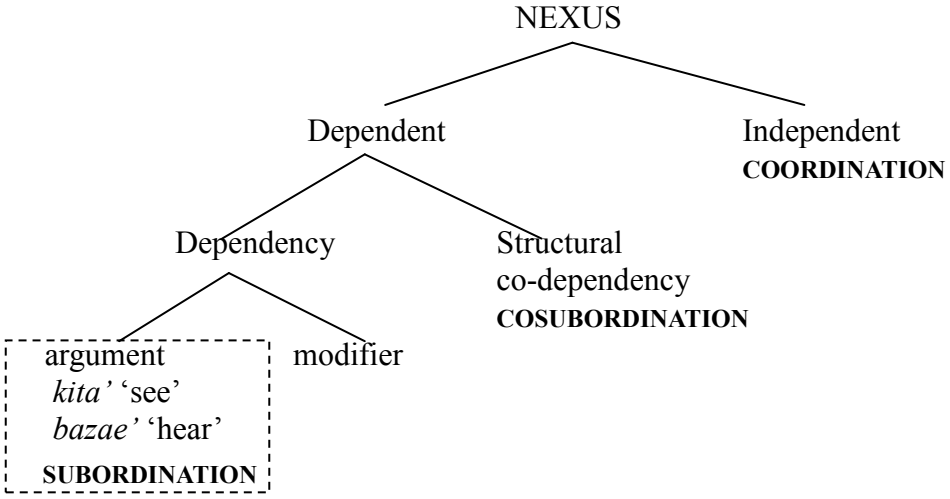

Figure 5.9a Nexus types of juxtaposed verbs expressing direct perception relation

Figure 5.9b illustrates the subordination analysis. The following discussion

provides an explanation on the dichotomy.

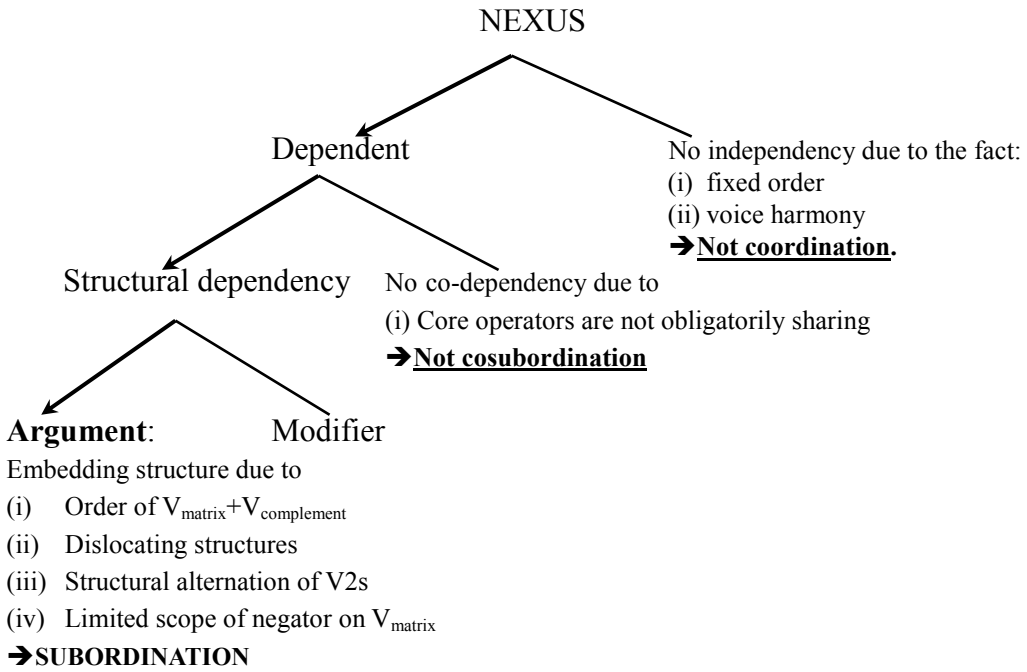

Figure 5.9b The rationale of the subordination analysis

Note that juxtaposed verbs expressing direct perception cannot be treated as coordination because linked cores do not exhibit syntactic independency. Evidence is provided in section 5.5.1 and Table 5.5. Two cores have fixed order; indicating two cores do not have equivalent status (if two cores are coordinated, either core can be occur in the initial position). Moreover, the fact of voice harmony also indicates that two cores do not display syntactic independence (*cf*. (5.69)).

This type of juxtaposed verb cannot be treated as cosubordination since structural co-dependency is not observed here. Evidence can be shown in the fact that core operators e.g., negators are not obligatorily shared as exemplified in (5.75)

below. The negators can independently modify the second cores.

(5.75) Negation of the second cores

a. **yako** **k<om>ita'** **ka** **korkoring** **kay=pae'rem.**
1SG.NOM <AV>see ACC child NEG.LIG=sleep
'I saw the child not sleeping.'

b. **yaba'** **k<om>ita'** **'oya'** **'okay** **talek,** **'am=mae'rem.**
father <AV>see mother LIG.NEG cook PROG=AV:sleep
'Father saw that mother does not cook, and she is sleeping.'

c. **yako** **k<om>ita'** **ka** **korkoring** **kay=shebet**
1SG.NOM <AV>see ACC child NEG.LIG=beat
ka **'aehoe'**, **kayzaeh=a=tomal.**
ACC dog good=LIG=very
'I saw the child not beating the dog, and this is very good.'

This type of juxtaposed verbs is analyzed as **subordination** on the basis of (i) fixed order of V_{matrix}+$V_{complement}$ and (ii) dislocated structure. The frist piece of evidence has been demonstrated in (5.70). The second piece of evidence is exemplified below in (5.76), whereby the perceptual verb *bazae'* 'hear' can be placed after the clause.

(5.76) Perceptual verbs in dislocated structures

a. **yako** **bazae'** **ka** **'aehoe'** **t<om>obong**
1SG.NOM hear ACC dog <AV>bark
ray **taew'an** **latar.**
LOC house outside
'I heard a dog barking outside the house.'

b. [**’aehoe’ t<om>obong ray taew’an latar**]$_{\text{clausal complement}}$,
dog <AV>bark LOC house outside
[(yako) bazae’=ila]$_{\text{matrix}}$**.**
1SG.NOM hear=COS
‘The dog barks outside the house, and I heard it.’

Specifically, this type of juxtaposed verbs belongs to **the argument type** of subordination. One piece of evidence is the limited scope of operator on V1s, as shown in (5.77) and (5.78) As introduced in chapter 3, negated verbs must occur in nonfinite forms in Saisiyat. In (5.77), the negation occurs before two verbs, and only the V1 occurs in the nonfinite form as in (5.77a). The V2s in these structures do not occur in nonfinite forms as in (5.77b).

(5.77) Negation of juxtaposed verbs
a. **yako ’okik bazae’ ka ’aehoe’ t<om>obong**
1SG.NOM NEG:LIG:STAT hear ACC dog <AV>bark
ray kabih-no-baala’.
LOC next.to-DAT-river
‘I didn’t hear the dog barking on the other side of the river.’
b.***yako ’okik bazae’ ka ’aehoe’ tobong**
1SG.NOM NEG:LIG:STAT hear ACC dog bark
ray kabih-no-baala’.
LOC next.to-DAT-river

(5.78) presents the restrictive negation scope of the *shi*-V2. The V2 neither occurs in the dependent form as in (5.78c) nor in the UVC-negative form: V-*ani* as in (5.78c’).

(5.78) Negation of the juxtaposed verbs

a. **yako k<om>ita' [noka korkoring shi-shbet ka 'aehoe']**.
1SG.NOM <AV>see GEN child UVC-beat ACC dog
'I saw the child beat the dog.'

b. **yako 'okik kita' [noka korkoring**
1SG.NOM NEG.LIG.STAT see GEN child
***shi-shebet* ka 'aehoe']**.
UVC-beat ACC dog
'I did not see the child beat the dog.'

c.***yako 'okik kita' [noka korkoring**
1SG.NOM NEG.LIG.STAT see GEN child
***shebet-ani* ka 'aehoe']**.
beat-UVC ACC dog

c'.***yako 'okik kita' [noka korkoring**
1SG.NOM NEG.LIG.STAT see GEN child
***shebet* ka 'aehoe']**.
beat ACC dog

Another piece of evidence is the structural alternation of the V2 units between finite verbs and nonfinte *shi*-marked clauses, as introduced in (5.69a) and (5.69f). This pattern indicates that the V2s do not act as main verbs (as modifiees) but as arguments of the perceptual verbs.

5.5.3 Interim summary

To summarize, juxtaposed verbs expressing direct perception relation of Saisiyat belongs to **core subordination**. Figure 5.10 illustrates the layered structure of such juxtaposed verbs.

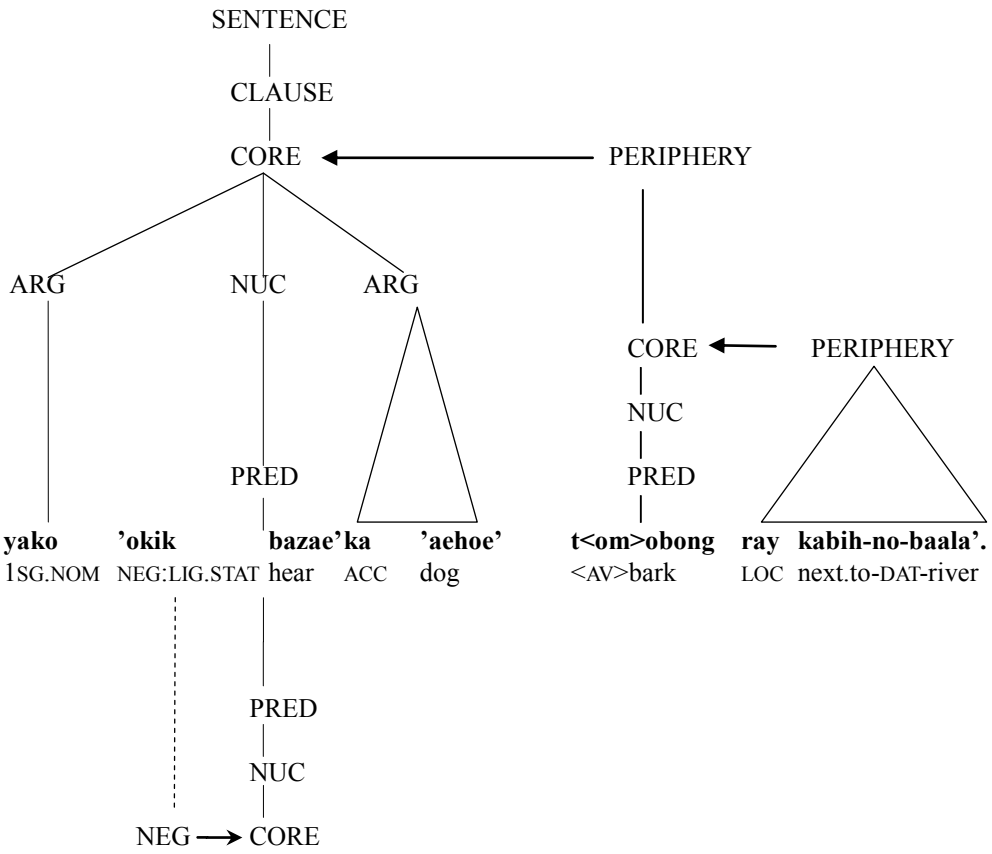

Figure 5.10 The layered structure of juxtaposed verbs expressing direct perception

As the figure shows, the second core acts as an argument to the matrix verbs (i.e. the perceptual verbs). The negation only modifies the first core that contains the verb, *kita'* 'see', acting as an matrix core.

5.6 Overall summary

This chapter discusses the juncture-nexus combinations of juxtaposed verbs in core juncture. Table 5.6 summaries the juncture-nexus combinations. Half of the juxtaposed verbs belong to subordination, including those denoting modifying subevents of position, psych-action relation, and direct perception. As for the other

types of juxtaposed verbs, they are cosubordination. The examined juxtaposed verbs in this chapter are not coordination. Core juncture in Saisiyat display a pattern that V2s units are generally embedded cores or clauses of the V1s.

Table 5.6 Nexus of juxtaposed verbs in core juncture

Semantic relations		**Juncture-nexus combinations**	
		Core cosubordination	Core subordination
The finishing phase		–	✓: the argument type
Modifying subevents	Motion	✓	–
	Position	–	✓: the modifier type
	Means	✓	–
Psych-action relation		–	✓: the argument type
Purposive relation		✓	–
Direct perception relation		–	✓: the argument type

Figure 5.11 reveals the mapping between semantic relations and juncture nexus combinations of juxtaposed verbs in core junctures.

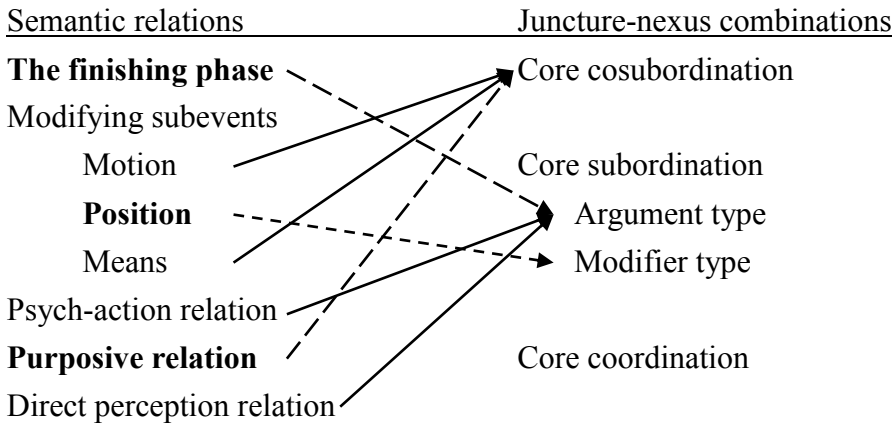

Figure 5.11 The interclausal relation hierarchy of juxtaposed verbs in core juncture

This figure shows that Saisiyat exhibits a language-specific pattern. The juxtaposed verbs expressing **the finishing phase**, **position** and **purosive relations** exhibit cross-over linking (represented in the dash lines) in the semantic-syntactic mapping. This linking pattern indicates that these three types of juxtaposed verbs do not conform to iconicity principle (Givón 1990; Silverstein 1976): structural tightness may not absolutely reflect the semantic cohesiveness for there are cross-over linkage. In other word, the mapping relation is more or less discursive. The finishing phase is expressed through core subordination instead of cosubordination. In contrast, motion and means that carry semantic cohesiveness are manifested in core cosubordination: the tightest nexus in core juncture. An interesting fact is that, the purposive relation, as less compressed event concatenation, is also realized in core cosubordination instead of coordination or subordination. In contrast, less semantically cohesive relations of psych-action and direct perception map to the argument type of subordination rather than coordination (i.e. the loosest nexus types).

Chapter 6 will deal with interclausal relation of the juxtaposed verbs that are realized in clausal junctures.

Chapter 6

Interclausal relations in the clausal juncture

This chapter discusses the juxtaposed verbs that are manifested in clausal juncture. Section 6.1 deals with juxtaposed verbs expressing cognition relation. Section 6.2 offers a survey of juxtaposed verbs expressing a simultaneous relation. Section 6.3 discusses juxtaposed verbs showing a sequential relation. Section 6.4 deals with dislocated structures that express the finishing phase, manner, position, psych-action and cognition relations. Section 6.5 is an overall summary.

6.1 Juxtaposed verbs showing cognition relation

A cognition relation expresses knowledge or mental activity, e.g. *Aaron knows that the earth is round, George is thinking about Madeleine's refusal to go out with him* (Van Valin 2005:206). Section 6.1.1 elaborates on this part.

6.1.1 Grammatical properties of juxtaposed verbs expressing cognition relation

In Saisiyat, a clause that expresses cognition relation is composed of a cognition verb such as *raam* 'know' or *ma:'az'azem* 'think'. The cognition relation can be expressed through the complementation construction in which the V2 unit is a full fledged

clause. The complementizer *komosha:* may introduce the complement. See (6.1) for a schematic representation. The V2 units can occur in AV or UVP forms as demonstrated in (6.2a-b). The V2 units can be marked by the UVC *shi*-form and the actor is marked in genitive case, as shown in (6.2c). The cognition verbs can be placed in sentential final position, as shown in (6.2d-e). These structures are bi-clausal.

(6.1) Schema of juxtaposed verbs expressing cognition relation and related structures — Examples

a. $[\text{Actor}_{\text{NOM}} + \text{V}_{\text{cognition}}]_{\text{CLAUSE}} + (\textit{komosha:}) + [\text{Actor}_{\text{NOM}} + \text{V}_{\text{AV}}]_{\text{CLAUSE}}$ (6.2a)

b. $[\text{Actor}_{\text{NOM}} + \text{V}_{\text{cognition}}]_{\text{CLAUSE}} + (\textit{komosha:}) + [\text{Undergoer}_{\text{NOM}} + \text{V}_{\text{UVP}}]_{\text{CLAUSE}}$ (6.2b)

---

c. $\text{Actor}_{\text{NOM}} + \text{V1}_{\text{cognition}} + [\text{Actor}_{\text{GEN}} + \textit{shi}\text{-V2}]_{\text{CLAUSE}}$ (6.2c)

d. $[\text{Actor}_{\text{NOM}} + \text{V2}_{\text{AV}}]_{\text{CLAUSE}}, + \text{V1}_{\text{cognition}}$ (6.2d)

e. $[\text{Undergoer}_{\text{NOM}} + \text{V2}_{\text{UVP}}]_{\text{CLAUSE}}, + \text{V1}_{\text{cognition}}$ (6.2e)

(6.2) exemplifies the representations in (6.1).

(6.2) Juxtaposed verbs expressing cognition relation

a. **sia** **raam** **(komosha:)** **yako** **r<om>a'oe:=ila**
3SG.NOM know COMP 1SG.NOM <AV>drink=COS
ka **pinobaeaeh.**
ACC wine
'He/she knows that I drunk wine.'

b. **sia** **raam** **(komosha:)** **korkoring** **ni** **yaba'**
3SG.NOM know COMP child GEN father
shebet-en.
beat-UVP
'He/she knew that the child got beaten by Father yesterday.'

c. **yako** **raam** [**ni** **'ataw** **shi-'alop** **ka** **hako'**].
1SG.NOM know GEN PN UVC-hunt ACC muntjac
'I know that Ataw hunted a muntjac.'

d. [**yako** **r<om>a'oe:** **ka** **pinobaeaeh**], **sia** **raam=ila.**
1SG.NOM <AV>drink ACC wine 3SG.NOM know=COS
'I drank wine, and he/she has known it.'

e. **[korkoring** **ni** **yaba'** **shebet-en],**
child GEN father beat-UVP
sia **raam=ila.**
3SG.NOM know=COS
'The child got beaten by Father, and he/she already knows it.'

Juxtaposed verbs expressing cognition relation display the following grammatical properties. First, the order of juxtaposed verbal units is restricted in the formation of $V_{cognition}$+V_{action} as schematized in (6.1a): cognition verbs must precede the other verbs.[95] Second, the CLMs *=o* 'and' and *'isa:* 'then' cannot occur after V1 as shown in (6.3a-a') and (6.3b-b').

(6.3) Insertion of CLMs

a.***sia**$_{Ai}$ **raam=o** **yako** **r<om>a'oe:** **ka** **pinobaeaeh.**
3SG.NOM know=CONJ 1SG.NOM <AV>drink ACC wine

a'. **sia** **raam** **yako** **r<om>a'oe:** **ka**
3SG.NOM know 1SG.NOM <AV>drink ACC
pinobaeaeh=o, **be'e:.**
wine=CONJ angry
'He/she knows that I had drunk wine, and (he/she) feels angry.'

[95] Note that the dislocated structure exhibits a reverse order : V_{action}+$V_{cognition.}$

b.***sia**$_{Ai}$ **raam** **<u>'isa</u>:** **yako**$_{Aj}$ **r<om>a'oe:** **ka** **pinobaeaeh.**
3SG.NOM know then 1SG.NOM <AV>drink ACC wine

b'. **sia** **raam** **yako** **r<om>a'oe:** **ka**
3SG.NOM know 1SG.NOM <AV>drink ACC
pinobaeaeh, **<u>'isa:</u>** **sia** **be'e:.**
wine then 3SG.NOM angry
'He/she knows that I had drunk wine, and then he/she becomes angry.'

Table 6.1 summarizes these grammatical properties of juxtaposed verbs expressing cognition relation in Saisiyat.

Table 6.1 Grammatical properties of juxtaposed verbs expressing cognition relation

Types of construction / Grammatical properties	Juxtaposed verbs showing cognition relation	
Order of verbs	Fixed: V1+V2	
Voice harmony	✗	AV+AV
		AV+UVP
Insertion of the CLM =*o* 'and'	✗	
Insertion of the CLM *'isa:* 'then'	✗	

6.1.2 Juncture-nexus combinations

Section 6.1.2.1 discusses the juncture. Section 6.1.2.2 addresses to the nexus of cognition in Saisiyat.

6.1.2.1 Juncture of juxtaposed verbs expressing cognition relation

Juxtaposed verbs showing a cognition relation in Saisiyat are **clausal juncture**, since they represent combinations of two clausal units. (6.4) accounts for this structure.

(6.4a) is the examples of juxtaposed verbs expressing cognition relation. (6.4b-c) show that the two verbs form an independent clause on their own.

(6.4) Clausal juncture

a. **sia** **raam** [**korkoring** **s<om>i'ael** **ka** **por'oe'**].
3SG.NOM know child <AV>eat ACC vegetable
'He/she knows that the child ate vegetables.'

b. **sia** **raam** **hini** **(h)owaw=ila.**
3SG.NOM know this thing=COS
'He/she already knows this thing/matter.'

c. **korkoring** **s<om>i'ael** **ka** **por'oe'.**
child <AV>eat ACC vegetable
'The child ate vegetables.'

Another piece of evidence of clausal juncture is the insertion of the complementizer *komosha*: between two linked clauses as shown in (6.5).

(6.5) Insertion of *komosha:*

a. **sia** **raam** **<u>komosha:</u>** **[yako** **kama=r<om>a'oe:**
3SG.NOM know COMP 1SG.NOM HAB=<AV>drink
ka **pinobaeaeh].**
ACC wine
'He knew I used to drink.'

b.***sia** **raam** **[hini** **(h)owaw** **<u>komosha:</u>** **yako**
3SG.NOM know this thing COMP 1SG.NOM
kama=r<om>a'oe: **ka** **pinobaeaeh].**
HAB=<AV>drink ACC wine

(6.6) further indicates the clausal boundary between two syntactic units. The second noun *korkoring* 'child' in the sentence of (6.6a) is marked by the nominative case, instead of the accusative case. This structure of (6.6a) indicates two features: (i) the second NP does not belong to the first clause, and (ii) the second verbal unit is not a core unit that embeds to the first clause.

(6.6) Clausal boundary

a. [**yaba raam**]$_{clause1}$ [**korkoring marma' ka rayhil**]$_{clause2}$.
father know child AV:steal ACC money
'Father knows that the child stole money.'

b.*[**yaba raam ka korkoring**] [**marma' ka rayhil**]$_{core}$.
father know ACC child AV:steal ACC money

(6.7) summarizes the clausal junctures of juxtaposed verbs expressing the cognition relation, regarding their argument structure.

(6.7) Juxtaposed verb expressing cognition relation — Examples

a. $V1_{cognition(arg=2)}$ + $V_{(arg=1)}$ → $[V]_{clause1}[V]_{clause2\ (arg=2)}$ (6.7c)

b. $V1_{cognition(arg=2)}$ + $V_{(arg=2)}$ → $[V]_{clause1}[V]_{clause2\ (arg=3)}$ (6.5a)

c. **'oya raam yako hoepay=ila.**
mother know 1SG.NOM tired=COS
'Mother knows that I feel tired now.'

6.1.2.2 Nexus of juxtaposed verbs expressing cognition relation

To begin with, juxtaposed verbs expressing cognition relation exhibit **subordination** because the complement clauses that contain V2s are embedded to the first clause (that contains the cognition verbs). Figure 6.1a accounts for the division of nexus.

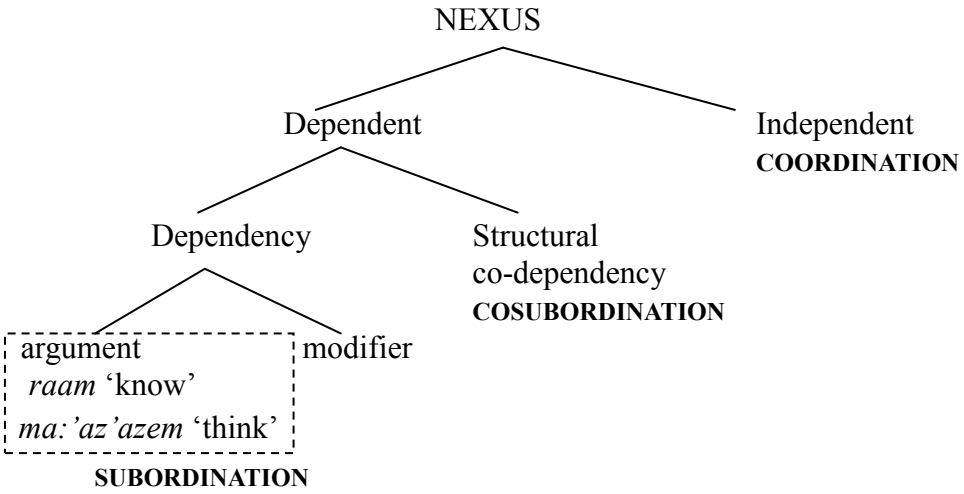

Figure 6.1a Nexus types of juxtaposed verbs expressing cognition relation

Figure 6.1b elaborates on the subordination analysis. The following discussion provides an explanation on the dichotomy.

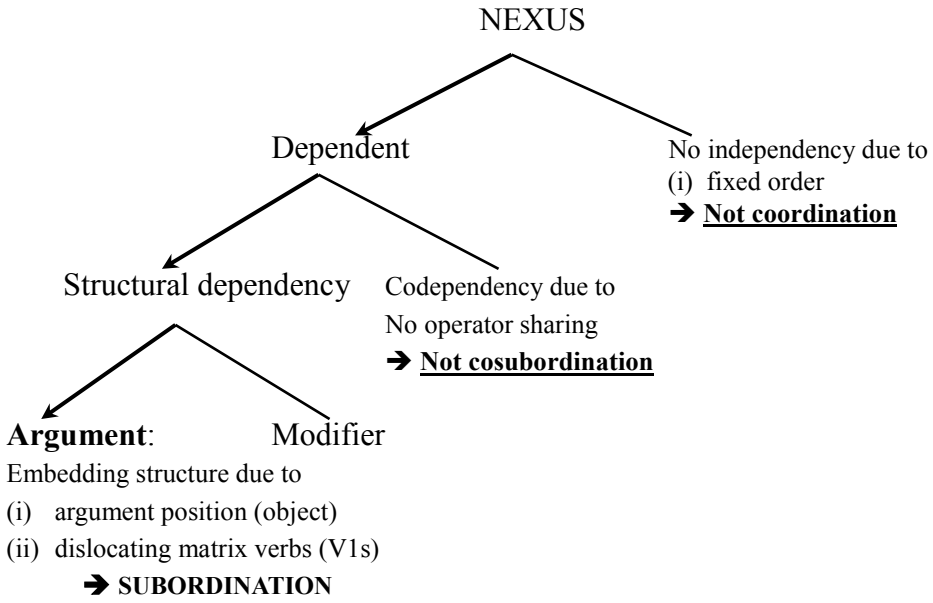

Figure 6.1b The rationale of the subordination analysis

To begin with, this type of juxtaposed verbs cannot be treated as coordination because of the fixed order of verbal units. If the two linked cores were coordination, such the restriction would not be observed here. In fact, the order of the verbs denoting cognition and their complements cannot switch positions in Saisiyat as previously exemplified in (6.2a-b).

This type of juxtaposed verbs cannot be cosubordination in clausal juncture since the embedded units (V2s) can have its own modification of operators such as the negators (core operator) as shown in (6.8a-a') and the clausal operator of epistemic modality as shown in (6.8b-b').

(6.8) Alternative scope of negation

a. **sia** **raam** **(komosha:)** **yako** **’okay** **ra’oe:**
3SG.NOM know COMP 1SG.NOM NEG.LIG drink
ka **pinobaeaeh.**
ACC wine
‘He/she knows that I do not drink wine.’

a’. **’oya** **raam** **yako** **’okik** **be’e:.**
mother know 1SG.NOM NEG:LIG:STAT angry
‘Mother knows that I am not angry.’

b. **sia** **raam** **yako** **r<om>a’oe:=a=tomal** **ka** **pinobaeaeh.**
3SG.NOM know 1SG.NOM <AV>drink=LIG=very ACC wine
‘He/she knows that I definitely drank wine.’

b’. **sia** **raam=a=tomal** **yako** **r<om>a’oe:** **ka** **pinobaeaeh.**
3SG.NOM know=LIG=very 1SG.NOM <AV>drink ACC wine
‘He/she definitely knows that I drank wine.’

The reasons for positing subordination are two-fold. First, the V2 units take place at the object position. As introduced in chapter 3, Saisiyat exhibits the SVO word order in AV constructions. Except for the dislocated structures, the V2s units of verbal juxtaposition occupy the post-verbal position instead of the pre-verbal position. Second, cognition verbs (V1s) can occur in the dislocated position and take the V2 units as clausal argument in bi-clausal structure, indicating a subordination structure.

(6.9) Juxtaposed verb denoting cognition relation

a. **yako** **raam** **(komosha:)** **korkoring** **ni** **’oya’**
1SG.NOM know COMP child GEN mother
shebet-en.
beat-UVP
‘I knew that the child got beaten by Mother yesterday.’

b. **[korkoring ni 'oya' shebet-en], yako raam=ila.**
child GEN father beat-UVP 1SG.NOM know=COS
'The child got beaten by Father, and I already know it.'

6.1.3 Interim summary

To summarize, juxtaposed verbs expressing cognition relation are clausal **subordination**. Figure 6.2 depicts the layered structure (by using (6.8b) as an instance). The matrix predicate takes the following embedded clause as it argument. The negation independently modifies the core of the embedded clause. The V2 *ra'oe:* 'drink' appears in the dependent form. The complementizer *komosha:* is a CLM which introduces a clause as the argument of the cognition verb *raam* 'know'. The clausal operator of the epistemic modality V=*a=tomal* 'definitely' independently modifies the complement.

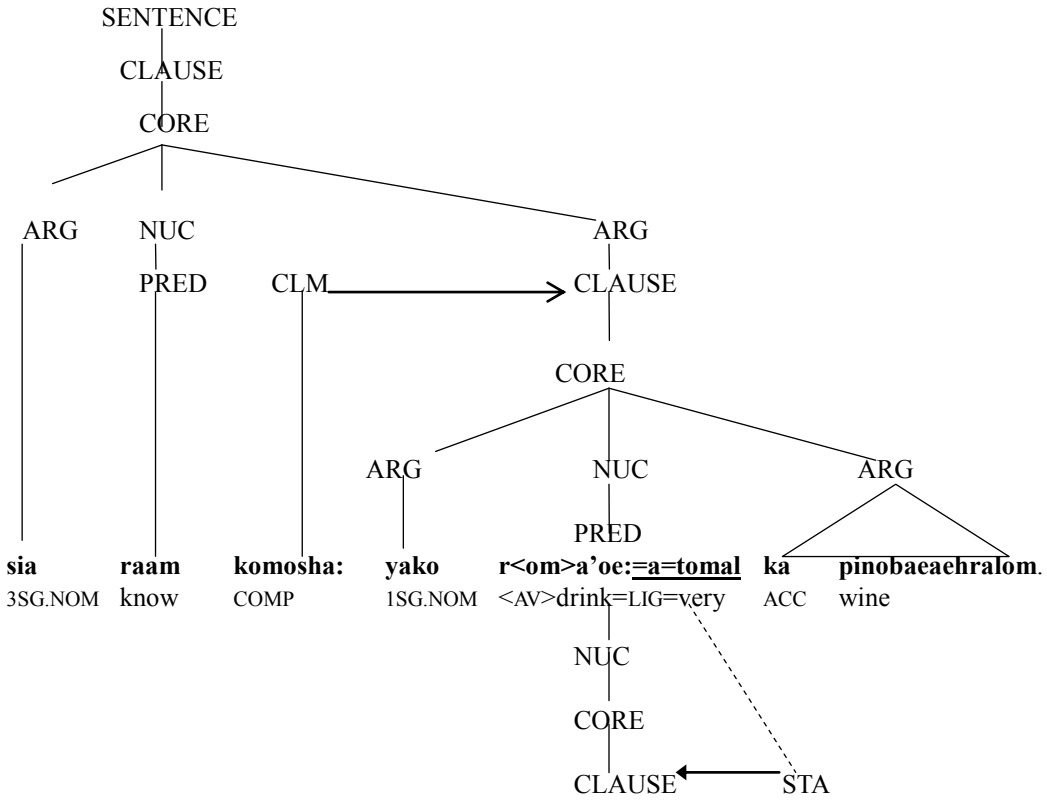

Figure 6.2 The layered structure of juxtaposed verbs expressing cognition relation

6.2 Juxtaposed verbs expressing simultaneous relation

A simultaneous relation is defined as follows: 'one state of affairs is temporally coterminous with another, e.g. *Max was dancing, and at the same time Susan played the piano*.' (Van Valin 2005:207). The term *coterminous* denotes two senses: (i) having a common boundary or (ii) being contained within the same boundaries (Neufeldt & Guralnik 1997). Section 6.1 accounts for grammatical properties of this type of juxtaposed verbs.

6.2.1 Grammatical properties of juxtaposed verbs expressing simultaneous relation

A simultaneous relation is expressed in the following sequence: $V1_{action}$+$V2_{action}$. The two linked verbal units occur in the same temporal frame. They exhibit identical voice marking: AV+AV and UVP+UVP. (6.10) schematizes these structures.

(6.10) Schema of juxtaposed verbs expressing simultaneous relation — Examples

a.	$Actor_{NOM}$	+	V_{AV}	+	(NP)	+	V_{AV}	+ (NP)	(6.11a)
b.*	$Actor_{NOM}$	+	V_{AV}	+	(NP)	+	V_{UVP}	+ (NP)	(6.11b)
c.	$Undergoer_{NOM}$	+	V_{UVP}	+	(NP)	+	V_{UVP}	+ (NP)	(6.11c)
d.*	$Undergoer_{NOM}$	+	V_{UVP}	+	(NP)	+	V_{AV}	+ (NP)	(6.11d)

(6.11) exemplifies the schema given in (6.10).

(6.11) Juxtaposed verbs expressing simultaneous relation

a. **'oya' '<om>angang (ka korkoring)(,) sh<om>bet ka korkoring**.[96]
mother <AV>scold ACC child <AV>beat ACC child
'Mother is beating and scolding the child.'

b.***'oya' '<om>angang shebet-en ka korkoring**.
mother <AV>scold beat-UVP ACC child

c. **korkoring ni 'oya' 'angang-en shebet-en.**
child GEN mother scold-UVP beat-UVP
'Mother is beating and scolding the child.'

---

[96] An interesting fact arises here: the meaning of sentence shifts to sequential relation when the object argument is omitted in the second clause as shown in (ia) below. Note that Saisiyat also uses the Hakka simultaneous structure: *kwa*+V1+*kwa*+V2 'doing V1 and doing V2 at the same time' to express this meaning. Observe (ib).

(i) Deletion of second object argument

a. **'oya' '<om>angang ka korkoring(,) sh<om>bet.**
mother <AV>scold ACC child <AV>beat
'Mother scolded the child and (then) she beat him/her. '

b. **'oya' kwa-'<om>angang, kwa-sh<om>bet ka korkoring.**
mother on.the.one.hand-<AV>scold on.the.one.hand-<AV>beat ACC child
'Mother is scolding and beating the child at the same time.'

d.***korkoring** **ni** **’oya’** **’angang-en** **sh<om>bet.**
child GEN mother scold-UVP <AV>beat

These juxtaposed verbs can be categorized into two subtypes. Type 1 displays the figure-ground relation between two states of affairs. That is, one event acts as the background of the other event. In other words, the former is a ground event that provides a stationary setting (Talmy 2000). The latter is a figure event that represents a conceptually moveable and less stationary action. As shown in (6.12a), the event of singing acts as the background of the dancing event, and the former better precedes the latter: SING>DANCE but not DANCE>SING. By contrast, verbal units of Type 2 do not exhibit such preference of order as shown in (6.12b-b’) since they do not exhibit a figure-ground relation.

(6.12) Juxtaposed verbs showing simultaneous relation

a. **’aro’** **[maatol]** **[h<oem>lal]** **ray** **taew’an**. Type 1
PN AV:sing <AV>dance LOC house
‘Aro was singing and dancing at home.’ (Preferred order)

a’. **’aro’** **[h<oem>lal]** **[maatol]** **ray** **taew’an**. Type 1
PN <AV>dance AV:sing LOC house
‘Aro was dancing and singing at home.’ (Less preferred order)

b. **hiza** **kamamannraan** **[r<om>a’oe:** **ka** **pinobaeaeh]** **[m-il-tamako’]**.
that man <AV>drink ACC wine AV-sip-tobacco
‘That man was drinking and smoking.’ Type 2

b’. **hiza** **kamamanraan** **[m-il-tamako’]** **[r<om>a’oe:** **ka** **pinobaeaeh]**.
that man AV-sip-tobacco <AV>drink ACC wine
‘That man was drinking and smoking.’ Type 2

Moreover, Type 1 of simultaneous relation displays the property of [+temporal overlap], whereby two actions entirely concur within a period of time. By contrast, Type 2 does not exhibit the properties of [+temporal overlap], because two distinctive actions such as smoking and drinking, interchange within a period of time and are ideally conceived as being **coterminous**. For example, smoking does not coincide with drinking, but the two actions can interchange within a time period.

In general, both types of juxtaposed verbs showing simultaneous relation undergo the insertion of the CLM =*o* 'and'. (6.13) exemplifies this point.

(6.13) Insertion of the CLM =*o* 'and'

a. **'aro'** **kahia'** **maatol=o** **h<oem>lal** **ray** **taew'an.**
PN yesterday AV:sing=CONJ <AV>dance LOC house
'Aro was singing and dancing at home yesterday.'

b. **hiza** **kamamanraan** **r<om>a'oe:** **ka** **pinobaeaeh=o** **m-il-tamako'**.
that man <AV>drink ACC wine=CONJ AV-sip-tobacco
'That man was drinking and smoking.'

Table 6.2 illustrates the semantic commonality and divergence between the two types discussed. Juxtaposed verbs of both types do not have fixed order, and share the same voice marking. They express a coterminous meaning since they all occur within a temporal period. Juxtaposed verbs of Types 1 exhibit a preferred word order: $V_{GROUND} \rightarrow V_{FIGURE}$. Juxtaposed verbs of Type 2 express a temporal overlap, and they do

not convey a figure-ground meaning. The CLM =*o* 'and' can intervene between two verbal units. Last, that both events must be in identical voce marking. Note that unlike the discussion of other types of juxtaposed verbs, the CLM *'isa*: 'then' is not discussed in this section, since the CLM *'isa:* 'then' implies temporal order of event succession, which is contradictory to simultaneous meaning i.e. it is irrelevant to grammar.

Table 6.2 Grammatical properties of juxtaposed verbs expressing simultaneous relation

Types / Properties	Type 1 *maatol* 'sing' *hoemlal* 'dance'	Type 2 *miltamako'* 'smoke' *roma'oe:* 'drink'
Fixed word order	✗	✗
Voice harmony	✓	✓
Figure-ground distinction	✓	✗
Temporal overlap	✓	✗
The insertion of the CLM =*o* 'and'	✓	✓

6.2.2 Juncture-nexus combinations

Section 6.2.2.1 discusses the juncture of juxtaposed verbs expressing simultaneous relation. Section 6.2.2.2 discusses the nexus of those denoting simultaneous relation.

6.2.2.1 Juncture of juxtaposed verbs expressing simultaneous relation

Juxtaposed verbs expressing simultaneous relation belong to **clausal juncture.** The very existence of clausal boundary between these two juxtaposed syntactic units can

be ascribed to **co-reference** of the shared nominative arguments. That is, the identical nominative arguments of the two clauses can be recovered in second clauses when the arguments need to be pragmatically specified e.g., in high activation status. Following this line of thought, we can claim that the omission of nominative arguments in such juxtaposed verbs is not caused by argument-control (i.e. obligatorily omitted). Observe (6.14) and (6.15) for this clausal juncture.

(6.14) Clausal juncture

a. **'aro' maatol 'aro' h<oem>lal ray taew'an.**
PN AV:sing PN <AV>dance LOC house
'Aro is singing and dancing at home.'

b. **hiza kamamanraan r<om>a'oe: ka pinobaeaeh**
that man <AV>drink ACC wine
hiza kamamanraan m-il-tamako'.
that man AV-sip-tobacco
'That man is drinking and smoking.'

(6.15) Clausal juncture

a. **korkoring ni 'oya' 'angang-en shebet-en.**
child GEN mother scold-UVP beat-UVP
'Mother is beating and scolding the child.'

b. **korkoring ni 'oya' 'angang-en korkoring shebet-en.**
child GEN mother scold-UVP child beat-UVP
'Mother is beating and scolding the child.'

(6.16) represents the clausal juncture of juxtaposed verb showing simultaneous relation, regarding their argument structures.

(6.16) Juxtaposed verb denoting simultaneous relation in clausal junctures — Examples

a. $[V_{arg=2}]_{clause1}$ + $[V_{arg=2}]_{clause2}$ → $[V1V2]_{clause(arg=2)}$ (6.11a)

b. $[V_{arg=1}]_{clause1}$ + $[V_{arg=1}]_{clause2}$ → $[V1V2]_{clause(arg=1)}$ (6.12a)

c. $[V_{arg=2}]_{clause1}$ + $[V_{arg=1}]_{clause2}$ → $[V1V2]_{clause(arg=2)}$ (6.12b)

d. $[V_{arg=1}]_{clause1}$ + $[V_{arg=2}]_{clause2}$ → $[V1V2]_{clause(arg=2)}$ (6.12b')

6.2.2.2 Nexus of juxtaposed verbs expressing simultaneous relation

Juxtaposed verbs expressing simultaneous relation display **cosubordination.** The two units exhibit structural co-dependency. Figure 6.3a illustrates the division of nexus.

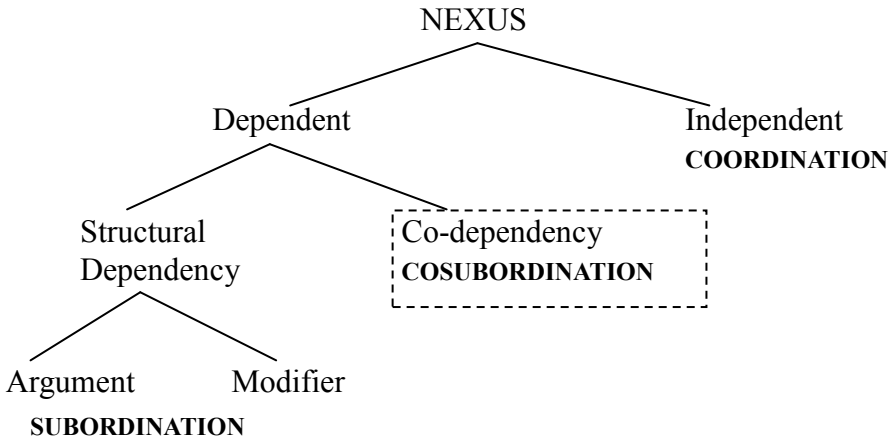

Figure 6.3a Nexus types of juxtaposed verbs expressing simultaneous relation

Figure 6.3b elaborates on the cosubordination analysis. The following discussion provides an explanation on the dichotomy.

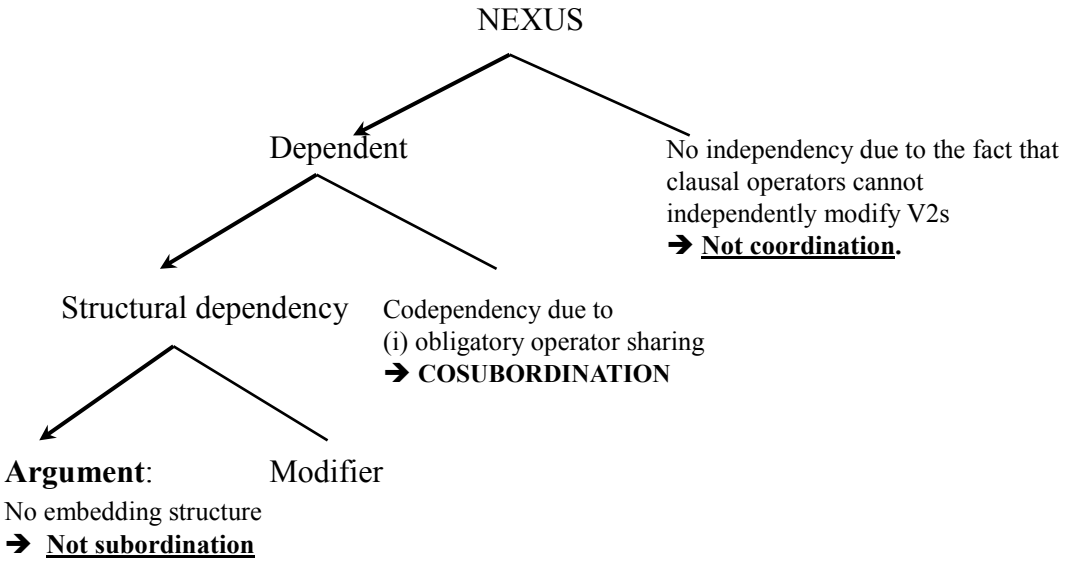

Figure 6.3b The rationale of the cosubordination analysis

One might argue that this type of juxtaposed verbs should be treated as coordination because of the free order of verbs as shown in (6.12), and the insertion of the CLM =*o* 'and'. However, this is not a valid judgment. One piece of evidence to reject the coordination analysis is provided in (6.17c), indicating that the two linked clauses do not have equal syntactic weight, since each clause does not have independent modification of operators.

(6.17) Obligatory sharing of clausal operator =*ay*

a. **'aro'** **maatol=ay** **h<oem>lal** **ray** **taew'an**.
PN AV:sing=Q <AV>dance LOC house
'Did Aro sing and dance at home (at the same time)?'

a'. **'aro'** **maatol** **h<oem>lal** **ray** **taew'an=ay.**
PN AV:sing <AV>dance LOC house=Q
'Did Aro sing and dance at home (at the same time)?'

b. ***'aro'** **maatol** **h<oem>lal=ay** **ray** **taew'an.**
PN AV:sing <AV>dance=Q LOC house
Intended: 'Did Aro sing and dance at home (at the same time)?'

c. ***’aro’ maatol=ay h<oem>lal=ay ray taew’an.**
PN AV:sing=Q <AV>dance=Q LOC house
Intended for: ‘Did Aro sing and dance at home?’(simultaneous relation)
Unless it means: ‘Did Aro sing? Did Aro dance?’ (temporally unordered states of affairs)

Therefore, the juxtaposed verbs are cosubordination because the clausal operator *=ay* is obligatorily shared by the two clauses, which indicates structural codependency. (6.17) exemplifies this point, by using the juxtaposed verbs of Type 1 simultaneous relation as an instance. As shown in (6.17a) and (6.17a’), the clausal operator interrogative clitic *=ay* is obligatorily shared by the two clauses. The operator *=ay* is able to attach to V1 and appear in sentential-final position. The modifier modifies the whole sentence in these two positions. However, *=ay* does not attach to V2 in (6.17b) and modifies V2 only. It cannot repetitively attach to each verb as shown in (6.17c) to express a simultaneous relation.

The juxtaposed verbs expressing simultaneous relation are not subordination because there is no embedding structure observed in such type of verbal juxtapositions; that is, the second clauses do not occur as nonfinite forms.

6.2.3 Interim summary

All in all, juxtaposed verbs expressing simultaneous relation are **clausal cosubordination** in Saisiyat. Figure 6.3 delineates the layered structure of

simultaneous relation. In Figure 6.4, the juxtaposing predicates *maatol* 'sing [AV]' and *hoemlal* 'dance [AV]' are projected into clausal nodes and linked under a higher clausal node, which is modified by the clausal operator *=ay.* The omitted actor in the second clause is co-referred under pragmatic influence, instead of syntactic controlled.

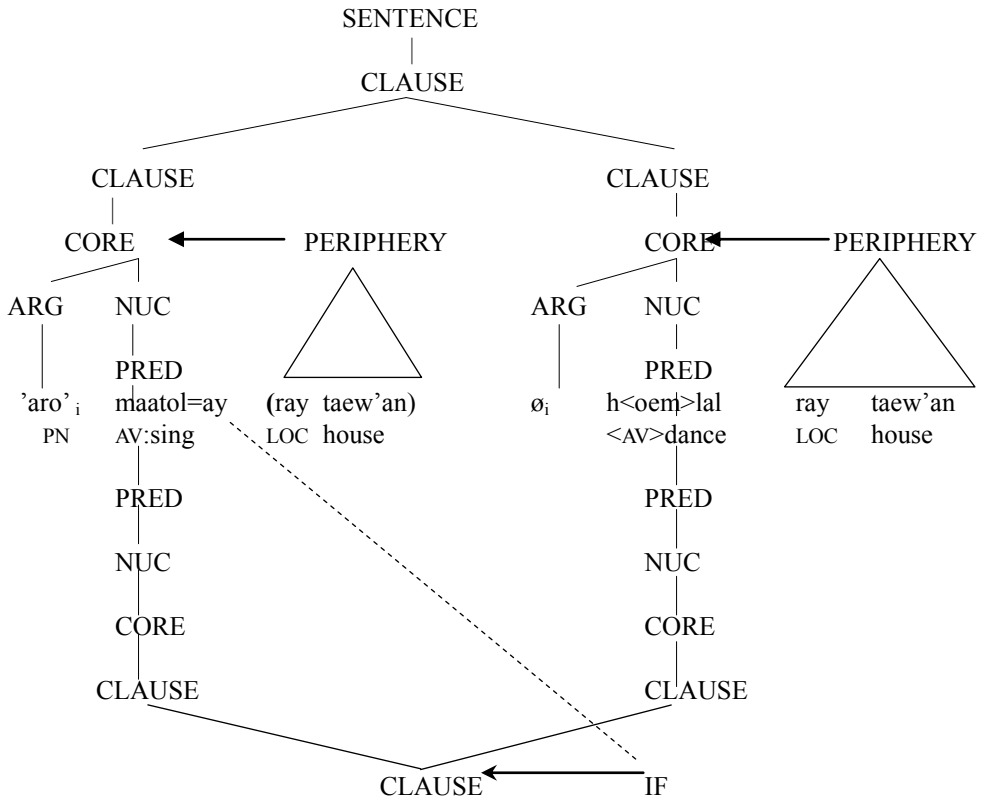

Figure 6.4 Layered structure of juxtaposed verbs expressing simultaneous relation

6.3 Juxtaposed verbs expressing sequential relation

In RRG, a sequential relation is defined as follows: 'one state of affairs follows another temporally, with or without any temporal overlap, e.g. *Juan finished reading the newspaper, and then Carlos walked into the room.'* (Van Valin 2005:207). This

dissertation separates the sequential relation into three subtypes in terms of two semantic traits: (i) temporal intervals and (ii) the degree of overlapping on the basis of Van Valin & LaPolla's (1997) definition. (6.18) provides definitions for classifying of juxtaposed verbs showing sequential relation.

(6.18) Types of sequential relation

a. **Type 1: Overlapping**, the post-part of an event temporally overlaps with the fore-part of the succeeding event.[97]
b. **Type 2: Non-overlapping**, one event immediately successes the other. I use the term **immediate succession** to refer to this type of sequential relation.
c. **Type 3: Non-overlapping with an interval,** an interval exists between the end of one event and the beginning of the next. I use the term **detached succession** to refer to this type.

6.3.1 Grammatical properties of juxtaposed verbs expressing sequential relation

Most of the Saisiyat juxtaposed verbs manifesting events showing sequential relation belong to Type 3, the detached succession, as exemplified in (6.19). As (6.19) points out, neither Type 2 nor Type 3 conforms to the restriction of voice harmony: alignments of AV+UVP and UVP+AV are found in sentences of sequential relation. This is the most obvious difference between juxtaposed verbs expressing sequential

[97] Type 1 sequential relation is irrelevant to this study, since it is less possible to find two partially overlapping events which are performed by the same actor. An English example of real Type 1 is *When John came into the living room, Lucy was playing the vedio game, Dark Soul.* One might argue against my account by the counter-example *When John came into the lobby, he was farting*. Yet the latter example belongs to a simultaneous relation not a Type 1 of sequential relation.

relation from those expressing simultaneous relations (*cf*. 6.11).

(6.19) Schema of juxtaposed verbs expressing sequential relation Examples

a.	$Actor_{NOM}$	+	V_{AV}	+	(NP)	+	V_{AV}	+	(NP)	(6.20a, 6.21a)
b.	$Actor_{NOM}$	+	V_{AV}	+	(NP)	+	V_{UVP}	+	(NP)	(6.20b, 6.21b)
c.	$Actor_{NOM}$	+	V_{AV}	+	(NP)	+	V_{UVP}	+	(NP)	(6.20a')
d.	$Actor_{NOM}$	+	V_{UVP}	+	(NP)	+	V_{AV}	+	(NP)	(6.21c)

(6.19) is exemplified in (6.20) and (6.21).

(6.20) The type 3 of juxtaposed verbs expressing sequential relation (detached succession)

a. **hini korkoring min'itol, s<om>i'ael ka walo'.**
this child AV:wake.up <AV>eat ACC candy
'This child woke up and ate candies.' (AV+AV)

b. **korkoring min'itol, pa-si'ael-en ka pazay**. (AV+UVP)
child AV:wake.up CAUS-eat-UVP ACC rice
'This child woke up and was fed with rice.'

c. **ta-ti'ish nisia sipsip-in, t<om>i'ish ka talka:**. (UVP+AV)
RED-wipe 3SG.GEN fold-UVP <AV>wipe ACC table
'The rags were folded to wipe by him/her.'

(6.21) The type 2 of juxtaposed verbs expressing sequential relation (immediate succession)

a. **yako k<om>ahoes ka ralom, sh<om>iboeh=ila**. (AV+AV)
1SG.NOM <AV>ladle ACC water <AV>pour=COS
'I ladled water and poured it (in a container).'

a'. **ralom ma'an kahoes-en, shiboeh-en**. (UVP+UVP)
water 1SG.GEN ladle-UVP pour-UVP
'I ladled water and poured it (in a container).'

b. **yako** **k<om>ahoes** **ka** **ralom,** **shiboeh-en=ila**. (AV+UVP)
1SG.NOM <AV>ladle ACC water pour-UVP=COS
'I ladled water and poured it (in a container).'

c. **walishan** **ni** **'obay** **panae'-en,** **shoehoero(:)=ila**. (UVP+AV)
boar GEN PN shoot-UVP AV:hit.at.target=COS
'Obay shot the boar and he hit it.'

Juxtaposed verbs further display following properties. To begin with, unlike like juxtaposed verbs in core juncture, there is a detectable intonation break between juxtaposed verbs expressing sequential relation.

For juxtaposed verbs expressing the detached type of sequential relation, the temporal expressions such as *'isa:* 'then' can occur between two verbs and denotes a short interval between the subsequent events, as (6.22a) show. In (6.22b), the temporal expression *(h)onaehnge*: 'a long time' profiles a longer temporal interval between the two events. That is, the subevents of the detached type independently exist and are not integrated as single unified events. Moreover, the two juxtaposed verb can be linked by the conjunctor *=o* 'and' as (6.22c).

(6.22) Insertion of CLMs (the detached type of sequential relation)

a. **hini** **korkoring** **min'itol** **'isa:** **s<om>i'ael** **ka** **walo'.**
this child AV:wake.up then <AV>eat ACC candy
'This child woke up and then ate candies.'

b. **hini** **korkoring** **min'itol** **honaehnge:** **s<om>i'ael** **ka** **walo'.**
this child AV:wake.up a.long.time <AV>eat ACC candy
'This child woke up and after a long time he ate candies.'

c. **hini korkoring min'itol=o s<om>i'ael ka walo'.**
this child AV:wake.up=CONJ <AV>eat ACC candy
'This child woke up and ate candies.'

By contrast, juxtaposed verbs expressing the immediate type of sequential relation exhibit a different structure. (6.23a) shows that the temporal expression *'isa:* '(and) then' cannot occur between the two verbs in order to signify a short pause between event succession. In (6.23b), two linked clauses cannot be separated by the temporal expression *(h)onaehnge:* 'a long time', which profiles a longer temporal interval between two events. The two verbs can be connect by the CLM =*o* 'and'. Like the other type of juxtaposed verbs expressing sequential relations (*cf*. 6.22c), the two verb can be connected by the CLM =*o* 'and' as in (6.23c).[98]

(6.23) Insertion of CLMs (the detached type of sequential relation)

a.***yako k<om>ahoes ka ralom 'isa: shiboeh.**[99]
1SG.NOM <AV>ladle ACC water then AV.pour
Does not mean: 'I ladled the water and pour it (in a container).'

b.***yako k<om>ahoes ka ralom honaehnge: shiboeh.**
1SG.NOM <AV>ladle ACC water a.long.time AV.pour
Does not mean: 'I ladled the water and pour it (in a container).'

c. **yako k<om>ahoes ka ralom=o shiboeh.**
1SG.NOM <AV>ladle ACC water=CONJ AV.pour
I ladled the water and pour it (in a container).'

[98] As introduced in section 3.5.1, =*o* carries two functions [+sequential] and [+unitary events]. Therefore, the marking of =*o* in this structure is not contradictory to the immediate type of sequential relation.

[99] The two examples of (6.23) are ungrammatical unless they means 'I ladled the water (then holding it in my hand for a while), and then pour it (in a container)' for (6.23a), and 'I ladled the water, and then holding it in my hand for a long time, and then pour it (in a container)' for (6.23b). However, they are not common usages in Saisiyat for expressing an immediate type of sequential relation.

Another structural divergence between juxtaposed verbs expressing the detached type and the immediate type of sequential relation is the event transition between subsequent events. Subevents of a detached sequential relation exhibit a transition in between; while subevents of a immediate sequential relation exhibit no transition. The difference is revealed by the insertion of the change of state clitic *=ila*. (6.24) and (6.25) demonstrate the differences. In (6.24a), *=ila* attaches to the V1. This structure profiles a transition from the event of waking-up to the event of eating candy. *=ila* is also able to attach to each verb repetitively, as shown in (6.24b), and this structure indicates that each event undergoes change of state by its own. The clitic cannot attach to the whole event sequence as shown in (6.24c), because the host position of *=ila* carries an incorrect implication that the two events are recognized a concatenation of events.

(6.24) Change of state: detached sequential relation

a. **hini korkoring min'itol=ila s<om>i'ael ka walo'**.
this child AV:wake.up=COS <AV>eat ACC candy
'This child has woken up and ate candies.'

b. **hini korkoring min'itol=ila s<om>i'ael=ila ka walo'.**
this child AV:wake.up=cos <AV>eat=COS ACC candy
'This child has gotten up and has eaten candies.'

c.***hini korkoring min'itol s<om>i'ael ka walo'=ila.**
this child AV:wake.up <AV>eat ACC candy=COS

On the contrary, the change of state clitic *=ila* is prone to attach to the whole sequence of two verbal units as (6.25a) but not between two immediately sequential events as in (6.25b).

(6.25) Chang of state: immediate sequential relation

a. **’obay** **t<om>ilmarao’,** **tashibkaeh=ila**.
PN <AV>aim AV.pull.trigger=COS
‘Obay (has) aimed and pulled the trigger.’

b ***’obay** **t<om>ilmarao’=ila**, **tashibkaeh**.[100]
PN <AV>aim=COS AV.pull.trigger

Verbs of both types of sequential relation display temporally iconic order, and reverse order of verbal units would lead to different proposition. Table 6.3 summarizes the differences between juxtaposed verbs showing Type 2 and Type 3 sequential relations. Juxtaposed verbs expressing Type 2 of the sequential relation is structurally tighter than juxtaposed verbs of Type 3, because aspectual markers such as *=ila* can occur between the two verbal units. Note that the chronological order of verbs in a sequential relation is fixed, which reflects the temporal iconicity.

[100] There is an inconsistent judgment between the two informants for this sentence. The old female informant (’ae’aew a taboe: kaybaybaw) accepts the insertion of *=ila* while another old male informant (parain a ’aro’ kaybaybaw) disagrees. He considers that there should not be any transition between aiming and trigger-pulling in the hunting scenery.

Table 6.3 Grammatical properties of juxtaposed verbs expressing sequential relation

Types / Grammatical properties	Type 2: The immediate succession	Type 3: The detached succession
Voice harmony	✗	✗
Fixed order of verbal units	✓	✓
Temporal overlap	✗	✗
Insertion of *'isa*:	✗	✓
Insertion of =*o* 'and'	✓	✓
Event concatenation	as unified event: [V1+V2]=*ila*(change of state)	distinctive events: V1=ila+V2=*ila*(change of state)

6.3.2 Juncture-nexus combinations

Section 6.3.2.1 discusses juncture of sequential relation in Saisiyat. Section 6.3.2.2 discusses nexus of sequential relation.

6.3.2.1 Juncture of juxtaposed verbs expressing sequential relation

Types 3 and 2 of the sequential relation in Saisiyat belong to **clausal juncture**. The main reason is that the omission of identical actor arguments is ascribed to co-reference instead of argument control. Identical actors of V2s are usually omitted in sequential clauses and they can be realized under a marked condition: the emphasis of agentivity. The recovery of the elided nominative argument is triggered by the pragmatics but not syntax. See (6.26).

(6.26) Co-reference of shared arguments

a. **hini korkoring min'itol, (hini korkoring) s<om>i'ael ka walo'**.
this child AV:wake.up this child <AV>eat ACC candy
'This child woke up, and (this child) ate candies.'

b. **hini korkoring min'itol, 'isa: (hini korkoring)**
this child AV:wake.up then this child
s<om>i'ael ka walo'.
<AV>eat ACC candy
'This child woke up, and then (this child) ate candies.'

c. **hini korkoring min'itol (h)onaehnge:,**
this child AV:wake.up later.on
(hini korkoring) s<om>i'ael ka walo'.
this child <AV>eat ACC candy
'This child woke up, and after a while this child ate candies.'

A co-referred actor can be realized in the pre-verbal position of the V2, indicating bi-clausal structures. When a verbal juxtaposition does not have a temporal expression between the two verbs, the actor of V2 is better omitted. The repeated actors of V2s in (6.27b) and (6.27c) with the CLM *'isa*: 'then' in between are not troublesome in Saisiyat. This restriction indicates that the omitted actor here is pragmatically coreferred instead of syntactically controlled e.g., *John has promised me to* (**him*/*John*) *attend the party by seven o'clock tonight*.

(6.27) Type 2 of juxtaposed verbs expressing sequential relation

a. **yako k<om>ahoes ka ralom, (yako) sh<om>iboeh**
1SG.NOM <AV>ladle ACC water 1SG.NOM <AV>pour
'I ladled the water and then (I) poured it (in a container).'

b. **yako k<om>ahoes ka ralom, 'isa: yako sh<om>iboeh**.
1SG.NOM <AV>ladle ACC water then 1SG.NOM <AV>pour
'I ladled the water and then poured it (in a container).'

c. **yako timasa', 'isa: yako baehi' ka nepen**.
1SG.NOM wash.face then 1SG.NOM AV.wash ACC tooth
'I washed my face, and then I washed my tooth.'

As for juxtaposed verbs of immediate sequential relation, an omitted actor of a V2 also acts as the coreferred argument with pragmatic influence. It corefers to the actor of the initial clause since it can be recovered under the marked context, on the purpose of the emphasizing agentivity, as shown in (6.34a). Unlike juxtaposed verbs expressing the detached type of sequential relation, the realization of coreferred actor co-occurs with the temporal expression *'isa:* 'then' obligatorily, as shown in (6.34b) and (6.34c). Two full-fledged clauses of immediate sequential relation must occur with the temporal expression *'isa:* 'then' when in juxtaposition; otherwise the two events will be interpreted as two events with long temporal intervention by default. This restriction again proves that the event of Type 2 is tighter than Type 3, the sequential relation with temporal interval. (6.28) summarizes the clausal juncture regarding their argument structures.

(6.28) Juxtaposed verb expressing sequential relation in clausal junctures Examples

a. $[V1_{arg=2}]_{clause1}$ + $[V2_{arg=2}]_{clause2}$ → $[V1V2]_{clause(arg=2)}$ (6.21a)
b. $[V1_{arg=1}]_{clause1}$ + $[V2_{arg=1}]_{clause2}$ → $[V1V2]_{clause(arg=1)}$ (6.25a)
c. $[V1_{arg=2}]_{clause1}$ + $[V2_{arg=1}]_{clause2}$ → $[V1V2]_{clause(arg=2)}$ (6.29)

d. $[V1_{arg=1}]_{clause1}$ + $[V2_{arg=2}]_{clause2}$ → $[V1V2]_{clause(arg=2)}$ (6.20a)

(6.29) Juxtaposed verb expressing sequential relation in clausal junctures

yako	**po-ralom**	**ka**	**por'oe',**	**lobih.**
1SG.NOM	pour-water	ACC	vegetable	return

'I sprinkled water on the vegetables, and then came back home.'

6.3.2.2 Nexus of juxtaposed verb expressing sequential relation

Juxtaposed verbs expressing sequential relation are **cosubordination** because two linked clauses exhibit structural co-dependency, specifically operator dependency in this case. Figure 6.5a illustrates the division of nexus for juxtaposed verbs showing a sequential relation.

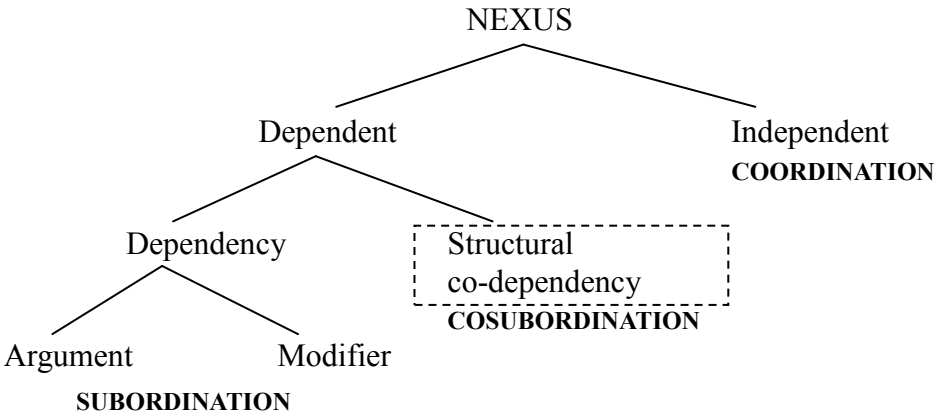

Figure 6.5a Nexus types of juxtaposed verbs showing sequential relation

Figure 6.5b elaborates on the analysis of cosubordination. The following discussion provides an explanation on the cosubordination analysis.

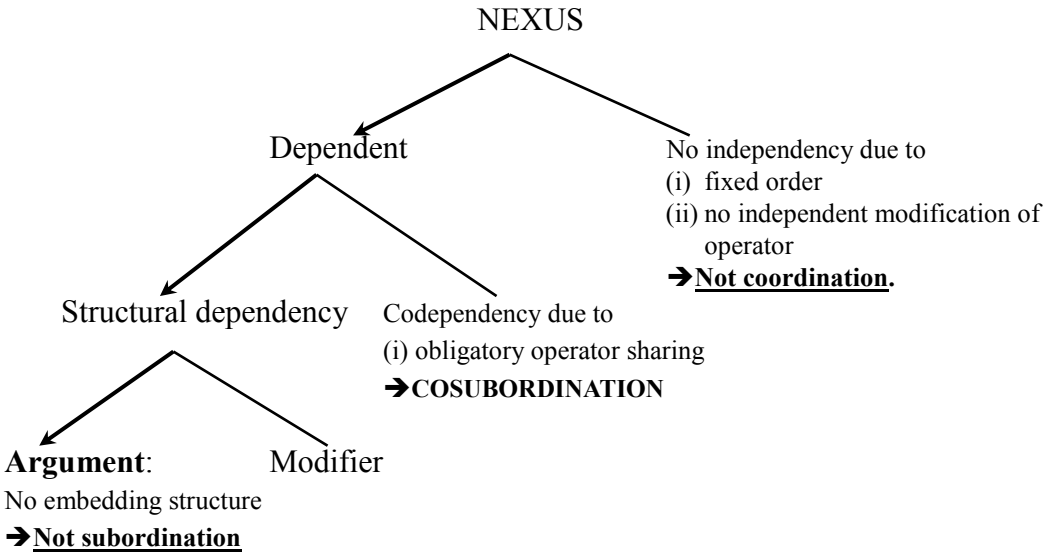

Figure 6.5b The rationale of the cosubordination analysis

To begin with, this type of juxtaposed verbs cannot be treated as coordination because of the fixed order of verbal units: V1+V2 vs. *V2+V1. A reverse order of juxtaposed verbs cause a change of the proposition. This restriction indicates that two juxtaposed verbs do not have equivalent syntactic weight.

Juxtaposed verbs expressing a sequential relation are in **cosubordination**. The nexus: cosubordination can be observed in the constraint of obligatory operator sharing: the clausal operator *=ay* is obligatorily shared by the two clauses. (6.30) exemplifies this point. The clausal operator either (i) attaches to a V1 as in (6.30a) or (ii) after the whole sentence as in (6.30a') in order to modify the two cosubordinate clauses. The clitic *=ay* cannot individually modifies each verb for denoting sequential relation, as shown in (6.30b).

(6.30) Cosubordination: obligatorily sharing of the clausal operator =*ay*

a. **'obay min'itol=ay s<om>i'ael ka siningo:?**
PN AV:wake.up=Q <AV>eat ACC porridge
'Does Obay wake up and then eat the porridge?'

a'. **'obay min'itol s<om>i'ael ka siningo:=ay?**
PN AV:wake.up <AV>eat ACC porridge=Q
'Does Obay wake up and then eat the porridge?

b. ***'obay min'itol=ay s<om>i'ael=ay ka siningo:?**
PN AV:wake.up=Q <AV>eat=Q ACC porridge
Unless it means: 'Does Obay wake up? Does he eat the porridge?'(temporally unordered states of affairs)

A further example is provided in (6.31). In (6.31a), the interrogative clitic =*ay* attaches to V1 but its scope covers both clauses. Additionally, the clausal operator cannot be repeated after the two verbs as in (6.31b).

(6.31) Cosubordination: no repetition of clausal operator =*ay*

a. **kayba.en nisia mari'-in=ay sipsip-in.**
clothes 3SG.GEN taken-UVP=Q fold-UVP
'Did he take the clothes (inside the house) and fold the clothes?'

b.***kayba.en nisia mari'-in=ay sipsip-in=ay.**
clothes 3SG.GEN taken-UVP=Q fold-UVP=Q

Note that juxtaposed verbs expressing immediate succession of sequential relation are also in **cosubordination,** because the clausal operator =*ay* 'interrogative' is obligatorily shared by both verbal units, as shown in (6.32a). The clausal operator neither modifies V2 only as in (6.32b), nor repeats twice after each predicate in

(6.32c). Note that in this type of sequential relation, the formative V1=*ila*, V2=*ay* is ungrammatical as shown in (6.32b').

(6.32) Cosubordination: obligatorily sharing of the clausal operator =*ay*

a. **'obay t<om>ilmarao'=ay tashibkaeh.** (=*ay* modifies both clauses)
PN <AV>aim=Q AV:pull.trigger
'Did Obay aim and pull the trigger?'

b. ***'obay t<om>ilmarao' tashibkaeh=ay.**
PN <AV>aim AV:pull.trigger=Q

b'. ***'obay t<om>ilmarao'=ila tashibkaeh=ay.**
PN <AV>aim=COS AV:pull.trigger=Q

c. ***'obay t<om>ilmarao'=ay tashibkaeh=ay.**
PN <AV>aim=Q AV:pull.trigger=Q

Note that this type of juxtaposed verbs are not subordination because there is no embedding structure observed in the juxtaposition. Take (6.24a) for an instance. Neither the verb of first clause nor the verb of second clause is syntactically defective, i.e. these verbs are morphologically true verbs that are marked by actor voice.

6.3.3 Interim summary

Juxtaposed verbs expressing sequential relation represent the **clausal cosubordination**. Figures 6.6a and 6.6b demonstrate their layered structures. Figure 6.6a illustrates the layered structure of juxtaposed verbs showing the detached type of

sequential relation. In Figure 6.6a, the clausal operator *=ay* must modify the cosubordinate clause node. The omitted actor of the second clause (i.e. the clause contain the V2 *somi'ael* 'eat [AV]') acts as a coreferred argument under pragmatic influence. It co-refers to the nominative argument *'obay* 'Obay' but not obligatorily omitted syntactically, since it can be repeated for pragmatic purposes: emphasizing agentivity. Note that the coreference under pragmatic influence is not an arbitrary mechanism, since the omitted actor must co-refer with the nominative argument but never to other participants in relevant context.

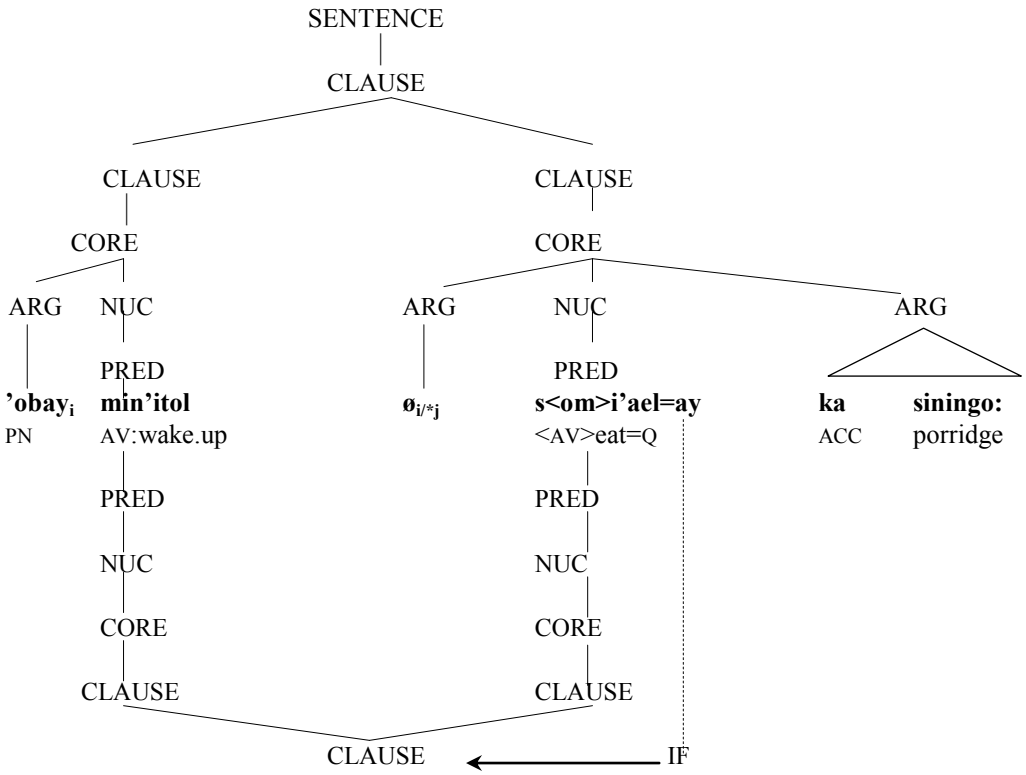

Figure 6.6a Layered structure of the detached type of juxtaposed verbs expressing sequential relation

Figure 6.6b presents the layered structure of immediate sequential relation. Two verbal units are cosubordinate in the clause node. The coreferred actor in second clause is coreferred by the nominative argument of the first clause. The clausal operator *=ay* 'interrogative' attaches to V1 and modifies the cosubordinate node of the clause.

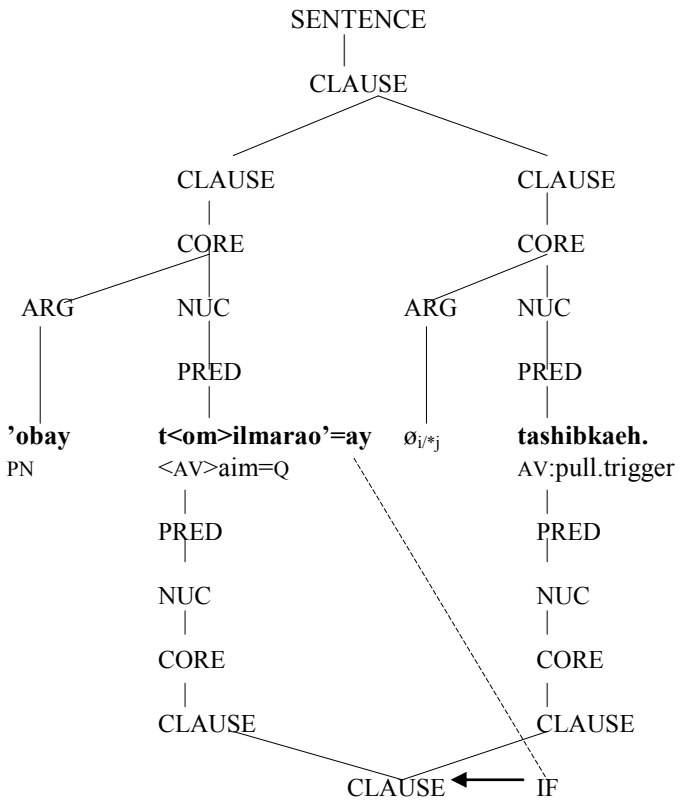

Figure 6.6b Layered structure of the immediate type of juxtaposed verbs expressing sequential relation

6.4 Juxtaposed verbs of dislocated structures in clausal juncture

As introduced in section 3.3.5 and discussed in chapters 4 and 5, juxtaposed verbs expressing manner, position, cognition relations, the relations of finishing phase, psych-action, and direct perception are expressed by verbal juxtaposition in nuclear

and core junctures. Additionally, they can be paraphrased by bi-clausal dislocated structures, in which the first verbs (V1s) either act (i) as matrix verbs that take V2 units as clausal complements, or (ii) as verbal modifiers that delineate certain properties of the V2 units. That is, Saisiyat exhibits a structural alternation between verbal juxtapositions in non-clausal junctures and dislocated structures in clausal junctures. This structure alternation can be represented as follows:

Verbal juxtapositions: $[NP+V_{\mathbf{i}(\text{modifier/matrix})}+(NP)+V_{\mathbf{j}}+(NP)]_{\text{nuclear/core juncture}}$

→ dislocated structure:$[NP+V_{\mathbf{j}}+(NP)]_{\text{clause}}$, $V_{\mathbf{i}\ (\text{modifier/matrix})}$

Table 6.4 summarizes the structural correspondence between non-clausal juncture and clausal juncture. Section 6.4.1 details the very clausal juncture of these juxtaposed verbs. Section 6.4.2. deals with their division at the nexus level.

6.4.1 Grammatical properties of dislocated structures

These bi-clausal structures exhibit the following syntactic pattern: $[N+V+(N)]_{\text{clausal complement/modifiee}}+,+V_{\text{matrix/modifier}}$. They exhibit most of features of dislocations (Lambrecht 2001). According to Lambrecht (2001:1050), a dislocation must exhibit four criteria in (6.33).

Table 6.4 Structural correspondence between juxtaposed verbs and dislocated structures

Semantic relations	**Juxtaposed verbs of non-clausal junctures**		**Structural alternations of clausal juncture**	
Manner	Juncture-nexus	**Nuclear subordination: modifier**	Juncture-nexus	**Clausal cosubordination**
	schema	$Actor_{NOM}$ + $[V_{manner}]_{AV}$ + $V2_{AV}$ (4.21a) $Undergoer_{NOM}$ + $[V_{manner}]_{UVP/GER}$ + $V2_{UVP}$ (4.21b)	schema	$[Actor_{NOM}$ + $V2_{AV}]_{clause}$ + $V1_{manner.AV}$ (4.23a,b)
Finishing phase	Juncture-nexus	**Core subordination: argument** Examples	Juncture-nexus	**Clausal subordination: argument** Examples
	schema	$Actor_{NOM}$ + [*sizaeh*] + $V2_{AV/GER}$ (5.2a,c) $Undergoer_{NOM}$ + [*sizaeh*] + $V2_{UVP}$ (5.2b)	schema	$[Actor_{NOM}/Undergoer_{NOM}+V2+(NP)]_{CLAUSE}$,+ (*hini* (*h*)*owaw*)+[*sizaeh*](=*ila*) (5.2e,e')
Position	Juncture-nexus	**Core subordination: modifier**	Juncture-nexus	**Clausal cosubordination** (*cf.* 6.2b)
	schema	$Actor_{NOM}$ + $[V1]_{stance.AV}$ + $V2_{action.AV}$ (5.20a)	schema	$[Actor_{NOM}$ + $V2_{action.av}]_{clause}$, +PROG=$[V1]_{stance.AV}$ (5.20a')
Psych-action	Juncture-nexus	**Core subordination: argument**	Juncture-nexus	**Clausal subordination: argument**
	schema	$Actor_{NOM}$ + $[V1]_{psych.AV}$ + $V2_{AV/GER}$ (5.37a-b) $Undergoer_{NOM}$ + $[V1]_{psych.UVC}$ + $V2_{GER}$ (5.37d)	schema	$Actor_{NOM}$ + $[V1]_{psych.AV}$ + $[CLAUSE]_{AV/UVP}$ (5.37g)
Direct perception	Juncture-nexus	**Core subordination: argument**	Juncture-nexus	**Clausal subordination: argument**
	schema	$Actor_{NOM}$ + $V1_{perceptual.AV}$ + NP_{ACC} +$V2_{perceived.AV}$ (5.51a-b) $Actor_{NOM}$ + $V1_{perceptual.AV}$ + [NP_{GEN} +*shi*-$V2_{perceived}$] (5.51d)	schema	$[Actor_{NOM}+V2_{AV}]_{CLAUSE}$, + $V1_{perceptual.AV}$ (5.51g)
Cognition	Juncture-nexus	**Clausal subordination: argument type**	Juncture-nexus	**Clausal subordination: argument type**
	schema	$Actor_{NOM}$ + $V1_{cognition}$ + $[Actor_{NOM}$ + $V2_{AV}]_{CLAUSE}$ (6.2a) $Actor_{NOM}$ + $V1_{cognition}$ + $[Undergoer_{NOM}$ + $V2_{UVP}]_{CLAUSE}$ (6.2b) $Actor_{NOM}$ + $V1_{cognition}$ + $[Actor_{GEN}$ +*shi*-V2]$_{CLAUSE}$ (6.2c)	schema	$[Actor_{NOM}$ + $V2_{AV}]_{CLAUSE}$, + $V1_{cognition}$ (6.2d) $[Undergoer_{NOM}$ + $V2_{UVP}]_{CLAUSE}$, + $V1_{cognition}$(6.2e)

(6.33) The defining features of constructions of dislocation (Lambrecht 2001:1050)

a. extra-clausal position of a constituent (necessary criterion);
b. possible alternative intra-clausal position;
c. special prosody;
d. pronominal co-indexation

Regarding the criterion of (6.33a), V1s are extraposed in sentence-final positions following Lambrecht's (2001) terminology. They cannot be extraposed to sentence-initial position as exemplified in (6.34).

(6.34) Sentence-initial position

a. **'aro miririi'** **k<om>ita'**$_{action}$ **ka** **kinaat**. =(5.20a)
PN AV:stand <AV>see ACC book
'Aro is reading books standing.'

b.[**'aro'** **k<om>ita'**$_{action}$ **ka** **kinaat**], **'a(m)=miririi'**. =(5.20a')
PN <AV>see ACC book PROG=AV:stand
'Aro reads books while he is standing.'

c.***'a(m)=miririi', 'aro' k<om>ita' ka kinaat.**
PROG=AV:stand PN <AV>see ACC book

These dislocated structures also fit to the criteria of (6.33b), since they originally occur in the verbal juxtaposition. They fit to the third criterion of (6.33c): a pause between a clausal complement and a dislocated verb is obvious.

Dislocated structure also exhibits the fourth criteria: pronominal co-indexation.[101] In the argument type as in (6.33a), the clausal complement is co-

[101] Note that, dislocated structure in Saisiyat do not necessarily apply to the criterion of (6.33d), i.e. pronominal co-indexation, because an explicit use of huaman pronouns for co-indexation between clausal unit is ungrammatical in Saisiyat. Observe (6.35c).

indexed by the nominative NP *hini (h)owaw* 'this matter' in second clause. However, the modifier type of dislocated structures does not employ pronominal co-indexation for human antecedents, as shown in (6.35b-c).

(6.35) Co-indexation in dislocated structures

a. [**yaba' sh<om>bet ka korkoring**]$_i$, **hini (h)owaw**$_i$ **sizaeh=ila**.
father <AV>beat ACC child this matter finish=COS
'Father (was) beat(ing) the child, and it/this matter is finished now.'
(the argument type)

b. **korkoring k<om>ita' ka kinaat, 'a(m)=masha.eng**.
child <AV>see ACC book PROG=AV:sit
'The child reads the books while he is sitting.' (the modifier type)

c.***korkoring k<om>ita' ka kinaat, sia 'a(m)=masha.eng**.
child <AV>see ACC book 3SG.NOM PROG=AV:sit
(the modifier type)

6.4.2 Juncture-nexus combinations of dislocated structures

In this section, I discuss the juncture-nexus combinations of the dislocated structures in Saisiyat. Section 6.4.2.1 elaborates on the juncture and section 6.4.2.2 accounts for their nexus types.

6.4.2.1 Clausal junctures of dislocated structures

There are three reasons to treat these dislocated structures are clausal juncture. The first one is the intonation break between the clause that contains V2 and the extraposed V1. The second one is co-indexation (only for the argument type), as

presented in (6.35a). The third reason is that the interclausal elements *'oka'=ila=ma'* 'what's more' can be inserted between the two clauses. (6.36-37) exemplifies this trait.

(6.36) Clausal boundary in dislocated structures

a. **korkoring k<om>ita' ka kinaat, 'a(m)=masha.eng**.
child <AV>see ACC book PROG=AV:sit
'The child reads the books while he is sitting.'

b. **korkoring k<om>ita' ka kinaat, <u>'oka'=ila(=ma')</u>**
child <AV>see ACC book NEG=COS(=also)
'a(m)=masha.eng.
PROG=AV:sit
'The child reads the books and what's more he is sitting.'

(6.37) Clausal boundary in dislocated structures

a. **kalih <u>mimiawa'</u> <u>s<om>i'ael</u> ka pazay.**
PN AV:slow <AV>eat ACC rice
'Kalih eats the rice slowly.'

b. **kailh <u>s<om>i'ael</u> ka pazay, <u>'oka'=ila mimiawa'</u>.**
PN <AV>eat ACC rice NEG=COS AV:slow
'Kalih eats the rice and what's more he is slow.'

Note that there is no obligatorily argument control in dislocated structures. The reason is that a matrix or modifier verb (i.e. extraposed V1s of verbal juxtaposition) takes the initial clause as its argument or modifiee. The core argument e.g., the actor *kalih* of (6.37b) does not control any missing arguments of the (postposed) matrix/modifier verb e.g., *mimiawa'* 'slow' in (6.37b).

(6.38) summarizes the argument structures of dislocated structures. It shows that two linked clauses do not involve argument sharing: the core arguments of the matrix

verbs are not identical to those of verb in clausal complements.

(6.38) Argument structures of dislocated structures Examples

a. $[NP + V_{arg=2} + (NP)]_{clause\mathbf{i}}$, + $[(hini\ h(o)waw)_{\mathbf{i}}$ + $V_{matrix}]_{clause\mathbf{j}}$.
→ $VV_{matrix(arg=2)}$ (6.35a)

b. $[NP + V_{arg=1} + (NP)]_{clause\mathbf{i}}$, + $[(hini\ h(o)waw)_{\mathbf{i}}$ + $V_{matrix}]_{clause\mathbf{j}}$.
→ $VV_{matrix(arg=1)}$ (6.38e)

c. $[NP + V_{arg=2} + (NP)]_{clause\mathbf{i}}$, + $[V_{matrix}]_{clause\mathbf{j}}]$.
→ $VV_{matrix(arg=2)}$ (6.38f)

d. $[NP + V_{arg=1} + (NP)]_{clause\mathbf{i}}$, + $[V_{matrix}]_{clause\mathbf{j}}]$.
→ $VV_{matrix(arg=1)}$ (6.38g)

e. **yako ’a=’inola’, (hini h(o)waw) sizaeh=ila.**
1SG.NOM PROG=compete this thing finish=COS
‘I finished the test.’
Lit.: ‘I was joining a test, and it is over now.’

f. **yaba’ hopay=a=tomal, [mae’rem=ila, m<in>ririi’]**.
father tired=LIG=very sleep=COS <PROG>stand
‘Father was very tired and then he fell asleep by standing.’

g. **korkoring maatol, ma-’ngel.**
child AV:sing STAT-slow
‘The child sing(s), which is slowly.’

6.4.2.2 Nexus of dislocated structures

Figure 6.7a illustrates the division of nexus for dislocated structures. Dislocated structures in Saisiyat exhibit two types of nexus. Dislocated structures that express the finishing type of phasal relation, psych-action and direct perception relations belong to subordination. The constructions expressing denoting manner, position relations are cosubordination.

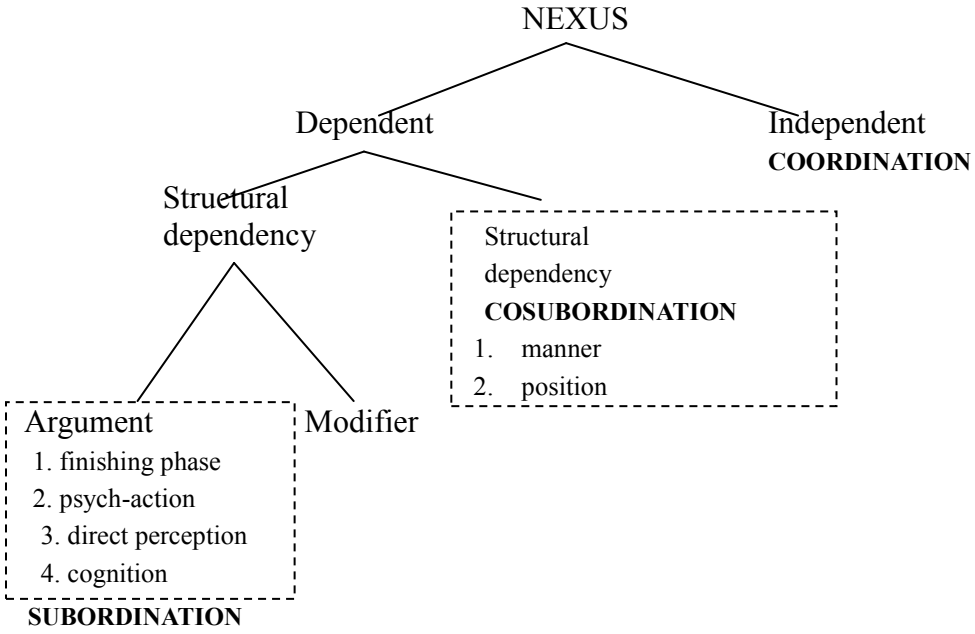

Figure 6.7a Nexus types of dislocated structures

Figure 6.7b elaborates on the rationale of the analysis.

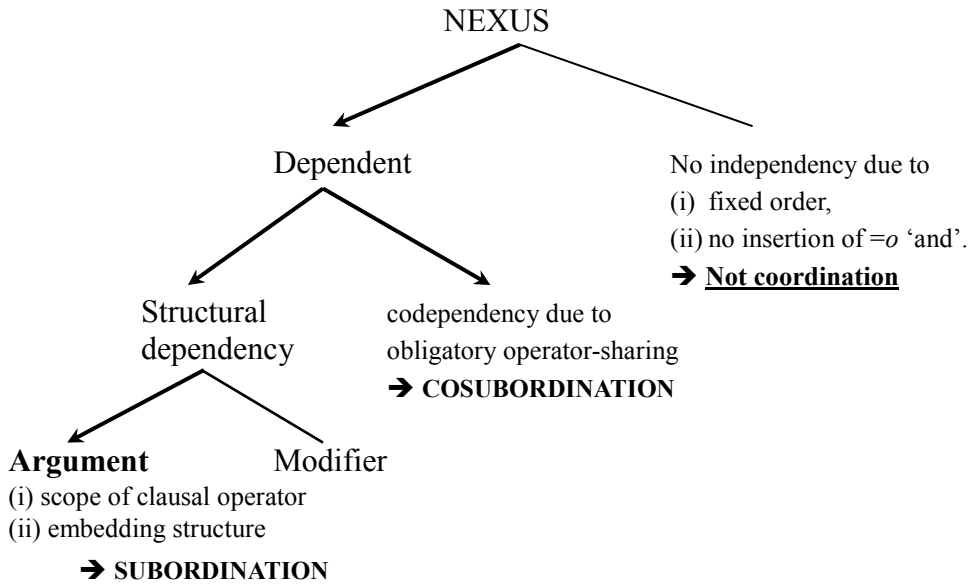

Figure 6.7b The rationale of the (co)subordination analysis

To begin with, both types of dislocated structures cannot be treated as coordination. The major reason is the fixed order of the linked clauses. The

matrix/modifier verb cannot occur before the complement clauses. Moreover, the CLM =*o* 'and' cannot intervened between two clauses, i.e. *$[NP+V_{\mathbf{j}}+(NP)]_{clause}$**,=*o*** $V_{\mathbf{i}}$ (modifier/matrix)·

For those dislocated structures representing cosubordination, the clausal operator =*ay* 'interrogative' is obligatorily shared by modify both clauses, indicating a structural co-dependency i.e. cosubordination. Take (6.39) for an illustration. The dislocated structure expresses manner relation. The clitic =*ay* has two hosts: (i) it attaches to the entire clausal juncture at the sentence-final position in (6.39b), or (ii) to the non-manner/motion verbs in the first clause as shown in (6.39c). As mentioned in section 3.4.3.1 (*cf*. the examples 3.30c-d), the operator =*ay* that attaches to V1s has scope covering the entire clause is commonly observed in Saisiyat. A counter example is provided in (6.39d), in which both clauses exhibit independent modification of the clausal operator. In this case, the sentence on longer denotes the manner relation but temporally unordered states of affairs.[102]

(6.39) Dislocated structures exhibiting cosubordination

a. **sia** **manraan,** **<u>'aemoeh</u>.**
3SG.NOM AV.walk quick
'Quickly, he/she walks.'

[102] (6.39d) represents clausal coordination since each clause has independent modification of interrogative, exhibit syntactic independency.

b. **[sia manraan]**$_{complement}$**, ’aemoeh=ay?**
3SG.NOM AV.walk quick=Q
‘Does he/she walks fast?’
or ‘He/she walks, and is he/she fast?’

c. **sia manraan=ay, ’aemoeh.**
3SG.NOM AV.walk=Q quick
‘Does he/she walks fast?’

d. **sia manraan=ay? ’aemoeh=ay?**
3SG.NOM AV.walk=Q quick=Q
‘Does he/she walk? Is he/she fast?’

For these dislocated structures exhibit subordination, they display embedding structure. One piece of evidence is that the clausal operator *=ay* ‘illocutionary force’ only modifies matrix verbs. Observe (6.40) for this feature: clausal complements do not exhibit interrogative meaning, especially shown by (6.40b). (40a) exemplifies a dislocated structure exhibiting subordination. In (6.40b), The clausal operator *=ay* only modifies the matrix verb *bazae’en* ‘hear[UVP]’, and the clausal complement is declarative by acting as argument of the matrix.

If the clausal complement needs to be interrogative, requirement must be done: each clause is modified by *=ay* independently at the same time. Observe (6.40c). The proposition of the entire sentence is not a bona fide manner relation, but is akin to temporal unspecific relation that involves clausal coordination.

(6.40) Dislocated structures exhibiting subordination

a. [**'aehoe'** **t<om>obong** **ray** **taew'an** **latar]**$_{\text{clausal complement}}$**,**
dog <AV>bark LOC house outside
[(yako) **bazae'=ila]**$_{\text{matrix clause}}$**.**
1SG.NOM hear=COS
'The dog barks outside the house, and I heard it.'

b.**'aehoe'** **t<om>obong** **ray** **taew'an** **latar,** [**bazae'-en=ay]?**
dog <AV>bark LOC house outside hear-UVP=Q
'The dog barks outside the house, and do you hear that?'

c. **['aehoe'** **t<om>obong=ay** **ray** **taew'an** **latar]?**
dog <AV>bark=Q LOC house outside
bazae'-en=ay?
hear-UVP=Q
'Does the dog bark outside the house? Do you hear that?'

To recapitulate, dislocated structures exhibit two types of juncture-nexus combinations: clausal cosubordination and clausal subordination (of the argument type). Those expressing position and manner relations are classified into the former type and those expressing the finishing phase, psych-action, direct perception, and cognition are grouped in the latter type.

Furthermore, as presented in Table 6.4, these dislocated structures have a structural correspondence with juxtaposed verbs that express subtle semantic differences. Table 6.5 summarizes such the correspondence in terms of juncture-nexus combinations. Saisiyat exhibits two structural patterns in such a correspondence. The juxtaposed verbs that involve the modifier type of subordination can be expressed by **cosubordination** in dislocated structures, and for those exhibit argument type of

subordination, they remain identical nexus type in dislocated structures.

Table 6.5 Juncture-nexus correspondence between juxtaposed verbs and dislocated structures

Verbal juxtapositions	Dislocated structures
Nuclear subordination: the modifier type (the manner relation) ⟷	Clausal cosubordination
Core subordination: the modifying type (the position relation) ⟷	
Core subordination: argument type (the finishing phase, psych-action, direct perception) ⟷	Clausal subordination: argument type
Clausal subordination: argument type (cognition) ⟷	

6.4.3 Interim summary

In this section, I show that dislocated structures are clausal juncture. They display two types of nexus. One type of them is in argument types of subordination. Dislocated structures denoting manner relation also exhibit cosubordination in which the clausal operator *=ay* 'interrogative' modifies both clauses by attach to V2s: $[V2_{action}=ay]_{clause1}+[V1_{matrix/modifier}]_{clause2}$ position, as previously exemplified in (6.40c). The configurational dispositions of these targeted dislocated structures are formulated in Figure 6.8a and Figure 6.8b.

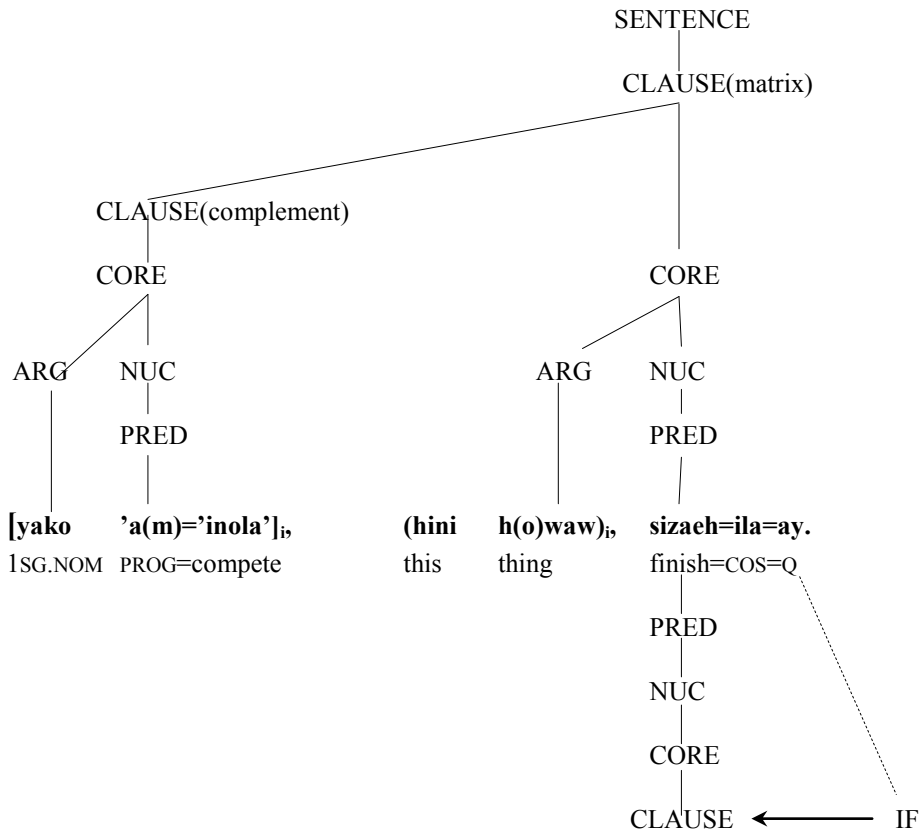

Figure 6.8a Layered structure of dislocated structures: subordination (the argument type)

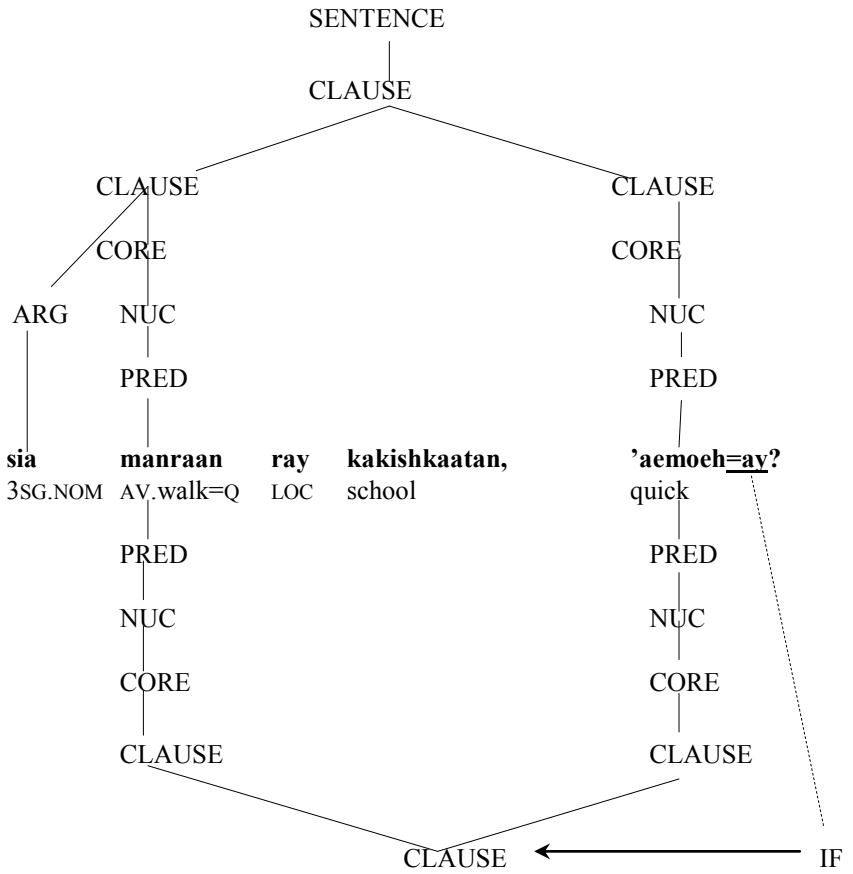

Figure 6.8b Layered structure of dislocated structures: cosubordination

6.5 Overall summary

This chapter discusses grammatical properties and juncture-nexus combinations of clausal juncture in Saisiyat. The main body elaborates on juxtaposed verbs showing cognition, simultaneous and sequential relations, along with dislocated structures. The dislocated structures are composed of a clausal complement and a matrix verb. Without much surprise, juxtaposed verbs expressing sequential and simultaneous relations are cosubordination instead of coordination, since they display higher temporal hierarchy and shared participant hierarchy.

Table 6.6 summarizes the juncture-nexus combinations of juxtaposed verbs in clausal juncture. These constructions do not exhibit coordination. The distribution of subordination and cosubordination are nearly equal in numbers.

Table 6.6 Nexus of juxtaposed verbs in clausal juncture

Semantic relations of juxtaposed verbs		**Nexus combinations**	
		Subordination	**cosubordination**
Cognition		✓: argument type	
Simultaneous relation		–	✓
Sequential relation		–	✓
Dislocated structures	Finishing phase	✓: argument type	–
	Manner	–	✓
	Position	–	✓
	Psych-action	✓: argument type	–
	Direct-perception	✓: argument type	–
	Cognition	✓: argument type	–

I enclose this chapter by presenting Figure 6.9. It outlines the interclausal relation hierarchy i.e. semantics-syntax mapping of juxtaposed verbs in clausal juncture.

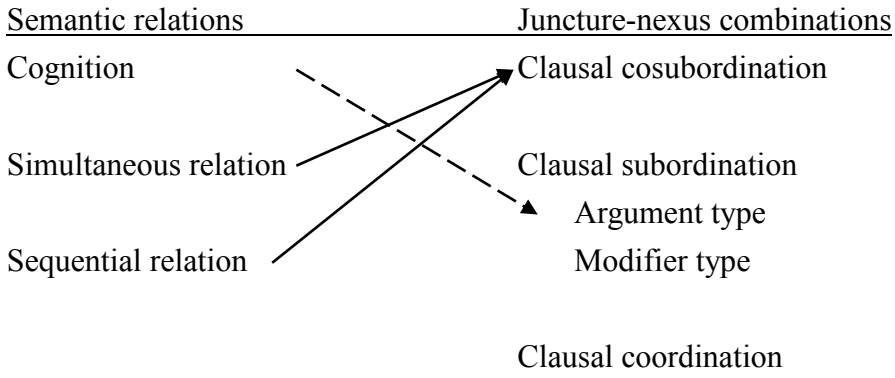

Figure 6.9 The interclausal relation hierarchy of dislocated structures in clausal juncture

The mapping pattern generally exhibits structural iconicity as the mappings that have been introduced in nuclear and core junctures (*cf.* chapters 4 and 5). Like the previous mapping patterns, there is a language idiosyncrasy in Saisiyat. The juxtaposed verbs expressing the cognition exhibit a cross-over pattern in the semantic-syntactic mapping. Moreover juxtaposed verbs expressing simultaneous and sequential relations denote loose semantic cohesion, but they are expressed by the tightest nexus: cosubordination but not coordination.

Chapter 7

Saisiyat serial verbs and related grammatical constructions from the perspective of interclausal relations hierarchy

In this chapter, I try to determine what types of juxtaposed verbs constitute serial verbal constructions (SVCs, henceforth) from three dimensions: (i) specific juncture (nuclear or core) in which verbs are serialized, (ii) methods about how verbs are serialized (as cosubordination or subordination) and (iii) the role of CLMs in serialized constructions. Following this line of thought, I propose to account for the syntactic and semantic nature of SVCs in Saisiyat. Moreover, the syntactic structures of SVCs are discussed from the perspective of juncture and nexus, instead of structural tightness. Additionally, the survey concerns the relations between SVCs and another type of complex constructions, i.e. coordination, which will be discussed in chapter 8.

The main issue in studying Saisiyat SVCs is ascribed to indeterminacy of the grammatical status of verbal juxtaposed verbs: do they represent genuine SVCs or other possible types of complex constructions? As elaborated in chapters 4, 5 and 6, Saisiyat juxtaposed verbs predominantly appear in a sentence without explicit marking of clausal boundaries, or verbal marking that indicates that the entire V+V

sequence forms a single complex predicate. Accordingly, one might argue that these juxtaposed verbs should be treated as SVCs in Saisiyat based on two reasons. First, some of these verbs may occur in juxtaposition (such as juxtaposed verbs expressing the beginning and continuing phases) without the possible insertion of the CLM *=o* 'and' and the adverb *naehan* 'again' (*cf.* (4.7) and (4.8)), reflecting their structural tightness. Second, these juxtaposed verbs share nominative actors or undergoers, which is a crucial feature of SVCs. As introduced in chapters 4 and 5, there are two types of sharing: (i) sharing of a nominative argument (i.e. subject control) and (ii) sharing of a co-referred argument (i.e. object control).[103] The controlled argument cannot be repeated before second nuclear or core units. (7.1) schematizes these two features.

(7.1) A general representation of Saisiyat SVCs Examples

a. nuclear juncture:

$\mathbf{NP}_{\text{NOM(ACTOR/UNDERGOER)}} + [\text{V1}_{\text{nucleus}} + \text{V2}_{\text{nucleus}}] + (\mathbf{NP_Z})$. (7.2a)

b. core juncture:

(i) $[\mathbf{NP_{i.}}_{\text{NOM(ACTOR/UNDERGOER)}} + \text{V1} \ (\mathbf{NP_j})]_{\text{core1}} + [(*\mathbf{NP_i}) + \text{V2} + (\mathbf{NP_Z})]_{\text{core2}}$ (7.2b)

(ii) $[\mathbf{NP_{i.}}_{\text{NOM(ACTOR/UNDERGOER)}} + \text{V1} \ (\mathbf{NP_j})]_{\text{core1}} + [(*\mathbf{NP_j}) + \text{V2} + (\mathbf{NP_Z})]_{\text{core2}}$ (7.2c)

(7.1a) represents a SVC in nuclear juncture. In this structure, both verbs at least share a single nominative argument. Note that the subcategorization of the nominative

[103] Note that this SVC-feature does not refer to a complex construction with a gerundive V2 (*cf.* the examples of (3.13) in section 3.3.1), since such type of V2 does not exhibit syntactic independence. Therefore they cannot be considered as SVCs.

argument is determined by the V2 through argument fusion (*cf*. chapter 3). Examples are provided in (7.2a). (7.2b-c) represent potential SVCs in core juncture, i.e. they share part of argument structure. In (7.2b), the share argument is the nominative argument (actor or undergoer). It controls the missing argument of the second core. (7.2b) exemplifies this structure. In (7.2c), the controlled argument is the object argument of the first core and it controls the actor of the second core at the same time.

(7.2) Potential SVCs in nuclear and core junctures

a. **korkoring** **[<u>min</u>-'al'alay** **h<oem>angih]**$_{\text{nuclearSVC}}$**.**
child AV:become-start <AV>cry
'The child start(s) crying.' =(4.3a')

b. **lasia** **[kash-re're'** **ka** **loehoeng]**
3PL.NOM step.on-tight ACC mortar
[t<om>awbon **ka** **(h)o'ol].**
<AV>stomp ACC glutinous.rice
'They step onto the mortar to stomp the glutinous rice.' =(5.39a)

c. **yako** **[bazae'** **ka** **'aehoe'** **t<om>obong**
1SG.NOM <AV>hear ACC dog <AV>bark
ray **kabih-no-baala'.**
LOC next.to-DAT-river
'I hear the dog barking on the other side of the river.' =(5.51a)

However, these features do not suffice to ensure that any juxtaposed verb belongs to bona fide SVCs in Saisiyat. This requires a full-scaled examination from the perspective of interclausal relation hierarchy (IRH) before we make a accurate conclusion. This is the purpose of this chapter. To facilitate this enterprise, I review

previous studies on SVCs in section 7.1 , with a focus on their defining properties. Section 7.2 renders three linguistic phenomena that question the viability of diagnosing any juxtaposed verbs as serial verbs in Saisiyat. Section 7.3 reassesses the notion of SVC in Saisiyat. Section 7.4 discuss the interaction between juxtaposed verbs of the nuclear juncture and core juncture and the notion of serial verbs. Section 7.5 is a summary.

7.1 Previous studies of SVCs

Typologically speaking, diagnosing serial verb constructions (SVCs) is a rather difficult task because proposing universally acceptable criteria may not be feasible under linguistic diversity (Durie 1997). In Lord's (1973) view, identifying SVCs within a single language is also very difficult. Lord (1993) examines SVCs from a diachronic perspective and even makes clear that "rather than a separate universal category, serialization is more accurately characterized as a syndrome of features and phenomena" (1993:2). That is, the so-called SVC-criteria[104] may simultaneously induce other complex constructions such as verbal coordination, compounds, conjoined clauses or converbs (Crowley 2002, and Shibatani 2009). Zwicky (1990:2) even considers that studies in this field may improperly apply the notion of SVC to

[104] According to the typological definition of SVCs proposed in Bradshaw (1993), a SVC meets three requirements. There are tight restrictions on the nominal arguments associated with serial verbs. Serial verbs do not contrast in basic inflectional categories. There is no clausal boundary between serialized verbs (including intonation marking).

other problematic V+V complex predicates e.g., *try to leave* or *make them go*. For Zwicky, the term 'SVC' used in these studies appears to be a 'pre-theoretically umbrella usage' instead of the 'historically faithful term'.[105]

One controversial issue is the ambiguous syntactic status of juxtaposed verbs, especially when a language does not require explicit morphosyntactic devices to mark conjunction and subordination relations between verbs. A renowned case is verbal juxtaposition of Pileni, a Polynesian language (Næss 2004). According to Næss (2004), this language usually exhibits linear sequence of verb phrases without intervention devices of conjunction. Moreover, subordination morphology is rather rare in Pelini. Therefore, a complex construction as shown in (7.3) is not easy to be analyzed as being verbal juxtaposition or relative clause .

(7.3) Pelini (Næss 2004:229)

lharou	**ko**	**jute-age**	**te**	**uga**	**no**	**tholo**	**mai**	**i**	**haupé**.
3PL	TA	see-DIR	ART	hermit.crab	TA	crawl	DIR	LOC	beach

'They saw the hermit crab crawling towards them on the beach.' (SVC reading)[106]
Or 'They saw the hermit crab which was crawling towards them on the beach.' (RC reading)

[105] In Stewards' (1963) pioneering study of the complex construction of 'object-sharing', a object of the V1 acts as subject of the V2 e.g., HIT DOG DIE, This construction has been recognized as SVCs (Aikhenvald & Dixon 2006). In fact, the term **SVC** had not even been adopted or invented in Stewards (1963). Following Zwicky's (1990) line of thought, the use of SVCs in later studies (e.g., Lord (1973) and Sebba (1987)) may intentionally extend Stewards's (1963) usage.

[106] Note that Næss 2004 treats (7.3) as a complement clause. Here I label it verbal juxtaposition, paralleling to Saisiyat juxtaposed verbs expressing direct perception (*cf.* 5.51b), reproduced below.

(i) Saisiyat

lalo'	**k<om>ita'**	**ka**	**korkoring**	**lobih**	**ray**	**taew'an.** =(5.51b)
PN	<AV>see	ACC	child	return	LOC	house

'Lalo saw the child coming home.'

It has been reported that SVCs hold as productive syntactic structures in Formosan languages (L. Huang 1997) and Oceanic languages (Crowley 2002). Saisiyat has been claimed to have SVCs (L. Huang 1997; M. Yeh 2000; M. Y. Yeh & S. Huang 2009). According to M. Y. Yeh & S. Huang (2009), juxtaposed verbs in Formosan languages that meet the following five serial-verb criteria are treated as serial verbs.[107]

(7.4) SVC criteria for Formosan languages (M. Y. Yeh & S. Huang 2009:87)
   a. no intervening coordinator, subordinator marker of coordination;
   b. argument sharing in serial verbs;
   c. sharing of tense, aspect, mood, or polarity value;
   d. constituent elements in serial verbs must be morphosyntactically true verbs;[108]
   e. verbs in serial verbs are interpreted as referring to subparts of a single overall event.

At first glance, there are juxtaposed verbs of Saisiyat as shown in (7.2) that satisfy the criteria given in (7.4) showing that there could be SVCs in this language. For example, juxtaposed verbs expressing manner relation and sequential relation

[107] According to L. Huang (1997) and M. Y. Yeh (2000), Saisiyat SVCs display two extra properties as specified in (i).
(i) Extra properties of Saisiyat SVCs
   a. Serialized verbs concord in voice marking. The voice alignment of verbs is either AV+AV or UVP+UVP. In this respect, Saisiyat is thus on a par with Tsou.
   b. Aspectual, mood and modal markings do not compulsorily fall on the first verbs. From this perspective, Saisiyat is on a par with Kavalan.

However such a claim leaves a room for discussion, since its validity requires a full-scale investigation of SVCs expressing different types of semantic relations among all Formosan languages. This issue will not be pursued in this dissertation.

[108] A true serialized verb undergoes four alternation including causativization, imperativization, bound pronoun attraction, or tense/aspect/mood marking (M. Y. Yeh & S. Huang 2009).

meet above the requirements and display the following features: V1s and V2s share actor arguments and operators (i.e., the negator in (7.5a) and the illocutionary force in (7.5b)). In addition, both verbs in the examples are morphosyntactically true verbs and there are no any intervening CLMs.

(7.5) Saisiyat

a. **'obay** [**'ae'aeaew**]$_{V1}$ [**rima' lamsong**]$_{V2}$. (Manner relation)
PN AV.run AV.go Nanchuang
'Obay ran to the Nanchuang.'

a'. **'obay** **'okay** [**'ae'aeaew**]$_{V1}$ [**rima' lamsong**]$_{V2}$.
PN NEG:LIG AV.run AV.go Nanchuang
'Obay didn't not run to Nanchuang.'

b. **'obay** [**manae'ka walishan**]$_{V1}$ [**shohoero:**]$_{V2}$. (Sequential relation)
PN AV:shoot ACC boar AV:hit.at.target
'Obay (tried to) shot the boar and (then) she hit it.'

b'. **'obay** [**manae'=ay** **ka** **walishan**]$_{V1}$ [**shohoero:**]$_{V2}$.
PN AV:shoot=Q ACC boar AV:hit.at.target
'Did Obay (tried to) shoot the boar and then hit it?.'

Somehow, the evidence presented above does not reveal the whole story of Saisiyat SVCs. Below present three grammatical phenomena that challenge the serial-verb analysis in Saisiyat. These three facts show that juxtaposed verbs require further investigation based on IRH before they can be considered as SVCs.

7.2 Three linguistic phenomena that question the serial-verb analysis for Saisiyat juxtaposed verbs

This section proposes three linguistic phenomena in Saisiyat, which include the (i) the ellipsis of core argument in juxtaposed verbs, (ii) the distribution of serial verbs in texts, (iii) the voice marking of juxtaposed verbs and (iv) position of operators. These phenomena suggest that not all the juxtaposed verbs which correspond to the criteria given in (7.1) are serial verbs.

7.2.1 The ellipsis of core arguments in juxtaposed verbs

In Saisiyat, predicates are prone to be aligned in single sentences without the realization of shared core arguments, in which conjunctors, complementizers or temporal expressions do not occur between verbal units. See (7.6).

(7.6) Saisiyat (from Formosan Language Archive: *Saisiyat*, *my story*: 05.003.d)

'oya'	**ma'an**	**bazae',**	**sia**	**[m-wai'=ila**	**ma'oenhal**
mother	1SG.GEN	hear.AV	3SG.NOM	AV-come=COS	AV:be.together
lobih]=o,		**'isa:**	**la-lobih**		**taaw**
come.back=CONJ		then	RED-come.back		PN
lobih	**m-wai'=ila**		**ki**	**'oya'**	**ma'an.**
return	AV-come=COS		COM	mother	1SG.GEN

'After having learnt about my condition, my mother (decided to) accompany Taaw so that they went back together to see me.'

(7.6) shows that the predicates *mwai'* 'come[AV]', *ma'oenhal* 'be together [AV]', and *lobih* 'come back, return' co-occur without any clausal linkage markers (CLMs) in between. It also shows that the shared core arguments of these three verbs do not occur inside the juxtaposition.

Juxtaposed verbs like the (7.6) are possible SVCs, judging by the features of (i) no linking elements between verbs and (ii) sharing the nominative arguments. However it turns out to be a problem on how to identify juxtaposed verbs as serial verbs conveying the meaning '(she) came-accompany-return'. The juxtaposition of the verbs could also represent conjoined clauses, meaning '(she) came, (she) accompanied Taaw (and she) went back (with Taaw)', in which core arguments are omitted. Given the fact that this analysis is robust, this group of juxtaposed verbs represents a multi-clausal structure instead of a mono-clausal structure, in which a serial verb takes place (Sebba 1987, Crowley 2002 and Aikhenvald 2006).

Example (7.7a) demonstrates a similar linguistic pattern with (7.6). Two predicates are juxtaposed without any CLMs that mark clausal boundary. Moreover, juxtaposed verbs share core arguments. (7.7b) and (7.7c) present the argument structure of each predicate. The predicate *manae'* 'shoot' is a verb that takes two arguments. The predicate *shohoero:* 'hit at the target' has the same argument structure. Last, each verb denotes subevents of the whole event denoted by the entire verbal

sequence. These tentative observations lead to the observation that juxtaposed verbs in (7.7) might serve as a SVC in Saisiyat.

(7.7) Saisiyat

a. **'obay** **manae'** **shohoero:** **ka** **walishan.**
PN AV:shoot hit.at.target ACC boar
'Obay shot and hit the boar.'

b. **'obay** **manae'** **ka** **walishan.**
PN AV:shoot ACC boar
'Obay shot the boar.'

c. **'obay** **shohoero:** **ka** **walishan.**
PN AV:hit.at.target ACC boar
'Obay hit the boar.'

However, the serial verb analysis for (7.7) faces a problem when we closely examine the argument-sharing condition of juxtaposed verbs: that is, they are not obligatorily omitted and can be recovered if necessary. Observe (7.8a). The undergoer *walishan* 'boar' can be repeated after V1. The actor and undergoer after V2 can be elided as in (7.8b) and the V1 has a full-fledged argument realization. The syntactic schema is argument+V1+argument, V2. These two counter-examples show that the elided arguments can be recovered in double and triple juxtaposed verbs for emphasizing the role of the elided argument.

(7.8) Saisiyat

a. **’obay manae’ ka walishan shohoero: ka walishan**.
PN AV:shoot ACC boar AV:hit.at.target ACC boar
‘Obay shot the boar and hit the boar.’

b. **’obay manae’ ka walishan, shohoero:=ila**.
PN AV:shoot ACC boar AV:hit.at.target=COS
‘obay shot the boar and (he) has killed it.’

To summarize, recoverability of elided arguments as shown in examples of (7.8) weaken the validity for treating examples (7.6) and (7.7a) as SVCs in Saisiyat. Hence, the SVC-analysis may not apply to all juxtaposed verbs in this language.

7.2.2 Voice marking of Saisiyat SVCs

According to M. Huang (1997) and M. L. Yeh (2000), Saisiyat SVCs displays a trait that serialized verbs exhibit voice marking concord, which is apart from the AV-only voice marking in other Formosan SVCs as reported in Amis (J. Wu 1996), Mayrinax Atayal (L. Huang 1997) and Kanakanavu (C. Wu 2006), and some of Austronesian languages e.g., Kimaragang Dusun (Kroeger 2008). These languages display the AV-only constraint; that is, a non-initial serialized verb is obligatorily marked in the actor voice regardless of the voice of its first verb (V1). (7.9) and (7.10) exemplify voice harmony in Saisiyat juxtaposed verbs. (7.9a) denotes a motion relation and (7.10a) denotes a purposive relation. The voice marking of (7.9a) is AV+AV, while (7.10a) is UV+UV. When the voice marking of V2 is not identical to V1, the sentence is

ungrammatical. Consider (7.9b) and (7.10b). In other words, a nominative argument controls the voice marking of both serialized verbs.

(7.9) Saisiyat (juxtaposed verbs expressing motion relation)

a. **'obay** **rima'** **h<oem>iwa'** **ka** **baboy.**
PN AV.go <AV>kill ACC pig
'Obay went to kill a pig.'

b.***'obay** **rima'** **hiwa'-en** **ka** **baboy.**
PN AV:go cut.section-UVP ACC pig

(7.10) Saisiyat (juxtaposed verbs expressing purposive relation)

a. **baboy** **ma'an** **ki** **'obay** **rakep-en** **hiwa'-en.**
pig 1SG.GEN COM PN catch-UVP cut.section-UVP
'Obay and I caught the pig and killed it.'

b.***baboy** **ma'an** **ki** **'obay** **rakep-en** **h<oem>iwa'**.
pig 1SG.GEN COM PN catch-UVP <AV>kill

However, voice harmony does not account for the voice alternations in other Saisiyat juxtaposed verbs. (7.11) has a AV+UVP alignment while (7.12) the UVP+AV.

(7.11) AV+UVP voice alignment

a. **baki'** **maywawaak** **pa-si'ael-en** **ka** **pazay.**
grandfather AV:lie CAUS-eat-UVP ACC rice
'Grandfather lies down and is fed with rice.'

b. **'obay** **manae'** **ka** **walishan** **shohoero(:)-en=ila.**[109]
PN AV:shoot ACC boar hit.at.target-UVP=COS
'Obay shot the boar and the boar has been hit.'

(7.12) UVP+AV voice alignment

a. **'aehoe'** **nisia** **'aewel-en** **marash** **ray** **'oes'oeso'an**.
dog 3SG.GEN fasten-UVP AV:bring LOC mountain
'The dogs were tied and taken to the mountains.' (sequential relation)

[109] Note that intonation breaks do not occur between verbal units. This shows that there is no clear clausal boundaries between verbal units.

b. **yao** **ni** **'oya'** **nabalbalay-<u>en</u>** **kama=<u>marma'</u>,**
1SG.NOM GEN mother wrongly.accuse-UVP HAB=AV:STEAL
pa-k-be'e(:)-en=a=tomal=ila.
CAUS-STAT-angry-UVP=LIG=very=COS
'I was wrongly accused by Mother to steal money and made very angry.'
(propositional attitude from Zeitoun et al. 2015:270-271)

To summarize, this section points out that some of juxtaposed verbs that are plausibly do not exhibit to the voice harmony constraint.

7.2.3 Modifying positions of operators

The property described in (7.4b) (i.e. grammatical marking of mood, aspect and tense does not obligatorily fall on V1) is not globally applicable in Saisiyat. As shown in chapters 4, 5 and 6, aspectual markings on juxtaposed verbs have different positions in different junctures, depending on the types of semantic relations. Take juxtaposed verbs showing the phasal relation for example; the nuclear operator change of state clitic *=ila* only attaches to V1, but not V2. This is demonstrated in (7.13). On the contrary, *=ila* is free to attach to either verb in juxtaposed verbs showing sequential sentences as in (7.14). If both (7.13) and (7.14) were treated as serial verbs, we would need to explain the restricted position of aspectual marking in (7.13b).[110]

[110] Note that grammatical marking of aspectual, mood and modality does not equally display the same modifying scopes. Take the juxtaposed verbs expressing the finish phase for example. The negation and interrogative clitic cannot occur between the juxtaposed verbs as in (ia) and (ib), while the change of state *=ila* can as in (ic).

(7.13) Saisiyat (Phasal relation: the finishing phase)

a. **’oya** **sizaeh=ila** **’a(m)-mata:waw**?
mother finish=COS IRR.GER-AV:WORK
‘Mother has finished working.’

b. ***’oya** **sizaeh** **’a(m)-mata:waw=ila**.
mother finish IRR.GER-AV:WORK=COS

(7.14) Saisiyat (Sequential relation)

a. **hini** **korkoring** **min’itol=ila** **s<om>i’ael** **ka** **walo’**.
this child AV:wake.up=COS <AV>eat ACC candy
‘This child has woken up and ate candies.

b. **hini** **korkoring** **min’itol** **s<om>i’ael=ila** **ka** **walo’**.
this child AV:wake.up <AV>eat=COS ACC candy
‘This child woke up and has eaten candies.’

To summarize, these three phenomena indicate that the serial-verb analysis cannot fully support analyzing juxtaposed verbs as SVCs in Saisiyat.

7.3 Reexamining the SVC-or-not analysis for Saisiyat juxtaposed verbs

There are two fundamental parameters in the discussion of Saisiyat SVCs when we take interclausal relation hierarchy (IRH) into account. The first parameter is the level of combination of these juxtaposed verbs, i.e. the juncture. The other parameter concerns the method of the combination of these juxtaposed verbs, i.e. the nexus. These two parameters closely direct to the relevant issues which shall be handled in

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(i) Saisiyat (Phase relation: finishing phase)

a.***’oya’** **sizaeh** **’okay** **’a(m)=mata:waw**.
mother finish NEG:LIG PROG=AV:work

b.***’aro’** **sizaeh** **kayni’** **maatol.**
PN finish MOD.NEG AV:sing

c. **’oya’** **sizaeh=ila** **mata:waw**.
mother finish=COS AV:work
‘Mother has finished working.’

this chapter for (7.15), and chapter 8 for the issue of (7.16).

(7.15) Which juncture-nexus combination can be treated as serial verbs in Saisiyat?
(7.16) For juxtaposed verbs that are not serial verbs, what grammatical constructions do they represent? Are they compound verbs, verbal coordination or conjoined clauses?

SVCs can be realized in different juncture-nexus combinations in different languages. In Nootka, serial verbs are nuclear cosubordination in that the subjective pronominal prefix is not be repeated in nuclear or core cosubordination[111] (Jacobsen 1993). In French, serial verbs resemble nuclear cosubordination in the causative construction (Van Valin 2005). In English, the notion of serial verb covers a range of juncture-nexus combinations. An English serial verb can be (i) nuclear cosubordination in the resultative construction, or (ii) core cosubordination in obligatory control construction (Van Valin 2005).[112] In Mandarin, a serial verb is found to occur in core juncture (J. Chang 2007). In Korean, two types of serial verbs are distinguished. The *e*-verb serialization is core cosubordination while the *ko*-verb serialization is core coordination (Yang 1994).

This study argues that cosubordination and subordination in either core or nuclear juncture are the four possible realizations of Saisiyat serial verbs. This claim

[111] In Nootka clausal cosubordination, the pronominal suffix is not shared and is repeated in principle.
[112] Van Valin (2005) also recognizes core coordination as serial verb. This paper argues that a coordination should not be taken as verb serialization.

is based on the fact that cosubordination and subordination exhibit **structural (co)dependency** (Jacobsen 1993). That is, the presence of both serialized verbal units is required in a mono-clausal structure to denote a full-fledged serial-verb meaning. Cosubordination represents symmetrical linkage in which two predicates display operator dependency. Subordination represents asymmetrical linkage in which the argument structure undergoes argument fusion or argument-sharing (for the whole set of argument structures: $argument_{A/U}+V_1+V_2+argument$). As for coordination, it cannot be compared to verb serialization since coordination does not display structural (co)dependency.

7.4 The relations between juxtaposed verbs and SVCs in Saisiyat

Before entering the main body of the discussion, the definition of serialization from the Role and Reference Grammar's perspective must be established in this section.

Two types of serial verbs are recognized in Role and Reference Grammar (Foley & Van Valin 1984) and Bril (2004, 2007): nuclear and core serial verbs. In nuclear serialization, contiguous nuclei share the entire set of core arguments. Nuclear serialization can be divided into the symmetrical type and the asymmetrical type. In symmetrical constructions, the sharing of the nominative arguments is obligatory. The sharing of non-nominative argument only applies to transitive predicates that have the

same actor (in the AV construction) undergoer (in the UVP construction). In asymmetrical constructions, the argument structure is fused (Foley and Olson 1985, Durie 1997). As introduced in chapter 2, Bril (2004, 2007) further categorizes two subtypes of argument-fusion in (7.17a-b):

(7.17) Argument fusion of nuclear serialization:
a. The argument structure of the serial verb is based on the V1, and the V2, as the modifying verb fused with V1.
b. Two intransitive predicates form a single causative predicate.

A core serialization is constituted of core units. The core units share part of their argument structure. Unlike nuclear serialization, the argument structure is basically componential: the numbers of core arguments might equal to the sum of the argument numbers of serialized verbs or less than the sum. Based on Bril (2004, 2007), core serialization can be divided into (i) same-subject and (b) switch-subject types. (7.18a) exemplifies the same-subject type in which two cores own the same nominative arguments (7.18b) exemplifies the switch-subject type in which the undergoer of 1st predicate also acts as actor of 2nd predicate. That is, the subject of each core is switched. The second argument before V2 acts as the pivot and it is controlled by the nominative argument.

(7.18) Saisiyat: Core serialization

a. **lasia [kash-re're' ka loehoeng] [t<om>awbon ka**
3PL.NOM step.on-tight ACC mortar <AV>stomp ACC
ho'ol].
glutinous.rice
'They step onto the mortar to stomp the glutinous rice.'

b. **yako k<om>ita' [noka korkoring shi-shbet ka 'aehoe']**.
1SG.NOM <AV>see GEN child UVC-beat ACC dog
'I saw the child beat the dog.'

Previous studies (M. L. Yeh 2000 and L. Huang 1997) treat this type of core serialization as the pivotal construction.[113] This dissertation adopts the term of switch-subject serialization (Bril 2004, 2007) because this labeling precisely captures the nature of this serialization.[114] Another reason is that the notion of pivot-control is not confined to this type of juxtaposed verbs but is also found in other constructions, such as conjoined clause (representing the clausal cosubordination) or converb constructions.

For clarifying the relations between juxtaposed verbs and serial verbs in the Role and Reference Grammar's perspective, I set forth SVC condition in (7.19). The distinction between nuclear and core serialization follows Bril's (2004, 2007) and Crowley (2002).

[113] Note that in M. L. Yeh (2016), the analysis of pivotal constructions is replaced by clausal complementation (*cf*. Figure 1.5).

[114] The term pivotal construction (PC) is formerly used in Chao (1968) in order to discuss the complex construction: NPi+V1+NPi+V2. Chao (1968) does not equal PCs to switch-function SVCs. This is another reason why I discard the labeling of PC in this dissertation.

(7.19) SVC condition based on RRG

a. **No insertion of clausal CLMs:** Serialized verbs are not intervened by CLMs that indicate clausal boundary e.g., complementizer which introduces clausal units after V1s.
b. **Structural (co)dependency:** Two verbal units are structurally dependent on each other, i.e. nexus must be either subordination or cosubordination.
c. **Mono-clausal condition:** Clausal units does not form a serial verb since serial verbs are mono-clausal constructions; but juxtaposed verbs of nuclear and core junctures do:
   i. For nuclear serialization: (i) argument sharing of the whole set or argument fusion; (ii) structural (co)dependency e.g., obligatorily sharing of nuclear operators.
   ii. For core serialization: (i) argument sharing of part of argument structure; (ii) structural (co)dependency e.g., obligatorily sharing of core operators.
d. **Morphosyntactically true verbs:** Serialized verbs are morphosyntactically true verbs.
e. **Event cohesiveness:** Serialized verbs presumably express a tight semantic cohesiveness.[115]

The condition of (7.19) require further comments as follows. According to (7.19a), a genuine serialized verbs cannot be intervened by clausal CLMs, such as the clausal CLMs *'isa:* 'then', *kayzaeh* 'and then', *'aewhay* 'otherwise' and the complementizer *komosha*: (*cf.* sections 3.5.2-3.5.4). As for the CLM of =*o* 'and (conjunctor)', the presence of =*o* between two juxtaposed verbs is irrelevant to this constraint, since =*o* takes place in three types of juncture (*cf.* section 3.5.1). Its function is to link morphosyntactically equivalent units in a complex construction. Semantically speaking, verbs that are linked by =*o* stand as single unitary events or

[115] The SVC-criterion of 'single event' (Aikhenvald & Dixon 2006, and C. M. Wu 2006) is suspended here, because this notion may be vague and methodologically unreliable: it is hard to reach a consensus about whether or not two events are fused as one. However it might be feasible to construe the degree of semantic cohesiveness by looking at interclausal semantic relations (*cf.* 2.18).

subsequent actions are temporally immediate connected.

According to (7.19b), a SVC does not represent nexus of coordination, since a SVC is an encapsulated unit in which serialized verbs are concatenated to express a specifically designated meaning. That is, serialized verbs lack for structural independence. Behaviors such as alternative order of verbs and independent modifying of operators on individual verbs (especially for V2s, or double marking) should not be observed in SVCs. Last, voice marking of serialized verbs should not exhibit alternation.

According to (7.19c), serialized verbs must occur in a mono-clausal environment. Therefore, juxtaposed verbs that can be paraphrased by conjoined clauses cannot be treated as true SVC. Moreover, the intonation break (here I treat pause as CLM as well) also do not occur between serialized verbs. The shared nominative argument cannot be repeated before the other verbs (V2s).

According to (7.19d), a serialized verb must be a morphosyntactically true verb. By mentioning morphosyntactic authenticity of verbs, I refer to verbs that takes core arguments in a mono-clausal structure, exhibit voice marking. Moreover, it can undergoes imperativization and causativization. In this line of thought, juxtaposed verbs that contain gerundive verbs cannot be treated as SVCs.

(7.19e) specifies that serialized verbs denote semantic tightness. Bruce (1988)

and Lord & Craig (2004) provide clear elaboration for this claim: SVCs and highly concatenated VPs exhibit semantic cohesiveness, as in (7.20), or are pragmatically and culturally constrained as in (7.21).

In (7.20a), two verbs are juxtaposed without the coordinator when the sequence refers to the cleaning ceremony. In (7.20b), the two separate events allow the insertion of the coordinator. In (7.20c), two events that are not experientially directly related cannot occur without the coordinator. This restriction indicates that SVCs or concatenated VPs exhibit semantic cohesiveness.

(7.20) Sgaw Karen (Lord & Craig 2004:365-366)

a. **ʔəwɛ thuʔ mɛ plɔ mɛʔ**. (concatenated VP coordination)
3SG brush teeth wash face
'He brushed his teeth and washed his face (performed his morning ablutions).'

b. **ʔəwɛ pla mɛʔ dɔʔ lɛ mi-lɔ**. (non-concatenated VP coordination)
3SG wash face and go sleep-down
He washed his face and went to bed.

c.*ʔ**əwɛ pla mɛʔ lɛ mi-lɔ**. (non-concatenated VP coordination)
3SG wash face go sleep-down

In (7.21), two culturally unrelated events cannot be serialized in Alamblak. The conjoined events of (7.21a) cannot be paraphrased by the SVC structure as in (7.21a') because these events are not culturally linked. By contrast, the linked events of TREE-CLIMB and INSECTS-SEARCH must be produced in terms of the SVC-structure as in (7.21b). By contrast, the culturally unrelated events such as TREE-CLIMB and STAR-

SEARCH cannot.

(7.21) Alamblak (based on Bruce 1988:29)

a. **hodayrt** **yak-hatë** **yoht** **[fët-hatë** **yi-më-t].** (conjoined clause)
axe get-SA string:bag string.from.head-SA go-R:PST-3SF
'Having gotten the axe, having strung the string bag from (her) head, she left.'

a'. ***hodayrt** **yoht** **yak-fët** **<u>ni-më-t-t</u>.** (SVC structure)
axe string:bag get-SA get.string.from.head-go-R:PST-3SF-3SF

b. **mɨyt** **ritm** **<u>muh-hambray-an-m</u>.** (SVC structure)
tree insects climb-search.for-1SG-3PL
'I climbed the tree (and) looked for insects.'

b'***mɨyt** **guñm** **muh-hëti-an-m.** (SVC structure)
tree stars climb-see-1SG-3PL
Intended for 'I climbed the tree to see stars.'

This dissertation considers that semantics is a motivation for realizing certain syntactic constructions, since linguistic variations may outrun this condition and we still seek for grammatical evidence. This is the reason for proposing the notion of event cohesiveness in (7.19e). Table 7.1 summarizes the SVC condition and their grammatical manifesting and features.

Table 7.1 SVC condition and their grammatical manifestation.

SVC condition		Grammatical manifestation in Saisiyat	Remarks
1	**No insertion of clausal CLMs**	➢ No insertion of *'isa:* 'then', *kayzaeh* 'and then', and *'aewhay* 'otherwise'.	Note that, the CLM *=o* does not profile clausal boundary
2	**Structural (co)dependency**	➢ Cosubordination or subordination ➢ No structural independency, e.g., ▪ No alternative order of verbs ▪ No independent marking of operators ▪ No voice alternation	In Saisiyat, verbal units in a SVC display fixed order, while units in verbal coordination do not.
3	**Mono-clausal condition**	➢ No intonation break ➢ No alternation of dislocated structures or conjoined clauses ➢ No repetition of nominative argument before V2s	A SVC shall be distinguished from conjoined clauses with argument omission.
4	**Morphosyntactically true verbs**	➢ Finite form: e.g., not gerundive form ➢ Taking argument(s) ➢ Voice marking	Verbs that do not take arguments in mono-clausal structure may be a verbal modifier rather than serialized verb.
5	**Event cohesiveness**	➢ Cohesive semantic relations are more possible to be serialized than loose semantic relation. ➢ Subcategorization of V2s is pragmatic or culturally constrained.	Juxtaposed verbs expressing manner relation are more eligible to be SVCs than juxtaposed verbs expressing a sequential relation.

To summarize, the main line of thought in this section is to account for the SVC condition from the perspective of RRG. The following discussion enters the main body of this enterprise. Section 7.4.1 elaborates on nuclear serialization. Section 7.4.2 discusses core serialization.

7.4.1 The interaction between nuclear serialization and juxtaposed verbs in nuclear juncture

Table 7.2 summarizes morphosyntactic traits of nuclear serialization regarding SVC conditions of (7.19). According to this table, none of these juxtaposed verbs

Table 7.2 Juxtaposed verbs in nuclear juncture and SVC condition

SVC condition \ Semantic relations		Nuclear juncture			
		Phasal		Modifying subevents	Nuclear Serialization
		Beginning	Continuous	Manner	
Insertion of CLMs	1. *'isa*: 'then'	✗	✗	✗	✗
	2. *=o* 'and'	✗	✗	✗	✗
Structural (co)dependency	1. nexus type	subordination	subordination	subordination	subordination or cosubordination
	2. order of verbs	fixed	fixed	fixed	fixed
	3. sharing of nuclear operator	✗	✓ ✗ : for *kin-*	✓	✓
	4. voice alternation	✗	✗	✗	✗
Mono-clausal condition	1. intonation break	✗	✗	✗	✗
	2. paraphrase of bi-clauseal structures	✗	✗	✓	✗
	3. repeating $argument_{NOM}$	✗	✗	✗	✗
Morphosyntactically true verbs	1. take voice marking	✓	✓	✓	✓
	2. gerundive form	✗	✗	✗	✗
	3. take argument in mono-clausal structure	✗ :for $V_{beginning}$	✗ :for $V_{continuous}$	✗ :for V_{manner}	✓

The shading cells indicate that the trait are compatible to SVC condition.

in nuclear juncture are SVCs. In a strict sense, they do not entirely conform to SVC condition. The following part discuss the features that are incompatible with SVC condition. Juxtaposed verbs expressing the beginning phase cannot be considered as nuclear serialization because (i) they do not share single value of aspectual marking as in (7.22), and (ii) the verbs denoting beginning phase are not morphosyntactically true verb for not carrying core arguments as in (7.23).

(7.22) Saisiyat: independent modification of nuclear operator

yako	**m-il-'al'alay=ila**	**m-il-tamako'.**
1SG.NOM	AV-sip-start=COS	AV-sip-tobacco

'I have started smoking.'

(7.23) Saisiyat: beginning verbs (adopted from 4.9)

Question: a. **korkoring** **min-'al'alay** **h<oem>angih=ay.**
child AV:become-start <AV>cry=Q
'Does/did the child start crying?'

b.***'ihi', (korkoring) min-'al'alay.**
yes child AV:become-start

Juxtaposed verbs expressing the continuing phase may be the most eligible nuclear serialization for they fit almost all SVC condition except for the condition of morphosyntactically true verb. Observe (7.24) for this restriction.

(7.24) Saisiyat: continuing verbs (= 4.10)

Question: a. **toanay** **t<om>oa'is** **'<oem>angang** **ka**
sister-in-law <AV>continue <AV>scold ACC
korkoring=ay?
child=Q
'Does the sister-in-law keep on scolding the child?'

b.***'ihi',** **(toanay)** **t<om>oa'is.**
yes sister-in-law <AV>continue
Intended for: 'Yes, the sister-in-law keep on doing it (scolding the child).'

Based on Table 7.2, though juxtaposed verbs expressing manner relation fit into most of the serial-verb conditions, they cannot be treated as Saisiyat serial verbs. The crucial reasons are that (i) these juxtaposed verbs undergo structural paraphrase and (ii) manner verbs are not morphosyntactically true verb. Moreover, as shown in (7.25-26), the verbal juxtaposition can be paraphrased by dislocated structure with a difference on the information structure: the dislocated unit is the pragmatic focus. The fundamental semantics between these two structures is not divergent.

(7.25) Saisiyat: Structural alternation

a. **korkoring** **'aemoeh** **manraan.**
child quick AV.walk
'The child walked home quickly.'

a. **korkoring** **manraan,** **'aemoeh.**
child AV.walk quick
'Quickly, the child walked home.'

(7.26) Saisiyat: Structural paraphrase =(4.25)

a. **nisia (ka) yanay 'aemoeh t<om>alek ka tatimae'**,
2S.GEN LIG daughter.in.law quick <AV>cook ACC side.dish
kayzaeh.
good
'Your daughter-in-law cooks fast, and this is good.'

b. **nisia (ka) yanay kin=t<om>alek ka tatimae'**.
2S.GEN LIG daughter.in.law PROG=<AV>cook ACC side.dish
'Your daughter-in-law is cooking.'

c.***nisia (ka) yanay 'aemoeh.**
2S.GEN LIG daughter.in.law quick
Intended: 'Your daughter-in-law is agile (in cooking).'

To summarize, these Saisiyat juxtaposed verbs examined in nuclear juncture are not SVCs in Saisiyat, according to the SVC condition proposed in (7.19) .

7.4.2 Core serialization and juxtaposed verbs in core juncture

Table 7.3 summarizes the features of juxtaposed verbs in core juncture regarding SVC condition. Core juncture in Saisiyat includes (i) same-nominative argument type and (ii) switch-nominative argument type. Juxtaposed verbs in core juncture share three commonality of serial-verb conditions. First, they refuse the insertion of clausal CLM *'isa*: 'then'. Second, they all share part of argument structure. Third, the shared nominative argument cannot be repeated in second cores.

Table 7.3 Juxtaposed verbs in core juncture and SVC condition

SVC condition \ Semantic relations		Core juncture								Core Serialization
		Same-nominative argument							Switch-nominative argument	
		Phasal	Modifying subevents			Psych -action	**Purposive**		Direct perception	
		Finishing	Pos.	**Mot.**	**Mean**		**Limt**	**Unlimt**		
Insertion of CLMs	1. *'isa*:'then'	✗	✗	✗	✗	✗	✗	✗	✗	✗
	2. *=o* 'and'	✗	✗	✗	✗	✗	✗	✗	✗	✗
Structural (co)dependency	1. nexus type	sub.	sub.	**cosub.**	**cosub.**	sub.	**cosub.**	**cosub**	sub.	Sub. or cosub.
	2. order of verbs	fixed	fixed	**fixed**	**fixed**	fixed	**fixed**	**fixed**	fixed	✓
	3. sharing single core operator	✗	✗	✓	✓	✗	✓	✓	✗	✓
	4. voice alternation	✗	✗	✗	✗	✓:AV+UVC	✗	✗	✓:AV+UVC	✗
Mono-clausal condition	1. intonation break	✗	✗	✗	✗	✗	✗	✗	✗	✗
	2. paraphrase of bi-clausal structures	✓	✓	✗	✗	✓	✗	✗	✓	✗
	3. repeating $Argument_{NOM}$	✗	✗	✗	✗	✗	✗	✗	✗	✗
Morphosyntactically true verbs	1. take voice marking	✓:finite V2 ✗ :GER V2	✓	✓	✓	✓:finite V2 ✗ :GER V2	✓	✓	✓	✓
	2. non-finite forms: 1. gerundive form 2. *shi*-marked clauses	✗ :finite V2 ✓:GER V2	✗	✗	✗	✗ :finite V2 ✓:non-finite V2	✗	✗	✗ :finite V2 ✓:non-finite V2	✗
	3. take argument in mono-clausal structures	✓:finite V2 ✗ :GER V2	✓	✓	✓	✓:finite V2 ✗ :non-finite V2	✓	✓	✓:finite V2 ✗ :non-finite V2	✓

- The shading cells represent the traits that are compatible to SVC condition.

As shown in Table 7.3, only three groups of juxtaposed verbs in core juncture fulfill all of the serial-verb conditions in Saisiyat. They are juxtaposed verbs expressing motion, means and purposive relations, and they belong to same-nominative argument type. Juxtaposed verbs expressing position, psych-action, direct perception and cognition are not core serialization. Section 7.4.2.1 accounts for this core serialization of the same-nominative argument type, together with the non-serialization structure. Section 7.4.2.2 accounts for those structures that belong to the switch-nominative argument type.

7.4.2.1 Core serialization of same-nominative argument type

In Aikhenvald & Dixon (2006), serial verbs are distinguished between symmetrical and asymmetrical types. A symmetrical serial construction has serialized verbs from open class. An asymmetrical serial construction has a verb from a closed class and the other from an open class. A closed class of verbs exhibits more or less the grammaticalized function of auxiliaries. Moreover, this dissertation considers that a closed class of verbs may be limited in number. An open class of verbs is lexical and less grammaticalized in sentences. It is usually unlimited in number.

Following this line of thought, core serializations in Saisiyat belong to symmetrical types, because none of the serial verbs are from the closed class. Verbs

that express position, means, the forgetting status and prerequisite event of purposive relation are lexical verbs instead of grammaticalized verbs.

In this group, juxtaposed verbs showing means, motion, the purposive relations are treated as **core serialization**, since they thoroughly exhibit the SVC condition of (7.19). The following four characteristics are crucial: (i) structural dependency, representing cosubordination, (ii) fixed order of serialized verbs, (iii) no voice alternation, and (iv) V2s are neither gerundive verbs nor *shi*-marked verbs of non-finite clauses. Additionally, core serialization cannot be paraphrased by dislocated structure, indicating they are pragmatically constrained. This restriction is an indicator of being SVCs (Bruce 1988) and conforms to the event cohesiveness of SVC-condition in Table 7.1. A crucial piece of evidence of structural dependency is the obligatory sharing of core operators. Observe (7.27). The deontic marker modifies entire verbal serializations, i.e. the serialized cores share single value of deontic modality.

(7.27) Saisiyat: obligatory sharing of core operators (=5.50)

a. **lasia** **mina=kash-re're'** **ka** **loehoeng**
3PL.NOM should=step.on-tight ACC mortar
t<om>awbon **ka** **(h)o'ol.**
<AV>stomp ACC glutinous.rice
'They should step onto the mortar to stomp the glutinous rice.'

b.***lasia** **kash-re're'** **ka** **loehoeng** **mina=t<om>awbon** **ka**
3PL.NOM step.on-tight ACC mortar should=<AV>stomp ACC
(h)o'ol.
glutinous.rice

The following part of discussion elaborates on the reasons that the other juxtaposed verbs cannot be treated as core serialization. Juxtaposed verbs expressing the finishing phase and position cannot be treated as core serialization, even though such they exhibit most of the SVC-condition. This analysis is ascribed to non-obligatorily sharing of core operators, as exemplified in (7.28-29).

(7.28) Non-obligatory sharing of core operators

a. **'oya'** **sizaeh** **mata:waw**
mother finish AV:work
'Mother has not finished work.'

a. **'oya'** **'okik** **sizaeh** **mata:waw/*pata:waw.**
mother NEG:LIG:STAT finish AV:work/work
'Mother has not finished work.' (=5.12b)

(7.29) Non-obligatory sharing of core operator

a. **yako** **'okay** **miririi'** **[kita'** **ka** **kinaat].**
ISG.NOM NEG:LIG AV:stand see ACC book
'I did not read book standing.'

b. **yako** **miririi'** **'okay** **[kita'** **ka** **kinaat].**
ISG.NOM AV:stand NEG:LIG see ACC book
'I stand and do not read a book.'

Moreover, these juxtaposed verbs exhibit structural paraphrase in terms of dislocated structures, which indicating the construction of SVC is not the only option

to express such semantically tight relations (i.e. the finishing phase and position) as shown in (7.30-31).

(7.30) Structural paraphrase of juxtaposed verbs expressing the finishing phase

a. **baki'** **sizaeh** **t<om>awbon** **ka** **(h)'o'ol**.
grandfather finish <AV>pound ACC glutinous.rice
'Grandfather stopped beating the child.'

e. **yako** **t<om>awbon** **ka** **(h)'o'ol,** **(hini (h)owaw)** **sizaeh=ila.**
1SG.NOM <AV>pound ACC glutinous.rice this matter finish=COS
'I was pounding the glutinous, and this matter is already over.'(=5.2e)

(7.31) Structural paraphrase of juxtaposed verbs expressing position

a. **'aro'** **miririi'**$_{stance}$ **k<om>ita'**$_{action}$ **ka** **kinaat**.=(5.20a)
PN AV:stand <AV>see ACC book
'Aro is reading a book standing.'

a'.[**'aro'** **k<om>ita'**$_{action}$ **ka** **kinaat]**$_{clause}$**,** **'ima=miririi'**$_{stance}$.=(5.20a')
PN <AV>see ACC book PROG=AV:stand
'Aro reads a book while he is standing.'

As for juxtaposed verb denoting psych-action relation, they exhibit two features that do not support the SVC condition. The first one is non-obligatory sharing of core operators as exemplified in (7.32).

(7.32) Non-obligatory sharing of core operators =(5.50)

a. **'aro'** **kaysa'an** **ma:-hoero:** **kayni'** **rima'** **ray** **'oes'oeso'an**.
PN today AV-remember NEG:MOD go LOC mountain
'Aro remembers not go to the mountain today (to avoid bad weather condition).'

b. **yaba'** **hae:wan** **ma:-hoero:** **'okay** **ra'oe:** **ka** **pinobaeaeh**.
father night AV-remember NEG:LIG drink ACC wine
'Father remembers do not drink wine at night.'

The second feature is structural paraphrase as shown in (7.33), which expresses similar propositions with a difference of information structure. (7.33b) focuses on the event of FORGET and (7.33c) focuses on the event TAKE MEDICINE.

(7.33) Bi-clausal structures denoting the psych-action relation

a. **sia kahia' ma-ngoip r<om>a'oe: ka 'io'.**
3SG.NOM yesterday AV-forget <AV>drink ACC medicine
'He/she forgot to take medicine yeaterday.'

b. **[sia kahia' ma-ngoip=ila]**$_{CLAUSE1}$**,**
3SG.NOM yesterday AV-forget=COS
['okay ra'oe: ka 'io']$_{CLAUSE2}$**.**
NEG:LIG drink ACC medicine
'Yesterday he/she forgot, and didn't take (her/his) medicine.'

c. **sia kahia' 'am=/mina=r<om>a'oe: ka 'io',**
3SG.NOM yesterday IRR=/should=<AV>drink ACC medicine
(sia) ma-ngoip=ila.
3SG.NOM AV-forget=COS
'He/she wanted to take /should have taken (my) medicine yesterday, but he/she forgot.'

Moreover, the juxtaposed verbs that express the unlimited type of purposive relation are not core serialization either. They do not obligatorily share core operators, even though they fit into most the SVC conditions, as shown in (7.34) below.

(7.34) Independent modification of core operators

a. **sia t<om>i-rosha' ka 'ayam mina=mobay ka minayti'**.
3SG.NOM <AV>split-two ACC pork should=AV:give ACC younger.sibling
'He/she split the pork into two pieces and should give his/her brother/sister one. '

b. **sia** **mina=ti-rosha'** **ka** **'ayam** **boay** **ka** **minayti'.**
3SG.NOM should=split-two ACC pork AV:give ACC younger.sibling
'He/she should split the pork into two pieces and give his/her brother/sister one. '

7.4.2.2 Core serialization of switch-nominative argument in Saisiyat

In this group, juxtaposed verbs expressing direct perception relation are not core serialization because (i) they do not obligatorily share core operators, (ii) they show voice alternation and (iii) they allow structural paraphrases. (7.35) exemplifies the independent modification of core operators: the negator only negates V1. (7.36) exemplifies voice alternation; two voice alignments are observed: AV+AV and AV+UVC.

(7.35) Independent modification of core operators =(5.77)
a. **yako** **'okik** **bazae'** **ka** **'aehoe'** **t<om>obong**
1SG.NOM NEG:LIG:STAT hear ACC dog <AV>bark
ray **kabih-no-baala'.**
LOC next.to-DAT-river
'I didn't hear the dog barking on the other side of the river.'
b.***yako** **'okik** **bazae'** **ka** **'aehoe'** **tobong**
1SG.NOM NEG:LIG:STAT hear ACC dog bark
ray **kabih-no-baala'.**
LOC next.to-DAT-river

(7.36) Voice alternation
a. **yako** **bazae'** **ka** **'aehoe'** **t<om>obong** =(5.69a)
1SG.NOM <AV>hear ACC dog <AV>bark
ray **kabih-no-baala'.**
LOC next.to-DAT-river
'I hear the dog barking on the other side of the river.'

b. **yako** **k<om>ita'** **noka** **korkoring** **shi-shbet** **ka** **'aehoe'**.
1SG.NOM <AV>see GEN child UVC-beat ACC dog
'I saw the child beat the dog.' =(5.69f)

(7.37) exemplifies structural paraphrase. Two sentences denote similar propositions but different in information structures: (7.37a) delineate an iconic event structure while (7.37b) focuses on the event of perception: DOG BARK.

(7.37) Dislocated structures
a. **yako** **bazae'** **'aehoe'** **t<om>obong** **ray** **taew'an** **latar.**
1SG.NOM hear dog <AV>bark LOC house outside
'I heard the dog barking outside the house.'
b. [**'aehoe'** **t<om>obong** **ray** **taew'an** **latar]**$_{\text{clausal complement}}$,
dog <AV>bark LOC house outside
[(yako) **bazae'=ila]**$_{\text{matrix clause}}$. =(5.70b)
1SG.NOM hear=COS
'The dog barks outside the house, and I heard it.'

Juxtaposed verbs expressing cognition relation also exhibit three traits that do not conform to SVC condition. First, core operators are able to independently modify V2s as exemplified in (7.38a).

(7.38) Independent modification of core operators
a. **sia** **'okik** **raam** **yako** **ra'oe:** **ka** **pinobaeaeh.**
3SG.NOM NEG.LIG know 1SG.NOM drink ACC wine
'S/he does not know I drank wine.'

b. **sia** **raam** **yako** **<u>'okay</u>** **ra'oe:** (based on 6.8a)
3SG.NOM know 1SG.NOM NEG.LIG drink
ka **pinobaeaeh.**
ACC wine
'He/she knows that I do not drunk wine.'

Second, voice alternation between the two verbs is observed as in (7.39).

(7.39) Voice alternation

a. **sia** **<u>raam</u>** **yako** **<u>r<om>a'oe:</u>=ila** **ka** **pinobaeaeh.** =(6.2a)
3SG.NOM know 1SG.NOM <AV>drink=COS ACC wine
'He/she knows that I drank wine.'

b. **sia** **<u>raam</u>** **korkoring** **ni** **yaba'** **<u>shebet-en</u>.** =(6.2b)
3SG.NOM know child GEN father beat-UVP
'He/she knows that the child got beaten by father yesterday.'

Third, juxtaposed verbs expressing cognition relation also exhibit structural paraphrase as shown in (7.40). If two verbs are serialized, they should not be easily paraphrased by bi-clausal structures. This is not the case in juxtaposed verbs expressing cognition relation, showing they are not SVCs.

(7.40) Structural paraphrase

a. **yako** **raam** **korkoring** **ni** **'oya'** **shebet-en.**
1SG.NOM know child GEN mother beat-UVP
'I know that the child got beaten by mother yesterday.'

b. **[korkoring** **ni** **'oya'** **shebet-en,** **yako** **raam=ila.**
child GEN mother beat-UVP 1SG.NOM know=COS
'The child got beaten by mother, and I know it.'

To summarize, Saisiyat does not exhibit nuclear serialization because the juxtaposed verbs expressing the two types of phasal relations (i.e. the beginning and continuing phases) and those showing manner relation do not entirely fit into the SVC condition of (7.19). Core serialization only subsumes juxtaposed verbs that show the motion, means, and purposive relations. Concerning the other types of juxtaposed verbs (i.e. those expressing the finishing phase, the relations of position, psych-action, direct perception and cognition), they do not hold as core serialization in Saisiyat. The reason for this claim is that they do not exhibit the SVC condition in every respect.

7.5 Overall summary

This chapter discusses the relation between juxtaposed verbs and SVCs in Saisiyat from the perspective of Role and Reference Grammar, with a focus on interclausal relation hierarchy (IRH). The investigation leads to the following conclusions:

1. Different from previous studies (M. L. Yeh 2000, L. Huang 1997), the examined juxtaposed verbs in nuclear juncture should not be taken as nuclear serialization in Saisiyat. This indicates the mismatch between semantics and syntax: tight semantic relations such as phasal relations and motion relation (modifying subevents) only exhibit structural tightness in juncture but not in nexus (exhibiting subordination but not cosubordination).

2. There are three groups of juxtaposed verbs belonging to core serialization. They are juxtaposed verbs expressing the relations of motion and means, and the limited purposive relation. They are all same-nominative argument type. Saisiyat, on the contrary, does not have switch-nominative argument type of core serialization.
3. Juxtaposed verbs of clausal juncture i.e. verbal sequences of sequential and simultaneous relations should not be analyzed as SVCs in Saisiyat because they are not mono-clausal structures, violating the mono-clausal restriction of SVC condition in Table 7.1.

Chapter 8 accounts for grammatical status of these juxtaposed verbs that are not analyzed as SVCs, regarding their grammatical properties and interclausal relations that have been discussed from chapters 4 to 6.

Chapter 8

Verbal coordination and related complex constructions in Saisiyat

This chapter deals with the complex constructions that do not belong to SVCs in Saisiyat. Chapter 7 has proved that only three types of juxtaposed verbs can be identified as genuine core serialization in Saisiyat, including the SVCs expressing motion, means and purposive relation. By contrast, the other juxtaposed verbs in nuclear juncture are not SVCs. Additionally, the majority of juxtaposed verbs in core juncture cannot be treated as core serialization either, including those expressing position, psych-action, and direct perception. Last, juxtaposed verbs in clausal junctures are not treated as SVCs, too. Table 8.1 summarizes this division.

Table 8.1 The division of SVCs and non-SVCs in nuclear junctures

Constructions / Juncture	**SVCs**	**Non-SVCs**
Nuclear	NA	• Juxtaposed verbs showing (i) the beginning phase (ii) the continuing phase (iii) manner
Core	• Juxtaposed verbs expressing (i) motion relation (ii) means relation (iii) purposive relation	• Juxtaposed verbs showing (i) finishing phase (ii) position relation (iii) direct perception
Clausal	NA	• Juxtaposed verbs showing (i) cognition (ii) simultaneous relation (iii) sequential relation

The following part of this chapter is dedicated to the diagnosis of these non-SVC juxtaposed verbs, by examining their grammatical properties from the perspective of interclasual relations.

8.1 Verbal coordination

Before entering the main body of discussion, the terminology regarding coordination is introduced ahead. Following Haspelmath (2004), the units that are coordinated are called **conjuncts**. The functional elements that coordinate conjuncts are **coordinators**.

According to Haspelmath (2004), coordination can be divided into three basic types: asyndetic coordination, syndetic coordination and bisyndetic coordination. Asyndetic coordination represents the juxtaposition of two coordinated conjuncts, without any coordinators, exhibiting the formation [A, B] (8.1a). Syndetic coordination, on the contrary, occurs with a coordinator: [A coordinator B] as schematized in (8.1b). Bisyndetic coordination involves two coordinators: [A-coordinator B-coordinator]. (8.1d) schematizes this basic pattern. Saisiyat belongs to the type of (8.1b') for both verbal and noun coordination.

(8.1) Basic patterns of coordination (from Haspelmath 2004)[116]

structure	language	example	translation
a. [A B]	e.g. Lavukaleve	*nga-bakala nga-uia tula*	'my paddle and my small knife' (p.4)
b. [A] [co B]	e.g. Hausa	*Abdù* [*dà Feemì*]	'Abdu and Femi' (p.6)
b'. [A co] [B]	e.g. 1.Lai	[*vòmpii=leé*] *phèŋtee*	'a bear and a rabbit'
	2.**Saisiyat**	[***paza'=o***] ***'obay***	**'Paza and Obay'** (Zeitoun et al. 2011:78)
c. [A] [B co]	e.g. Latin	*senatus* [*populus-que romanus*]	'the senate and the Roman people' (p.6)
d. [A-co B-co]	e.g. Upper Kuskokwim Athabaskan	*dineje 'ił midzish 'ił*	'moose and caribou'(p.4)

To define coordination, I postulate coordination condition that contains four traits as in (8.2), on the basis of Yuasa & Sadock's (2002) and Ross's (1967) studies. Note that (8.2ii) is based on Ross (1967). The other traits adopt Yuasa & Sadock's (2002) study. Note that (8.2) does not involve the well-known coordinating criterion, i.e. the backward anaphora condition, discussed in Yuasa & Sadock (2002), because this trait is irrelevant to verbal coordination.

(8.2) Coordination condition (based on Ross 1967 and Yuasa & Sadock 2002)

i. **Equal assertion**: verbal conjuncts have the same morphosyntactic status in layered structure, representing symmetric linkage.

ii. **Coordination structure constraint**: no verbal conjunct may be moved, nor may any morphosyntactic elements contained in a conjunct be moved out of that conjunct.[117]

[116] Underlining specifies the coordinator in each example.

[117] An English example of this constraint is presented as follows in (i). The conjunct of (ia) cannot be moved out of the coordination as shown in (ib).

iii.**Reversibility**: changing order of conjuncts does not affect the truth condition.

iv. **Multiple conjuncts**: multiple verbal conjuncts are possible.

The first two traits i.e. equal assertion and coordination structure constraint serve as the main evidence, because they directly deal with the morphosyntactic nature of coordination. Reversibility and multiple conjuncts hold as supplementary evidence because the feasibility may be under influence of semantic and conceptual constraints.

Table 8.2 summarizes the traits of the non-SVC juxtaposed verbs (*cf*. chapter 7), regarding the traits of verbal coordination. As shown in Table 8.2, juxtaposed verbs expressing simultaneous relations are bona fide verbal coordination, because they exhibit the four traits of coordination that are proposed in (8.2). First, verbal conjuncts exhibit **equal assertion** because they are syntactically equivalent. Observe (8.3) for this trait. The second conjunct must be finite as in (8.3a) rather nonfinite as in (8.3b) and gerund in (8.3c).

(i) English
   a. I bought [records and books] on civil engineering.
   b. *What records did you buy ___ and books on civil engineering? (Haspelmath 2004:23)

Table 8.2 Verbal coordination in interclausal relations

Traits / Semantic relations	Nuclear juncture			Core juncture						Clausal	
				Same-ARG_{NOM} type				Switch-ARG_{NOM} type			
	Phasal relation		Man.	Fin.	Pos.	Psych-action	Pur.	Dir. Per.	Cong.	Simu.	Seq.
	Beg.	Cont.									
Nexus / Parameters	Sub. (mod.)	Sub. (mod.)	Sub (arg.)	Sub. (arg.)	Sub. (mod.)	Sub. (arg.)	Cosub.	Sub. (arg.)	Sub. (arg.)	Cosub.	Cosub.
(i) **Equal assertion**	✗	✗	✗	✗	✓	✓	✓	✓	✗	✓	✓
(ii) **Structure constraint**	✓	✓	✗ :dis.	✗ :dis.	✗ :dis.	✗ :dis.	✓	✗ :dis.	✗ :dis.	✓	✗
(iii) **Reversibility**	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗
(iv) **Multiple conjuncts**	✗	✗	✓	✗	✓	✗	✓	✗	✓	✓	✓

Arg. = argument type
Beg. = beginning phase
Cong. = cognition relation
Cont. = continuing phase
Coord. = coordination
Cosub. = cosubordination
Dir. Per. = relation of direct perception
Dis. = dislocated structures
Fin. = finishing phase
Man. = manner relation
Mod. = modifier type
Pos. = position relation
Pur. = purposive relation
Seq. = sequential relation
Simu. = Simultaneous relation
Sub. = subordinat

(8.3) Equal assertion

a. **yako ’<om>angang ka korkoring, sh<om>bet ka korkoring**.
1SG.NOM <AV>scold ACC child <AV>beat ACC child
‘I am beating and scolding the child.’

b.***yako ’<om>angang ka korkoring, shebet ka korkoring**.
1SG.NOM <AV>scold ACC child beat ACC child

c.***yako ’<om>angang ka korkoring, ’am-sh<om>bet ka korkoring**.
1SG.NOM <AV>scold ACC child GER-<AV>beat ACC child

Second, conjuncts cannot be moved out of the verbal juxtaposition as shown in (8.4b), revealing **coordination structure constraint**.

(8.4) Coordination structure constraint

a. **’aro’ kahia’ maatol h<oem>lal ray taew’an.**
PN yesterday AV:sing <AV>dance LOC house
‘Aro was singing and dancing at home yesterday.’

b.***’aro’ kahia’ h<oem>lal ray taew’an, maatol.**
PN yesterday <AV>dance LOC house AV:sing

This type of juxtaposed verbs display reversibility, as introduced in section 6.2.1. The conjunct can switch the order without causing ungrammaticality, as exemplified below in (8.5).

(8.5) Reversibility (=6.12)

a. **’aro’ [maatol] [h<oem>lal] ray taew’an**.
PN AV:sing <AV>dance LOC house
‘Aro was singing and dancing at home.’

b. **’aro’** **[h<oem>lal]** **[maatol]** **ray** **taew’an**.
PN <AV>dance AV:sing LOC house
‘Aro was dancing and singing at home.’

As for the last trait: multiple conjuncts, the conjuncts can undergo multiple coordination as shown in (8.6).

(8.6) Multiple conjuncts
a. **’oya’** **’<om>angang,** **sh<om>bet** **ka** **korkoring**. (=6.11a)
mother <AV>scold <AV>beat ACC child
‘Mother is beating and scolding the child.’
b. **’oya’** **mari’** **ka** **shashbet** **’<om>angang,**
mother AV:take ACC inst. used.to.beat <AV>scold
sh<om>bet **ka** **korkoring.**
<AV>beat ACC child
‘Mother is taking the stick, beating and scolding the child.

An interesting phenomenon is observed in Table 8.2 for the juxtaposed verbs expressing purposive relations. This type is identified as core serialization (*cf*. Table 7.3, chapter 7), but exhibits three traits of coordination. First, coordinated verbal units (i.e. cores) exhibit equivalent morphosyntactic status in layered structure. That is to say, they are equally asserted: they undergo voice marking, imperativization and take arguments in mono-clausal structures. Second, coordinated verbs conform to coordination structure constraint: the second cores are not able to be moved out of coordination structure, as shown in (8.7).

(8.7) Coordination structure constraint

a. **sho'o ti-rosha' ka 'ayam [boay ka minayti']**.
2SG.NOM split-two ACC pork give ACC young.sibling
'You split (cut) the pork into two pieces to give it to (your) younger brother/sister.'

b.***[boay ka minayti'], sho'o ti-rosha' ka 'ayam.**
give ACC young.sibling 2SG.NOM split-two ACC pork
Intended for: 'In order to give it to (your) younger brother/sister, you split (cut) the pork into two pieces '

Moreover, conjuncts can be multiply coordinated as shown in (8.8).

(8.8) Multiple conjuncts

a. **yaba' mobay ka rayhil 'iakin baeiw ka tatpo'**.
father AV.give ACC money 1SG.ACC AV.buy ACC hat
'Grandfather gave me money to buy a hat.'

b. **yaba' [mobay ka rayhil ka korkoring]**
father AV.give ACC money ACC child
[baeiw ka tatpo'], [baeiw ka kayba.en].
AV.buy ACC hat AV.buy ACC clothes
'Grandfather gave the child money to buy a hat and to buy clothes.'

One controversial point involves reversibility i.e. changing order of conjuncts does not affect the truth condition. Verbal coordination expressing purposive relation does not exhibit such the trait, but these expressing simultaneous relation does.

In verbal coordination expressing purposive relation, the second conjunct (i.e. the purpose event) cannot occur before the first conjunct (the prerequisite event) (*cf*. section 5.4.1). Observe (8.9) for this constraint.

(8.9) Non-reversibility conjuncts

a. **yami [sheme: ka rayhil] [pash-baki']**. (=5.57)
1PL.NOM<AV>raise.funds ACC money hold.a.ritual-old.man
'We raised funds to perform the ritual.'

b.***yami [pash-baki'], [sheme: ka rayhil].**
1PL.NOM hold.a.ritual-old.man <AV>raise.funds ACC money
Intended for: 'We raised funds to perform the ritual.' (*cf*. Footnote 90, chapter 5)

Another example is presented in (8.10), in which the purposive meaning of the sentence in (8.10a) becomes the means relation, when the order of verb is reversed in (8.10b).

(8.10) Non-reversibility conjuncts (=5.26)

a. **korkoring [pa-pama' ka kapapama'an]**$_{\text{prerequisite}}$
child RED-carry.on.back ACC vehicle
[**rima' ray kakishkaatan]**$_{\text{purposive}}$**.**
go LOC school
'The child took the bus in order to go to school.' (purposive relation)

b. **korkoring [rima' ray kakishkaatan]**$_{\text{action}}$ **[pa-pama' ka**
child go LOC school RED-carry.on.back ACC
kapapama'an]$_{\text{means}}$**.**
vehicle
'The child went to school by bus.' (means relation)

By contrast, conjuncts of verbal coordination expressing simultaneous relation is able to switch their positions as previously exemplified in (6.12a-b), repeated below in (8.11).[118]

[118] Note that the order of verbs show a preference, as previously introduced in section 6.2. Such the

(8.11) Reversibility in verbal coordination =(6.12a-b)

a. **’aro’** **[maatol]** **[h<oem>lal]** **ray** **taew’an**.
PN AV:sing <AV>dance LOC house
‘Aro was singing and dancing at home.’ (Preferred order)

a’. **’aro’** **[h<oem>lal]** **[maatol]** **ray** **taew’an**.
PN <AV>dance AV:sing LOC house
‘Aro was dancing and singing at home.’ (Less preferred order)

Based on the examples presented from (8.7) to (8.11), one might argue that juxtaposed verbs expressing purposive relation can be diagnosed as **asyndetic coordination**, exhibit the pattern: [V1(*=CONJ), V2] in which the conjunctor =*o* does occur in coordination as (8.12).

(8.12) Asyndetic coordination (juxtaposed verbs expressing purposive relation)

a. **baki’** **mobay** **ka** **rayhil** **ka** **korkoring(*=o)**
grandfather AV.give ACC money ACC child(*=CONJ)
baeiw **ka** **walo’**.
AV.buy ACC candy
‘Grandfather gave the child money to buy candies.’

b. **yami** **[sheme:** **ka** **rayhil](*=o)** **[pas-kayzaeh**
1PL.NOM <AV>raise.funds ACC money(*=CONJ) make-good
ka **taew’an].**
ACC house
‘We raised funds money to build a house.’

However, juxtaposed verbs expressing purposive relations cannot be treated as asyndetic coordination because they totally conform to SVC condition as discussed in

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pattern is accepted by my informants of the old generation (parain a ’aro’ kaybaybaw, and ’ae’aew a taboe: kaybaybaw). The other informants do not show this preference and one of them even considers that the dancing event should precede the singing event.

section 7.4.2. They exhibit (i) no insertion of CLMs, (ii) structural codependency (obligatory sharing of core operators), (iii) monoclausal structures, and (iv) morphosyntactically true verbs.

To recapitulate this section, juxtaposed verbs expressing a simultaneous relation are treated as verbal coordination in Saisiyat. By contrast, juxtaposed verbs expressing a purposive relation (i.e. core serialization) are not, even though they exhibit most of coordination condition. A remain issue is the status of juxtaposed verbs expressing sequential relations. According to Table 8.2, this type of juxtaposed verbs plausibly fit into all requirement of coordination conditions. However, they cannot be considered as verbal coordination because conjoined clauses are not equally asserted. One main reason is the violation of **reversibility**: changing the order of linked clauses leads to change of the truth condition.

8.2 Verbal modifiers

Juxtaposed verbs expressing the relations of the beginning, continuing phases, manner and position can be analyzed as constructions of verbal modifiers.[119] Phasal verbs (i.e. beginning and continuing phase), position and manner verbs express event modification to the other verbs. They exhibit the following four grammatical

[119] The terminology of "adverbial modifier" is based on H. Chang (2006). In H. Chang (2010), this type of construction is called "adverbial verb construction" (AVC, henceforth).

properties that a construction of verbal modifiers shows in Saisiyat.

First, these modifier verbs obligatorily precede the other verbs (i.e. modified verbs) in nuclear and core junctures. This structure is on a par with other Formosan languages. In studies of adverbial verbs in Formosan languages (H. Chang 2006, Holmer 2006, C. Li 2010 and L. Li 2017), adverbial verbs dwell in the preverbal position. Observe Kavalan and Paiwan examples in (8.13) and (8.14), with a paralleling pattern in Saisiyat (8.15).

(8.13) Kavalan (from H. Chang 2006:46)

a. **paqanas-iku** **tayta** **tu** **sulal**.
AV.slow-1SG.NOM <AV>see OBL book
'I read a book slowly.'

b. **paqanas-an-ku** **tayta** **ya** **sulal**.
slow-UVP-1SG.GEN <AV>see NOM book
'I read the book slowly.'

(8.14) Paiwan (from C. Li 2010:46)

a. **galju** **a** **ma-sevec** **a** **kavayan.**
<AV>slowly LNK AV:INCH-straight NOM thick.bamboo
'The thick bamboo slowly straightened.'

b. **galju** **a** **m-e'aca** **ti** **camak.**
<AV>slowly LNK AV-INCH-straight NOM PN
'Camak grows up slowly.'

(8.15) Saisiyat (=4.22)

a. **sia** **'aemoeh**$_{manner}$ **manraan.**
3SG.NOM quick AV.walk
'He/she walked home quickly.'

b. **'aro'** **'aemoeh**$_{manner}$ **s<om>i'ael** **ka** **pazay.**
PN quick <AV>eat ACC rice
'Aro ate the rice quickly.'

c.***'aro'** **s<om>i'ael** **'aemoeh**$_{manner}$ **ka** **pazay.**
PN <AV>eat quick ACC rice

d.***sia** **manraan** **'aemoeh**$_{manner}$.
3SG.NOM AV.walk quick

Second, these modifier verbs such as manner verbs and beginning verbs are not syntactically equivalent to the other verbs, even though they undergo voice marking on a par with other ordinary lexical verbs.[120] One crucial reason is that they are not syntactically true verbs as they lack argument structure. That is, their junctures reflect the structure of argument fusion, as previously proven in section 4.2.2.1. Evidence is provided as follows. Especially observe (8.16c) which indicates that the manner verb *'aemoeh* 'quick' is syntactically independent of the matrix verb *tomalek* 'cook[AV]'.

(8.16) Syntactic dependence of adverbial verbs

a. **nisia (ka) yanay 'aemoeh t<om>alek ka tatimae', kayzaeh.**
3SG.GEN LIG daughter-in-law quick <AV>cook ACC side.dish good
'His/her daughter-in-law cooks fast, and this is good.'

b. **nisia (ka) yanay kin=t<om>alek ka tatimae'.**
3SG.GEN LIG daughter.in.law PROG=<AV>cook ACC side.dish
'His/her daughter-in-law is cooking.'

[120] Voice marking of adverbial verbs are exemplified below in (i).

(i) Saisiyat

a. **'aro'** **t<om>amemesh** **'<oem>osa:** **ka** **bato'.** (=4.21a)
PN <AV>use.strength <AV>throw ACC stone
'Aro hurled the stone.'

b. **bato'** **ni** **'aro'** **tamemesh-en** **'oesa(:)-en.** (=4.21b)
stone GEN PN use.strength-UVP throw-UVP
'Aro hurled the stone.'

c.***nisia** **(ka)** **yanay** **<u>'aemoeh</u>.**
3SG.GEN LIG daughter.in.law quick
Intended for: 'His/her daughter-in-law is agile (in cooking).'

Except for the verbs denoting the position meaning, modifier verbs are not morphosyntactically true verbs. One piece of evidence is that they do not undergo imperativization. Take the verbs denoting beginning phase for instance; the verb *kish'al'alay* 'start' as in (8.17a) cannot express the imperative mood by itself as shown by the ungrammaticality of (8.17b). By contrast, the syntactically-true verb *kish'alay* 'read to read (AV)' can express the imperative mood by itself as in (8.17b'). (8.17c) shows that the verb *kish'alay* 'start to read (AV)' takes the second person pronoun and an undergoer as core argument in the imperative sentence. (8.17d) shows the argument structure of *kish'alay* 'start to read' in indicative sentences i.e. it takes an actor and an undergoer. Note that *kish'alay* 'start to read (AV) does not occur in verbal juxtaposition as in (8.17e).

(8.17) Imperativization
a. **yako** **<u>kish-'al-'alay</u>** **k<om>ita'** **ka** **kinaat.**
1SG.NOM study-RED-start <AV>see ACC book
'I start to read the book(s).'
b.***kish-'al-'alay** **kita'** **ka** **kinaat!**
study-RED-start see ACC book
Intended for: 'Start to read the book(s)!'

b'.(**sho'o**) **kish-'alay** **ka** **kinaat!**
2SG.NOM study-start ACC book
'Start to read the the book(s)!'

c. **'aro** **baabaaw** **kish-'alay** **ka** **kinaat.**
PN just study-start ACC book
'Aro just started reading the book(s).'

e.***yako** **kish-'alay** **k<om>ita'** **ka** **kinaat.**
1SG.NOM study-start <AV>see ACC book

Moreover, the CLM =*o* 'and' cannot intervene between the verbs denoting beginning, continuing phases, and the other verbs in juxtaposition. Observe (8.18).

(8.18) No insertion of =*o* in adverbial modifier constructions

a.***tatini'** **m-il-'al'alay=o** **m-il-tamako'.** (beginning phase)
old.(wo)man AV-sip-start=CONJ AV-sip-tobacco

a'.**tatini'** **m-il-'al'alay** **m-il-tamako'.**
old.(wo)man AV-sip-start AV-sip-tobacco
'The old (wo)man started smoking.'

b.***toanay** **t<om>owa'is=o** **s<om>ingozaw** **hisia.**
sister-in-law <AV>continue=CONJ <AV>ask.question 3SG.ACC
(continuing phase)

b'.**yaba'** **t<om>owa'is** **s<om>ingozaw** **ka** **korkoring.**
sister-in-law <AV>continue <AV>ask.question ACC child
'The sister-in-law keeps asking the child questions.'

In Saisiyat, there are two contrasts between verbs of modifying subevents (position and manner) and phasal verbs (beginning and continuing phase). First, The CLM =*o* is able to occur between juxtaposed verbs that express a manner relation, as shown in (8.19). This indicates that manner verbs share certain degree of verb-hood with the other verbs, because the CLM =*o* links morphosyntactic equivalent units (*cf.*

section 3.5.1).[121]

(8.19) Insertion of =*o*

a. **korkoring 'aemoeh=o ma'yakai' ray kakishkaatan**.
child quick=CONJ AV.speak LOC school
'The child(ren) speak(s) fast at school.'

b. baki' mash'i'iril=o s<om>i'ael.
grandfather AV:lie=CONJ <AV>eat
'Grandfather ate lying.'

Second, as previously demonstrated in sections 4.2 and 5.2, the juxtaposed verbs expressing manner and those expressing position undergo the structural alternation between dislocated structure and verbal juxtaposition. By constrat, juxtaposed verbs expressing the beginning and continuing phase cannot (*cf*. section 4.1.1). Observe the following examples of (8.20-21).

(8.20) Verbal modifiers (position relation) =(5.25a-a')

a. **'aro miririi'**$_{stance}$ **k<om>ita'**$_{action}$ **ka kinaat**.
PN AV:stand <AV>see ACC book
'Aro is reading books standing.'

b.[**'aro' k<om>ita'**$_{action}$ **ka kinaat]**$_{clause}$, **'a(m)=miririi'**$_{stance}$.
PN <AV>see ACC book PROG=AV:stand
'Aro reads books while he is standing.'

[121] In Formosan languages such as Kavalan (H. Chang 2006) and Seediq (Holmer 2006), adverbial modifiers expressing phase, manner and frequency may behave alike lexical verbs in terms of exhibiting voice marking, attacking pronominal clitics and being affixed by aspectual markers.

(8.21) Verbal modifiers (beginning phase)

a. **korkoring** **min-'al'alay**$_{begin}$ **h<oem>angih**. =(4.13b)
child AV:become-start <AV>cry
'The child start(s) crying.'

b.***korkoring** **h<oem>angih,** **min-'al'alay**$_{begin}$.
child <AV>cry AV:become-start

Table 8.3 summarizes traits that construction of verbal modifiers exhibit. This type of construction can be divided into two subtypes. The first type showing phasal relations (of the beginning and the continuing phase), and the second type expressing modifying subevents (manner and position types). Both types exhibit (i) the order of $V_{modifier}$-$V_{modifiee}$ and (ii) syntactical inequality between the two verbs (except for the verbs denoting position meaning). These two types of modifier constructions are distinguished on the basis of the dislocated structure and insertion of =*o* 'and' (as marked in the shade cells in Table 8.3).

Table 8.3 Two types of verbal modifier construction

Types / Properties	beginning	continuing	manner	position
Juncture-nexus	Nuclear Sub. (modifier type)	Nuclear Sub. (modifier type)	Nuclear Sub. (modifier type)	Core Sub. (modifier type)
Fixed order	✓	✓	✓	✓
Syntactical equality	✗	✗	✗	✓
Insertion of =*o* 'and'	✗	✗	✓	✓
Dislocated structure	✗	✗	✓	✓

8.3 Complementation in interclausal relations

By referring to complementation, I follow Payne's (1997) description. A typical complement is a clause that functions as an argument of the matrix verb. Complementation may include other types of complement that are embedded within another clauses, such as infinitive verb phrases e.g., *I enjoy* ***washing my car*** and *She likes* ***to do linguistics*** (Payne 1997:315).

In Saisiyat, juxtaposed verbs expressing relations of finishing phase, psych-action, direct perception and cognition exhibit structure of complementation. Each type of juxtaposed verbs involve more than one type of complements. For example, those expressing the finishing phase exhibit subject-control and gerundive complementation. These structures of complementation are divided into two subtypes: finite complements and nonfinite complements. Section 8.3.1 accounts for the finite complements and section 8.3.2 discusses non-finite complements.

8.3.1 Finite complements

Payne (1997:314-317) gives two basic properties of finite complements. First, a finite complement carries its own tense and aspect. Second, such the structure directly expresses the subject which reference may not be restricted to that of the matrix clause. English examples are provided in (8.22), whereby the complements exhibit the

two properties.

(8.22) Finite complements of English (Payne 1997:314)

a. I know that *it's raining*.

b. *That it had rained* surprised me.

In Saisiyat, finite complements also exhibit these two properties. Among the investigated juxtaposed verbs, those denoting **psych-action** and **cognition** relations can take finite complements. Observe (8.23) for an instance.

(8.23) Finite complements of Saisiyat

a. **yako ma-ngoip [korkoring r<om>a'oe:=ila ka 'io'].** =(5.37g)
1SG.NOM AV-forget child <AV>drink=COS ACC medicine
'I forgot that the child has already taken (her/his) medicine.'

b. **sia raam (komosha:) [yako r<om>a'oe:=ila** (=6.2a)
3SG.NOM know COMP 1SG.NOM <AV>drink=COS
ka pinobaeaeh].
ACC wine
'He/she knows that I drank wine.'

Saisiyat finite complements further exhibit four features based on characteristics of this language. First, the actor or undergoer of a finite complement is marked by a nominative case, as afore-mentioned in (8.23).

Second, the embedded verbs (V2s) are marked as either AV or UVP, as shown in (8.24a) and (8.24b).

(8.24) Independent voice marking of finite complements

a. **yako ma-ngoip [korkoring r<om>a'oe:=ila ka 'io'].** =(5.37g)
1SG.NOM AV-forget child <AV>drink=COS ACC medicine
'I forgot that the child has already taken (her/his) medicine.'

b. **yako ma-ngoip ['io' noka korkoring ra'oe(:)-en**].=(5.37h)
1SG.NOM AV-forget medicine GEN child drink-UVP
'I forgot that the child has already taken (her/his) medicine.'

Third, a finite complement is able to be modified by an independent temporal expression as in (8.25).

(8.25) Finite clausal complement

a. **yako ma-ngoip [korkoring kahia' r<om>a'oe:=ila ka 'io'].**
1SG.NOM AV-forget child yesterday <AV>drink=COS ACC medicine
'I forgot that the child has already taken (her/his) medicine yesterday.'

b. **sia raam (komosha:) [yako kahia' r<om>a'oe:=ila**
3SG.NOM know COMP 1SG.NOM yesterday <AV>drink=COS
ka pinobaeaeh].
ACC wine
'He/she knows that I drank wine yesterday.'

Fourth, they are able to independently negated as shown in (8.26).

(8.26) Finite clausal complement

a. **yako ma-hoero: [korkoringkayni r<om>a'oe:=ila ka 'io'].**
1SG.NOM AV-remeber child NEG.MOD <AV>drink=COS ACC medicine
'I remember that the child did not want to take (her/his) medicine .'

b. **sia raam (komosha:) [yako 'okay ra'oe:**
3SG.NOM know COMP 1SG.NOM NEG drink
ka pinobaeaeh].
ACC wine
'He/she knows that I did not drink wine.'

8.3.2 Non-finite complements

According to Payne (1997:315), non-finite complements exhibit two properties. First, the subject of such constructions is often identical to the subject of the matrix verb. Second, tense, aspect and mode are specified in the matrix verbs but not in complements.

Non-finite complements in Saisiyat exhibit the first property but not for the second property due to certain exception. The pattern shows language idiosyncrasy of Saisiyat. Section 8.3.2.1 will account for this part.

This dissertation divides non-finite complements of Saisiyat into three types: (i) control constructions, (ii) *shi*-clauses and (iii) gerundive constructions. They are discussed in the following sections 8.3.2.1 to 8.3.2.3, respectively.

8.3.2.1 Control constructions

In this dissertation, juxtaposed verbs expressing the relations of **finishing** phase, **psych-action** and **direct perception** can be classified into control constructions.[122] They can be further divided into the subject-control type and the object-control type.

To beginning with, both types of control constructions display temporal dependency, as observed in Chou (2016:193). That is, the temporal value of

[122] Note that juxtaposed verbs expressing **psych-action** also exhibit finite complements when embedded verbs have different subjects from the matrix verbs, as previously introduced in section 8.3.1.

embedded clause depends on that of matrix clause. (8.27) exemplifies this trait. In (8.27a), the temporal expression occurs in the matrix clause but not in the embedded complement as in (8.27b).[123]

(8.27) Temporal dependency

a.	**kalih**	**kahia'**	**ma-ngoip**	**r<om>a'oe:**	**ka**	**'io'.**
	PN	yesterday	AV-forget	<AV>drink	ACC	medicine
	'Kalih forgets to take (her) medicine yesterday. '					(=5.52a)
b.	***kalih**	**ma-ngoip**	**kahia'**	**r<om>a'oe:**	**ka**	**'io'.**
	PN	AV-forget	yesterday	<AV>drink	ACC	medicine

Juxtaposed verbs expressing the finishing phase and psych-action exhibit the subject-control structure, as exemplified in (8.28). In these structures, embedded verbs share single nominative actors with their matrix verbs. Their juncture-nexus combinations are analyzed as core subordinations.[124]

(8.28) Subject control constructions

a.	**baki'**	**sizaeh**	**sh<om>bet**		**ka**	**korkoring**.=(5.2a)
	grandfather	finish	<AV>beat		ACC	child
	'Grandfather stopped beating the child.'					(core subordination)
b.	**'aro'**	**kahia'**	**ma-ngoip**	**[r<om>a'oe:**	**ka**	**'io'].** =(5.37a)
	PN	yesterday	AV-forget	<AV>drink	ACC	medicine
	'I forgot to take (my) medicine yesterday.'					(core subordination)

[123] When the temporal expression occurs before the V2, the sentence turns into a bi-clausal structure instead of a control construction, as shown in (i).

(i) Temporal expressions before V2s

kalih	**ma-ngoip,**	**<u>kahia'</u>**	**'okay**	**ra'oe:**	**ka**	**'io'.**
PN	AV-forget	yesterday	NEG:LIG	drink	ACC	medicine

'Kalih forgot it; he did not take medicine yesterday.'

[124] Juxtaposed verbs expressing finishing phase are discussed in section 5.1.2 and those expressing psych-action relation in section 5.3.2.

The shared actors cannot be repeated before the V2s as shown in (8.29).

(8.29) Argument control

a.*	**baki'**	**sizaeh**	**<u>baki'</u>**	**sh<om>bet**	**ka**	**korkoring**.
	grandfather	finish	grandfather	<AV>beat	ACC	child
b.*| **'aro'**	**kahia'**	**ma-ngoip**	**<u>'aro'</u>**	**r<om>a'oe:**	**ka**	**'io'.**
	PN	yesterday	AV-forget	PN	<AV>drink	ACC	medicine

However, aspect and modality marking do not always be expressed in the matrix verbs of subject-control constructions in Saisiyat, which does not fit Payne's (1997) description. Saisiyat displays an inconsistent pattern in this point. In juxtaposed verbs expressing the finishing phase, the negator *'okik* 'not (for state verbs)' and the aspect marker =*ila* 'change of state' only modify the matrix verbs as shown in (8.30).

(8.30) Constrained markings of negation and aspect

a.	**'oya'**	**<u>'okik</u>**	**sizaeh**	**mata:waw.**	=(5.12b)
	mother	NEG:LIG:STAT	finish	AV:work	
	'Mother has not finished work.'				
b.*	**'oya'**	**sizaeh**	**<u>'okay</u>**	**pata:waw.**	
	mother	finish	NEG:LIG	work	
	Intended for: 'Mother stops being idle.'				

By contrast, the negator can occur before the embedded verb of juxtaposed verbs expressing a psych-action relation as shown in (8.31).

(8.31) Constrained markings of negation and aspect

a. **'aro' kaysa'an ma:-hoero: <u>kayni'</u> rima' ray 'oes'oeso'an**.
PN today AV-remember NEG:MOD go LOC mountain
'Aro remembers not go to mountain today (to avoid bad weather condition).'
=(5.50a)

b. **yaba' hae:wan ma:-hoero: <u>'okay</u> ra'oe: ka pinobaeaeh.**
father night AV-remember NEG:LIG drink ACC wine
'Father remembers do not drink wine at night. =(5.50b)

The object-control constructions exhibit structure of switch-nominative argument. Juxtaposed verbs expressing **direct perception** can be treated as this type, when the V2s are marked in AV or are state verbs (*cf*. section 5.5.1) as exemplified in (8.32).

(8.32) Object-control constructions

yako k<om>ita' <u>ka korkoring</u> sh<om>bet ka 'aehoe'].
1SG.NOM <AV>see ACC child <AV>beat ACC dog
'I saw the child beat the dog.'

Object-control constructions exhibit the schema: $[[V1+NP_{ACC}]+[V2_{AV}+(NP)]]_{clause}$, whereby the object (i.e. the accusative argument) of the matrix verb controls the missing subject (i.e. the nominative argument) of the embedded verb. (8.33) illustrates this feature. The shared actors cannot be repeated as in (8.33a). Note that the repetition of the shared actor will become grammatical when the sentence expresses a sequential relation and in a bi-clausal structure, as in (8.33b)

(8.33) Object-control constructions

a.***yako** **k<om>ita'** **[ka korkoring]**$_{ACC}$ [**korkoring**]$_{NOM}$
1SG.NOM <AV>see ACC child child
sh<om>bet **ka** **'aehoe'.**
<AV>beat ACC dog
Intended for: 'I saw the child beat the dog.' (direct perception)

b. **yako** **k<om>ita'** **[ka korkoring]**$_{ACC}$**,** **hini** [**korkoring**]$_{NOM}$
1SG.NOM <AV>see ACC child this child
sh<om>bet **ka** **'aehoe'.**
<AV>beat ACC dog
'I saw the child and this child is beating a dog.' (sequential relation)

Paralleling to subject-control constructions, the embedded verbs in object control constructions can exhibit independent modification of negators in Saisiyat, as shown in (8.34).

(8.34) Independent modification of negators in object-control constructions

a. **yako** **k<om>ita'** **ka** **korkoring** **kay=pae'rem.**
1SG.NOM <AV>see ACC child NEG.LIG=sleep
'I saw the child not sleeping.' (=5.75a)

b. **yaba'** **k<om>ita'** **'oya'** **'okay** **talek,** **'am=mae'rem.**
father <AV>see mother LIG.NEG cook PROG=AV:sleep
'Father saw that mother does not cook, and she is sleeping.' (=5.75b)

8.3.2.2 *shi*-marked complements

The second type of nonfinite complements is the *shi*-clauses.[125] Juxtaposed verbs expressing **direct perception** and **cognition** involve such type of complements (*cf.*

[125] Chou (2016) treats that this type of complements as object-control constructions. However, this classification is not viable due to the fact that the genitive arguments as in (8.35a) are not the objects of the matrix verbs.

sections 5.5.1 and 6.1.1). They are exemplified below in (8.35).

(8.35) Independent modification of negators in object-control constructions

a. **yako** **k<om>ita'** [**noka** **korkoring** ***shi*-shbet** **ka** **'aehoe'**].
1SG.NOM <AV>see GEN child UVC-beat ACC dog
'I saw the child beat the dog.' (=5.69f)

b. **yako** **raam** [**ni** **'ataw** ***shi*-'alop** **ka** **hako'**].
1SG.NOM know GEN PN UVC-hunt ACC muntjac
'I know that Ataw hunted a muntjac.' (6.2c)

Section 3.3.1 has shown the structural similarity and difference between finite clausal complements and *shi*-clausal complement (also *cf*. the examples (3.14)-(3.16)). The UVC-marked complements are not clausal nominalization as reported in M. L. Yeh (2016), even though they occur in the argument position paralleling to the Saisiyat monoclausal structure, i.e. the Actor-Verb-Object alignment.[126] There are three pieces of evidence for this claim. The following discussion takes juxtaposed verbs expressing cognition relation for illustration.

First, genitive actor predominantly occurs in clausal-initial position, which is paralleled to a nominative argument in a finite clause with AV marking. Observe (8.36a-b) for the position of the genitive arguments, together with the finite clause of (8.36c) for a comparison.

[126] Zeitoun et al. (2015:480-485) have shown that a *shi*-marked clause should not be treated as clausal nominalization but as a verbal modifier.

(8.36) Nonfinite clausal complement (*shi*-marked complements)

a. **yako raam <u>ni 'ataw</u> shi-'alop ka hako'.**
1SG.NOM know GEN PN UVC-hunt ACC muntjac
'I know Ataw hunted a muntjac.'

b. ***yako raam shi-'alop <u>ni 'ataw</u> ka hako'.**
1SG.NOM know UVC-hunt GEN PN ACC muntjac

c. **yako raam <u>'ataw</u> '<oem>alop ka hako'.**
1SG.NOM know PN <AV>hunt ACC muntjac
'I know Ataw hunted a muntjac.'

Second, a *shi*-marked complement cannot take accusative case marking as an argument does. Observe (8.37).

(8.37) No case marking for UVC-marked complement

a.***yako raam ka ni 'ataw shi-'alop ka hako'.**
1SG.NOM know ACC GEN PN UVC-hunt ACC muntjac

b.***yako raam ka shi-'alop ni 'ataw ka hako'.**
1SG.NOM know ACC UVC-hunt GEN PN ACC muntjac

Last, a *shi*-marked complement can have an independent temporal expression like a finite clause does as shown in (8.38).

(8.38) Independent temporal expression in *shi*-marked complements

a. **yako raam ['ataw <u>kahia'</u> '<oem>alop ka hako'].**
1SG.NOM know PN yesterday <AV>hunt ACC muntjac
'I know that Ataw hunted a muntjac/muntjacs.yesterday.'

b**. yako raam ni 'ataw <u>kahia'</u> shi-'alop ka hako'.**
1SG.NOM know GEN PN yesterday <UVC>hunt ACC muntjac
'I know that Ataw hunted a muntjac/muntjacs yesterday.

8.3.2.3 Gerundive complements

Saisiyat gerunds have been formally introduced in Zeitoun et al. (2015:489-492). This dissertation further indicates that juxtaposed verbs expressing the **finishing phase** and **psych-action** relations have such the type of complements, as exemplified in (8.39).

(8.39) Gerundive complements of Saisiyat

a. **baki'** **sizaeh** **'am-sh<om>bet** **ka** **korkoring**.
grandfather finish GER.IRR-<AV>beat ACC child
'Grandfather stopped beating the child. (=5.2c)

b. **yako** **kahia'** **[ma-ngoip]**$_{psych}$ **'am-[r<om>a'oe:** **ka** **'io'].**
1SG.NOM yesterday AV-forget GER-<AV>drink ACC medicine
Lit.: 'I forgot the matter of taking medicine yesterday.'
'I forgot to take (my) medicine yesterday.' (=5.37e)

b'. **'io'** **ma'an** **[shi-ngoip]**$_{psych}$ **['am-r<om>a'oe:].**
medicine 1SG.GEN UVC-forget GER.IRR-<AV>drink
'I forgot to took the medicine.' (5.37f)

The shared actor or undergoer cannot be repeated in the gerund complements as shown in (8.40).

(8.40) Obligatory omission of shared nominative arguments

a.***baki'** **sizaeh** **baki'** **'am-sh<om>bet** **ka** **korkoring**.
grandfather finish grandfather GER.IRR-<AV>beat ACC child

b.***yako** **kahia'** **[ma-ngoip]** **yako** **'am-[r<om>a'oe:** **ka** **'io'].**
1SG.NOM yesterday AV-forget 1SG.NOM GER-<AV>drink ACC medicine

b'.***'io'** **ma'an** **[shi-ngoip]**$_{psych}$ **'io'** **['am-r<om>a'oe:].**
medicine 1SG.GEN UVC-forget medicine GER.IRR-<AV>drink

The gerundive complements do not entirely exhibit Payne's (1997) second description of non-finite complements, i.e. tense, aspect and mode are specified in the matrix verbs but not in complements. According to Zeitoun et al. (2016:487), Saisiyat gerundive complements cannot be negated as shown in (8.41).

(8.41) Impossible negation of gerundive complements

a.***baki'** **sizaeh** **'okay** **'am-sh<om>bet** **ka** **korkoring**.
grandfather finish NEG:LIG GER.IRR-<AV>beat ACC child

b.***yako** **kahia'** **[ma-ngoip]** **'okay** **'am-[r<om>a'oe:** **ka** **'io'].**
1SG.NOM yesterday AV-forget NEG:LIG GER-<AV>drink ACC medicine

b'.***'io'** **ma'an** **[shi-ngoip]**$_{psych}$ **'okay** **['am-r<om>a'oe:].**
medicine 1SG.GEN UVC-forget NEG:LIG GER.IRR-<AV>drink

However, Zeitoun et al. (2016:487) point out that a gerundive complement can take independent progressive marking as shown in (8.42).

(8.42) Independent aspectual marking (based on Zeitoun et al. 2015:487)

yako **k<om>ita'** **nisia** **'a-t<m>o-tatini'**
1SG.NOM <AV>see 3SG.GEN GER.IRR-<AV>treat.as-old(wo)man
ka **'al'alak.**
ACC young
'I saw him treating a young (person) as an elder.'

To summarize, section 8.3 shows that juxtaposed verbs expressing the relations of finishing phase, psych-action, direct perception and cognition exhibit the structure of complementation in Saisiyat. Table 8.4 presents complement types of the targeted

juxtaposed verbs. Among these structures, juxtaposed verbs expressing psych-action owns the most types of complements (i.e. finite clauses, controlled VPs and *shi*-marked clauses). An important finding observed here is that these juxtaposed verbs exhibit the nexus of subordination (the argument type).

Table 8.4 Complement types of juxtaposed verbs in Saisiyat

types of juxtaposed verbs	juncture-nexus	types of complements	
the finishing phase	core subordination (argument type)	**non-finite**	➢ **controlled VPs (subject-control)** ➢ **gerunds**
psych-action	core subordination (argument type)	**finite clauses**	
		nonfinite	➢ **controlled VPs (subject-control)** ➢ **gerunds**
direct perception	core subordination (argument type)	**non-finite**	➢ **controlled VPs (object-control)**
			➢ ***shi*-marked clauses**
cognition	clausal subordination (argument type)	**finite clauses**	
		non-finite	➢ ***shi*-marked clauses**

8.4 Overall summary

This chapter discusses grammatical properties of juxtaposed verbs that are not diagnosed as serialization in chapter 7. Juxtaposed verbs expressing purposive relation and simultaneous relations are treated as verbal coordination. Juxtaposed verbs expressing sequential relations are treated as conjoined clauses. Those expressing the relations of beginning, continuing phase, manner, and position represent the construction of verbal modifiers. Finally, juxtaposed verbs expressing

the finishing phase, psych-action, direct perception and cognition are treated as complementation in Saisiyat, with a further division of the finite and non-finite types.

This chapter has applied effort to verbal coordination. In the end of this chapter, I would like to address to the issue of 'verbal pseudo-coordination' (De Vos 2005, and Na and Huck 1992). In pseudo-coordinative constructions, the coordinator appears to have a subordinating function. (8.43a) is an ordinary coordination. (8.43b) and (8.43c) are instances of verbal pseudo-coordination, in which the motion verb *go* 'plays a aspectual role'. In terms of interclausal relations, (8.43b) and (8.43c) denote motion relation. These verbs belong to closed class since they come from a close set of verb bank e.g., motion verbs such as *go* and phasal verbs *begin*. The other verbs in these verbal juxtapositions belong to open class for most of lexical verbs can take place in the syntactic positions.

(8.43) English (De Vos 2005:1)

a. Caesar went$_{V1}$ across the Rubicon and he conquered$_{V2}$ Gaul.
b. Caesar went $_{V1}$ to Gaul and devastated$_{V2}$ it.
c. Caesar saluted his legions, before he went $_{V1}$ and addressed $_{V2}$ them.

This dissertation does not endorse the approach of 'pseudo-ness', since this term causes confusing or even perplexing outcomes in analyzing the structures and semantics of complex constructions. There are so many syntactic templates or

structures which are not readily classified under a certain ‘category’. Using the notion of ‘pseudo-’ shows similar effect or implication for describing ‘being atypical’ for a construction, and consequently it falls into a myth in categorization. And so far as we know, proto-type theory does not propose one single atypical type from the prototype (*cf*. Rosch and Mervis 1975; Taylor 2003). Peng (2016) recognizes the difficulty to define Mandarin pivotal constructions, and adopts the prototype approach to establish ‘nine’ types on the basis of semantic features.

My point is that there is no single name as ‘pseudo-pivotal construction’ to capture complicated linguistic phenomena. The interclausal relation hierarchy is able to resolve the dilemma for constructions in (8.44) without proposing the term ‘pseudo constructions’. In English, they are core cosubordination, since the core operators like negators cannot intervene two verbs of ‘phasal relation’ as shown in (8.44a) and (8.44b).

(8.44) English

a.*Caesar went$_{V1}$ to Gaul and did not devastate$_{V2}$ it (phasal relation).

a’. Caesar did not go$_{V1}$ to Gaul and devastate$_{V2}$ it (phasal relation).

b.*Caesar went $_{V1}$ and did not address $_{V2}$ the legion (phasal relation).

b’. Caesar did not go$_{V1}$ and address $_{V2}$ the legion (phasal relation).

I will not term these English examples of (8.44a’) and (8.44b’) serial verbs constructions because of the required appearance of the coordinator *and*. I will not

term them ‘pseudo-serial verbs’ either, since (i) English has not been attested as a serializing language (Crowley 2002), (ii) these examples violate serial conditions: the required presence of coordinator *and* (that marks the phrasal and clausal boundary) between coordinated verbal units.

Following my argumentation, the construction type for complex sentences of (8.44) is still underspecified. However, identifying the juncture-nexus combinations for these two examples is feasible, especially regarding exploring their structural nature through semantic-syntactic mapping. This methodological paradigm also applies to juxtaposed verbs in Saisiyat. That is, there is no need to using the notion “pseudo-coordination” or even “pseudo-serialization” to describe the construction of verbal modifier in section 8.2 and complementation in section 8.3. Investigating interclausal relations, especially the structural indicator of juncture-nexus combinations, grants a bird’s eye view of the **correspondences** among these grammatical constructions in a crystal-clear picture. Chapter 9 renders an overall summary for these correspondences in terms of interclausal relations.

Chapter 9

Concluding Remarks

This dissertation investigates juxtaposed verbs in Saisiyat, within the framework of interclausal relation hierarchy in the theory of Role and Reference Grammar (Van Valin & LaPolla 1997; Van Valin 2005). The main body of discussion focuses on thirteen types of juxtaposed verbs and each of them denotes a specific type of semantic relation, ranging from cohesive event concatenation (i.e. phasal relation expressing a beginning) to loose concatenation (i.e. sequential relation). Saisiyat juxtaposed verbs are examined from the following perspectives (i) the level of juncture (nuclear, core and clausal junctures) and (ii) of the type nexus (cosubordination, subordination, and coordination). I conclude this dissertation by commenting on five points in sections 9.1-9.5.

9.1 Language specific traits of Saisiyat in interclausal relation and complex sentences

Figure 9.1 presents the distribution of the thirteen types of juxtaposed verbs in the three levels of juncture-nexus combinations.

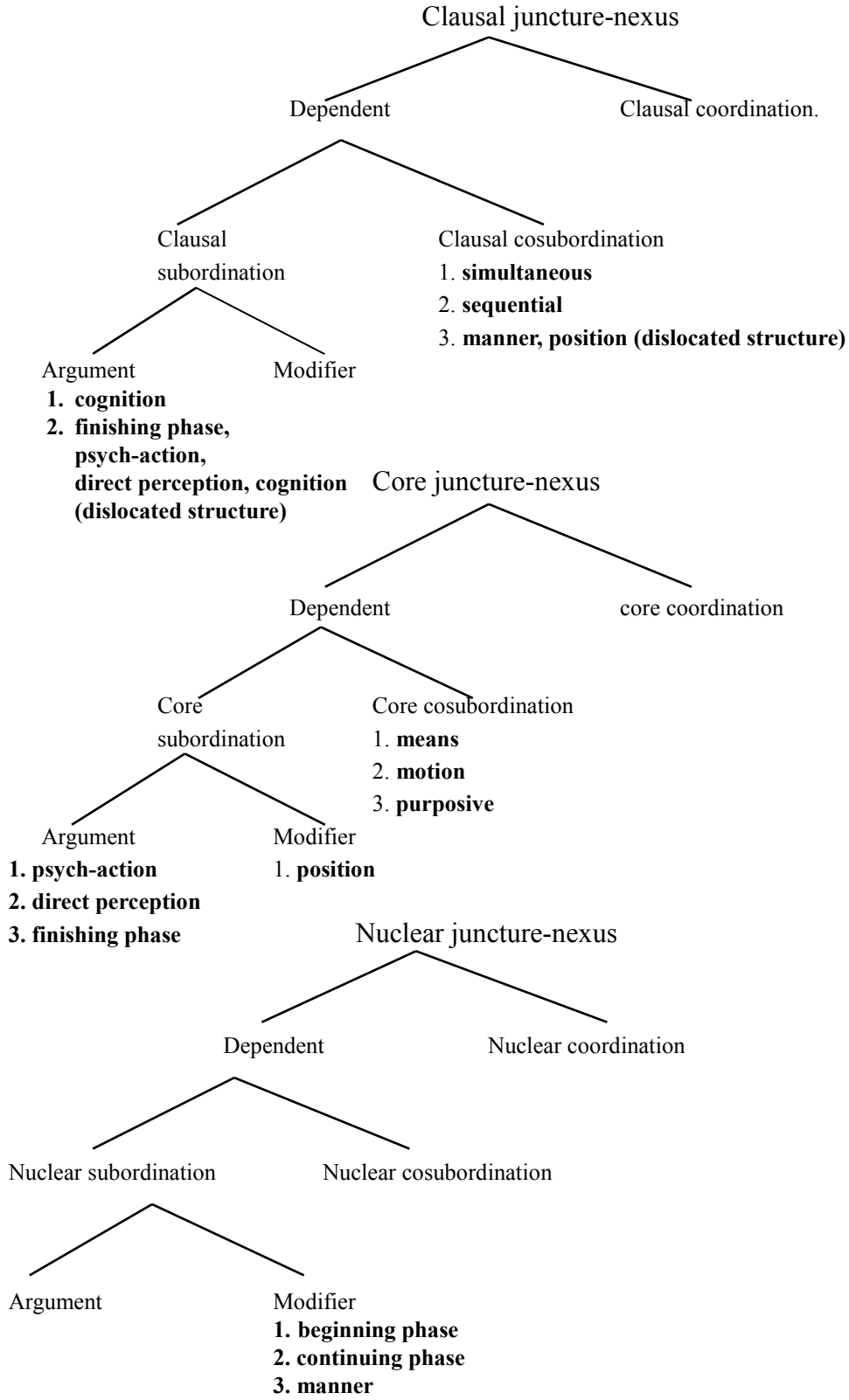

Figure 9.1 The distribution of juncture-nexus combinations of juxtaposed verbs in Saisiyat

This figure shows that the majority of the thirteen juxtaposed verbs take place in core and clausal junctures. Especially for those juxtaposed verbs expressing semantically cohesive events i.e. relations of finishing phase, means, motion and position are realized in core junctures instead of nuclear junctures. In core junctures, the distribution of nexus is centralized in two types: the argument type of subordination and cosubordination.

Another linguistically specific feature of Saisiyat is further specified in this figure: complex events expressed in core junctures can be expressed through clausal cosubordination i.e. dislocated structures. This structural alternation is observed in nuclear juncture (juxtaposed verbs expressing the manner relation) and core junctures (juxtaposition expressing the relations of the finishing phase, position, psych-action, and direct perception).

Table 9.1 summarizes the distribution of nexus of the thirteen types of juxtaposed verbs. Five types of juxtaposed verbs exhibit cosubordination. Note that the numbers of cosubordination will amount to seven when the dislocated structures are considered. Eight types of juxtaposed verbs belong to subordination, and the total numbers are twelve when taking dislocated structures into account. One type of juxtaposed verbs is coordination.

Table 9.1 The distribution of nexus of juxtaposed verbs

Nexus / Juncture	**Cosubordination**	**Subordination**	**Coordination**
Nuclear	0	3	0
Core	3	3	0
Clausal	2	1	0
	2 (dislocated structure)	4 (with dislocated structure)	
Total	6	7	0
	8(with dislocated structure)	11(with dislocated structure)	

On the basis of the facts presented above, two claims on interclausal relations in Saisiyat can be made as follows:

1. In the field of interclausal relations and complex sentences, Saisiyat exhibits a language specific characteristic: compressed events are expressed in core and clausal junctures as the default pattern. That is, complex events are inclined to be realized in the combinations of verb phrases and clause-linkage but not complex predicates such as verbal compounds.
2. Saisiyat exhibits productive clausal linkage. It involves at least three types of constructions, including verbal coordination expressing simultaneous relations, conjoined clauses expressing sequential relations and dislocated structures. These constructions exhibit structural connection with juxtaposed verbs in core junctures. First, dislocated structure can paraphrase five types of juxtaposed verbs in core junctures (*cf*. Table 6.4). Second, juxtaposed verbs expressing position (*cf*. footnote 68), purposive (*cf*. (5.59)) and direct

perception (*cf.* (5.69)) can be interpreted as juxtaposed verbs expressing sequential relation, when the structures involve subtle change such as causativization and insertion of CLMs *'isa*: 'then'. (9.1) exemplifies such the structural interaction, whereby the insertion of the CLM turns the purposive relation into the sequential relation.

(9.1) The structural similarity between juxtaposed verbs expressing sequential relation and non-sequential relations (=(i) of footnote 72)

a. **korkoring** **[pa-pama'** **ka** **kapapama'an]**$_{\text{prerequisite}}$ **(*'isa:)**
child RED-carry.on.back ACC vehicle then
[**rima'** **ray** **kakishkaatan]**$_{\text{purposive}}$**.**
go LOC school
'The child took the bus in order to go to school.' (purposive relation)

b. **korkoring** **[pa-pama'** **ka** **kapapama'an]** **'isa:**
child RED-carry.on.back ACC vehicle then
[**rima'** **ray** **kakishkaatan].**
go LOC school
'The child took the bus and then he/she went to school.' (sequential relation)

9.2 Mapping in the interclausal relation hierarchy

Chapters 4, 5 and 6 discuss the grammatical properties and juncture-nexus combinations of the thirteen types of juxtaposed verbs. This chapter accounts for the mapping between semantic relations and juncture-nexus combinations in Figure 9.2, demonstrating the mapping in interclausal relation hierarchy (IRH).

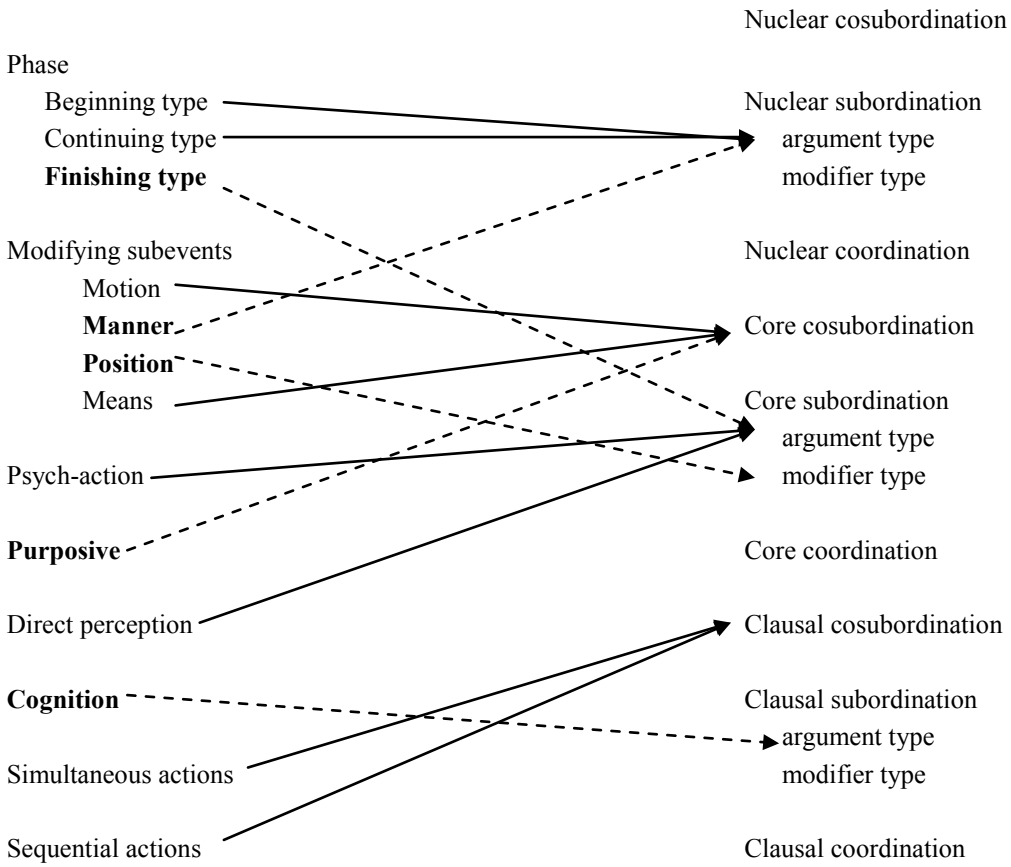

Figure 9.2 The interclausal relation hierarchy of juxtaposed verbs in Saisiyat

This pattern of semantic-syntactic linkage in general reflects Sliverstein's (1976) iconicity principle in general: a tight semantic relation is manifested in tight syntactic structure, while a loose semantic relation is realized in loose syntactic structure. Figure 9.2 also reveals exceptions to the iconicity principle: five types of juxtaposed verbs display a cross-over pattern, presented in dashed lines. They are juxtaposed verbs expressing the finishing phase, manner, position, purposive relations and cognition relations.

9.3 The correspondence between juncture-nexus combinations and grammatical constructions

This part centers on the correspondence between juncture-nexus combinations and grammatical constructions. In RRG's rationale, juncture-nexus combinations do not directly equal to grammatical constructions (also *cf*. section 2.4.6). A survey of the former focuses on dynamic practices of unit combinations, while the latter focuses on the defining properties on a given construction. That is, a language may have enormous grammatical constructions, but the numbers juncture-nexus combinations are limited. In Saisiyat, these juxtaposed verbs examined contain eight types of juncture-nexus combinations and are classified into thirteen types of constructions. Table 9.2 summarizes correspondence between grammatical constructions and juncture-nexus combinations. Different from the hierarchical classification proposed in M. L. Yeh's (2016) (*cf*. Figure 1.5), this table clearly demonstrates the relations between different types of constructions in Saisiyat. Furthermore, it shows that Saisiyat demonstrates a specific pattern regarding correspondence between juncture-nexus combinations and grammatical constructions. First, constructions representing subordination form the largest group regarding the nexus types. Second, most of the constructions are expressed in core and clausal junctures instead of nuclear junctures. Last, these targeted thirteen types juxtaposed verbs are not the constructions representing the nexus of coordination and nuclear cosubordination.

Table 9.2 Correspondence between juncture-nexus combinations and grammatical constructions in Saisiyat

<table>
<tr><th>Nexus
Juncture</th><th>Cosubordination</th><th colspan="3">Subordination</th><th>Coordination</th></tr>
<tr><td>Nuclear</td><td>Not attested</td><td colspan="2">➢ Construction of verbal modifier</td><td>Argument type: manner
Modifier type: beginning, continuing phases</td><td>Not attested</td></tr>
<tr><td rowspan="4">Core</td><td rowspan="4">➢ Core serialization (motion, means, purposive)</td><td colspan="4">➢ Verbal modifier construction (position, purposive)</td><td rowspan="4">Not attested</td></tr>
<tr><td rowspan="3">➢ Complementation (the finishing phase, psych-action, direct perception)</td><td colspan="2">Finite</td></tr>
<tr><td rowspan="2">Non-finite</td><td>Control</td></tr>
<tr><td>shi-clause</td></tr>
<tr><td colspan="2">Gerund</td></tr>
<tr><td>Clausal</td><td>➢ Verbal coordination (simultaneous)
➢ Conjoined clauses (sequential)
➢ Dislocated structures (finishing phase, manner, position, psych-action, direct perception, cognition)</td><td colspan="4">➢ Complementation (cognition)</td><td>Not attested</td></tr>
</table>

9.4 A miscellaneous issue of complex predicates: verbal compounds

This section elaborates on the reason why none of these thirteen juxtaposed verbs is treated as verbal compounds in Saisiyat. For the issue of verbal compounds, juxtaposed verbs of nuclear juncture stand as the possible candidate of verbal compounding. They could be verbal compound according to Fabb's (2001:67) description on compounding:

> 'A compound is a word which consists of two or more words. For example, the Malay compound *mata-hari* 'sun' is a word which consists of two words: *mata* 'eye' and *hari* 'day'. Compounds are subject to phonological and morphological processes.'

Scalise and Vogel (2010) provide three principles for identifying compounding, stated in (9.2).

(9.2) Principles of compounding (Scalise and Vogel 2010:6)
(a) compounds observe syntactic atomicity and lexical integrity.
(b) the constituents are members of major lexical categories.
(c) the head is lexical (while the non-head may be lexical or phrasal).

In this line of thought, one might argue that those structurally tight constructions such as juxtaposed verbs expressing the beginning phase could be verbal compounds, instead of verbal modifier constructions, according to Fabb's (2001) description and the compounding principles of (9.2). As chapter 4 reports, this type of juxtaposed verbs undergoes prefix

correspondence between phasal verbs and the other verbs, as shown in (9.3). In (9.3a), the verb which denotes the beginning phase must be prefixed by the prefix *tomay-* 'do[AV]' instead of other prefixes e.g., *mil-* 'sip[AV]' in (9.3b), or zero marking as in (9.3c). The impossible insertion of the CML *=o* 'and' between two verbs in (9.3d) seems to fortify the analysis of verbal compounds for them.

(9.3) Saisiyat

a. **sia**	**t<om>ay-'al'alay**	**mata:waw.**
3SG.NOM	<AV>do-start	AV:work
'He starts working.'		
b.***sia**	**m-il-'al'alay**	**mata:waw.**
3SG.NOM	AV-sip-start	AV:work
c.*** sia**	**'al'alay**	**mata:waw.**
3SG.NOM	start	AV:work
d.***'aro**	**t<om>ay-'al'alay=o**	**mata:waw.**
PN	<AV>do-start=CONJ	AV:work

Compound verbs represent (i) a structurally tight complex predicates and (ii) exhibit word-hood. If the compounding analysis for these structurally tight juxtaposed verbs in Saisiyat were convincing, these juxtaposed verbs would represent nuclear cosubordination as schematized in Figure 9.3a instead of coordinated nucleus as schematized in Figure 9.3b.

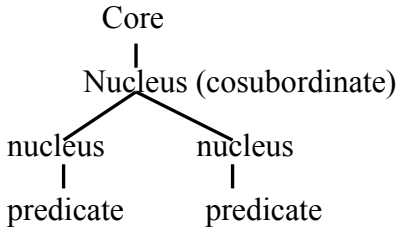

Figure 9.3a The template of verbal compound: Nuclear cosubordination

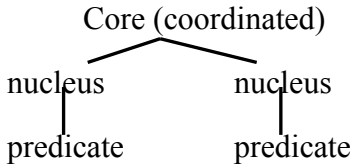

Figure 9.3b The template of coordinating predicates: Nuclear coordination

This dissertation has not proved the existence of verbal compounds in Saisiyat, especially for the juxtaposed verbs in nuclear juncture. The main principle is: verbal compounds are words, not phrases. That is, a verbal compound resembles a complex nucleus which is composed of independent verbs, and this complex nucleus takes full-fledged argument subcategorization all-together. In words, a verbal compound exhibits its own syntactic autonomy. In Culicover's (2009) term, it is a X_0 node in syntactic projection.

Following this line of thought in RRG, everything being equal, the compounding nuclear juncture shall not have independent marking of nuclear operators such as aspectual marking, because a word only receives single modification of the same nuclear operators. In fact, this is not the case as observed in those structurally-tight juxtaposed verbs such as those expressing the beginning phase in Saisiyat. Observe (9.4) in which the aspectual markings independently either fall on the V1 in (9.4a), the V2 in (9.4b), or independently on each verb

in (9.4c) and (9.4d). All in all, the juxtaposed verbs of nuclear juncture, which are examined in this dissertation, are not verbal compounds in Saisiyat.

(9.4) Non-compoundhood: Insertion of aspectual markers

a. **yako** **m-il-'al'alay=ila** **m-il-tamako'.**
1SG.NOM AV-sip-start=COS AV-sip-tobacco
'I have started smoking.'

b. **yako** **m-il-'al'alay** **m-il-tamako'=ila.**
1SG.NOM AV-sip-start AV-sip-tobacco=COS
'I have started smoking.'

c. **yako** **m-il-'al'alay=ila** **m-il-tamako'=ila.**
1SG.NOM AV-sip-start=COS AV-sip-tobacco=COS
'I have started smoking.'

d. **yako** **m-il-'al'alay=ila** **kin=m-il-tamako'.**
1SG.NOM AV-sip-start=COS CONT=AV-sip-tobacco
'I start to keep on smoking.'

9.5 Two implications

I would like to wrap up this dissertation by rendering two implications concerning the issues of interclausal relations in Saisiyat. One concerns the methodology of studying complex constructions in the framework of RRG. The other concerns the nature of SVCs in Saisiyat.

For the first issue, this study shows that the following procedure for analyzing complex sentences is a robust and promising method:

(9.5) The procedures of investigating juxtaposed verbs

Step 1: Identifying distinctive semantic relations

Step 2: Investigating their juncture-nexus manifestations

Step 3: Confirming the mapping in the interclausal relation hierarchy

Step 4: Diagnosing the correspondence between constructions and juncture-nexus combinations.

By using this procedure, this study clearly pinpoints detailed structures of juxtaposed verbs in Saisiyat. Different from studies on complex constructions (Yang 1994, Shimojo 1995, Everett 2008), this dissertation does not emphasize the structural configurations only but applies effort to two dimensions: (i) the semantics of juxtaposed verbs and (ii) the mapping between the two linguistic components of semantics and syntax. Semantic relations by themselves may not be as concrete as structural features, but the former ones also come into play in shaping the structures of complex sentences. Examining the interrelation between semantic-syntactic relations is a key to reveal a holistic and extensive picture in semantics-syntax interface (Van Valin, p.c.). The findings shown in this dissertation concur with this claim.

The second issue addresses to the research question raised at the beginning of this study: whether or not is Saisiyat a serializing language. The answer to this question is stated as follows: Saisiyat is not a serializing language in a strict sense, but this language uses the strategy of core serialization to express compressed event concatenation. Core serialization as shown in Table 9.2 only contains core cosubordination type (i.e. juxtaposed verbs expressing motion, means and purposive relations), indicating low productivity of this type of

constructions. That is, SVCs are not a dominating feature in Saisiyat among all of the complex constructions investigated in this study.

All in all, this dissertation shows that investigating structures of complex constructions do not merely involve studying the syntactic representations, but also requires investigating other linguistic components. Semantics directly interacts with the syntactic configurations of these complex constructions. A type of semantic relation represents a specific type of event concatenation that a complex sentence expresses. Pragmatics also comes into play, especially in determining the level of juncture and modification scope of operators. Even prosody e.g., intonation breaks plays a role in showing the clausal boundaries.

There are two directions of the future studies. On a small scale, the investigation of juxtaposed verbs in Saisiyat can extend to those expressing the rest of semantic relations such as jussive relation. On a large scale, it will be a viable study to investigate complex sentences of other Formosan languages regarding interclausal relations, with a focus on distribution of juncture-nexus combinations (as represented in Figure 9.1). With such the finding at hand, we are able to obtain a holistic pattern of juncture-nexus combinations among Formosan languages.

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